

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DIRECT TESTIMONY  
STATEMENTS NO. 1-9**

Filed & Received on 11/8/23-AEL-11/8/23

# Statement No. 1

## Everette

**TESTIMONY  
OF  
ASHLEY E. EVERETTE**

**WITH REGARD TO**

**(1) AN OVERVIEW OF PENNSYLVANIA-AMERICAN WATER COMPANY'S RATE FILING AND PRINCIPAL ACCOUNTING EXHIBIT, INCLUDING A SUMMARY OF THE FACTORS DRIVING ITS NEED FOR RATE RELIEF; (2) AFFORDABILITY OF WATER AND WASTEWATER SERVICE; (3) SUPPORT FOR SPECIFIC CLAIMS, INCLUDING ALLOCATION OF A PORTION OF WASTEWATER REVENUE REQUIREMENT TO WATER OPERATIONS, THE COMPANY'S PROPOSED REVENUE DECOUPLING MECHANISM AND ENVIRONMENTAL COMPLIANCE INVESTMENT CHARGE, REQUEST FOR REGULATORY ACCOUNTING AUTHORIZATION TO DEFER DEVIATIONS IN PENSION, OTHER POST-EMPLOYMENT BENEFITS, AND PRODUCTION EXPENSES, AND COMPLIANCE WITH SECTION 1301.1(B) OF THE PENNSYLVANIA PUBLIC UTILITY CODE; (4) COMMITMENTS FROM PRIOR RATE CASE SETTLEMENT; AND (5) PERFORMANCE FACTORS UNDER SECTION 523 OF THE CODE AND THE POLICY STATEMENT AT 69 PA. CODE § 69.711**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: NOVEMBER 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**  
**DIRECT TESTIMONY OF ASHLEY E. EVERETTE**

**INTRODUCTION**

1 **Q. Please state your name and business address.**

2 A. My name is Ashley E. Everette, and my business address is 852 Wesley Drive,  
3 Mechanicsburg, Pennsylvania 17055.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed by American Water Works Service Company, Inc. (“Service Company” or  
6 “AWWSC”) as the Senior Director of Rates and Regulatory. The Service Company is a  
7 wholly owned subsidiary of American Water Works Company, Inc. that provides services to  
8 Pennsylvania-American Water Company (“PAWC” or “Company”) and its affiliates. I work  
9 in the Mechanicsburg office of PAWC.

10 **Q. Please describe your educational background and business experience.**

11 A. I hold a Bachelor’s degree in Economics and a Master’s degree in Business Administration,  
12 both from the University of Illinois. I have been employed by the Service Company since  
13 September 2019, first as the Director of Rates and Regulatory and now in my current role as  
14 Senior Director of Rates and Regulatory for PAWC. In these positions, I am responsible for  
15 preparing and presenting rate applications as well as certain aspects of the financial, budgeting  
16 and regulatory functions of the Company.

17 Prior to my employment at the Service Company, I was employed by the Pennsylvania  
18 Office of Consumer Advocate (“OCA”) as a Regulatory Analyst from September 2012 to  
19 September 2019.

1 **Q. Have you previously testified before regulatory agencies?**

2 A. Yes. I have testified on behalf of PAWC before the Pennsylvania Public Utility Commission  
3 (“Commission”) in several cases. Additionally, I submitted testimony to the West Virginia  
4 Public Service Commission on behalf of West Virginia American Water in 2021. Prior to my  
5 employment by the Service Company, I testified on behalf of the OCA in approximately  
6 35 proceedings.

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to explain the overall structure of PAWC’s case and to address  
9 certain specific claims being made by the Company to support its proposed rates. My  
10 testimony is divided into several parts.

11 First, I will provide general information about the Company and this rate filing. Next,  
12 I discuss the major drivers of the Company’s request for rate relief in this proceeding, which  
13 is primarily the significant capital investments that the Company has made and plans to make  
14 through June 30, 2025. Second, as part of this discussion, I address the affordability of water  
15 and wastewater service under present and proposed rates and proposals the Company is  
16 making to improve affordability for its customers; explain the sources of the accounting data  
17 that were the starting point for the Company’s rate case presentation; identify the test years  
18 the Company is employing in this case; and give an overview of PAWC’s Exhibit No. 3-A.

19 Third, I will discuss and, together with other PAWC witnesses, support the following  
20 specific parts of the Company’s case:

21 (1) The Company’s use of authority conferred by Act 11 of 2012 (“Act 11”) and Section  
22 1311(c) of the Pennsylvania Public Utility Code (“Code”) to mitigate the impact of

1 revenue increases on wastewater customers by recovering a portion of the Company's  
2 wastewater revenue requirement from its total water and wastewater customer base;

3 (2) The Company's proposal to implement alternative ratemaking mechanisms under  
4 Section 1330 of the Code consisting of a Revenue Decoupling Mechanism and an  
5 Environmental Compliance Investment Charge;

6 (3) The Company's request for regulatory and accounting treatment for the deferral of  
7 pension, other post-employment benefits ("OPEB") and production expenses;

8 (4) The Company's compliance with Section 1301.1(b) of the Code by calculating the  
9 "differential" in tax costs recognized for ratemaking purposes before and after the  
10 enactment of Act 40 of 2016 and identifying how 50% of that differential will be  
11 invested in water and wastewater infrastructure.

12 Fourth, I will discuss, or identify other witnesses who discuss, the Company's  
13 compliance with commitments it made in the Joint Petition for Settlement of Rate  
14 Investigation ("Joint Petition for Settlement") approved by the Commission in the Company's  
15 last base rate case at Docket Nos. R-2022-3031671 and R-2022-3031672.

16 Finally, I will discuss the Company's overall management performance in relation to  
17 the factors identified in Section 523 of the Code and the Commission's Policy Statement at  
18 52 Pa. Code § 69.711 and explain why the Company's superior management performance  
19 supports a rate of return on equity at the upper end of the range determined by PAWC's rate  
20 of return witness, Ms. Ann E. Bulkley, in PAWC Statement No. 13.

21 **Q. Please identify the other witnesses who are providing direct testimony on behalf of**  
22 **PAWC in this proceeding.**

1 A. In addition to me, the following witnesses will be responsible for presenting PAWC’s direct  
2 case:

3 • **PAWC Statement No. 2 - Jim Runzer** is the Vice President of Operations for PAWC.  
4 Mr. Runzer discusses the general operations of the Company; PAWC’s commitment to  
5 supplying high quality water and wastewater service; initiatives taken to increase  
6 efficiency, enhance service and control costs, including efforts to control non-revenue  
7 water; employee and customer safety and employee training and development; PAWC’s  
8 commitment to advanced metering infrastructure (“AMI”) technology; support for  
9 employee levels and compensation; and the Company’s implementation of operations-  
10 related settlement commitments from the last base rate case.

11 • **PAWC Statement No. 3 - Bruce W. Aiton** is the Vice President of Engineering for  
12 PAWC. Mr. Aiton’s testimony discusses the Company’s capital investment planning  
13 process and the challenges posed by new and changed environmental mandates between  
14 rate cases; PAWC’s plant additions to be placed in service during the future test year  
15 (“FTY”) ending June 30, 2024 and fully projected future test year (“FPFTY”) ending  
16 June 30, 2025; operational and regulatory risks associated with maintaining safe and  
17 adequate water quantity and water quality and complying with applicable drinking water  
18 and environmental regulations associated with owning and operating facilities for  
19 supplying water and wastewater services to the public, complying with environmental  
20 regulations applicable to owning and operating facilities for furnishing wastewater service  
21 to the public, and the challenges climate change could create for water and wastewater  
22 utilities; and the bulk treatment service provided to municipal and utility wastewater  
23 systems adjacent to the Company’s York wastewater treatment plant.

- 1           • **PAWC Statement No. 4 - Stacey D. Gress** is Director of Rates and Regulatory for  
2           PAWC. Her testimony discusses the Company’s claims for rate base, depreciation and  
3           amortization, taxes other than income and acquisitions since its last rate case that the  
4           Company has reflected in its proposed rate base in this case, the Company’s claim for rate  
5           case and regulatory expense, proposed tariff changes, the allocation of expenses between  
6           water and wastewater operations, and PAWC’s rate structure and rate design proposals.
- 7           • **PAWC Statement No. 5 - Lori O’Malley** is Senior Manager Regulatory Services for  
8           AWWSC. Her testimony addresses the Company’s claim for labor and labor-related  
9           expenses, Service Company expenses, other operation and maintenance (“O&M”)  
10          expenses, and miscellaneous expenses.
- 11          • **PAWC Statement No. 6 - E. Christopher Abruzzo** is Senior Director of Business  
12          Development for PAWC. His testimony describes various acquisitions that PAWC has  
13          included in this base rate case and provides support for the Company’s request for  
14          acquisition adjustments pursuant to 66 Pa. C.S. § 1327 (relating to acquisition of water  
15          and sewer utilities) and 52 Pa. Code § 69.711 (statement of policy regarding small  
16          nonviable water and wastewater systems).
- 17          • **PAWC Statement No. 7 - Melissa Ciullo** is Vice President of Tax for AWWSC. Her  
18          testimony addresses the Company’s computation of income tax expense in compliance  
19          with Act 40 of 2016, the Pennsylvania state tax rate change, and the Corporate Alternative  
20          Minimum Tax.
- 21          • **PAWC Statement No. 8 - J. Cas Swiz** is Senior Director, Enterprise-Wide Regulatory  
22          Strategy of AWWSC. His testimony discusses PAWC’s claim for uncollectible accounts  
23          expense and amortization of the deferred amounts recorded to the regulatory asset for



1 incremental COVID-19 related financial impacts authorized in the Company’s last base  
2 rate case. His testimony also discusses PAWC’s proposed deferred accounting treatment  
3 for pension, OPEB, and production expenses, as well as the Company’s proposed  
4 Environmental Compliance Investment Charge.

- 5 • **PAWC Statement No. 9 – Deborah A. Degillio** is Vice President and Chief Customer  
6 Officer of AWWSC. Her testimony provides an overview of PAWC’s customer service  
7 function and addresses how the Customer Service Organization (“CSO”) uses customer  
8 feedback to drive customer satisfaction, the CSO’s efforts to improve customer service  
9 and achieve customer service performance objectives, and PAWC’s customer assistance  
10 programs and proposed enhancements to those programs in this base rate case.
- 11 • **PAWC Statement No. 10 - Charles B. Rea** is Senior Director, Enterprise-Wide  
12 Regulatory Pricing & Affordability of AWWSC. His testimony explains the design of  
13 current and proposed tariff rates, presents the Company’s affordability analyses for water  
14 and wastewater service, describes the Company’s analysis of residential, commercial, and  
15 municipal water consumption, discusses the Company’s claimed revenues, and supports  
16 the Company’s proposed Revenue Decoupling Mechanism.
- 17 • **PAWC Statement No. 11 - John J. Spanos** is President of Gannett Fleming Valuation  
18 and Rate Consultants LLC. Mr. Spanos’ testimony explains the development of the  
19 depreciated original cost of the Company’s utility plant in service and its claims for annual  
20 depreciation expense.
- 21 • **PAWC Statement No. 12 - Constance E. Heppenstall** is Senior Project Manager for rate  
22 studies of Gannett Fleming Valuation and Rate Consultants LLC. Ms. Heppenstall’s

1 testimony explains the allocation of the cost of service to customer classifications and the  
2 identification of stormwater-related costs of service of combined sewer systems (“CSSs”).

- 3 • **PAWC Statement No. 13 - Ann E. Bulkley** is a Principal with The Brattle Group.  
4 Ms. Bulkley’s testimony provides a recommendation regarding PAWC’s authorized  
5 return on equity and assesses the reasonableness of its proposed capital structure for  
6 ratemaking purposes.

7 **OVERVIEW: GENERAL INFORMATION ABOUT THE COMPANY AND THIS CASE**  
8 **REASONS FOR RATE RELIEF REQUESTED**

9 **Q. Please summarize the rate increase sought by PAWC in this proceeding.**

10 A. The Company is seeking an increase in the rates of its water and wastewater operations that  
11 will produce additional annual operating revenues of \$203.9 million, or 20.2%, over PAWC’s  
12 annualized total revenues at present rates including Distribution System Improvement Charge  
13 revenue. The key elements of the Company’s rate request are summarized on Schedule AEE-1  
14 to this statement. Schedule AEE-2 to this statement is a more detailed summary that provides  
15 an overview of revenue requirements and revenues at existing and proposed rates on a total-  
16 Company basis.

17 **Q. What are the major drivers of the Company’s request for rate relief?**

18 A. The most significant driver of this request for rate relief is PAWC’s ongoing infrastructure  
19 investment. As explained in Mr. Aiton’s direct testimony (PAWC Statement No. 3),  
20 maintaining PAWC’s facilities requires substantial capital investment. PAWC has made, and  
21 must continue to make, substantial investments in new and replacement plant and equipment  
22 to replace aging infrastructure, comply with mandates imposed by the Safe Drinking Water  
23 Act, the Clean Water Act and the Clean Streams Law and their associated regulations, and

1 meet customers' demands for water and wastewater service. From the end of the FPFTY in  
2 the Company's last base rate case (December 31, 2023) through the end of the FPFTY in this  
3 case (June 30, 2025), the Company will have invested over \$1 billion in new or replacement  
4 plant and equipment, and the overwhelming majority of this investment is and will be in  
5 source of supply, treatment, distribution and collection assets. Part of this investment is also  
6 being used to improve service to small, troubled water and wastewater systems that PAWC  
7 has acquired. While the acquisition of smaller systems will result in increased economies of  
8 scale over time, the Company is currently incurring increased capital investment and an  
9 increase in operating costs.

10 Although PAWC is requesting a rate increase in this case, the Company has been  
11 generally successful in controlling O&M expense over the last decade. Comparing operating  
12 expense levels in 2013 with historic test year ("HTY") operating expenses, a period of  
13 10 years, annual operating costs per customer have increased moderately from an estimated  
14 \$300 to \$336 per customer, a \$36.00 annual increase over the 10-year period. This equates to  
15 an overall increase since 2013 of 11.91%, representing a compound annual growth rate of  
16 1.13%. In comparison, the Gross Domestic Price Deflator,<sup>1</sup> an index measuring inflation,  
17 increased from 101.77 in 2013 to 121.80 for 2023. This equates to a 19.68% increase,  
18 representing a compound annual growth rate of 1.81%. This demonstrates that the Company  
19 has been successful in controlling its O&M costs per customer over the past decade. The  
20 Company's ability to mitigate O&M increases is attributable to the Company's prudent  
21 management of operating costs. Our management initiatives, as explained by Mr. Runzer  
22 (PAWC Statement No. 2), and our prudent capital investments described by Mr. Aiton have

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<sup>1</sup> The GDP deflator, also called implicit price deflator, is a measure of inflation. It is the ratio of the value of goods and services an economy produces in a particular year at current prices to that of prices that prevailed during the HTY.

1 enabled us to work more efficiently and effectively in managing O&M expenses. However,  
2 like others, the Company is not immune to inflationary pressures. PAWC's requested increase  
3 in O&M expense is driven by increases in production costs, employee-related expenses and  
4 the cost of bringing high quality and reliable water service to additional communities in the  
5 Commonwealth and supports the Company's efforts to continue providing high quality water  
6 and wastewater service in the most cost-effective way to our customers in the long-term.

7 In addition, to address the Company's diverse capital needs, PAWC must raise  
8 substantial amounts of debt and equity capital and, in the process, must demonstrate its ability  
9 to provide a reasonable return for investors to commit their funds to the Company for its use.  
10 On an annual basis, PAWC's capital investment program is greater than its allowance for  
11 depreciation, which results in negative free cash flow. Therefore, the Company needs to seek  
12 financing for its capital investments beyond any internally generated cash flow. As shown in  
13 Schedule AEE-2 and explained in the Statement of Specific Reasons for Proposed Increase in  
14 Rates that accompanies the Company's filing, absent rate relief, the Company's overall rate  
15 of return on an original cost basis will be only 5.78% as of June 30, 2025. More significantly,  
16 the indicated return on common equity is anticipated to be 6.63% as of June 30, 2025, which  
17 is clearly far less than is required.

## 18 **AFFORDABILITY OF WATER AND WASTEWATER SERVICE**

19 **Q. In general, why is PAWC's proposed rate increase reasonable and appropriate?**

20 A. PAWC's proposed rate increase is reasonable and appropriate because, as I previously  
21 discussed, it is driven primarily by investments that keep our water and wastewater service  
22 safe and reliable. Such investments cannot be avoided and are in the long-term best interests  
23 of our customers. If such investment is not made, our customers will be adversely impacted

1 in the long run as costs will increase even more. For example, when mains are not replaced  
2 in a timely fashion, or equipment is neglected, our costs rise, as unanticipated main breaks  
3 create water quality issues, unexpected expenses, and disruption to our customers and  
4 communities. Similarly, equipment in need of replacement makes workers less efficient and  
5 can create safety issues.

6 **Q. Has PAWC evaluated the impact of the proposed rate increases on its customers?**

7 A. Yes, we have. We know our water and wastewater service is critical, and we know how  
8 important it is for that service to remain affordable. A Zone 1 residential customer using 105  
9 gallons of water per day would pay approximately \$2.90 per day for water under our rate  
10 proposal. Therefore, for about \$2.90 per day an average residential customer has all the water  
11 they and their family need to drink, cook, wash, and maintain their general health and well-  
12 being.

13 **Q. Has the Company performed an analysis of the affordability of its water and wastewater  
14 service under the proposed rates?**

15 A. Yes. Mr. Rea (PAWC Statement No. 10) has conducted a detailed analysis of the affordability  
16 of our historical and proposed residential rates and relates the median household income  
17 (“MHI”) for customers in our service territory to our utility bills over time. Mr. Rea’s analysis  
18 demonstrates that our water and wastewater service, overall, has been affordable over time  
19 and will remain affordable for the majority of residential customers under the proposed rates.  
20 His testimony compares historical average monthly water bills to monthly household income  
21 for PAWC customers from 2012 through 2023, both in absolute terms and in terms of bill to  
22 income (“BTI”) ratios. Mr. Rea then analyzed the Company’s proposed bills in this case and  
23 estimated MHI for PAWC customers during the FPFTY. His analysis shows that BTI Ratios

1 for PAWC’s residential customer base have held steady from 2012 to 2023 at levels between  
2 0.8% and 1.0% of MHI and are expected to be 1.12% under the Company’s proposed rates in  
3 this case during the FPFTY. Mr. Rea shows that BTI Ratios for wastewater service have  
4 similarly held steady from 2012 through 2022 at levels between 0.9% and 1.2% of MHI but  
5 rose in 2023 to 1.55% and are expected to be 1.37% under the Company’s proposed  
6 wastewater rates in this case. This is a tangible demonstration that our customer bills will  
7 remain affordable for the majority of customers even with PAWC’s requested rate increase.

8 **Q. How does PAWC maintain the affordability of its water service?**

9 A. As I noted previously, an important way that we maintain affordability is by continuously  
10 seeking to improve our business processes and make investments that improve operational  
11 efficiencies, and we have been very successful in doing so. As Mr. Aiton and Mr. Runzer  
12 explain, we use targeted and proactive investments to permit us to work smarter and more  
13 efficiently as well as leveraging the power of our organization to purchase equipment and  
14 supplies at advantageous terms. All of these help us better manage our cost structure and  
15 mitigate cost increases.

16 **Q. Notwithstanding the overall affordability of PAWC’s rates, are there customers who**  
17 **might face affordability issues?**

18 A. Yes, some of our customers face challenging economic circumstances. Thus, Mr. Rea also  
19 examined the affordability of our rates for customers at different MHI levels. His assessment  
20 compares annualized bills for “basic water and/or wastewater service” (i.e., service that is  
21 necessary and reasonable to meet basic household needs for drinking, cooking, sanitation, and  
22 general health service that does not include seasonal discretionary water use) to measures of  
23 household income for lower income groups. The Company estimates that there are

1 approximately 108,000 residential water customers in its service areas with household  
2 incomes at or below 150% of Federal Poverty Level (“FPL”), or approximately 17% of the  
3 Company’s residential water customer base. For these customers, the Company continues to  
4 offer various assistance programs, which I describe below. The Company is also proposing  
5 in this case to expand its income-based tariff discount program to include customers between  
6 150% and 200% of FPL in order to further address the affordability of water or wastewater  
7 service, as explained in more detail by Mr. Rea.

8 **Q. What customer assistance programs does PAWC offer its low-income customers to**  
9 **maintain the affordability of its service?**

10 A. PAWC offers several customer assistance programs to help our low-income customers. The  
11 Company supports low-income customers through PAWC’s H2O Help to Others Program™  
12 (“H2O”). The H2O program currently offers a three-fold approach, including bill discounts  
13 for water and wastewater service, hardship grants, and water conservation assistance. The  
14 Company also anticipates offering an Arrearage Management Program (“AMP”).

15 The bill discount program currently includes a three-tier discount with discounts on  
16 the total bill ranging from 30% to 80%. I discuss the proposed expansion of the low-income  
17 discount below.

18 The hardship grant assistance program is a bill-paying assistance program funded by  
19 PAWC shareholders and donations from customers and others who want to help our customers  
20 in need. Customers who qualify may receive grants of up to \$500 annually toward their water  
21 bill and \$500 annually toward their wastewater bill. The hardship grant assistance program is  
22 administered by Dollar Energy Fund, an independent, non-profit organization. The Company  
23 currently contributes \$750,000 annually to the hardship fund and anticipates increasing this

1 contribution by \$700,000 annually for the next five years, or a total annual donation of  
2 \$1,450,000.<sup>2</sup> This donation is funded by PAWC’s shareholders and is not recovered from  
3 customers.

4 The water conservation assistance program offers tools and tips to help customers save  
5 water and money. The program includes a leak detection kit to help identify household leaks,  
6 conservation tips and water use calculator.

7 The AMP is a program that will assist low-income customers with arrearages. This  
8 program is described in more detail below. A Settlement of the AMP is currently pending  
9 approval before the Commission. If the Company receives approval of the AMP in 2023, the  
10 Company anticipates the AMP being available to customers in late 2024.

11 In addition, the Company offers its customers who qualify flexible payment  
12 arrangements through installment agreements if they are financially unable to pay a water  
13 and/or wastewater service bill when due. The Company also offers residential customers the  
14 option of paying bills under its budget billing plan. For customers electing budget-billing, the  
15 Company estimates the customer’s total billed amount for service during a succeeding twelve-  
16 month period and, for that period, issues monthly bills based on one-twelfth of the twelve-  
17 month estimate. The Company recently undertook a statewide promotional effort through  
18 emails and bill inserts to educate customers on budget billing and preferred due date options.

19 **Q. Has the Company been able to use American Rescue Plan Act funding to assist**  
20 **customers?**

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<sup>2</sup> The increased annual donation is a provision of the proposed settlement of the Company’s application to acquire the Butler Area Sewer Authority (“BASA”) wastewater system, which is currently pending at Docket No. A-2022-3037047. If the settlement is approved by the Commission, the increased annual donation will commence upon closing of the BASA acquisition.



1 A. Yes. The Low-Income Household Water Assistance Program (“LIHWAP”), which was  
2 authorized by the federal government pursuant to the American Rescue Plan Act of 2021 and  
3 the Consolidated Appropriations Act, 2021, has provided bill assistance for our qualifying  
4 customers. At the state level, this program was administered by the Pennsylvania Department  
5 of Human Services (“DHS”). PAWC had a vendor agreement with the DHS. Customers could  
6 apply online at [www.compass.state.pa.us](http://www.compass.state.pa.us), call DHS and request an application or apply in  
7 person at a local county assistance office.

8 Prior to the program ceasing in October 2022 due to funds being depleted, PAWC  
9 customers received nearly 13,000 grants totaling over \$7.5 million. When additional funds  
10 were made available in 2023, PAWC customers received over 2,400 additional grants totaling  
11 over \$1.1 million. As explained in more detail later in my testimony, the Company went above  
12 and beyond to promote the availability of these funds to low-income customers to help them  
13 to pay their bills and also undertook efforts to help ensure that additional funds were allocated  
14 to Pennsylvania to be made available to our customers.

15 **Q. Has the Company been able to use other state and federal funding to assist customers?**

16 A. Yes. The Pennsylvania Homeowner Assistance Fund, or PAHAF, is a housing-related  
17 program funded by the U.S. Treasury to assist Pennsylvania homeowners facing financial  
18 hardship as a result of the COVID-19 pandemic. The program provides financial assistance to  
19 homeowners for qualified mortgage and housing-related expenses to address delinquency and  
20 avoid default, foreclosure, or displacement. The Pennsylvania Housing Finance Authority  
21 was allocated \$350 million under the American Rescue Plan Act of 2021 to develop the  
22 PAHAF program to help Pennsylvania homeowners avoid mortgage delinquency, foreclosure,  
23 or displacement. As of October 12, 2023, PAWC has received approximately \$261,000 under

1 the PAHAF program. At this time, the program is not accepting new applications but is  
2 continuing to process applications already received.

3 **Q. You mentioned PAWC is proposing an expanded low-income discount to assist its low-**  
4 **income customers. What is PAWC’s proposal?**

5 A. The Company’s current discount tariff rates are based on the customers’ percentage of federal  
6 poverty level, with three tiers from 0% to 150% of the FPL. The Company is proposing to  
7 expand this tariff to include customers with household incomes between 150% and 200% of  
8 the FPL. As explained by Mr. Rea, the Company’s proposed expansion to the low-income  
9 discount program will improve the affordability of water and wastewater service for this group  
10 of customers.

11 The proposed modification to this tariff would reduce the typical basic water service  
12 (“BWS”) bill as shown in the chart below:

13 *Proposed Low Income Discount Program*

<i>Income Group</i>	<b>BWS Bill Pre-Discount</b>	<b>Pre- Discount BTI Ratio</b>	<b>BWS Bill Post-Discount</b>	<b>Post-Discount BTI Ratio</b>
<i>0% - 50% FPL</i>	\$75.43	16.17%	\$16.45	3.53%
<i>51% - 100% FPL</i>	\$80.29	5.73%	\$38.09	2.72%
<i>101% - 150% FPL</i>	\$81.46	3.55%	\$58.65	2.56%
<i>151%-200% FPL</i>	\$84.69	2.70%	\$71.59	2.28%

14 **Q. Please summarize the Company’s Arrearage Management Plan (“AMP”) that is**  
15 **pending Commission review and approval.**

16 A. In accordance with a stipulation between the Company and the Commission on Economic  
17 Opportunity in the Company’s 2020 base rate case, on August 25, 2021, PAWC filed with the  
18 Commission a Petition of Pennsylvania-American Water Company for Approval of an  
19 Arrearage Management Plan at Docket No. P-2021-3028195. Under this program, qualifying

1 customers will receive \$25 of arrearage forgiveness per month. A Settlement of this  
2 proceeding was filed with the Commission on May 13, 2022 and an amended settlement was  
3 filed on July 27, 2022. On December 28, 2022, the Commission entered an Order remanding  
4 the proceeding to the Office of Administrative Law Judge for further proceedings. The  
5 purpose of the remand was to require income verification for customers seeking to enroll in  
6 the AMP. A further amended settlement was filed on September 11, 2023. Consistent with  
7 the Commission's Order, the further amended settlement establishes a framework for income  
8 verification and periodic income recertification. On October 12, 2023, a Recommended  
9 Decision was entered recommending approval of the further amended settlement without  
10 modification.

11 **Q. When will the Company implement its AMP?**

12 A. The proposed settlement of the AMP proceeding provides that the Company will implement  
13 the plan no later than twelve months after the Commission issues a Final Order in the AMP  
14 proceeding. The Company anticipates implementing the AMP as close to the effective date of  
15 new rates as possible, dependent on when Commission approval of the settlement is received.  
16 The Company has included \$2,864,700 in its expense claims in this case to fund the AMP,  
17 which is consistent with the settlement.

18 **Q. Is the Company's AMP a pilot program?**

19 A. Yes, from a cost recovery standpoint, the AMP is being implemented as a pilot program. The  
20 settlement also provides that during the period that the AMP is considered a pilot program,  
21 the Company will record a regulatory asset or liability for amounts over or under the amount  
22 included in rates for recovery or refund in the next base rate case.

1 **SOURCE OF ACCOUNTING DATA AND THE TEST YEARS EMPLOYED BY THE**  
2 **COMPANY**

3 **Q. What is PAWC’s principal accounting exhibit in this case?**

4 A. PAWC Exhibit No. 3-A is PAWC’s principal accounting exhibit in this case. PAWC Exhibit  
5 No. 3-A includes five separate revenue requirement studies, one of which relates to the  
6 Company’s water operations and four that relate to its wastewater operations.

7 **Q. What is the source of the accounting data used in PAWC Exhibit No. 3-A?**

8 A. The starting point for each of the revenue requirement studies in PAWC Exhibit No. 3-A is  
9 the accounting information recorded in the Company’s books and records for the twelve  
10 months ended June 30, 2023. The Company’s books and records are maintained in conformity  
11 with the National Association of Regulatory Utility Commissioners (“NARUC”) Uniform  
12 System of Accounts for Water Companies, the NARUC Uniform System of Accounts for  
13 Wastewater Companies and generally accepted accounting principles. Because the purpose  
14 of ratemaking is to establish rates to be applied in the future, per-book data were adjusted on  
15 a pro forma basis, as appropriate, to reflect changes in operating conditions that are not fully  
16 reflected in the book data for the HTY, the FTY or the FPPTY.

17 **Q. Why is the Company presenting five separate revenue requirement studies in PAWC**  
18 **Exhibit No. 3-A?**

19 A. The Company is presenting five separate revenue requirement studies in its Exhibit No. 3-A  
20 to comply with the terms set forth in the Joint Petition for Settlement and the terms and  
21 conditions of the anticipated Commission’s approvals of PAWC’s acquisitions of certain  
22 wastewater systems that are included in this case.

23 Paragraph 14 of the Joint Petition for Settlement provides that “in future rate filings,  
24 PAWC will submit one or more separate stormwater and wastewater cost-of-service studies

1 for each of its [CSSs]”<sup>3</sup> and further provides that “the Company is not required to provide a  
2 separate study for each combined sewer system.” Accordingly, PAWC Exhibit No. 3-A  
3 includes a separate revenue requirement study, in aggregate, for the CSSs it currently owns,  
4 which consist of the Scranton, McKeesport, and Kane systems.

5 The Company is also submitting separate cost of service studies for the wastewater  
6 systems that PAWC expects to acquire from the Butler Areas Sewer Authority (“BASA”) and  
7 the Borough of Brentwood, pursuant to the proposed settlement agreement for the BASA  
8 acquisition pending before the Commission and consistent with past practice for systems  
9 acquired pursuant to Section 1329.

10 **Q. In the Company’s last base rate case, it submitted separate revenue requirement studies**  
11 **for Royersford Wastewater Sanitary Sewer System (“SSS”) Operations, Upper**  
12 **Pottsgrove Wastewater SSS Operations, and York Wastewater SSS Operations. Please**  
13 **identify where the information with respect to these systems is included in the**  
14 **Company’s filing in this case.**

15 A. Each of these systems are included in the Wastewater SSS General Operations revenue  
16 requirement.

17 **Q. Briefly explain what is set forth in Exhibit No. 3-A.**

18 A. As previously explained, PAWC Exhibit No. 3-A contains five separate revenue requirement  
19 studies, each of which is set forth at a separate tab within the exhibit, consisting of the  
20 following:

Tab 1	Water Operations
Tab 2	Wastewater Sanitary Sewer Systems General Operations

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<sup>3</sup> The cost-of-service studies that separately identify and quantify storm water costs are sponsored by Ms. Heppenstall and are explained in her direct testimony (PAWC Statement No. 12).

Tab 3	Butler Wastewater (“WW”) Operations
Tab 4	Brentwood WW Operations
Tab 5	Wastewater Combined Sewer Systems Operations

1 A summary page at the beginning of PAWC Exhibit No. 3-A shows the Company’s  
2 rate request on a consolidated (total Company) basis. Applicable workpapers and supporting  
3 documentation for PAWC Exhibit No. 3-A are set forth in PAWC Exhibit Nos. 3-B and 3-C.  
4 I am responsible for portions of each of these exhibits. Other witnesses are responsible for  
5 other portions of these exhibits as explained in their respective statements. Each page of  
6 PAWC Exhibit No. 3-A identifies the witness responsible for that portion of the exhibit.

7 In order to reflect data for the FPFTY, PAWC Exhibit No. 3-A presents PAWC’s rate  
8 base, revenues, expenses and tax information on the basis of an HTY ended June 30, 2023, a  
9 FTY ending June 30, 2024, and a FPFTY ending June 30, 2025. The support for the  
10 Company’s requested revenue increase is based principally upon the data presented for the  
11 FPFTY. Within PAWC Exhibit No. 3-A, HTY data are generally identified by the title or  
12 heading “Present Rates at June 30, 2023” and FTY data are generally identified by the title or  
13 heading “Present Rates at June 30, 2024.” Data for the FPFTY are generally identified by the  
14 title or heading “Present Rates at June 30, 2025.”

15 **SUPPORT FOR SPECIFIC ELEMENTS OF THE COMPANY’S FILING**

16 **Development of Water and Wastewater Revenue Requirements and the Application of**  
17 **Section 1311(c) of the Code**

18 **Q. Has the Company relied upon provisions of Act 11 in developing its proposed rates in**  
19 **this case?**

20 **A.** Yes, it has. As authorized by Section 1311(c) of the Code, PAWC is proposing to allocate in  
21 the FPFTY approximately \$71 million of its wastewater cost of service to its water operations,

1 which is approximately 7% of total proposed water revenue. Thus, the authority granted by  
 2 Act 11 would be used to mitigate the increases that wastewater customers in certain service  
 3 areas would experience if their rates were established on a stand-alone basis. The Company’s  
 4 proposed rates would also make meaningful progress in moving the rates of its separate  
 5 wastewater rate zones closer to a single consolidated wastewater rate design for all of the  
 6 Company’s wastewater operations.

7 The following table shows the effect on each wastewater operation of allocating a  
 8 portion of wastewater revenue requirement to water operations and developing rates in the  
 9 manner discussed above in summary form for the FPFTY:

<b>Revenue Requirement Allocated from Wastewater to Water Customer Base</b>	
<b>Wastewater Operations</b>	<b>FPFTY June 30, 2025</b>
Wastewater Sanitary Sewer Systems General Operations	\$31,962,411
Butler Wastewater (“WW”) Operations	\$21,552,699
Brentwood WW Operations	\$1,565,232
Wastewater Combined Sewer Systems Operations	\$16,007,052
<b>Total</b>	<b>\$71,087,394</b>

10  
 11 **Q. What is the impact on the Company’s proposed revenue requirement for water and**  
 12 **wastewater customers of allocating a portion of wastewater revenue requirement to**  
 13 **water operations, as shown above?**

14 **A.** Based on the Company’s cost of service and proposed customer class revenue allocation in  
 15 this case, the allocation would increase the monthly water bill of a residential water customer  
 16 by approximately \$6.08 per month at proposed rates. The allocation would decrease the

1 monthly wastewater bill of a residential wastewater customer by approximately \$10 to \$90  
2 per month at proposed rates depending on the rate and location of the customer.

3 **Q. What does Section 1311(c) of the Code state concerning the allocation of wastewater**  
4 **revenue requirement to water customers?**

5 A. Section 1311(c) of the Code states: “The commission, when setting base rates, after notice  
6 and an opportunity to be heard, may allocate a portion of the wastewater revenue requirement  
7 to the combined water and wastewater customer base if in the public interest.”

8 **Q. What is your understanding of the phrase “in the public interest” in Section 1311(c) of**  
9 **the Code?**

10 A. The phrase is not specifically defined in Section 1311(c). However, I am advised by counsel  
11 that the Commission provided guidance on the meaning of “in the public interest” in the  
12 Company’s 2020 base rate proceeding with respect to acquisitions that were approved under  
13 Section 1329 of the Public Utility Code.<sup>4</sup> The Commission held that it is in the public interest  
14 for a utility to recover a portion of the wastewater revenue requirement associated with an  
15 acquired wastewater system from the combined water and wastewater customer base,  
16 “because otherwise, large viable public utilities would be discouraged from acquiring  
17 municipal and wastewater systems and contravene legislative intent and the Commission’s  
18 policy of encouraging consolidation and regionalization.”<sup>5</sup>

19 **Q. Is the public interest served by distributing a portion of the revenue requirement of the**  
20 **Company’s wastewater operations across PAWC’s approximately 780,000 water**  
21 **customers?**

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<sup>4</sup> *Pa. Pub. Util. Comm’n v. Pennsylvania-American Water Co.*, Docket Nos. R-2020-3019369 and R-2010-3019371  
(Opinion and Order entered Feb. 25, 2021), p. 82.

<sup>5</sup> *Id.*



1 A. Yes, it is. As indicated by the Commission in the Company’s 2020 rate case, it is in the public  
2 interest for the Company to recover a portion of its wastewater revenue requirement associated  
3 with its acquired wastewater systems from its combined water and wastewater customer base.<sup>6</sup>  
4 Distributing a portion of the revenue requirement of the Company’s wastewater operations  
5 across all of the Company’s approximately 780,000 water customers is consistent with  
6 legislative intent and the important policy considerations underlying Sections 1311(c) and  
7 Section 1329, including ameliorating rate impacts on wastewater customers while imposing  
8 only a modest increase on the water bills of the much larger base of water customers, and  
9 promoting the Commission’s policy of encouraging consolidation and regionalization.

10 The amendment Act 11 made to Section 1311(c) has extended to combined water and  
11 wastewater utilities a policy similar to the concept of single tariff pricing, which this  
12 Commission has approved and encouraged water utilities to adopt for nearly forty years. Like  
13 single tariff pricing, allocating a portion of wastewater revenue requirement to the entire  
14 customer base recognizes that: (1) PAWC is an integrated water and wastewater company;  
15 (2) a multitude of functions needed to provide water and wastewater service are performed on  
16 a consolidated basis by PAWC employees and by the Service Company; (3) providing both  
17 water and wastewater service creates opportunities, over time, to capture additional economies  
18 of scale and scope; (4) the need for capital additions in different parts of the Company’s water  
19 and wastewater systems will be higher in some areas and lower in others at any given point in  
20 time, but will average out over time ; (5) “averaging” water and wastewater costs is very much  
21 like the cost averaging that single tariff pricing is explicitly designed to accomplish and  
22 stabilizes rates and mitigates rate impacts for all customers over the long run. Consistent with

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<sup>6</sup> *Id.*

1 these factors, PAWC’s proposal represents a reasonable approach to allocating revenue  
2 requirement that supports economies of scale over the long term.

3 **Q. You described the pending acquisition of the BASA wastewater system above. Please**  
4 **discuss the hardship fund contribution that will benefit PAWC’s water and wastewater**  
5 **customers.**

6 A. In February 2023, PAWC filed with the Commission an application to acquire the BASA  
7 wastewater assets. On August 14, 2023, PAWC filed with the Commission a Joint Petition for  
8 Unanimous Settlement of All Issues.<sup>7</sup> In this Settlement, the Company agreed to increase its  
9 shareholder donation to its hardship fund by \$700,000 per year for five years, or a total of \$3.5  
10 million. The first donation will be made following closing, which is expected before the end  
11 of 2023. This additional shareholder contribution will nearly double the funds available for  
12 low-income hardship grants, and eligibility will be expanded to include customers between  
13 200%-250% of the federal poverty level.

14 Of this \$700,000 annual donation, the Company anticipates that in 2023, nearly 80%,  
15 or \$555,000, will be made available to the Company’s water customers. In this way, the  
16 Company’s acquisition of the BASA system will provide an immediate benefit to the  
17 Company’s low-income water and wastewater customers.

18 **Proposed Revenue Decoupling Mechanism**

19 **Q. Is the Company proposing a Revenue Decoupling Mechanism in this proceeding?**

20 A. Yes. As outlined in the testimony of Mr. Rea, the Company requests approval of a Revenue  
21 Decoupling Mechanism (“RDM”) for both water and wastewater service as part of this

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<sup>7</sup> This settlement is currently pending before the Commission, as discussed in more detail by Mr. Abruzzo in Statement No. 6.

1 proceeding. The RDM is an alternative rate design mechanism designed to provide the  
2 Company with the opportunity to more reliably recover its authorized revenue requirement  
3 and the fixed costs authorized in this proceeding. As explained by Mr. Rea, the RDM will  
4 compare the difference between actual revenue collected from eligible customers under the  
5 Commission-approved rates in this case against cost components calculated to recover the  
6 Company's fixed costs of providing service. If actual revenues are higher than would have  
7 been collected under the RDM formula, the difference will be credited to customers in the  
8 subsequent year through the mechanism. If actual revenues are lower than would have been  
9 collected under the RDM formula, the difference will be collected from customers in the  
10 subsequent year through the mechanism.

11 **Q. Does Pennsylvania law allow the Commission to approve a Revenue Decoupling**  
12 **Mechanism as PAWC requests?**

13 A. Yes. 66 Pa. Code C.S. § 1330(b) was added to the Public Utility Code in a 2018 amendment.  
14 I am advised by counsel that Section 1330 allows the Commission to approve an application  
15 by PAWC to establish various forms of alternative ratemaking. One such form of alternative  
16 ratemaking, as identified in Section 1330(b)(i), is a decoupling mechanism.

17 **Q. Does Section 1330 state the policy goals of this alternative ratemaking treatment?**

18 A. Yes. Section 1330(a)(2) states as follows:

19 It is the policy of the Commonwealth that utility ratemaking should encourage and  
20 sustain investment through appropriate cost-recovery mechanisms to enhance the  
21 safety, security, reliability or availability of utility infrastructure and be consistent with  
22 the efficient consumption of utility service.

23 The Commission policy objectives state that the utility's alternative ratemaking proposals:  
24 "should encourage and sustain investment" through mechanisms that (1) "enhance safety,

1 security, reliability or availability of utility infrastructure”, and (2) are “consistent with the  
2 efficient consumption of utility service.”

3 **Q. How does the Company’s proposed RDM meet these policy objectives?**

4 A. The authorized water and wastewater revenue requirements approved by the Commission  
5 represent the amount of revenue the Commission determines that the Company needs to  
6 operate, maintain, and invest in its water and wastewater system in a prudent and efficient  
7 manner. The Company’s investment priorities continue to focus on non-revenue producing  
8 investments (e.g., water efficiency investments, aging infrastructure replacement and  
9 compliance with environmental regulations) (PAWC Statement No. 3). A rate design that  
10 relies heavily on sales volumes means that the Company’s revenues are driven by factors  
11 which are largely outside of its control. The need to recover these significant investments,  
12 including an opportunity to earn a return on those investments, however, does not vary with  
13 usage. The ability to reliably recover the Company’s approved revenue requirement improves  
14 the Company’s ability to plan, manage, maintain, and invest in the facilities necessary to  
15 continue providing safe, reliable, and high-quality water and wastewater service at a  
16 reasonable cost to customers (PAWC Statement No. 3).

17 Further, the volumetric components of the Company’s current rate structure can create  
18 a “throughput incentive”: the more water customers use, the more revenue the Company  
19 collects and, to the extent this revenue exceeds variable costs, the better its financial  
20 performance. Rather than implicitly encouraging water use and penalizing a water utility for  
21 encouraging conservation, an RDM removes a disincentive for utilities to promote end-use  
22 efficiency. Removing the disincentive to improving end-use efficiency is consistent with the  
23 policy objective of “the efficient consumption of utility service.”

1           Just as prudent energy efficiency investments can be the least-cost investments in  
2 energy resources, improving water efficiency reduces operating costs (e.g., energy, treatment  
3 and residuals handling/storage costs) and reduces the need to develop new supplies and  
4 expand our water infrastructure. Thus, both the Company and customers ultimately benefit  
5 from the RDM because it provides a consistent regulatory framework to support long-term  
6 capital investment, properly matches cost incurrence with cost recovery, and facilitates more  
7 consistent and efficient planning and deployment of resources.

8           **Proposed Environmental Compliance Investment Charge**

9   **Q. Is the Company proposing an Environmental Compliance Investment Charge in this**  
10 **proceeding?**

11 A. Yes. As outlined in the testimony of PAWC witness Cas Swiz, the Company requests approval  
12 of an Environmental Compliance Investment Charge (“ECIC”) as part of this proceeding. The  
13 ECIC is a rate adjustment clause designed to reflect and recover, between rate cases, the  
14 capital costs and expenses imposed on the Company to address and comply with new or  
15 changed federal and state environmental mandates. Costs that are recoverable through the  
16 ECIC must be consistent with the set of projects and activities set forth in an annual  
17 environmental compliance plan to be filed by the Company and approved by the Commission.

18 **Q. Does Pennsylvania law allow the Commission to approve an Environmental Compliance**  
19 **Investment Charge as PAWC requests?**

20 A. Yes, the Commission has the express authority to approve the ECIC pursuant to 66 Pa. Code  
21 C.S. § 1330(b)(2), which expressly authorizes automatic adjustment clauses like the ECIC as  
22 a form of alternative ratemaking.

1 **Q. How does the Company’s proposed ECIC meet the policy objectives of Section 1330**  
2 **alternative ratemaking treatment?**

3 A. The Company’s environmental compliance requirements are continuously evolving and this  
4 is one of the drivers that increases the costs of water and wastewater service and the need for  
5 rate relief. As discussed in more detail by PAWC witnesses Aiton and Swiz, the need for and  
6 timing of measures to comply with new or changed government mandates under applicable  
7 environmental laws are outside of the Company’s control. The Company’s proposed ECIC  
8 will provide a reasonable mechanism for adjusting the Company’s rates between base rate  
9 cases to support full and timely rate recognition of PAWC’s costs to comply with new and  
10 updated environmental regulatory mandates in a prudent and efficient manner as they emerge.  
11 The ECIC will also mitigate customer exposure to less frequent but more significant rate  
12 increases in a general base rate case by producing much smaller, gradual increases to customer  
13 bills.

14 **Request for Regulatory and Accounting Treatment**

15 **Q. Please describe PAWC’s request for deferral accounting treatment for pension and**  
16 **OPEB expenses and why it is appropriate.**

17 A. PAWC is requesting Commission authorization to establish regulatory accounts for its  
18 pension and OPEB expenses. These expenses are difficult to predict and can materially  
19 increase or decrease from year-to-year because pension and OPEB costs are based on actuarial  
20 forecasts that take into account a number of economic and demographic factors described by  
21 Mr. Swiz. When the actual outcomes differ from the predicted values for those factors,  
22 pension and OPEB costs can be materially higher or lower than forecasted for recovery in  
23 rates, resulting in under- or over-recovery by the Company and corresponding under- or

1 overpayment by customers. The Company's proposal would compare its actual pension and  
2 OPEB expenses incurred to the amount included within base rates. The differences between  
3 the two would be deferred to a regulatory asset or liability, and the net balance would be  
4 addressed in PAWC's next base rate case.

5 **Q. Please describe PAWC's request for deferred accounting treatment for production**  
6 **expenses and why it is appropriate.**

7 A. The Company's production expenses can materially increase or decrease based on the prices  
8 charged by suppliers from whom the Company purchases water, fuel and power, wastewater  
9 treatment service, and waste disposal services needed to provide safe and reliable water and  
10 wastewater service to customers. As discussed in Mr. Swiz's testimony, the chemical market  
11 has been extremely volatile and fuel and power pricing has experienced significant increases  
12 in recent years. The Company actively manages its chemical and energy use, but external  
13 market forces are outside of the Company's and many of its suppliers' control. The Company  
14 requests deferral in order to protect both the Company's customers and PAWC against this  
15 volatility and ensure that neither customers nor the Company would be required to bear more  
16 than the Company's actual costs incurred for production costs.

17 **Q. Have you reviewed Ms. Ciullo's direct testimony regarding Section 1301.1(b)(1) of the**  
18 **Code and the Company's plan to invest 50% of the "differential" resulting from the**  
19 **implementation of Act 40?**

20 A. Yes, I have. As Ms. Ciullo noted, I will address that issue.

21 **Q. How does the Company plan to invest 50% of the "differential" (approximately**  
22 **\$2.3 million per year) that Ms. Ciullo calculated?**

1 A. The Company plans to invest in projects that will enhance the reliability of the Company’s  
2 systems and may include projects to extend the Company’s mains to address health and safety  
3 issues pursuant to Rule 27.1(F) of its tariff or for infrastructure enhancement projects that will  
4 improve the quality and reliability of service.

5 **2022 RATE CASE SETTLEMENT COMMITMENTS**

6 **Q. Has the Company complied with the terms and conditions of the Joint Petition for**  
7 **Settlement approved by the Commission in its 2022 base rate case?**

8 A. Yes, it has. The Joint Petition for Settlement, together with its attachments and accompanying  
9 exhibits, is a lengthy document setting forth a number of terms and conditions. I will briefly  
10 explain PAWC’s compliance with major commitments in the Joint Petition for Settlement  
11 directly affecting customer rates, customer service and assistance to low-income customers,  
12 which I will reference by the applicable paragraph of the Joint Petition for Settlement.

13 **Paragraph No. 21.** PAWC filed an amendment to its second wastewater Long Term  
14 Infrastructure Improvement Plan for 2024 through 2028 (“Second LTIIIP”) at Docket No.  
15 P-2023-3038874 to include systems acquired under Section 1329 of the Public Utility Code,  
16 which did not re-prioritize other existing commitments in other service areas. Following  
17 Commission approval of the Second LTIIIP on June 15, 2023, the Company filed a compliance  
18 tariff supplement that incorporates the acquired systems into PAWC’s DSIC tariff.

19 **Paragraph No. 25.** On March 31, 2023, PAWC filed updates to PAWC Exhibit 3-A,  
20 pp. 26, 90, 136, 177, 207, and 243 at the dockets for its last base rate case, including actual  
21 plant additions and retirements for the twelve months ending December 31, 2022. PAWC  
22 also committed to provide the actual plant additions and retirements, by account, for the  
23 twelve months ending December 31, 2023, no later than April 1, 2024. Given the timing of



1 the filing of this base rate case, Mr. Aiton’s Direct Testimony, PAWC Statement No. 3  
2 provides an update reflecting plant in service through September 30, 2023.

3 **Paragraph No. 33.** PAWC has proposed to eliminate minimum usage allowances for  
4 all systems.

5 **Paragraph Nos. 40 and 41.** PAWC has proposed in this filing to create a separate  
6 tariff group for current and future CSS customers and submitted a wastewater cost-of-service  
7 study that includes a separate customer class for bulk customers in the York system whose  
8 rates are set by contract.

9 **Paragraph Nos. 43 through 46.** With respect to PAWC’s Bill Discount Program  
10 (“BDP”), the three tier structure was implemented, a system for tracking and reporting on the  
11 subject data has been developed and BDP participation has been made portable for customers  
12 when changing residences.<sup>8</sup>

13 **Paragraph Nos. 47 through 56.** With respect to PAWC’s Hardship Fund and  
14 community outreach, all settlement commitments have been accomplished, including  
15 increasing the annual contribution, reducing the good faith payment requirement, working to  
16 develop a solution so that customers can receive more than one grant each year (up to the  
17 maximum grant amount),<sup>9</sup> and undertaking targeted community outreach efforts in  
18 geographic areas with a higher percentage of low-income customers.

19 **Paragraph Nos. 57 to 58.** PAWC committed to three main extension projects.  
20 Applications for extension of service territory to serve in Project Area 1 (Campbell Road and  
21 Old Steubenville Pike, Robinson and Smith Townships) and Project Area 2 (Donaldson Road,

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<sup>8</sup> The settlement commitments in Paragraph Nos. 45 and 46 with respect to the Company’s Arrearage Management Plan are not applicable as approval is still pending before the Commission.

<sup>9</sup> Customers cannot currently get more than one grant each year, but Dollar Energy is developing the technology and anticipates having this capability for the 2024-2025 program year.

1 Robinson Township) are currently pending at the Commission and construction will  
2 commence soon after certificates of public convenience are issued. Construction is underway  
3 with respect to Project Area 3.

4 **Paragraph Nos. 59 through 61.** Commitments regarding inspecting storage tanks  
5 over 15 years old, exercising isolation valves on a 5-years cycle and inspecting critical valves  
6 annually,<sup>10</sup> and marking fire hydrants that cannot provide minimum fire flow have all been  
7 met.

8 **Paragraph No. 62.** PAWC has the ability to provide a Complaint Log as agreed  
9 upon, including the final disposition of disputes.

10 **Paragraph Nos. 63 through 69.** PAWC implemented the requirements with respect  
11 to customer service, including training for representatives handling Pennsylvania customer  
12 calls, tariff amendments regarding the process for how prior unpaid debt is handled, reports  
13 to the Customer Assistance Advisory Group (“CAAG”) on the progress of reaching certain  
14 performance objectives, updates to termination notices to inform customers of the right to  
15 make a verbal declaration of a medical emergency, revisions to bills and the Company’s  
16 interactive voice response system to clarify that convenience fees are not charged for  
17 payments by phone and tariff changes to clarify that security deposits will not be charged to  
18 customers who are eligible for the BDP.

19 **PERFORMANCE FACTORS: SECTION 523 OF THE CODE AND 52 PA. CODE § 69.711**

20 **Q. Does the Code authorize the Commission to consider performance factors in arriving at**  
21 **a utility’s allowable revenue requirement in a base rate case?**

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<sup>10</sup> A small number of valves have yet to be inspected as of the date this testimony was finalized, but the Company anticipates inspection will be complete soon thereafter.

1 A. Yes. Section 523 of the Public Utility Code provides that the Commission “shall consider”  
2 the “efficiency, effectiveness and adequacy of service” of a utility when determining just and  
3 reasonable rates.

4 **Q. What does Section 523 provide regarding performance factors to be considered by the**  
5 **Commission?**

6 A. Section 523(a) requires the Commission to consider performance factors, while Section  
7 523(b) identifies the kinds of factors that are relevant in assessing a utility’s performance.  
8 Section 523(a) and the portions of 523(b) that are relevant to a water and wastewater utility  
9 are set forth below:

10 (a) Considerations. – The Commission shall consider, in addition  
11 to all other relevant evidence of record, the efficiency,  
12 effectiveness and adequacy of service of each utility when  
13 determining just and reasonable rates under this title. On the  
14 basis of the commission’s consideration of such evidence, it  
15 shall give effect to this section by making such adjustments to  
16 specific components of the utility’s claimed cost of service as it  
17 may determine to be proper and appropriate. Any adjustment  
18 made under this section shall be made on the basis of the  
19 specific findings upon evidence of record, which findings shall  
20 be set forth explicitly, together with their underlying rationale,  
21 in the final order of the commission.

22 (b) Fixed Utilities. – As part of its duties pursuant to subsection (a),  
23 the commission shall set forth criteria by which it will evaluate  
24 future fixed utility performance and in assessing the  
25 performance of a fixed utility pursuant to subsection (a), the  
26 commission shall consider specifically the following:

27 (1) Management effectiveness and operating efficiency as  
28 measured by an audit pursuant to Section 516 (relating  
29 to audits of certain utilities) to the extent that the audit  
30 or portions of the audit have been properly introduced  
31 with applicable rules of evidence and procedure.

32 \* \* \*

33 (5) Action or failure to act to encourage cost-  
34 effective conservation by customers of water utilities

35 \* \* \*

1 (7) Any other relevant and material evidence of  
2 efficiency, effectiveness and adequacy of service.

3 **Q. Is the Company proposing that performance factors relating to its “efficiency,**  
4 **effectiveness and adequacy of service” be considered by the Commission in this case?**

5 A. Yes, it is. For the reasons I will discuss later in my direct testimony, the Company strongly  
6 believes, and proposes, that the Commission should implement the terms of Section 523 in  
7 determining the Company’s allowed rate of return on equity in this case. Specifically,  
8 Ms. Bulkley has recommended a range of reasonable rates of return on equity from 10.0% to  
9 11.00%. Both Ms. Bulkley and I recommend that the Commission adopt a rate of return on  
10 equity of 10.95% – at the upper end of Ms. Bulkley’s range – in recognition of PAWC’s  
11 superior management performance based on the factors that apply to water utilities in  
12 Section 523 of the Code. In addition, and for the same reason, if the Commission were to  
13 approve a rate of return on equity that is lower than the upper end of Ms. Bulkley’s  
14 recommended range, it should add no less than 25 basis points to its market-determined rate  
15 of return.<sup>11</sup>

16 **Q. Please summarize the factors demonstrating the Company’s exemplary management**  
17 **performance.**

18 A. I am addressing eight areas: (1) the Company’s industry-leading programs to assist low-  
19 income and payment-troubled customers; (2) the Company’s environmental record and  
20 commitment to water quality; (3) the Company’s strong safety performance; (4) the  
21 Company’s commitment to operational and water efficiency for the benefit of customers;  
22 (5) the Company’s significant infrastructure investment; (6) the Company’s community

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<sup>11</sup> Of course, if the Commission’s market-determined rate of return on equity is greater than 10.70%, then the performance-based increment could be less than 25 basis points to achieve a final equity return rate of 10.95%.

1 engagement and consumer education initiatives; (7) the Company's efforts to support the  
2 Commission's and the Pennsylvania Department of Environmental Protection's ("DEP")  
3 long-standing policy to eliminate the problems of small, troubled and nonviable water and  
4 wastewater systems by acquiring those systems and making the improvements needed to  
5 assure safe and reliable service; and (8) the Company's efforts to extend service to meet the  
6 needs of customers without access to safe and reliable water service.

7 **Q. Please discuss the Company's industry-leading efforts assisting low-income customers.**

8 A. For more than 30 years, PAWC's H2O program has assisted customers in need. In fact, the  
9 H2O program ranks at the top of Pennsylvania water utility customer assistance programs for  
10 the benefits it provides. To support the H2O hardship grant program, PAWC contributes more  
11 of its shareholders' money, \$750,000 annually, than any other water utility in the  
12 Commonwealth to help customers in need. As discussed above, PAWC anticipates increasing  
13 this donation by \$700,000 in late 2023.

14 The H2O program also includes a low-income bill discount program. In this  
15 proceeding, the Company is proposing to further enhance this program. Specifically, as  
16 further discussed in Mr. Rea's direct testimony (PAWC Statement No. 10), the Company is  
17 proposing to expand the eligibility for the program to include a fourth tier to assist households  
18 with incomes from 150% to 200% of the federal poverty level. It is PAWC's understanding  
19 that no other utility in Pennsylvania has extended bill discounts to customers at this income  
20 level.

21 Moreover, as discussed earlier in my testimony, PAWC is expanding its H2O program  
22 to assist low-income customers by offering arrearage forgiveness through its AMP. Under  
23 this program, qualifying customers will receive \$25 of arrearage forgiveness per month.

1           In addition, in the past two years, PAWC successfully participated in LIHWAP where,  
2           as previously noted, customers have received over \$8 million in relief to assist with unpaid  
3           bills. As of August 2023, all LIHWAP funds have been depleted but PAWC continues  
4           advocacy efforts to support the establishment of a permanent program. For example, the  
5           Company worked to build a coalition of stakeholders who advocated for a state-funded  
6           LIHWAP-like program through a coalition letter signed by 13 supporting organizations,  
7           which was sent to the State Senate and Governor Shapiro in June 2023. When SB 767 was  
8           introduced by Senator Lisa Boscola, the Company continued to ask lawmakers and the  
9           Governor’s office to include funding in the 2023-2024 state budget. The successful  
10          implementation of LIHWAP for PAWC customers is due to PAWC’s proactive engagement  
11          and collaboration with DHS and extensive customer outreach. PAWC attended stakeholder  
12          meetings, webinars and briefings prior to the LIHWAP launch. Additionally, prior to the  
13          LIHWAP launch, PAWC developed a customer communications and outreach plan to help  
14          maximize the impact of the program for customers facing challenges paying their bills. The  
15          Company published a LIHWAP-specific page on its website, prepared talking points and a  
16          one-pager about the program for its customer service, customer advocacy and external and  
17          government affairs teams, included LIHWAP information in a statewide customer email  
18          campaign, and sent information to municipal, county and state elected officials across  
19          PAWC’s service territory. From mid-January to mid-February 2022, the Company sent a bill  
20          enclosure about LIHWAP to all customers statewide, with a second bill image about LIHWAP  
21          running statewide the following month. PAWC continued to actively promote the LIHWAP  
22          program approximately once per week through its various social media channels, reaching  
23          tens of thousands of customers.

1           In addition to these widespread education and outreach efforts, PAWC launched a  
2 targeted LIHWAP email campaign on January 25, 2022 to approximately 10,000 customers  
3 with past-due balances, notifying them that they may qualify for grant assistance. On  
4 March 18, 2022 in advance of the end of the winter moratorium, PAWC launched a targeted  
5 LIHWAP direct mail letter campaign to approximately 31,000 customers with past-due  
6 balances. Additionally, for customers contacting the Company seeking payment  
7 arrangements or assistance to avoid shutoff, PAWC's scripting referred the customer to  
8 LIHWAP. When additional funds were reallocated in July 2023, the Company conducted  
9 additional targeted outreach to customers with past-due balances through a direct mail  
10 campaign to approximately 37,000 customers in July 2023 and two customer email campaigns  
11 in July and August 2023 to 28,000 and 11,000 customers, respectively. PAWC also continued  
12 to promote this LIHWAP grant re-opening on its social media channels until funding was  
13 again depleted.

14           The Company also created customer assistance cards containing information about all  
15 available water/wastewater utility assistance programs for field employees to distribute during  
16 customer interactions in the field. To further assist customers who received bill payment  
17 assistance through LIHWAP, the Company established a process to review each LIHWAP  
18 grant recipient's account and enroll all customers in PAWC's H2O bill discount program,  
19 which optimizes the level of assistance provided to those customers. The established process  
20 also includes sending a letter to each customer informing them of enrollment in the  
21 Company's H2O bill discount program. Over the course of the LIHWAP program, PAWC  
22 enrolled over 8,100 LIHWAP grantees in the Company's bill discount program, meaning they  
23 continue to receive financial relief on their bills every month going forward.

1 **Q. Does the Company’s environmental record and commitment to water quality**  
2 **demonstrate excellent management performance?**

3 A. Yes, it does. The Company has met and continues to meet all federal and state drinking water  
4 regulations. As described in more detail in the testimony of PAWC witness Jim Runzer  
5 (PAWC Statement No. 2), PAWC treatment plants are nationally recognized for optimization  
6 and performance above and beyond regulatory standards. PAWC is a leader in the  
7 Environmental Protection Agency’s (“EPA”) Partnership for Safe Water Treatment Program,  
8 which means the Company treats water to a standard that surpasses the requirements imposed  
9 by EPA and DEP. Part of providing water of the highest quality is starting with quality water  
10 in the first place. As Mr. Runzer shares in his testimony, PAWC is proud of our efforts in  
11 source water protection. Through our participation in these programs and our internal  
12 practices and policies, the Company consistently meets our goal of providing high quality  
13 drinking water to customers.

14 PAWC is also committed to ongoing water quality improvement. To monitor water  
15 quality and improve our processes, the Company relies on its central laboratory in Bellville,  
16 Illinois to process hundreds of process samples in addition to compliance samples. These  
17 process samples contribute to the Company’s ability to continually improve water treatment  
18 and optimize our facilities. As regulatory standards continue to shift, PAWC continues to  
19 remain a leader. For example, the Company often monitors for potential pollutants where  
20 such monitoring is not yet required by regulation. Where issues are identified, treatment  
21 technology is put in place to continue to provide the Company’s customers safe and reliable  
22 service. Finally, to help ensure that water is safe all the way to the tap, PAWC has worked  
23 with the Commission and OCA to develop and institute a lead service line replacement



1 program, which allows the Company to address lead service line concerns ahead of regulatory  
2 changes and remove this health risk for customers as soon as possible.

3 As the Company continues to grow in its provision of wastewater treatment services,  
4 so grows the Company's commitment to ensuring that discharges leaving our plants are not  
5 impacting water quality in streams. Perhaps just as importantly, the Company has undertaken  
6 significant efforts to reduce the inflow of stormwater into our collection systems, thus keeping  
7 clean water clean and reducing treatment costs for customers. As described in more detail in  
8 the testimony of PAWC witnesses Mr. Runzer (PAWC Statement No. 2) and Mr. Aiton  
9 (PAWC Statement No. 3), it is the Company's commitment to water quality, environmental  
10 protection, and our customers that drive our investment in highly effective water treatment  
11 and the attention to detail at all levels of the organization to meet or exceed regulatory  
12 requirements. We are proud of the quality of water and wastewater service that we provide  
13 to our customers and the quality of water that we release back into our streams.

14 **Q. Does the Company's safety record exhibit exemplary management performance?**

15 A. Yes. The health and safety of our customers, communities and employees continues to be our  
16 top priority. In fact, safety is a defined core value and strategy for the Company. The  
17 effectiveness of our commitment to safety is illustrated by our year-over-year safety  
18 performance. The Company's OSHA recordable incident rate ("ORIR") improved from 2.62  
19 in 2018 to 0.85 in 2022. At this point in 2023, PAWC is having its best safety record in its  
20 operational history. Mr. Runzer, in his direct testimony (PAWC Statement No. 2), further  
21 describes the Company's safety initiatives and programs that benefit our customers.

22 **Q. Does the Company's dedication to operational and water efficiency exhibit exemplary**  
23 **management performance?**

1 A. Yes. In PAWC Statement No. 2, Mr. Runzer highlights the Company’s operational and water  
2 efficiency initiatives to mitigate capital and operating costs, while also helping to protect and  
3 preserve our natural resources. Such initiatives include supply-side practices, such as  
4 increased pump efficiency, more accurate meter reading and leak detection, and main  
5 replacement and repair programs, as well as demand-side strategies, such as customer  
6 efficiency and public education programs to support water and energy efficiency. Mr. Runzer  
7 further describes the Company’s (1) use of technology to enhance employee effectiveness and  
8 benefit customers; (2) robust program to reduce non-revenue water; (3) improvements in  
9 energy efficiency and resulting reductions in energy costs; 4) improvements in operational  
10 efficiency including successful efforts to control waste disposal, purchased water and vehicle  
11 fleet expenses; and (5) the Company’s procedures related to the Underground Damage  
12 Prevention Program, which resulted in 99.99% of tickets being responded to timely in 2022.

13 **Q. Do the Company’s significant infrastructure investments in the Commonwealth**  
14 **demonstrate superior management performance?**

15 A. Yes. PAWC has invested, over the past 17 years, more than \$5 billion in PAWC  
16 infrastructure. The Company’s capital investments have resulted in infrastructure reliability  
17 and resilience, which are important priorities for PAWC’s leadership. Resilient infrastructure  
18 allows the Company to avoid or minimize service disruptions during extraordinary events,  
19 such as extreme weather events. As explained in Mr. Aiton’s testimony, the Company uses  
20 its High Risk Asset Management (“HRAM”) process to formulate its Strategic Capital  
21 Expenditure Plan (PAWC Statement No. 3). Through the HRAM process, the Company  
22 identifies facilities or assets that may pose a high risk to the Company’s system and evaluates  
23 facilities and critical assets against risk and consequence of failure. The Company then

1 prioritizes capital investment programs and projects using the HRAM process, leading to  
2 accelerated investments in high risk assets or facilities before problems arise. Mr. Aiton’s  
3 testimony also includes several projects that will continue to improve the safety, reliability,  
4 and resilience of PAWC’s systems (PAWC Statement No. 3).

5 **Q. Has PAWC taken a leadership role in community engagement and consumer education?**

6 A. Yes. Investing in and giving back to the communities we serve is very important to us. In  
7 2022, we donated more than \$560,000 to 330 organizations throughout the communities we  
8 serve through general charitable contributions, grants, sponsorships and programming  
9 support. The Company primarily directs its giving to community sustainability, food  
10 insecurity, environmental programs, fire departments, health and wellness, education and  
11 workforce development, and Inclusion, Diversity & Equity initiatives. Through the American  
12 Water Charitable Foundation, an additional \$373,000 was donated to non-profit organizations  
13 in PAWC’s service territory as part of the Foundation’s “Keep Communities Flowing” grant  
14 programs as well as its employee matching gift program. In 2022, PAWC representatives  
15 engaged with customers and community leaders through participation in 210 volunteer  
16 projects, speaking engagements, educational programs and community events, and our  
17 employees spent 2,431 hours volunteering their time at local non-profits. PAWC offers a  
18 robust public education program focused especially on educating the youth of the  
19 Commonwealth. Not only do we conduct water camps for children ages 7-11 during the  
20 summer and teach classes on watershed protection, water treatment, the water cycle and water  
21 conservation in the classroom during the school year, we also conduct treatment plant tours  
22 for students and adults alike, judge “Envirothon” competitions, and participate in Earth Day  
23 activities. PAWC’s annual “Protect Our Watershed Art Contest” for 4th, 5th and 6th graders

1 throughout the Commonwealth attracted more than 300 applications this year and serves as  
2 an educational tool about the short- and long-term benefits of protecting the environment and  
3 our critical water resources.

4 The Company also plays a leadership role in educating the workforce of tomorrow.  
5 PAWC offers paid summer internships in its operations, water quality, and engineering  
6 departments to build a future talent pipeline, increase diversity, and bring new perspectives to  
7 the Company while providing important real-life work experience to college students in local  
8 communities. Likewise, the American Water Inclusion and Diversity Scholarship Program  
9 offers 10 renewable scholarships of \$10,000 each to students residing in or attending college  
10 in one of the states where American Water operates, including Pennsylvania.

11 **Q. Is there any other reason why you believe PAWC is entitled to an equity allowance that**  
12 **recognizes exemplary management performance?**

13 A. Yes. The Commission adopted a Policy Statement on Small Nonviable Water and Wastewater  
14 Systems at 69 Pa. Code § 69.711 stating that it will consider regulatory incentives including  
15 “rate of return premiums,” to encourage and reward the continued acquisition of troubled  
16 water and wastewater systems by large, viable utilities.

17 **Q. What does the Commission’s Policy Statement at 52 Pa. Code § 69.711 provide regarding**  
18 **performance-based incentives?**

19 A. Section 69.711 states in relevant part as follows:

20 (a) *Acquisition incentives.* In its efforts to foster acquisition of  
21 suitable water and wastewater systems by viable utilities when  
22 the acquisitions are in the public interest, the Commission seeks  
23 to assist these acquisitions by permitting the use of a number of  
24 regulatory incentives. Accordingly, the Commission will  
25 consider the following acquisition incentives:

26 (1) *Rate of return premiums.* Under 66 Pa.C.S. § 523  
27 (relating to performance factor considerations),

1 additional rate of return basis points may be awarded for  
2 certain acquisitions and for certain associated  
3 improvement costs, based on sufficient supporting data  
4 submitted by the acquiring utility within its rate case  
5 filing. The rate of return premium as an acquisition  
6 incentive may be the most straightforward and its use is  
7 encouraged.

8 **Q. Has PAWC acted as receiver for and acquired troubled water and wastewater systems?**

9 A. Yes. For more than 25 years, PAWC has been an industry leader in helping resolve the  
10 significant challenges faced by troubled water and wastewater systems. In the last ten years  
11 alone, the Company has completed sixteen acquisitions of very small, less-viable water and  
12 wastewater systems – systems with less than 1,000 customer connections each. Four  
13 additional small water and wastewater acquisitions are contemplated as part of this base rate  
14 filing: Sadsbury Township Municipal Authority wastewater system, Farmington Township  
15 water system, Farmington Township wastewater system, and Audubon Water Company.  
16 None of these were acquired under 66 Pa. Code C.S. § 1329 for fair market value although  
17 Sadsbury and Farmington, as municipal sellers, are eligible. In addition to these small  
18 acquisitions with applications pending before the Commission and included in this base rate  
19 case, PAWC has also executed agreements to acquire several other small non- or less-viable  
20 systems including: Manwalamink (water and wastewater), East Dunkard Water Authority  
21 (water), and Appalachian Utilities, Inc. (water). Similarly, none of these systems are being  
22 acquired under 66 Pa. Code C.S. § 1329 for fair market value, although East Dunkard Water  
23 Authority would be eligible.

24 Over the last few years, the Company has also completed the acquisitions of systems  
25 that were not, at the time of acquisition, providing adequate, efficient, safe and reasonable  
26 service. These systems, which were acquired pursuant to 66 Pa. C.S. § 529, include Delaware  
27 Sewer Company (“Delaware Sewer”) and Winola Water Company. Prior to acquisition, the

1 Company also acted as the receiver for Winola Water Company. The Company has made  
2 capital investments to improve service to customers of these systems and increase  
3 environmental compliance. The Company also acted as the receiver for Indian Springs Water  
4 Company (“Indian Springs”) during the pendency of the Commission’s proceeding under  
5 66 Pa.C.S. § 529. As a resolution for the Commission’s Section 529 investigation into Indian  
6 Springs, the Company coordinated a plan for all customers to have an adequate alternative  
7 supply of water from private wells. PAWC offset all of its receivership costs and a significant  
8 portion of the costs that customers had to pay for private wells by negotiating a sale of land  
9 owned by Indian Springs, to the benefit of PAWC and Indian Springs customers. The land  
10 was sold back to the community to be preserved for the recreation and enjoyment of the  
11 residents.

12 In addition to providing solutions for small, troubled systems, PAWC has also had a  
13 positive impact on communities through acquisitions of larger systems such as in McKeesport,  
14 Scranton and York where significant investment has and continues to address environmental  
15 challenges and aging infrastructure.

16 **Q. Please explain PAWC’s recent willingness and efforts to provide an emergency solution**  
17 **for the customers of the East Dunkard Water Authority.**

18 A. The East Dunkard Water Authority (“EDWA”) is a municipal water authority which owns,  
19 operates and maintains a municipal drinking water system that serves approximately 1,800  
20 households, businesses and schools and a population of approximately 4,200 in the following  
21 municipalities in Greene County: Dunkard Township, Greene Township, and portions of  
22 Monongahela, Cumberland, Perry and Whiteley Townships (“EDWA System”). Although  
23 PAWC has a signed agreement to acquire the EDWA System and is currently conducting due

1 diligence and preparing an application pursuant to Section 1102 of the Public Utility Code for  
2 approval from the Commission for that acquisition, EDWA is facing current and dire  
3 challenges that are in need of a more immediate solution. Since July 2021, DEP has conducted  
4 numerous inspections and issued multiple Orders to EDWA for violations of the Safe  
5 Drinking Water Act and Regulations. Since September 2023, the EDWA System has been  
6 without a certified water operator and on October 23, 2023, DEP issued a boil water order due  
7 to elevated levels of turbidity above the regulatory limits. On October 24, 2023, the EDWA  
8 System experienced a major upset resulting from operational failure of the filters at the water  
9 treatment plant and the clarifier system at the water treatment plant ceased proper operation.  
10 The EDWA System's water treatment plant ceased producing water and all customers were  
11 without even non-potable water for several days for basic sanitary and hygienic purposes,  
12 including bathing, dishwashing, and toilet flushing. Water service was eventually restored  
13 but all customers remained under a boil water advisory and had to continue to boil their water  
14 before consumption. Because EDWA has made representations to DEP that it does not have  
15 the financial resources to effectively and properly operate the EDWA System, comply with  
16 DEP Orders and a Commonwealth Court Order, and employ a Certified Operator and because  
17 EDWA's actions threaten immediate harm to public health and safety, DEP prepared an  
18 application to be filed in the Commonwealth Court to seek the appointment of a receiver for  
19 the EDWA System. When DEP reached out to the Company regarding its intention to seek  
20 appointment of a receiver for EDWA by the Commonwealth Court and asked that PAWC  
21 agree to be appointed as such receiver the Company was willing to provide a solution for the  
22 approximately 4,200 residents who were without adequate service, provided that it had the  
23 Commission's approval as it is not customary for a jurisdictional utility to be appointed

1 receiver of a municipal authority. Shortly before this base rate case was filed, DEP and PAWC  
2 jointly requested that the Commission take emergency action to permit PAWC to be appointed  
3 as receiver of EDWA by the Commonwealth Court and the Commission entered an Order  
4 providing PAWC with the necessary authorization.<sup>12</sup> If appointed as receiver of EDWA by  
5 the Commonwealth Court, PAWC will take the steps necessary for EDWA to provide water  
6 that complies with relevant safe drinking water standards.

7 The Company remains committed to helping DEP and the Commission resolve the  
8 issues posed by the many troubled water and wastewater systems that still exist across the  
9 state. Consistent with 52 Pa. Code § 69.711, a rate of return premium is appropriate to  
10 recognize the Company's efforts with respect to troubled systems.

11 **Q. In addition to acquisitions of troubled systems and acting as a receiver for troubled**  
12 **systems, how else has PAWC provided a solution for customers in need of safe and**  
13 **reliable service?**

14 A. PAWC routinely extends service to customers who are in need of water and/or wastewater  
15 service. For example, the Company recently broke ground on a \$21 million water main  
16 extension project that will bring high-quality, reliable drinking water and fire service to the  
17 Avella School District and portions of surrounding communities in Washington County.

18 The Company has also filed an application to extend its service territory for a public  
19 groundwater project in Dimock, Pennsylvania. In late 2021, the Office of then Attorney  
20 General Josh Shapiro reached out to PAWC to ask if the Company would assist in helping to  
21 find a drinking water solution for a community of approximately 21 Dimock properties that

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<sup>12</sup> *Joint Petition of Pennsylvania-American Water Company and the Pennsylvania Department of Environmental Protection Requesting an Ex Parte Emergency Order in Regard to Receivership of East Dunkard Water Authority*, Docket No. P-2023-3043950 (Order entered November 1, 2023).



1 have not had access to safe well water due to unsafe levels of methane and other contaminants  
2 for approximately 15 years. In recognition of the severe water quality problems facing this  
3 community, the Company worked to develop a plan for the most effective public drinking  
4 water system for Dimock residents. In November 2022, the Company and the Office of  
5 Attorney General presented the proposed system design to Dimock residents who expressed  
6 strong support for the project. Subsequently, the Office of Attorney General and Coterra  
7 Energy entered into a Plea Agreement under which PAWC's construction of this project is  
8 fully funded, and thus provides the benefit of public water to these residents without a cost to  
9 other PAWC customers. PAWC projects that the new drinking water system in Dimock will  
10 be in service by the end of 2026. The Company remains committed to being a community  
11 partner throughout the Commonwealth and providing solutions for those in need of safe and  
12 reliable water and wastewater service.

13 **Q. What should the Commission conclude from all of the evidence PAWC has presented on**  
14 **its performance factors?**

15 A. The well-documented exemplary performance of the Company's management discussed  
16 above fully justifies approving a rate of return at the upper end of Ms. Bulkley's recommended  
17 range – namely, 10.95% – and, in any event, an increment of at least 25 basis points to a lesser  
18 market-determined rate of return on equity approved by the Commission, up to 10.95%.

19 **CONCLUSION**

20 **Q. Does this conclude your direct testimony at this time?**

21 A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues  
22 and facts arise during the course of the proceeding. Thank you.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY  
COMMISSION**

v.

**PENNSYLVANIA-AMERICAN WATER  
COMPANY**


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**DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**VERIFICATION**

I, **Ashley E. Everette**, hereby state that the facts set forth in the pre-marked Statement No. 1 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
\_\_\_\_\_  
Ashley E. Everette

## Pennsylvania-American Water Company Rate Increase Request

<u>Filing Date:</u>	November 8, 2023
<u>Historic Test Year:</u>	12 Months Ended June 30, 2023
<u>Future Test Year:</u>	12 Months Ending June 30, 2024
<u>Fully Projected Future Test Year:</u>	12 Months Ending June 30, 2025
<u>Increase Requested</u>	\$203.9 Million
<u>Percentage Increase:</u>	20.2% in overall revenues
<u>Effective Date:</u>	August 7, 2024 (based on full suspension)
<u>Rate of Return:</u>	8.17% on rate base; 10.95% ROE

<u>Type of Capital</u>	<u>Proportion of Total</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Debt	44.70%	4.72%	2.11%
Common Stock	<u>55.30%</u>	<u>10.95%</u>	<u>6.06%</u>
Total	100%		8.17%

<u>Elements of Increase</u>	<u>Revenue Requirement</u>
Capital Investment	\$93.8 Million
Cost of Capital	\$54.2 Million
Acquisitions	\$25.9 Million
O&M and General Taxes	\$30.0 Million
<b>Total</b>	<b>\$203.9 Million</b>

**PENNSYLVANIA-AMERICAN WATER**  
**RATE CASE FILING**  
**Docket No. R-2023-3043189**  
**Docket No. R-2023-3043190**

Schedule AEE-2

		Total Company <u>PROPOSED</u>
1.	Revenues at Present Rates	\$1,011,895,862
2.	Amount of Increase (Decrease)	203,945,911
3.	% Increase	20.2%
4.	Revenue	<u>1,215,841,773</u>
5.	O & M Expense	314,072,831
6.	Depreciation	264,341,440
7.	General taxes	22,046,259
8.	Income Taxes	<u>118,173,685</u>
9.	Sub-Total	<u>718,634,215</u>
10.	Utility Operating Income	<u>497,207,558</u>
11.	Interest on Long-Term Debt	126,574,761
12.	Other Interest	1,670,527
13.	Preferred Dividends	0
14.	Other Deductions	0
15.	Sub-Total	<u>128,245,288</u>
16.	Income to Common Stock (Fallout)	<u>\$368,962,270</u>
17.	Original Cost of Rate Base	\$6,096,173,421
 <u>Rate of Return and Return on Common Equity Absent Rate Relief</u>		
	Utility Operating Income	\$351,650,912
	Income to Common Stock (Fallout)	223,391,333
	Original Cost of Rate Base	6,096,852,927
	Common Equity	3,371,559,669
	Rate of Return	5.77%
	Return on Common Equity	6.63%

# Statement No. 2

## Runzer

**DIRECT TESTIMONY  
OF  
JIM RUNZER**

**DESCRIBING  
PENNSYLVANIA-AMERICAN WATER COMPANY'S OPERATIONS, WATER  
QUALITY AND SOURCE WATER MONITORING EFFORTS, SAFETY  
PERFORMANCE, OPERATING AND MAINTENANCE EXPENSE, OPERATING  
EFFICIENCIES, AND EMPLOYEE LEVELS AND COMPENSATION**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF JIM RUNZER**

1 **Q. Please state your name and business address for the record.**

2 A. Jim Runzer, 852 Wesley Drive, Mechanicsburg, Pennsylvania 17055.

3 **Q. By whom are you employed and in what capacity?**

4 A. I am employed by Pennsylvania-American Water Company (“PAWC” or “Company”) as  
5 the Vice President – Operations.

6 **Q. What are your responsibilities as PAWC’s Vice President - Operations?**

7 A. I am responsible for all the Company’s water and wastewater operations across the  
8 Commonwealth, managing a team of approximately 1,123 professionals, in 63 districts,  
9 serving 2.3 million Pennsylvanians.

10 **Q. Please describe your professional education and experience.**

11 A. I received a bachelor’s degree in education in 1991 from Kean University and a Master of  
12 Business Administration in 2012 from the Keller Graduate School of Management. I also  
13 completed Advanced Water Treatment and Distribution certification from the Camden  
14 County Institute of Technology in 2004 and Advanced Wastewater Collection certification  
15 from the University of Sacramento in 2014.

16 I began my career at American Water Works Company, Inc. (“American Water”)  
17 in 1994 as a bargaining unit employee for New Jersey American Water Company  
18 (“NJAWC”), working in both Production and Field Operations until being promoted to  
19 Operations Supervisor for NJAWC in Mount Holly, New Jersey in 2008. I was promoted  
20 to Field Operations Superintendent in Delran, New Jersey in 2011 and was then promoted

1 to Operations Manager for the Coastal South New Jersey system in 2014 where I was  
2 responsible for Field Operations, Production and Construction Operations. I was named  
3 Director of Operations for Iowa American Water Company in April 2018 and was later  
4 named Vice President of Operations for New York American Water Company in July of  
5 2019. I held that position until taking on my current role as Vice President of Operations  
6 for the Company on June 28, 2021.

7 **Q. What is the purpose of your direct testimony in this proceeding?**

8 A. The purpose of my testimony is to describe PAWC's strong operational performance  
9 throughout the Commonwealth. First, I will describe the Company's water and wastewater  
10 operations and facilities throughout Pennsylvania. Second, I will explain PAWC's  
11 industry leading water quality improvement and source water monitoring efforts. Third,  
12 I will describe our strong safety record and Company commitment to safety for the benefit  
13 of both our customers and employees. Fourth, I will provide information regarding  
14 PAWC's operating and maintenance expenses. Fifth, I will describe several efficiencies  
15 within PAWC's Operations, such as the Company's usage of state-of-the-art technology in  
16 the field, including Geographic Information System ("GIS") platforms and advanced  
17 metering infrastructure ("AMI"). Finally, I will describe the Company's current and  
18 anticipated employee levels, employee compensation philosophy and commitment to  
19 employee development.

20 **Operations and Facilities**

21 **Q. Please describe PAWC's Operations.**

22 A. PAWC owns, operates, and maintains potable water production, treatment, storage,  
23 transmission and distribution systems, and wastewater collection, pumping, and/or



1 treatment systems, for furnishing water and wastewater services to approximately 780,000  
2 residential, commercial, industrial, and governmental customers in communities located in  
3 37 of the 67 counties across Pennsylvania.

4 The Company has recently established three geographically defined operating areas  
5 that collectively serve an estimated population of more than 2.4 million people. The three  
6 operating areas are western, northeast, and central/southeast. The western Pennsylvania  
7 operating area serves an estimated population of 1,100,000 people. Some of the larger  
8 communities served include Butler, New Castle, Ellwood, Indiana, Punxsutawney,  
9 Warren, Kane, portions of the City of Pittsburgh and its southern suburbs, McMurray,  
10 Uniontown, Brownsville, and Connellsville. Large customers include U.S. Steel, the  
11 Western Allegheny County Municipal Authority, AK Steel, Allegheny County Housing  
12 Authority, Koppel Steel, United Refining, Clarion University and Eastman Chemical  
13 Company. The Northeastern Pennsylvania operating area serves an estimated population  
14 of 740,000 people. Some of the larger communities served include Wilkes-Barre, Scranton,  
15 and Nazareth. Several of the large customers served in Northeastern Pennsylvania are  
16 Fairchild Semiconductor, Lion Brewery, SVC Manufacturing, UGI Utilities, and the State  
17 Correctional Institution – Dallas. The Central/Southeast operating area serves an estimated  
18 560,000 people. Some of the larger communities include Camp Hill, Mechanicsburg,  
19 Hershey, Palmyra, Philipsburg, Milton, Norristown, Coatesville, Berwick, Milton,  
20 Yardley, and the suburbs of Reading. Several large customers include ConAgra Grocery  
21 Products Co., Furman Foods Inc., Penn State Hershey Medical Center, and Cleveland-  
22 Cliffs Plate LLC.

1 **Q. Please describe the facilities and property that PAWC uses to provide water and**  
2 **wastewater services to customers.**

3 A. PAWC’s utility plant accounts include land and land rights, structures and improvements,  
4 wells, pumping equipment and associated facilities, purification plant and equipment,  
5 sludge disposal facilities, transmission and distribution mains, collection pipes, distribution  
6 storage facilities, service lines, meters, hydrants, and other facilities, including materials  
7 and supplies. All this plant and property is used to provide safe, adequate, efficient, and  
8 reliable water and wastewater services to PAWC’s customers. A more detailed description  
9 of the source of supply, treatment, storage, and distribution facilities within each district is  
10 provided as Volume 2 of the Company’s responses to the Pennsylvania Public Utility  
11 Commission’s (“PUC”) filing requirements, which is titled *Scope of Operations*.

12 **Water Quality**

13 **Q. Please describe PAWC’s overall commitment to water quality and environmental**  
14 **compliance.**

15 A. Water quality is of paramount importance to the health and well-being of our customers.  
16 PAWC and its predecessor companies have provided water service to customers for  
17 approximately 120 years. We are acutely aware that water is the only utility service  
18 intended for customers to ingest, and that our customers rely on PAWC to provide them  
19 with safe and reliable water service. Beyond health and safety, we know that PAWC’s  
20 customers are also interested in the aesthetic of the water we treat and deliver to them. We  
21 proactively look for ways to optimize treatment capabilities to continue to improve the  
22 overall quality of drinking water delivered to our customers and do so in a way that strives  
23 to create operational efficiencies that also benefit our customers.

1 **Q. Has PAWC been recognized for its water quality achievements?**

2 A. Yes. PAWC has received multiple awards and has been recognized for its dedication to and  
3 achievements in attaining exemplary water quality. PAWC is a participant in the  
4 Partnership for Safe Water treatment plant optimization program and has repeatedly been  
5 recognized for its optimization and water quality achievements. Nationwide, the  
6 Partnership for Safe Water treatment optimization program currently has 501 treatment  
7 plants from 266 utilities in the program. As of 2022, only 44 plants have received one of  
8 the program's highest honors, the Phase IV Presidents Award. To date, PAWC has  
9 received nine Phase IV Presidents Award recognitions. Moreover, each of these nine  
10 PAWC plants was also recognized as a 5-year Presidents Award winner. Only 18 systems  
11 nationally have achieved this level of recognition. Therefore, PAWC accounts for 50% of  
12 these highest-level award-winning treatment plants.

13 Since the Company's last base rate case filing, PAWC's Clarion Water Treatment  
14 Plant was presented with the Directors 15-year Longevity Award, and Shady Lane Water  
15 Treatment Plant was recognized with the Directors 10-year Longevity Award. PAWC has  
16 also made a commitment to optimization and water quality within our wastewater treatment  
17 plants. We are proud to share that PAWC now has 5 wastewater plants (Coatesville, Exeter,  
18 New Cumberland, McKeesport, and Pocono Country Place) currently participating in the  
19 Partnership for Clean Water Program.

20 **Q. Please discuss some of PAWC's water quality initiatives.**

21 A. PAWC is deeply committed to ensuring our customers receive water that meets all  
22 regulatory requirements, and we strive to provide water that exceeds those requirements.

1 To meet these goals, PAWC has developed strict internal metrics to support exemplary  
2 water service.

3 For example, PAWC requires that all sample collection, review of results, and  
4 reporting undergo dual validation internally prior to submittal to the reviewing regulatory  
5 agency. This serves to ensure both data accuracy and that the concerning results are  
6 addressed immediately. The Company also instituted a policy requiring the development  
7 of internal action plans to address testing results that show a contaminant level above 80%  
8 of the established primary maximum contaminant level. The plans will be site specific,  
9 and may include changes to treatment chemicals, distribution system improvements, or  
10 modifications or additions to treatment trains.

11 These efforts are supported by our internal monitoring results program, Sample 1  
12 View (“Sample 1V”). Sample 1V provides a user-friendly dashboard for several critical  
13 water quality measurements that is reflective of real-time sample collection in the field and  
14 includes bacteriological sample information. This is a powerful tool that allows PAWC  
15 staff to ensure all required samples are collected and observe and react to trends in samples.  
16 It is GIS capable, so employees can more easily route themselves to the sampling locations.  
17 In addition, Sample 1V is capable of producing reports for submission to regulating  
18 authorities. Sample 1V is being used by all PAWC staff for the collection and reporting of  
19 compliance samples and has improved staffing efficiency significantly.

20 I would also like to highlight the Company’s environmental near miss program.  
21 I will discuss the Company’s near miss program in greater detail later in my testimony but  
22 included within that program is a specific focus on environmental and water quality issues.  
23 PAWC takes a proactive approach in identifying potential water quality issues and

1 implementing prompt improvements. The environmental near miss program identifies  
2 water quality or environmental vulnerabilities before they can create an adverse impact. In  
3 2022, PAWC employees submitted 197 environmental near miss reports, which identified  
4 and avoided potential customer impacts in those 197 instances. In addition, because near  
5 miss reports, including environmental near misses, are shared statewide for educational  
6 purposes, the impact and positive benefits from such near miss reports is much broader  
7 than the specific near misses identified, as the reports often prompt proactive corrections  
8 for other customers in different areas of PAWC's system.

9 **Q. Please discuss some of the Company's other water treatment effectiveness**  
10 **initiatives.**

11 A. The Company has invested heavily in facility upgrades to meet regulatory requirements  
12 related to the Long Term 2 Enhanced Surface Water Treatment Rule. The Company  
13 continually evaluates new treatment chemicals for improved treatment effectiveness,  
14 safety, and cost efficiencies. As of October 1, 2023, the Company converted 21 treatment  
15 plants from the use of gaseous chlorine for disinfection to liquid sodium hypochlorite or  
16 ultra-violet ("UV") disinfection with three additional plant conversions scheduled for  
17 completion by the end of 2023. The elimination of chlorine gas reduces the risk of toxic  
18 exposure for our employees and the surrounding communities. The Company will continue  
19 to convert its remaining treatment plants that utilize gaseous chlorine to either liquid  
20 sodium hypochlorite or UV disinfection until all of its chlorine gas locations are eliminated.  
21 This conversion process is also now standard practice as new systems are acquired by  
22 PAWC.

1           The Company also employs a proactive approach to protect customers from lead  
2 exposure in the drinking water the Company supplies, consistent with federal and state  
3 regulatory standards established by the United States Environmental Protection Agency  
4 (“USEPA”) and the Pennsylvania Department of Environmental Protection (“PADEP”),  
5 including the Lead and Copper Rule. Several of PAWC’s systems are undergoing  
6 corrosion control studies to review the effectiveness of corrosion control treatment  
7 measures. The Company is also continuing to implement an industry-leading initiative to  
8 replace customer-owned lead service lines to address conditions that may increase the risk  
9 of exposure to lead at the customer’s tap.

10           PAWC also changed coagulant options at several of its treatment plants to provide  
11 improved treatment at reduced costs. One recent example is our Rock Run treatment plant,  
12 which switched to Ferric Chloride-polymer blend in 2021 with approval from PADEP.  
13 PAWC also improved the chemical feed systems at our Stony Garden and Montrose  
14 facilities. We are also addressing potential contaminants of concern, such as the  
15 polyfluoroalkyl substances (“PFAS”) contaminant. Our central laboratory is now certified  
16 to analyze PFAS samples, improving the Company’s ability to test for these contaminants.  
17 Please see the Direct Testimony of Bruce Aiton (PAWC Statement No. 3) for more  
18 information regarding the Company’s PFAS response.

19 **Q. Has the Company made efforts to further improve operations at its wastewater**  
20 **facilities?**

21 A. Yes. With the increasing number of wastewater facilities owned and operated by PAWC,  
22 the Company is making significant efforts to improve effluent quality discharged to  
23 receiving streams. Examples of improvements include the transition to ultra-violet

1 disinfection at numerous wastewater plants and efforts to reduce inflow and infiltration in  
2 our collection systems. The change to UV disinfection also reduces chemical usage and  
3 eliminates the potential for chlorinated water to reach waters of the Commonwealth. This  
4 modification has occurred in 10 systems owned by PAWC, including most recently the  
5 Turbotville and Franklin Township wastewater treatment plants. Additionally, significant  
6 effort to reduce inflow and infiltration has occurred in McKeesport, Dravosburg, Claysville  
7 and Duquesne. Finally, as new systems are acquired by PAWC, the Company acts to  
8 improve effluent quality and return systems to regulatory compliance. Since the last rate  
9 case, construction of the new Turbotville Wastewater Plant was completed, and the plant  
10 put into service. The investment into this new facility has significantly decreased the  
11 amount of end of pipe exceedances for this system.

12 Notably, to aid in improvements in wastewater quality, the Company also recently  
13 created a new specific area of focus within the Water Quality and Environmental  
14 Compliance Department that is dedicated to wastewater facility water quality and  
15 compliance. The Manager of Wastewater Compliance reports directly to the Director of  
16 Water Quality and Environmental Compliance. This organizational structure allows us to  
17 focus on developing and implementing new operating procedures, training, and  
18 optimization programs to continually improve our treated effluent. Some concrete  
19 examples of improvement in our wastewater treatment include improvements and  
20 standardization of our Industrial Pretreatment Program and the development of wastewater  
21 specific curricula to continually improve operator knowledge and plant optimization.

1 **Q. Does the Company have any water quality-related settlement commitments it needs**  
2 **to respond to in this proceeding?**

3 A. Yes. In the Company’s last base rate case, the Company committed to filing its most recent  
4 cost of treatment study for its Coatesville wastewater treatment plant at the time of its next  
5 rate case filing. The Company’s most recent Coatesville cost of treatment study is attached  
6 as PAWC Exhibit JR-1.

7 **Source Water Protection**

8 **Q. Please describe how the Company is demonstrating its commitment to water quality**  
9 **through source water protection.**

10 A. The Company has a dedicated source water protection program, which includes personnel  
11 who lead efforts to identify and mitigate potential threats to raw sources of supply. The  
12 program involves an integrated approach to planning, risk assessment, water quality  
13 monitoring, outreach and education. The Company has deployed and continues to evaluate  
14 and incorporate innovative technologies that support informed decision-making for  
15 changes in raw water quality and corresponding treatment, whether naturally occurring or  
16 related to a potential contamination incident.

17 **Q. Please describe the Company’s source water protection planning efforts.**

18 A. The Company is committed to developing and implementing source water protection plans  
19 for each system with a surface water and/or groundwater source. Each plan consists of the  
20 following six elements: 1) local steering committee and public participation; 2) source  
21 water protection area delineation; 3) contaminant source inventory; 4) management  
22 methods and commitment; 5) contingency planning; and 6) protection of identified new  
23 source sites. This work is done in conjunction with the PADEP Source Water Protection



1 Technical Assistance Program (“SWPTAP”), and all PAWC systems have a source water  
2 protection plan, which includes Small System Plans, in place or under development in  
3 SWPTAP.

4 Source water protection is also a critical component of the Company’s risk and  
5 resilience assessments (“RRAs”) to comply with provisions of the federal Water  
6 Infrastructure Act of 2018. The Company has conducted all required RRAs and developed  
7 plans, strategies, and resources to improve the resiliency of PAWC’s water systems.

8 **Q. Please explain the Company’s outreach and education efforts related to source water  
9 and environmental stewardship.**

10 A. The Company conducts outreach and education to engage the community in protecting  
11 sources of drinking water. Activities include watershed service projects, school programs,  
12 plant tours, and community events. PAWC also engages the community through annual  
13 commitments, such as the Environmental Grant Program, Protect Our Watersheds Art  
14 contest, and the Stream of Learning Scholarship. In addition, PAWC staff represent the  
15 Company and industry on various professional committees at the local and national levels  
16 to share information and practices related to source water protection. These committees  
17 include PA AWWA Water Resources, National AWWA Source Water Protection, Local  
18 Emergency Planning committees, and several other coalitions and advisory groups.

19 **Q. Please describe any other innovative approaches the Company is using to protect  
20 sources of drinking water.**

21 A. The Company partnered with the Natural Resources Conservation Service (“NRCS”) on  
22 one of sixteen source water protection pilot projects initiated in 2019 under the National  
23 Water Quality Initiative. PAWC worked with the State Conservation Office to identify the

1 Swatara Creek Watershed as a candidate for the program. Swatara Creek is a source of  
2 supply for the PAWC G.C. Smith Hershey Water Treatment Plant. The project, funded by  
3 the NRCS, is aimed at improving the watershed by reducing nutrient and sediment loading  
4 from agricultural runoff. This effort has leveraged and directed funding toward water  
5 quality improvements for the entire watershed that will ultimately benefit the whole  
6 community including PAWC customers. We continue to support this initiative by  
7 providing data and resources. We have also partnered with the 1 million trees campaign,  
8 upstream restoration project evaluations at two reservoir locations, and the SolarBee  
9 nutrient column study to remove phosphorus in the water column in one of our reservoirs.

10 **Q. Please describe other ways the Company is demonstrating its commitment to source**  
11 **water quality.**

12 A. The Company has enhanced its source water protection program by taking an integrated  
13 approach to monitoring its source water quality and evaluating risks. The integrated  
14 approach includes source water quality monitoring panels and a map-based information  
15 gathering tool called WaterSuite, both of which support the Company's ability to make  
16 more informed decisions regarding treatment and in responding to potential source water  
17 contamination events.

18 WaterSuite is a GIS map-based tool that collects information about potential  
19 sources of contamination from various sources and integrates that information into a  
20 database for a defined area of concern. The data sources may include publicly available  
21 regulatory databases, aerial imagery analyses, and local knowledge. The database is  
22 updated on a regular basis to include the latest available information and has search and  
23 reporting capabilities, which provides a significant advantage over standard static

1 contaminant assessments. This gives the Company a dynamic tool it can continue to use  
2 over time rather than a paper-based equivalent that captures only the circumstances  
3 present at a single point in time. The database also provides a larger set of data that  
4 is automatically updated on a periodic basis without requiring manual work by PAWC. As  
5 a result, PAWC can access more information more efficiently to address water quality  
6 concerns than in the past. WaterSuite is fully implemented for surface water and  
7 groundwater systems.

8 The Company also implemented the use of SolarBee mixers in five reservoirs to  
9 disrupt algal growth. To support the Company's efforts to combat algal growth, PAWC  
10 purchased a Cyanotoxin Automated Assay System for in-house rapid testing associated  
11 with harmful algal blooms. In addition, the Company continues to evaluate emerging  
12 technologies to help monitor and control algae growth in our reservoirs.

13 **Q. Please describe PAWC's source water quality monitoring panels.**

14 A. The Company has installed an online source water quality monitoring device at each of its  
15 surface water treatment plants as an effective tool for optimizing treatment decisions and  
16 aiding in the detection of potential source water contamination. All surface water treatment  
17 plants will have devices installed and in service by December 31, 2023. The sensors  
18 installed at each location were determined based on risk to the source water and monitor  
19 parameters in the source water that include turbidity, pH, oxygen reduction potential,  
20 temperature, conductivity, dissolved oxygen, dissolved organic carbon, oil, and total  
21 organic carbon. This equipment helps establish baseline water quality data for each  
22 parameter and alert water plant operators to certain changes in water characteristics. The  
23 Company uses this information to better understand the characteristics of its source water

1 and optimize chemical usage. In addition, a change in the baseline characteristics may  
2 indicate an issue that warrants additional investigation.

3 **Q. Does the Company utilize any other sources to obtain source water quality**  
4 **information?**

5 A. The Company also participates in watershed monitoring networks such as the Ohio River  
6 Valley Water Sanitation Commission Organics Detection System, Delaware River Valley  
7 Early Warning System, and the River Alert Information Network. These networks provide  
8 additional information about water quality in the watersheds that contribute water to  
9 sources of supply. The Company is also involved with developing the Southwest PA Water  
10 Network for the Upper Ohio River Basin and partners with the Susquehanna and Delaware  
11 River Basin Commissions.

12 **Q. Please describe how the Company prepares for source contamination events.**

13 A. The Company has developed source water contingency plans to outline the planned  
14 response to contamination of surface water sources of supply. These plans include system-  
15 specific options to consider in a contamination event along with a phased protocol  
16 response. This approach is consistent with National Incident Management System and  
17 USEPA guidance, and augments emergency response plans that cover a wide variety of  
18 potential emergency situations. The Company also developed Cyanotoxin Management  
19 Plans to aid in the identification and response to harmful algal blooms. PAWC employees  
20 receive training on the contingency plans through online learning and emergency response  
21 drills, which are coordinated by Operations and include on site mock drills, tabletop  
22 exercises and after-action reporting.

1 **Q. How does the Company compare to the rest of Pennsylvania drinking water systems**  
2 **for Source Water Protection Plan development?**

3 A. All PAWC systems are in the SWPTAP with approved PADEP Source Water Protection  
4 Plans and Small System Plans or have draft Source Water Protection Plans that are awaiting  
5 PADEP approval. The Company takes the extra initiative in creating, developing, and  
6 implementing Source Water Protection Plans for all their systems. This is a proactive  
7 approach that the Company is proud to demonstrate. The total number of systems and  
8 PAWC systems is reflected in the statistics below:

- 9 ● (PADWIS) Community Water Systems in PA: 1,793 (Non-community/non-  
10 transient are not in this number)
- 11 ● TOTAL number of project systems in SWPTAP: 301
- 12 ● Number of PAWC project systems in SWPTAP: 45
- 13 ● TOTAL number of Small System Projects: 223
- 14 ● Number of PAWC small systems: 18

15 **Commitment to Safety**

16 **Q. Please describe PAWC’s overall commitment to safety.**

17 A. The health and safety of our employees and customers, as well as protecting the quality of  
18 the water we deliver, are the top priorities for our Company and critical to our success. Our  
19 colleagues’, contractors’, and customers’ safety are very important, and we focus on safety  
20 every day. PAWC’s commitment is to ensure that every employee chooses safety, so they  
21 go home each day in the same or better condition than they came to work.

22 The Company is also committed to securing assets across our system and  
23 recognizes the importance of protecting our water sources, treatment plants, infrastructure,  
24 and data from malevolent acts, as demonstrated by our robust security and cyber security

1 programs. American Water has invested in several technology improvements to our  
2 security programs. Investments in a new modernized Video Management System software  
3 and expanded the use of video cameras across American Water facilities improve the  
4 physical security posture of the American Water locations. American Water has invested  
5 heavily in cyber security as well with a focus on Operational Technology (“OT”) or  
6 SCADA security. These investments include replacement of all OT firewalls across the  
7 American Water environment and implementation of Tenable OT, an OT specific  
8 technology to help identify vulnerable OT assets across the organization.

9 Finally, the Company’s emergency response program demonstrates the Company’s  
10 recognition that rapid response and recovery from security incidents are critical to  
11 maintaining resilient water and wastewater systems.

12 **Q. How is safety relevant to operational performance?**

13 A. The Company considers safety to be a core value, as well as a strategy. Employee health  
14 and safety is the responsibility of every PAWC employee, and to that end, every employee  
15 strives for safety. We ask our employees to place safety first in everything they do. We  
16 have a strong commitment to our employees (and their families) to keep them, our  
17 customers, and the public safe. A safe workplace increases employee morale, increases  
18 our commitment to one another, and makes for a more engaged and productive workforce.

19 **Q. Please describe PAWC’s safety program and Operations’ role in promoting safety  
20 and a safe working environment at PAWC.**

21 A. The Company’s safety program includes multiple activities and initiatives to maintain  
22 compliance, support employee engagement, and help ensure the safety of our workforce  
23 and our customers, as well as the public. Operations is responsible for administering the

1 health and safety program, which includes the delivery of all Occupational Safety and  
2 Health Administration (“OSHA”) required training, training and qualification of  
3 employees, physical security, cyber security, business continuity planning, and event  
4 management. We are supported by functional departments within American Water Works  
5 Service Company, Inc., such as Health & Safety, Learning & Development, Security, and  
6 Human Resources, to deliver core operations services.

7 **Q. How do you know the commitment to safety is effective?**

8 A. We are building a strong safety culture at PAWC, which is illustrated by our year-over-  
9 year safety performance. The Company’s OSHA recordable incident rate (“ORIR”)  
10 improved from 2.62 in 2018 to 0.85 in 2022. In the first nine months of 2023, PAWC is  
11 having its best safety record in its operational history at 0.32. The Company has  
12 experienced 6 OSHA recordable injuries as of October 1, 2023 (as compared to 29 injuries  
13 in all of 2018). This reduction has resulted in record rates in two key safety performance  
14 metrics: an ORIR of 0.66 and Days Away Restricted or Transferred (“DART”) rate of 0.32  
15 as of October 1, 2023, demonstrating an 82% reduction in incidents. The ORIR targets  
16 that the Company sets for itself strive for a 20% reduction in injuries and incidents over  
17 the prior year.

18 **Q. What other safety programs does PAWC use?**

19 A. In addition to establishing ORIR targets, the Company’s Near Miss Reporting Program  
20 involves employees identifying hazards that could have resulted in an injury or accident.  
21 For example, if a piece of equipment becomes worn outside of a regular maintenance cycle,  
22 an employee reports this as a “Near Miss” and we can then replace the worn part and avoid  
23 a potential injury from an equipment malfunction. Near Misses improve safety by

1 encouraging employees to look for hazards in the workplace, which improves the  
2 employees' awareness and helps make our workspaces safer. PAWC has continuously  
3 sought improved safety results, which correlates with the increase of Near Miss submittals  
4 that I describe later in my testimony. American Water's health and safety group collects  
5 these Near Misses from operating utilities across the American Water footprint each week  
6 and selects several to highlight in a safety video that is distributed across the business for  
7 use in safety tailgate discussions.

8 PAWC also uses the services of an occupational training and information company  
9 called Work Right ("WR"). WR supplies two (2) athletic trainers, one in eastern PA and  
10 the other in western PA, to provide training, health-related information, on-site first aid  
11 medical services and injury (home/work) consultation to our employees. WR has  
12 developed and implemented ergonomic programs to reduce and eliminate soft tissue  
13 injuries (sprains and strains) for our affected field operations and treatment plant  
14 employees. In 2022, PAWC had 5 injuries classified as "ergonomic" in nature, down from  
15 our 2018 total of 32 ergonomic related injuries. In 2023, PAWC has also utilized WR to  
16 provide First Aid/CPR/AED training for our employees and we now have 95% of our  
17 employees certified.

18 PAWC employees also participated in the American Water "Certified Safe  
19 Worker" program. This program is a self-directed program promoting safety and health  
20 awareness and participation, documenting work, and at-home safety activities. In 2022,  
21 1,129 PAWC employees completed the program, achieving the highest number of Certified  
22 Safe Workers in our history and the highest total in all the American Water subsidiaries.



1 **Q. How did PAWC perform in the Near Miss Reporting Program?**

2 A. PAWC has achieved considerable progress since the program's inception in 2015, with  
3 increasing numbers of "Near Miss" reports. In 2022, PAWC employees reported 1,967  
4 near misses from across the state, far surpassing our goal of 1,200. This is more than triple  
5 the number of Near Misses reported in 2019 and reflects the increased employee awareness  
6 and use of this program. Most Near Miss reports are corrected by an individual employee  
7 identifying the issue and resolving the issue or working with the appropriate people to  
8 obtain resources where necessary. PAWC has also experienced a 59% increase in Near  
9 Miss STOP Work situations from October 1, 2022, to October 1, 2023, a principal indicator  
10 of an advancing safety culture. All employees are encouraged to report unsafe behaviors  
11 or conditions, and we all have the authority as well as a responsibility to stop work until  
12 the safety issue can be resolved. We are a people-powered organization, and the voices of  
13 our employees are essential to our success. Employees must feel comfortable sharing their  
14 experiences and speaking up – that is how we will continue to improve and create a better  
15 organization. Another success is that 99% of all Near Misses reported in 2022 were  
16 corrected within 30 days of the report. In 2023, the Company's goal increased from 1,200  
17 Near Misses submitted for 2022 to 4,892 near misses submitted for 2023. This breaks out  
18 to 1 Near Miss per quarter, per employee. As of October 1, 2023, PAWC has submitted  
19 2,601 Near Misses. We believe that this increased emphasis on safety awareness will  
20 eventually enable PAWC to go a full year without a recordable injury.

21 **Q. How has this benefited PAWC's customers?**

22 A. A strong safety culture is a cornerstone for any high performing organization. A strong  
23 safety culture also improves employee morale, as employees understand a meaningful

1 commitment to them and to their families. In turn, PAWC’s safety culture helps ensure  
2 that our employees are thoughtful in their work, which directly benefits our customers, as  
3 safety is a leading part of our high-performance culture. Lastly, when employees are  
4 healthy at work, they are available for work that benefits the customers.

5 **Q. How does PAWC handle emergency response issues?**

6 A. PAWC maintains emergency response manuals at each operating location. The manuals  
7 are updated each year and include emergency phone numbers for company personnel,  
8 PADEP, the PUC, emergency response services, vendors, suppliers, and critical customers.  
9 In 2022, PAWC conducted five functional water/wastewater treatment plant emergency  
10 response tabletop exercises. These events test each plant’s ability to function during an  
11 emergency, which could include a power outage, chemical supply issues, cyber-attack, or  
12 other similar event. A significant benefit of these sessions is enhancing our cross-functional  
13 communications and also emphasizing the importance of including outside resources such  
14 as County Emergency Response teams and local fire departments. During these exercises  
15 a key element is the discussions held regarding the testing of our communications; both  
16 internally and externally. The exercises included participation from some of our external  
17 partners, including state, county and city regulators and first responders. By strengthening  
18 our relationships with these external partners, we can better understand their expectations  
19 and the support that they may provide during emergencies. Situational awareness is also a  
20 key takeaway from these exercises because we alert participants to some hazards they  
21 might face if responding to our facilities. Additionally, discussions are held to broaden  
22 PAWC’s awareness to the American Water Enterprise Crisis Response Team (“ECRT”)

1 which is available to provide support and guidance to the business during significant and  
2 severe incidents as they occur.

3 Future plans for 2023-24 include a tabletop exercise specific to Dam and Dam  
4 Safety (e.g., car into reservoir, significant storm, boils and seepage, and dam sinkhole) and  
5 tabletop exercises focused on physical security and cybersecurity.

6 **Q. Please describe your Underground Damage Prevention Program as it relates to**  
7 **Act 50.**

8 A. We have over 200 employees that perform underground locate requests in response to  
9 PA811 efforts. In 2022, the Company completed 183,343 One Call tickets. This year, as of  
10 September 1, 2023, the Company has completed 95,732 One Call tickets. Several PAWC  
11 employees perform underground locates as their primary job, and it is imperative to closely  
12 track and monitor performance to keep all parties aligned. We have an Underground  
13 Damage Prevention Committee that meets once per month to discuss performance trends,  
14 alleged violation reports, technical issues and training programs. The cross functional  
15 committee is made up of managers for each operating region, GIS team members, Legal  
16 and Business Performance who administer the program.

17 **Q. What measures are in place to ensure compliance?**

18 A. The Company's performance is very good with over 99.99% of tickets completed in 2022  
19 and a steadily decreasing percentage of tickets that are responded to late of only 0.5%  
20 through October 1, 2023. There are various time frames within which different types of  
21 tickets must be completed. Emergency tickets are to be completed as soon as practical and  
22 routine tickets must be completed within 3 days. We track both completion of tickets and  
23 timeliness, i.e., completed within the applicable statutory time frame for response. Any

1 missed opportunity is discussed with local management, which has enabled the  
2 organization to continually improve.

3 **Operating and Maintenance Expense**

4 **Q. What is PAWC's forecasted O&M expense for the fully projected future test year**  
5 **("FPFTY") ending June 30, 2025?**

6 A. PAWC's total O&M expense for the FPFTY is approximately \$314 million, which is  
7 discussed in more detail in the Direct Testimony of Lori O'Malley (PAWC Statement  
8 No. 5).

9 **Q. What factors contribute to increases in operating expenses?**

10 A. As discussed in the Direct Testimony of Ashley Everette (PAWC Statement No. 1), the  
11 Company has managed to keep the rate of increases in O&M expense below that of  
12 inflation. However, several factors have caused an increase in the Company's O&M  
13 expenses. For example, PAWC has faced higher chemical prices due to volatility in the  
14 chemical supply market driven by both materials and transportation, which in turn results  
15 in chemical suppliers unwilling to commit to long-term agreements. Another example of  
16 an increase in O&M expenses is related to continued cost increases on treatment equipment  
17 and maintenance of our pumps, wells and pressure reducing valves. We have also seen  
18 increased costs due to municipal and state road opening permits and restoration costs.  
19 Increased assets and equipment related to acquisitions have also impacted expenses. We  
20 have also been impacted by the increased costs of fuel for our vehicles and generators. The  
21 Company has also experienced increased O&M expense from employee-related costs  
22 including wage increases, training, and development.



1 perspective, improving water and wastewater efficiency requires achieving a cost-effective  
2 mix of prudent investments and improved operations and maintenance management  
3 capabilities targeting safety, customer satisfaction, sustainability, and system efficiency.  
4 Customers, utilities, businesses, and the environment can all benefit from more efficient,  
5 higher quality service, reduced costs, and sustainable use of natural resources.

6 **Q. Please describe PAWC's efforts to improve water and wastewater efficiency.**

7 A. The Company strives to improve water and wastewater efficiency through operational  
8 excellence, the use of technology, system maintenance, and efforts to manage costs as  
9 efficiently as possible to provide a more cost-effective level of service for our customers over  
10 the long term. The Company also leverages the size and scale of American Water to improve  
11 transactional efficiencies through increased automation, the adoption of more effective  
12 business practices, and a continuous improvement mindset.

13 **Q. How is PAWC using technology to improve employee effectiveness?**

14 A. PAWC is using technology in a number of ways in order to enhance productivity and  
15 efficiency. For example, accurate GIS maps ensure that the Company's institutional  
16 infrastructure knowledge is readily available for use by employees. To that end, PAWC  
17 has loaded its facilities into GIS so that maps of its water and wastewater system assets are  
18 accessible on its internal network. The information available in GIS includes the location  
19 and a short description of the facilities, giving an electronic spatial view of the entire  
20 system. GIS also helps locate customers that might be affected by related service issues  
21 and allows us to communicate with our customers more effectively.

22 PAWC continues to enhance its GIS platform through integration with our  
23 Enterprise Asset Management system, our computer-aided design system, our work

1 management system (“MapCall”) and our fixed asset records. This integration allows  
2 communication across the various platforms that makes data retrieval more efficient. The  
3 Company continues to build the GIS platform by adding new assets and retiring old assets  
4 to ensure our technicians have access to the most current information while working in the  
5 field. In 2022, the Company implemented a ‘Digital As-built Workflow’ that is focused on  
6 standardizing how, what and when GIS is updated as well as facilitating better integration  
7 between GIS and MapCall. This improved the lag time between when the asset was  
8 installed to when GIS and other systems are updated. The goal is to keep our GIS current,  
9 complete and accurate for our end users.

10 **Q. How have PAWC and its customers benefitted from the GIS platform?**

11 A. The location of water quality events, chlorine residuals, maintenance events, and pipe failures  
12 are all plotted on GIS map layers. The spatially presented information can be used to answer  
13 customer water quality inquiries, identify trends, and prioritize water main replacement  
14 projects. GIS also is a tool used to assist compliance with federal and state lead service line  
15 inventory and management. Known customer and Company service line material data has  
16 been loaded into the MapCall service records that is integrated to display on the GIS maps.  
17 This will provide employees and customers with a visual representation of known and  
18 suspected lead service lines within the service territory.

19 **Q. How does PAWC’s work management system improve employee effectiveness?**

20 A. MapCall is a web-based application that enables employees and contractors to complete the  
21 lifecycle of work orders and assets in the field. Employees and contractors can view historical  
22 information, including work order history on an asset, standard operating practices associated  
23 with an asset, maintenance history, O&M manuals, and tap card images. MapCall provides

1 the flexibility to create work orders, configure workflows and report progress while in the  
2 field. For example, a supervisor can create a work order to flush a dozen hydrants in a  
3 particular area. Using MapCall, the field worker can report progress as flushing is performed,  
4 and both the supervisor and others in the field can visually see the progress made toward  
5 completing the identified work in real time through the MapCall interface. The same can be  
6 done to schedule and monitor other routine work, as well as emergency work, such as main  
7 break repairs. MapCall also allows those in the field to communicate water quality and other  
8 events more efficiently through preloaded notifications via email to both internal and external  
9 stakeholders, including regulators, allowing workers to quickly shift back to focusing on the  
10 task at hand and providing quality service to customers. Water main break locations are  
11 continually added to GIS and MapCall to help identify sections of pipe that have outlived  
12 their useful life. This information is used to prioritize water main replacements by  
13 strategically focusing on the pipe with the highest risk of failure.

14 **Q. Are there other technology solutions that have been implemented to improve**  
15 **employee effectiveness?**

16 A. Yes. In addition to GIS and MapCall, PAWC is implementing other technology solutions to  
17 enhance employee effectiveness. MyWater and Work1View (“W1V”) are software  
18 applications that provide more comprehensive and easily accessible information to  
19 employees.

20 **Q. Please describe how MyWater and W1V improve employee effectiveness.**

21 A. MyWater has been implemented by the Company to better serve our customers. MyWater  
22 provides improved access to customer information (e.g., premise and service order history,  
23 meter details, billing and payment information) to field service representatives (“FSRs”), and



1 customer service representatives (“CSRs”) who regularly interact with our customers. This  
2 means that FSRs can view the same information as CSRs. This allows our FSRs to review  
3 customer information that can help them address the customer’s issue and provide customers  
4 information while speaking with them, rather than having to contact the Customer Service  
5 Center (“CSC”) for information or requiring customers themselves to follow up with the  
6 CSC. FSRs can also update customer information and record notes on customer interactions  
7 on the spot, providing other employees that serve our customers timely access to the most  
8 up-to-date information. MyWater is also the customer facing website that allows customers  
9 to view much of the same information in the same format as both our FSRs and our CSRs  
10 are seeing to make for a more seamless discussion when interacting with the customer.  
11 Recent and planned enhancements have and will also improve our customers’ self-service  
12 capabilities and the resiliency and usability of the website.

13 W1V provides employees with a single view for managing customer service order  
14 work in the field, customer information and meter information. W1V includes a real-time  
15 operations map to see work orders with optimized routing, as well as other types of nearby  
16 work and alerts. In addition, using W1V, FSRs can manage their own work based on the  
17 day’s demands by adding or deferring undated work or by putting orders on hold in order to  
18 do emergency work needed at another location. Supervisors can also reroute work as  
19 appropriate. W1V along with MyWater allows for easy access to customer information  
20 during field visits. It has also been integrated with MapCall to provide FSRs one point of  
21 access for all information needs. Taken together, these types of improvements continue to  
22 support improved customer experience and satisfaction.

1 **Q. Is the Company deploying advanced metering infrastructure technology?**

2 A. Yes, advanced metering infrastructure (“AMI”) technology is an integrated system of meters,  
3 communications networks, and data management systems. As of October 1, 2023, the  
4 Company has installed 138,000 AMI meters and smart endpoint systems. The AMI cellular-  
5 network systems utilize smart cellular endpoints installed on each meter to transmit the meter  
6 data via an existing third party cellular infrastructure to a central database system for analysis  
7 and reporting. The smart endpoint utilizes a cell-based network provided by major companies  
8 such as AT&T and Verizon to capture interim customer reads and eliminates the  
9 requirements of a fixed data collector network.

10 **Q. Why is PAWC installing AMI technology?**

11 A. The implementation of AMI increases billing accuracy and reduces the likelihood of  
12 estimated bills (e.g., due to weather events or other obstacles to accessing customer meters)  
13 by automatically providing timely, accurate reads through the network. In addition, AMI  
14 will reduce the need for manual re-reads and improve processes from meter reading through  
15 billing. AMI reduces the number of certain service orders over time by eliminating the need  
16 to drive by premises to collect reads and eliminating the need to roll a truck to complete  
17 certain high volume service orders such as “Move in-Move out orders.” Reducing truck rolls  
18 provides additional environmental benefits related to reduced emissions and safety benefits  
19 to PAWC employees who avoid potential safety hazards associated with in-person meter  
20 reads. PAWC also can use AMI data to uncover irregularities that may signal a leak, meter  
21 tampering or water theft. With the planned implementation of a meter data management  
22 system, the Company will also be able to collect, organize and analyze information, to better  
23 enable smart water use choices, to enhance customer communication regarding customer

1 water consumption patterns, and to improve PAWC's ability to measure and address non-  
2 revenue water more efficiently.

3 **Q. Please describe the Company's AMI deployment progress.**

4 A. The Company is taking an approach that strategically selects areas for concentrated AMI  
5 efforts based on local needs and opportunities. As of August 2023, 31% of the Company's  
6 customers are equipped with AMI technology, with Scranton customers comprising the  
7 majority of our AMI customers. The Company also adopted cellular AMI technology, and  
8 all length of service meter and faulty meter replacements will be upgraded to AMI  
9 throughout the Company's service areas. We expect that 35-40% of the Company's  
10 customers will be equipped with AMI by the end of 2023.

11 **Q. What are PAWC's other efforts to improve water efficiency?**

12 A. In addition to utilizing its Distribution System Improvement Charge ("DSIC") mechanism  
13 to accelerate the replacement of aging infrastructure in the Company's service territory, we  
14 are enhancing our leak detection efforts throughout the state to reduce non-revenue water.

15 **Q. What is non-revenue water)?**

16 A. Non-revenue water ("NRW") is the difference between system delivery and water sales.  
17 Typically, NRW is measured as a volume, or a percentage of system delivery based on a  
18 12-month rolling average. NRW is not just leakage, but also includes water for beneficial  
19 uses such as firefighting, flushing new water mains, flushing to maintain adequate chlorine  
20 levels, and annual hydrant flushing, as well as theft, and meter inaccuracies. To avoid any  
21 ambiguity, American Water, based in part on guidance from the American Water Works  
22 Association ("AWWA"), measures its reduction in water loss in terms of NRW rather than

1 Unaccounted for Water (“UFW”).<sup>1</sup> In contrast to UFW, which can be defined in a variety  
2 of ways across the water industry, NRW is consistently calculated by subtracting the  
3 number of gallons of water sold from the number of gallons of water treated.

4 **Q. Please describe the Company’s program to reduce NRW.**

5 A. As noted, reducing water loss is a complex issue with many contributing factors. To reduce  
6 actual water losses as effectively as possible, we strive to gather standard data from our  
7 operating centers so that we can efficiently and effectively communicate what is working,  
8 what is not working, and how we are progressing on mitigating NRW around the  
9 Commonwealth.

10 The Company rigorously applies water loss reduction practices in the normal course  
11 of business. These practices include regular monthly NRW meetings in both our east and  
12 west divisions that provide target NRW reductions and goals by independent NRW report  
13 cards of activities, routine maintenance, and pursuing and repairing leaks that are  
14 identified. In addition, the Company has several NRW control measures embedded in its  
15 on-going business practice, which consist principally of:

- 16 • Monitoring night flows within the different District Metering Areas (“DMA”) across  
17 its systems (unexpected usage during off-peak periods can indicate leakage).
- 18 • Metering water usage within various parts of a water district as another indicator of  
19 possible leakage; the addition of DMAs working in conjunction with advanced  
20 metering infrastructure customer metering to assist in lost water identification within  
21 an operating district.

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<sup>1</sup> The AWWA began to discourage the use of the term Unaccounted for Water in 2012 because its definition is inconsistent from organization to organization. There are several opportunities for inconsistency. For example, some organizations may deduct the number of gallons lost during a known main break, while others exclude gallons lost as a result of main breaks altogether.

- 1 • Using NRW-trained crew to find and report leaks daily, which are then promptly  
2 repaired.
- 3 • In conjunction with the state training lead, PAWC provides NRW and leak detection  
4 training for our new and current employees, including hands-on equipment training.
- 5 • Using NRW crews periodically in a “SWAT”-type approach to sweep larger areas of a  
6 particular system for leaks.
- 7 • Implementation of leak detection specialists to help locate leaks throughout PAWC’s  
8 service territory when needed in the case of an emergency.
- 9 • Using the Company’s MapCall work management system to capture all work done by  
10 our crews, including main break repairs so that patterns can be analyzed geographically  
11 (this will allow us to identify future main and service replacement projects).
- 12 • Usage of MapCall for more accurate monthly reporting and monitoring of all NRW  
13 use; and documenting all unaccounted-for water loss and authorized consumption in  
14 total gallons.
- 15 • Training meter readers and other field personnel to identify and report possible theft-  
16 of-service situations (such as evidence of occupancy or other activity in premises with  
17 no registered consumption) and raising public awareness and understanding of the  
18 operational and financial consequences of NRW.
- 19 • Asking local municipalities to develop theft-of-service ordinances and to enlist citizens  
20 and law enforcement to help address this problem.
- 21 • Annual and semi-annual testing and calibration of our production delivery meters per  
22 AWWA M36 manual standards.
- 23 • Metering all automatic blow-offs for water quality flushing and new water main  
24 installation flushing to help account for all authorized consumption water loss.

25 In addition to these operations activities, PAWC has an aggressive capital expenditure  
26 program to reduce the number of small diameter mains, which also helps to reduce water  
27 loss from the system. The Company’s capital expenditures for main replacement and  
28 rehabilitation are described in more detail by Mr. Bruce Aiton (PAWC Statement No. 3).

1 **Q. Please describe the leak detection technology used by the Company to control NRW.**

2 A. Approximately 23,000 leak detection sensors have been installed in the Company's  
3 distribution system since 2016 and around 11,000 of those sensors have been installed since  
4 2022. These active acoustic listening devices are cellular based and can transmit their  
5 findings to us daily for analysis. This transmittal eliminates the need to deploy resources  
6 to patrol the areas to collect the data, which allows for more timely analysis of the collected  
7 data. This technology also allows us to better identify those areas that need the most  
8 attention, resulting in more efficient deployment of repair crews. Since 2022, these leak  
9 detection sensors have helped pinpoint over 2,000 non-surfacing leaks that would have  
10 otherwise been unknown, allowing for quick repair by field operations staff. The Company  
11 plans to install an additional 3,000 acoustic cellular data loggers in 2024 across its service  
12 territory.

13 Our leak detection specialists use a variety of additional state-of-the-art equipment  
14 in the field as well, such as ground listening microphones, leak correlators, and line locating  
15 devices to locate and pinpoint leaks.

16 In 2023, an innovative technology was implemented in our regional Scranton Water  
17 system. The Company has partnered with a third-party vendor, Asterra, a satellite imagery  
18 company that takes photos of water facilities locating the dielectric properties of treated  
19 water in soil and marking points of interest overlaid on Company GIS mapping. This  
20 technology will be used with leak detection sensor technology to help us locate and repair  
21 leaks in remote locations of our operating areas in a more timely way, preventing  
22 substantial amounts of water loss and savings on production costs. PAWC plans to expand

1 the use of this technology to our Philipsburg regional water system in 2023-2024 to further  
2 evaluate the technology.

3 **Q. How has the Company created additional efficiencies with respect to its fleet**  
4 **management?**

5 A. With a fleet of over 1,100 vehicles and other rolling equipment, it is imperative that the  
6 Company has a program to manage its fleet. In 2023, American Water has restructured a  
7 centralized fleet management organization to support the Company in both fleet purchasing  
8 and maintenance. The organization is assisting PAWC with standardizing fleet equipment  
9 and generating savings by working directly with our senior operations managers and the  
10 end-users to optimize both initial cost and lifetime costs for every vehicle in the PAWC  
11 fleet. This process results in continuous improvement to better meet the needs of the end  
12 user. Our fleet management team is focused on reducing expenses, when possible, without  
13 negatively affecting our ability to serve our customers and safety.

14 As part of the capital planning process, we identify vehicles that are nearing the end  
15 of their depreciable life for replacement, targeting smaller replacement vehicles with better  
16 fuel consumption and lower initial and lifecycle costs. The mix of vehicle types varies  
17 year to year based on business need. Our capital program typically replaces over  
18 120 vehicles per year. A summary of the Company's recent historical and planned vehicle  
19 replacements follows:

Year	Capital Spend	Vehicles Replaced
2021	\$12.3M	146
2022	\$11.5M	148

2023 (planned)	\$10.5M	145
2024 (planned)	\$10.8M	113

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In addition, our third-party fleet management company, ARI Inc., provides us with data each month that allows us to look for trends around vehicle repair costs and fuel consumption.

We also have a policy of strategically sharing vehicles across districts to balance the needs of the business, especially when a vehicle is near the end of its depreciable life and in need of repair before its permanent replacement is available.

**Q. Please describe the Company’s energy efficiency initiatives and cost controls.**

A. PAWC is using various strategies to improve energy efficiency and reduce energy costs that include five principal components: (1) competitive energy procurement; (2) upgrading energy efficiency of treatment and pumping facilities; (3) lighting upgrades; (4) energy-use monitoring and demand response; and (5) obtaining rebates made available under electric utility programs implementing Act 129 of 2008 (“Act 129”).

**Q. Please describe some of PAWC’s energy cost mitigation strategies.**

A. **Competitive Energy Procurement.** PAWC actively procures a diverse portfolio of electricity supplies across its operations. The Company uses competitive sourcing to procure electricity supplies for its operations in the West Penn Power, Duquesne Light, Met Ed, PECO, Penelec, Penn Power and PPL service territories. PAWC’s supply contracts currently are based on “shaped” fixed pricing, which offers both competitive and stable pricing over time. The aggregate annual electricity supply covered by a mix of short-



1 and long-term fixed contracts accounts for over 95% of the Company’s annual electricity  
2 consumption.

3 The remaining percentage of the Company’s annual electricity consumption is from  
4 bundled sales service provided by the delivery utility. The Company will continue to  
5 employ all reasonable efforts to obtain competitive electric pricing for the benefit of  
6 customers.

7 ***Energy Efficiency Upgrades.*** The objectives of the Company’s energy efficiency  
8 efforts are to reduce energy costs and greenhouse gas emissions that are associated with  
9 inefficient power consumption. The Company has performed “water-to-wire” efficiency  
10 testing (i.e., the efficiency of a pump and motor together) of its largest pumping facilities  
11 to identify opportunities to improve the efficiency of motors and pumps. The Company  
12 has systematically refurbished and/or replaced pumps at all of the top 20 energy consuming  
13 facilities. The Company continues to monitor these large stations to ensure that pumping  
14 efficiencies remain at acceptable levels and, in the event further upgrades are required to  
15 maintain or efficiently achieve greater efficiencies, PAWC will plan capital projects, as  
16 needed, to implement such upgrades.

17 ***Lighting Upgrades.*** The Company has upgraded the lighting and switches at more  
18 than 55 treatment plants, pumping stations and office buildings/operations centers. These  
19 projects consisted of replacing existing metal halide and T12 fluorescent fixtures with new,  
20 high-efficiency T8 fluorescent and/or LED fixtures, installing high-efficiency lamps,  
21 installing new high-efficiency outdoor LED lighting, and/or installing new switches with  
22 occupancy-sensor controls. The projects have payback periods of about two years and  
23 provide energy savings and improved lighting for workspaces well into the future. The

1 Company continues to look for opportunities during capital upgrade projects to replace  
2 inefficient equipment in order to gain efficiencies and realize savings.

3 ***Energy Use Monitoring and Demand Response.*** PAWC uses an American Water  
4 enterprise-wide application to monitor its energy accounts across the state. This  
5 monitoring tool provides “before and after” benchmarking capabilities to help the  
6 Company assess the success of various efficiency initiatives. The Company has also  
7 installed real-time electricity meters and dashboards at 19 of its largest pumping facilities.  
8 The dashboard provides our operators with real-time visibility of their electricity  
9 consumption and wire-to-water efficiency, and also provides our engineers with discrete  
10 energy efficiency data on these large units to monitor and plan for future efficiency  
11 upgrades.

12 PAWC was also an early adopter of smart-grid technology to help integrate the way  
13 we operate our treatment plants and pumps with electric grid system conditions. PAWC  
14 has installed equipment at three of its largest water pumping stations and one of its largest  
15 wastewater treatment plants that allows those facilities to vary electric usage (up or down)  
16 based on signals from the local grid operator. PAWC receives revenues from participation  
17 in demand response programs at these locations ranging from \$25,000 to \$75,000 annually  
18 that are used to offset electricity expense, but more importantly, we are taking proactive  
19 steps to help ensure the integrity of the electricity grid during peak demand emergencies.

20 ***Act 129 Rebates.*** PAWC has been working with its electric utilities since the  
21 inception of the programs for energy efficiency and conservation (“EE&C”) that those  
22 utilities instituted to comply with Act 129. When electric utilities were developing their  
23 EE&C programs, the Company participated in stakeholder meetings with their service

1 providers to provide input from the water and wastewater industries. As the EE&C  
2 programs were introduced by the electric utilities, PAWC reviewed its capital projects for  
3 eligibility under the rebate programs and applied for, and received, several rebates. As of  
4 October 1, 2023, the Company has received over 40 rebates for more than \$1,020,000.

5 **Q. What are the benefits of PAWC's efforts to improve energy efficiency?**

6 A. The benefits of PAWC's efforts to improve energy efficiency are three-fold. Improved  
7 energy efficiency (1) provides more efficient, higher quality service; (2) reduces operating  
8 costs through reduced energy consumption; and (3) reduces carbon and other emissions.  
9 Through the comprehensive energy efficiency programs outlined above, the Company has  
10 been able to minimize increases to its fuel and power expenses.

11 **Q. Please describe what the Company has done to control waste disposal expenses.**

12 A. The Company has a long history of exploring and implementing cost-effective beneficial  
13 uses for its treatment residuals, rather than relying on costly landfill disposal. The  
14 Company has been able to implement beneficial use practices at 32 of the Company's  
15 35 surface water treatment plants. On a dry weight basis, approximately 95% of the  
16 Company's water treatment residuals are beneficially used across the state, at a cost far  
17 lower than conventional disposal at a landfill. The Company recently implemented capital  
18 improvement projects at the Ellwood City and Norristown water treatment plants and the  
19 Clarion wastewater treatment plant to improve the residuals dewatering process. This  
20 process lowers the overall weight of the product to be transported and disposed of; and  
21 thus, the associated costs as well. A new volute press process at the Clarion wastewater  
22 treatment plant has improved the percentage solids reduction from an original range of  
23 12%-18% to greater than 16%-22%, thus reducing the overall disposal costs. The new

1 centrifuge process in Ellwood City, completed in 2019, has resulted in a disposal cost  
2 saving of over 90%. A residuals improvement project is currently being completed at  
3 PAWC's largest water treatment plant, the Hays Mine Plant in Pittsburgh, which is  
4 expected to result in similar savings.

5 **Q. Please describe what the Company has done to control purchased water expenses.**

6 A. The Company has implemented changes in two districts to control purchased water  
7 expenses. We are currently maximizing all extra capacity from our Brownsville treatment  
8 plant by pumping it to Uniontown to reduce the purchased water load. We also increased  
9 our leak detection activities in Uniontown to minimize purchased water. The Company is  
10 continually investigating potential capital upgrades to be able to shift even more load to  
11 the lower-cost provider in the longer term.

#### 12 **Employee Levels and Compensation**

13 **Q. Please discuss how PAWC staffs its business operations.**

14 A. As a public utility, PAWC is required to provide safe, reliable, and adequate water and  
15 wastewater services. PAWC's employees are responsible for assuring the production of  
16 high-quality drinking water, operating and maintaining the Company's production and  
17 treatment facilities and its distribution and collection systems, monitoring water quality,  
18 providing engineering services, and supporting the efficient management of all the  
19 Company's operations.

20 The Company continually strives to find more efficient and cost-effective ways to  
21 operate and maintain its business. As part of that effort, we strive to manage our cost  
22 structure as efficiently as possible, including employee costs. We recognize our duty to  
23 staff our business in a way consistent with providing safe, reliable and affordable utility

1 service. This requires a constant evaluation of the right mix of internal and contract labor,  
2 straight time versus overtime, training programs, and supplementing or, when prudent,  
3 replacing labor with technology. In this vein, we continue to evaluate costs and expenses  
4 going forward, always looking for the best solution for the unique and changing challenges  
5 we face. A substantial portion of PAWC's cost structure is associated with the Company's  
6 cost of labor, and as a position becomes vacant in our organization, we look to the value of  
7 that position. We review the overall need for that position and consider, among other  
8 things, whether it should be transferred to another area, modified, or even eliminated.  
9 Workforce optimization and improved business performance are the goals of these efforts.  
10 We continue to evaluate the new roles that will be created as new regulatory requirements  
11 are promulgated, and the appropriate positions that PAWC will need to optimize recent  
12 technology and most effectively serve our customers.

13 **Q. What is PAWC's forecasted staffing level in this case?**

14 A. We have identified 1,294 equivalent employees as the appropriate staffing level for the  
15 Company's water and wastewater operations in the FPFTY. The number of employees is  
16 based upon each department and each functional area's need to provide safe, adequate,  
17 efficient, and reliable service to the Company's customers. Service needs and related  
18 resource requirements are consistent with meeting regulatory requirements, tariff  
19 requirements, industry standards, service requests, customer needs, and providing adequate  
20 support to PAWC's business operations.

21 **Q. Please describe PAWC's approach to employee compensation.**

22 A. PAWC aims to offer compensation that allows it to attract and retain customer-committed,  
23 dedicated and highly qualified employees. The Company's overall compensation

1 philosophy is to provide employees with a total compensation package that is market based  
2 and competitive with those of comparable organizations with jobs of similar responsibility.  
3 As part of its compensation philosophy, the Company has chosen to make a portion of its  
4 compensation variable, driving continued performance across the enterprise. Specifically,  
5 PAWC targets its total direct compensation (base and variable compensation) for each role  
6 at the Company near the market median (50th percentile) for that role. By using a  
7 combination of fixed and variable compensation, the Company satisfies a dual objective of  
8 ensuring competitive market-based total compensation for all employees, while continuing  
9 to motivate employees to achieve goals that will improve performance and efficiency for  
10 the benefit of our customers.

11 **Q. Please identify the various employee classifications at PAWC and briefly describe**  
12 **how each group is compensated.**

13 A. There are three classifications of employees: collective bargaining unit (“CBU”) hourly  
14 employees, non-collective bargaining unit (“non-CBU”) hourly employees and exempt  
15 employees. Full-time hourly employees are compensated through base pay, overtime,  
16 performance compensation, and in some instances, shift premium and meal compensation  
17 pursuant to the terms of applicable collective bargaining agreements. Exempt employees  
18 are compensated through base pay and performance compensation.

19 **Q. How is performance compensation provided to PAWC employees?**

20 A. The performance compensation component of the Company’s total direct compensation  
21 may be awarded under two performance plans – the Annual Performance Plan (“APP”) and  
22 the Long-Term Performance Plan (“LTPP”). All full-time employees, including CBU  
23 employees, participate in the APP. Eligibility for the LTPP is limited to certain exempt

1 employees. Copies of the plans, which are marked as confidential and proprietary, are  
2 provided as Filing Requirement III.22 (Volume 6b) of the Company's responses to the  
3 PUC's filing requirements.

4 **Q. Please describe the key performance objectives underlying the APP.**

5 A. The APP is designed to recognize performance against key performance goals and targets  
6 that drive the Company's strategy. For 2023, the APP goals include safety goals related to  
7 reducing the ORIR and DART rates, customer goals related to customer satisfaction,  
8 environmental goals related to avoiding violations, people goals related to improving  
9 diverse representation in the workforce, and growth goals related to the Company's  
10 financial performance.

11 **Q. Please describe the Company's LTTP.**

12 A. American Water provides restricted stock units ("RSUs") and performance stock units  
13 ("PSUs") as long-term variable compensation under the LTTP. American Water's RSUs  
14 and PSUs are based on three-year vesting periods. RSUs are based on time-based vesting  
15 and PSUs are based on performance vesting conditions.<sup>2</sup>

16 **Q. Do the Company's compensation plans benefit customers?**

17 A. Yes. As I mentioned, the plans are designed to provide compensation for performance and  
18 to focus plan participants on delivering safe, reliable and affordable water and wastewater  
19 services. The design of the plans emphasizes customer service, environmental compliance,

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<sup>2</sup> American Water uses a combination of compounded EPS growth and relative total shareholder return ("TSR") ranking over a three-year performance period as the basis for measuring performance for PSU awards. For the portion of American Water's PSUs that are contingent on relative TSR percentile performance, American Water compares performance to its peer group.

1 a safe work environment, and people, as well as certain financial goals. All of the APP and  
2 LTPP performance objectives – both operational and financial – focus employees’ efforts  
3 in ways that ultimately benefit customers. The use of multiple measures further strengthens  
4 our ability to drive results across the enterprise. The operational components measure  
5 performance that can most directly influence customer satisfaction, health and safety,  
6 environmental performance, and workforce diversity. Customers benefit from the plan  
7 goals because operational performance is improved by controlling costs, capturing  
8 efficiencies, promoting effective safety and risk management practices, enhancing  
9 customer service, and doing so with a diverse workforce that reflects the communities we  
10 serve. Performance is determined by goals that benefit customers by creating a more  
11 productive and engaged workforce that is focused on customer satisfaction and achieving  
12 efficiency, environmental and safety goals. Further, well-grounded financial measures  
13 keep the organization focused on improved performance at all levels of the organization,  
14 particularly in increasing efficiency, decreasing waste, and boosting overall productivity.  
15 Finally, a financially healthy utility focused on efficiency and customer satisfaction can  
16 attract the capital investments necessary to provide safe and reliable service at favorable  
17 rates. Because utilities are capital intensive and must routinely and consistently access the  
18 capital markets, customers ultimately benefit when their utility has the financial health to  
19 do so at reasonable rates. Simply put, a financially healthy utility benefits customers  
20 because it enables the utility to meet its service obligations at reasonable financing costs.

### **Employee Development**

21  
22 **Q. Describe the Company’s commitment to employee development.**



1 A. PAWC values the growth and development of its employees. In support of this, an annual  
2 training goal of 25 hours or more has been set for all employees. LEARN, American  
3 Water’s learning management systems provides a one-stop shop for registering for  
4 instructor-led courses and participating in e-learning. In addition to the Company’s focus  
5 on providing employees with relevant training geared towards their primary job  
6 responsibilities, there are opportunities for technical, professional, management and  
7 leadership development for career advancement opportunities. There are over 200+  
8 eLearning courses around business, leadership, and professional development available in  
9 LEARN.

10 All employees have been assigned the following safety courses for 2023: Blood  
11 Born Pathogens and Fire Safety and Prevention, which are an annual requirement. In  
12 addition, An Employees Right to Know, Slips, Trips and Falls and Stop Work Authority  
13 are on a three-year training recurrence cycle. We consider these courses core to our training  
14 program and additional courses are assigned based on the employee’s specific job tasks.  
15 PAWC has also developed an Operator Training Academy aimed at developing the skills  
16 of our treatment plant operators, which consists of both virtual and live sessions. While  
17 designed for operators, the program is offered to all employees that wish to develop their  
18 understanding of the Production and Treatment processes.

19 **Q. Does this conclude your testimony?**

20 A. Yes, it does.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER  
COMPANY

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DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

**VERIFICATION**

I, **Jim Runzer**, hereby state that the facts set forth in the pre-marked Statement No. 2 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
\_\_\_\_\_  
Jim Runzer

**COATESVILLE WASTEWATER TREATMENT PLANT  
HIGH STRENGTH WASTEWATER SURCHARGE PROGRAM  
RATE EVALUATION**

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**Revised Final Report  
Dated April 7, 2022**



Prepared for:  
Pennsylvania American Water Company  
Chester County, Pennsylvania



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**Appendices**

<b><u>Appendix</u></b>	<b><u>Title</u></b>
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2	High Strength Wastewater Surcharge Calculations – Fiscal Year 2018
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## 1.0 INTRODUCTION

### 1.1 Background

Wastewater discharged from some non-residential (industrial, institutional, or commercial) dischargers can be much higher in strength than domestic wastewater and, as a result, requires additional treatment. These non-residential facilities can discharge wastewater containing high Biochemical Oxygen Demand (BOD<sub>5</sub>), Total Suspended Solids (TSS), Total Phosphorus (TP), or Total Nitrogen (TN). Industrial, institutional, and commercial wastewaters can cost more to treat than residential wastewater because it can have a higher dissolved oxygen demand, create more solids for disposal, or require more chemicals for treatment. A High Strength Wastewater Surcharge Program provides a means to recover the additional treatment costs created by these discharges by charging a surcharge fee (in addition to the quarterly user rate) to dischargers of higher-than-normal strength wastewater. Surcharge rates provide an equitable means of distributing treatment costs among rate payers based on discharge characteristics. They are facility-specific and are calculated based on actual facility operating data. By establishing high strength surcharge rates, wastewater treatment plants (WWTPs) have the ability to distribute treatment costs on the basis of actual discharge strength above an established surcharge “baseline concentration.

Pennsylvania American Water Company (PAWC) has developed and implemented a High Strength Surcharge Program, as outlined in its Pennsylvania Wastewater Tariff. The surcharges for the Coatesville District are outlined under Section T, 1.2 and are summarized in *Table 1-1*. Because high strength surcharges are based on actual operating expenses and treatment efficiencies, these calculations must be updated periodically to better reflect the current operations of the WWTP. For these reasons, the PAWC has decided to update the calculations of their High Strength Surcharge Program for the Coatesville District to ensure the surcharge rates are appropriate and defensible. Additionally, PAWC wishes to establish nutrient surcharge rates for Total Nitrogen (TN) and Total Phosphorus (TP) in addition to Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).

**Table 1-1.** Current Surcharge Rate Schedule

	<b>Cost/Lb.</b>
BOD <sub>5</sub>	\$0.10
TSS	\$0.06

The surcharge study calculations involve establishing a cost per pound for the pollutants of concern (BOD<sub>5</sub>, TSS, TP, and TN) for each of the past three (3) years and then calculating a running 3-year average for each. The calculation tables are set up so that they can be updated periodically to allow the PAWC to establish current treatment costs for each pollutant.

## 1.2 Methodology

This Report sets forth the results of a High Strength Wastewater Surcharge Rate Study based on actual operations and maintenance expenses and actual influent loadings to the PAWC Coatesville WWTP for calendar years 2017, 2018, and 2019. This report contains explanations of the methods and procedures employed to calculate the High Strength Wastewater Surcharge Rate for the PAWC. Operations and maintenance costs were allocated among eleven (11) treatment processes (Influent Pumping Station, Preliminary Treatment, Bioreactors, Secondary Clarification, Chemical P Removal, Secondary Pumping Station, Tertiary Filtration, Disinfection, Solids Thickening, Aerobic Digestion, and Solids Dewatering). The treatment process O&M costs were allocated to the removal of BOD<sub>5</sub>, TSS, TN, and TP. The annual removal (in pounds) of BOD<sub>5</sub>, TSS, TN, and TP were calculated using laboratory data. A treatment cost per pound of pollutant removed was then calculated.

## 2.0 ALLOCATION PROCEDURES

The tables in the appendices of this report represent the step-by-step allocation procedures for the high strength wastewater surcharge calculations. Each appendix contains the calculations for an annual 12-month period, based on the PAWC's fiscal year from January 1 through December 31. The tables for Fiscal Year 2017 are contained in *Appendix 1*, Fiscal Year 2018 in *Appendix 2*, and Fiscal Year 2019 in *Appendix 3*.

### 2.1 Allocation of Operation and Maintenance Costs

The actual operation and maintenance costs related to the treatment of wastewater at the Coatesville WWTP are identified by account for each Fiscal Year. Each account was reviewed to determine the nature of the cost and to allocate those costs among the eleven (11) stages of the treatment process. This review formed the basis for the cost allocation presented in *Table 1* of the respective appendices.

**Pennsylvania American Water Coatesville WWTP  
High Strength Wastewater Surcharge Rate Evaluation** \_\_\_\_\_ **April 2022**

The Electrical expenses were allocated based on the percent of annual kilowatt hours of equipment operated for each treatment process, as summarized in *Table 2* of the respective appendices.

## 2.2 Allocation of Cost Functions to Treatment Processes

As previously indicated, eleven (11) stages of treatment processes were included in this evaluation. In *Table 3* of the respective appendices, the costs to operate each treatment process are allocated among the pollutants of concern (Flow, BOD<sub>5</sub>, TSS, TN, and TP) for each Fiscal Year.

## 2.3 Calculation of Removal Costs

The total annual costs associated with the removal of each pollutant for each Fiscal Year is summarized in *Table 4* of the respective appendices. These costs are based on the total operating costs of each treatment process as established in *Table 1* of the respective appendices. The total annual removal costs were divided by the total annual pounds removed of each pollutant in the respective year, as calculated in *Table 4* of the respective appendices, to establish a cost of removal per pound of pollutant.

The results of the High Strength Wastewater Surcharge Evaluation for each pollutant during each Fiscal Year are summarized in *Table 2-1*. A 3-year average has also been developed based on the annual treatment costs for each pollutant and this long-term average is utilized to normalize any anomalies in the annual average values. These 3-year averages should become the basis for the high strength wastewater surcharge rates.

**Table 2-1. High Strength Surcharge Rate Summary**

Pollutant	Fiscal Year			3-Year Average
	2017	2018	2019	
BOD <sub>5</sub>	\$0.39	\$0.33	\$0.33	\$0.35
TSS	\$0.18	\$0.20	\$0.20	\$0.19
TN	\$1.21	\$1.03	\$1.01	\$1.08
TP	\$2.82	\$2.02	\$2.11	\$2.32

The National Association of Clean Water Agencies (NACWA) periodically surveys municipalities and authorities nationwide to track financial trends. As part of the NACWA's most recent survey in 2017, over 100 municipalities and authorities were surveyed. The 2017 NACWA National Survey of Municipal Wastewater Management and Financing Trends found the average BOD surcharge rate was \$ 0.325 per lb. and the

average TSS surcharge rate was \$0.287 per lb. PAWC Coatesville's calculated BOD rate, as presented in *Table 2-1*, appears to be lower than the national average compiled by the NACWA, although the calculated TSS rate is similar to the national average. Additionally, a survey of thirteen (13) wastewater authorities and agencies in central Pennsylvania revealed an average BOD and TSS surcharge rate of \$0.384 and \$0.381 per lb., respectively. Generally, it appears that the PAWC Coatesville surcharge rates are within the typical range.

Please note that these removal costs are applicable only to discharges into the sewer system that are treated at the Coatesville WWTP. Removal costs for other discharges from different sewer service systems or treated at different wastewater treatment plants cannot be extrapolated from these results.

### **3.0 APPLICABILITY**

#### **3.1 Domestic Strength Wastewater Concentrations**

The high strength wastewater surcharge should only be applied to those sources of wastewaters with average discharge qualities that significantly exceed the typical domestic strength concentrations of the Coatesville WWTP's residential and non-regulated commercial (i.e. domestic) users. PAWC's current High Strength Surcharge Program, as outlined in its Pennsylvania Wastewater Tariff under Section T, 1.2, assumes domestic strength BOD and TSS concentrations of 300 mg/L each.

Establishing the "typical" domestic strength concentration for a particular wastewater collection system is accomplished by routine sampling of select locations throughout the system. Without collection system monitoring results, however, a conservative estimate of the typical domestic strength concentration must be utilized for high strength surcharge purposes.

Oftentimes, the average annual WWTP raw influent concentrations can be used for this purpose. These values include the non-residential components in addition to the residential components and, therefore, will typically exhibit higher concentrations than just the domestic wastewater component. This is especially true for the Coatesville WWTP, which includes a large beverage manufacturer in its service area that contributes a significant organic load. For high strength wastewater surcharging purposes, the historical WWTP raw influent concentrations, as presented in *Table 3-1*, can be utilized as the domestic strength concentrations.



**Table 3-1.** WWTP Raw Influent Characteristics

Pollutant	Year *			3-Year Average
	2017	2018	2019	
BOD <sub>5</sub>	324	257	392	324
TSS	305	367	404	359
TN	41.0	29.1	42.1	37.4
TP	6.8	5.5	8.0	6.8

\* As calculated in *Table 4* of the respective calculations in *Appendices 1* through *3*.

In addition to the residential, commercial, and non-regulated industrial discharges from the collection system, the PAWC Coatesville WWTP receives flows from several significant contributors. Raw influent to the WWTP, therefore, is comprised of four (4) main sources: Collection System (residential, commercial, and non-regulated industrial discharges); Victory Brewing Process Wastewater; Hauled Septage; and Rock Run Water Treatment Plant Residuals. As part of Gannett Fleming's August 2019 WWTP Process Evaluation, each of these components of the WWTP raw influent were estimated. The pollutant concentrations of the domestic strength wastewater (i.e. residential, commercial, and non-regulated industrial discharges) in the Coatesville service area is estimated as presented in *Table 3-2*.

**Table 3-2.** Estimated WWTP Raw Influent Characteristics

Pollutant	Average Annual Concentration*, mg/L
BOD <sub>5</sub>	163
TSS	127
TN	32.2

\* As estimated in *Table 1* of the August 2019 GF WWTP Process Evaluation Report

For high strength wastewater surcharging purposes, the recommended pollutant concentrations in the domestic strength wastewater in the Coatesville service area are estimated as presented in *Table 3-3*. Actual domestic strength wastewater within the collection system is most likely lower than the values in *Table 3-3*, however, it is administratively easier to round up the concentrations for compliance monitoring purposes. Additionally, it is appropriate to maintain the BOD and TSS concentrations the same as historically utilized for continuity of the high strength surcharge program.

**Table 3-3.** Recommended Domestic Strength Wastewater Concentrations

Pollutant	Average Annual Concentration, mg/L
BOD <sub>5</sub>	300
TSS	300
TN	40.0
TP	10.0

### 3.2 Applicability

Dischargers identified through wastewater sampling as contributing wastewater with strengths greater than domestic wastewater for any of the surcharge parameters (BOD, TSS, TN, or TP) shall pay a monthly or quarterly surcharge based on that customer's discharge strength and monthly metered wastewater volume. If metering is impractical, estimates of flow may be used. This surcharge will be in addition to the standard sewer use charge which is based on volume. The surcharge rate applies only to the extra strength (i.e. total concentration minus typical domestic concentration) for each parameter. Parameters with concentrations below typical domestic wastewater concentrations should be assessed the standard sewer use charge. No credit should be given for wastewater with one or more parameter concentrations below the maximum typical domestic concentrations.

A high strength wastewater surcharge should be applied to those sources of wastewater with average discharge qualities that significantly exceed the "Recommended Domestic Strength Wastewater Concentrations" as listed in *Table 3-3*. The high strength wastewater surcharge should be calculated using the 3-year average per pound removal cost as listed in *Table 2-1*. High Strength Wastewater Surcharges shall be calculated in dollars using the following formulas:

BOD	$(\$0.20/\text{lb}) \times (\text{Total Flow, Mgal}) \times (8.34) \times (\text{BOD Concentration} - 300 \text{ mg/L})$
TSS	$(\$0.29/\text{lb}) \times (\text{Total Flow, Mgal}) \times (8.34) \times (\text{TSS Concentration} - 300 \text{ mg/L})$
TN	$(\$0.52/\text{lb}) \times (\text{Total Flow, Mgal}) \times (8.34) \times (\text{TN Concentration} - 40.0 \text{ mg/L})$
TP	$(\$0.73/\text{lb}) \times (\text{Total Flow, Mgal}) \times (8.34) \times (\text{TP Concentration} - 10.0 \text{ mg/L})$

The total high strength surcharge rate is the sum of the surcharge rates for each parameter.

# APPENDIX 1

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High Strength Wastewater Surcharge Calculations  
Fiscal Year 2017

Table 1  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation  
Allocation of Total Operating Costs by Functional Cost Center  
January 1, 2017 through December 31, 2017

Account	Budget Amount <sup>(1)</sup>	Influent Pumping Station		Preliminary Treatment		Bioreactors		Secondary Clarification		Chemical P Removal		Secondary Pumping Station		Tertiary Filtration		Disinfection		Solids Thickening		Aerobic Digestion		Solids Dewatering	
		Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
<b>Total Production Costs</b>																							
Fuel and Power	\$605,310	3.7%	\$22,270	0.2%	\$1,150	44.4%	\$268,720	0.8%	\$4,970	0.0%	\$0	3.7%	\$22,270	1.4%	\$8,620	6.6%	\$40,130	2.2%	\$13,010	31.4%	\$190,020	5.6%	\$34,000
Chemicals																							
Quick Lime	\$67,270	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$67,270
Polymer	\$135,440	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	10.0%	\$13,540	0.0%	\$0	90.0%	\$121,900
Hydrated Lime	\$890	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$890
Aluminum Sulfate	\$10,470	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$10,470	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0
Sodium Hypochlorite	\$670	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$670	0.0%	\$0	0.0%	\$0	0.0%	\$0
Magnesium Hydroxide	\$8,020	0.0%	\$0	0.0%	\$0	100.0%	\$8,020	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0
Biosolids and Grit/Screening Disposal	\$281,680	0.0%	\$0	5.0%	\$14,080	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	95.0%	\$267,600
<b>Employee Related Costs</b>																							
Salaries and Wages	\$444,410	5.0%	\$22,220	5.0%	\$22,220	25.0%	\$111,100	10.0%	\$44,440	0.0%	\$0	5.0%	\$22,220	10.0%	\$44,440	10.0%	\$44,440	10.0%	\$44,440	10.0%	\$44,440	10.0%	\$44,440
Pensions	\$32,530	5.0%	\$1,630	5.0%	\$1,630	25.0%	\$8,130	10.0%	\$3,250	0.0%	\$0	5.0%	\$1,630	10.0%	\$3,250	10.0%	\$3,250	10.0%	\$3,250	10.0%	\$3,250	10.0%	\$3,250
Group Insurances	\$111,110	5.0%	\$5,560	5.0%	\$5,560	25.0%	\$27,780	10.0%	\$11,110	0.0%	\$0	5.0%	\$5,560	10.0%	\$11,110	10.0%	\$11,110	10.0%	\$11,110	10.0%	\$11,110	10.0%	\$11,110
Other Benefits	\$25,780	5.0%	\$1,290	5.0%	\$1,290	25.0%	\$6,450	10.0%	\$2,580	0.0%	\$0	5.0%	\$1,290	10.0%	\$2,580	10.0%	\$2,580	10.0%	\$2,580	10.0%	\$2,580	10.0%	\$2,580
<b>Operating Supplies and Services</b>																							
Contracted Services	\$61,690	5.0%	\$3,080	5.0%	\$3,080	25.0%	\$15,420	10.0%	\$6,170	0.0%	\$0	5.0%	\$3,080	10.0%	\$6,170	10.0%	\$6,170	10.0%	\$6,170	10.0%	\$6,170	10.0%	\$6,170
Building and Maintenance Services	\$23,350	5.0%	\$1,170	5.0%	\$1,170	25.0%	\$5,840	10.0%	\$2,340	0.0%	\$0	5.0%	\$1,170	10.0%	\$2,340	10.0%	\$2,340	10.0%	\$2,340	10.0%	\$2,340	10.0%	\$2,340
Telecommunication Expenses	\$5,190	5.0%	\$260	5.0%	\$260	25.0%	\$1,300	10.0%	\$520	0.0%	\$0	5.0%	\$260	10.0%	\$520	10.0%	\$520	10.0%	\$520	10.0%	\$520	10.0%	\$520
Postage Printing and Stationery	\$290	5.0%	\$10	5.0%	\$10	25.0%	\$70	10.0%	\$30	0.0%	\$0	5.0%	\$10	10.0%	\$30	10.0%	\$30	10.0%	\$30	10.0%	\$30	10.0%	\$30
Office Supplies & Expenses	\$6,340	5.0%	\$320	5.0%	\$320	25.0%	\$1,590	10.0%	\$630	0.0%	\$0	5.0%	\$320	10.0%	\$630	10.0%	\$630	10.0%	\$630	10.0%	\$630	10.0%	\$630
Advertising & Marketing Expenses	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Employee Related Expense Travel & Entertainment	\$4,610	5.0%	\$230	5.0%	\$230	25.0%	\$1,150	10.0%	\$460	0.0%	\$0	5.0%	\$230	10.0%	\$460	10.0%	\$460	10.0%	\$460	10.0%	\$460	10.0%	\$460
Miscellaneous Expenses	\$44,970	5.0%	\$2,250	5.0%	\$2,250	25.0%	\$11,240	10.0%	\$4,500	0.0%	\$0	5.0%	\$2,250	10.0%	\$4,500	10.0%	\$4,500	10.0%	\$4,500	10.0%	\$4,500	10.0%	\$4,500
Rents	\$1,150	5.0%	\$60	5.0%	\$60	25.0%	\$290	10.0%	\$120	0.0%	\$0	5.0%	\$60	10.0%	\$120	10.0%	\$120	10.0%	\$120	10.0%	\$120	10.0%	\$120
Transportation	\$31,420	5.0%	\$1,570	5.0%	\$1,570	25.0%	\$7,860	10.0%	\$3,140	0.0%	\$0	5.0%	\$1,570	10.0%	\$3,140	10.0%	\$3,140	10.0%	\$3,140	10.0%	\$3,140	10.0%	\$3,140
Uncollectible Accounts Expenses	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Customer Accounting Other	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Regulatory Expense	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Insurance (Other Than Group)	\$13,260	5.0%	\$660	5.0%	\$660	25.0%	\$3,320	10.0%	\$1,330	0.0%	\$0	5.0%	\$660	10.0%	\$1,330	10.0%	\$1,330	10.0%	\$1,330	10.0%	\$1,330	10.0%	\$1,330
Maintenance Service & Supplies	\$55,060	5.0%	\$2,750	5.0%	\$2,750	25.0%	\$13,770	10.0%	\$5,510	0.0%	\$0	5.0%	\$2,750	10.0%	\$5,510	10.0%	\$5,510	10.0%	\$5,510	10.0%	\$5,510	10.0%	\$5,510
General Taxes	\$40,940	5.0%	\$2,050	5.0%	\$2,050	25.0%	\$10,240	10.0%	\$4,090	0.0%	\$0	5.0%	\$2,050	10.0%	\$4,090	10.0%	\$4,090	10.0%	\$4,090	10.0%	\$4,090	10.0%	\$4,090
Miscellaneous Operation and Expenses	\$364,070	10.0%	\$36,410	10.0%	\$36,410	10.0%	\$36,410	10.0%	\$36,410	1.0%	\$3,640	10.0%	\$36,410	10.0%	\$36,410	9.0%	\$32,770	10.0%	\$36,410	10.0%	\$36,410	10.0%	\$36,410
<b>Total</b>	<b>\$2,375,910</b>	<b>---</b>	<b>\$103,790</b>	<b>---</b>	<b>\$96,750</b>	<b>---</b>	<b>\$538,700</b>	<b>---</b>	<b>\$131,600</b>	<b>---</b>	<b>\$14,110</b>	<b>---</b>	<b>\$103,790</b>	<b>---</b>	<b>\$135,250</b>	<b>---</b>	<b>\$163,790</b>	<b>---</b>	<b>\$153,180</b>	<b>---</b>	<b>\$316,650</b>	<b>---</b>	<b>\$618,290</b>

Notes:  
<sup>(1)</sup> Year End Budget amounts from Fiscal Year 2017 with miscellaneous assumptions and estimations based on supplemental data provided by PAWC staff.  
<sup>(2)</sup> Distribution of electric costs are based on allocation established in Table 2.

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2017 through December 31, 2017

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
<b>Influent Pumping Station</b>						
Pump No. 1	75.00	24	122	2,920	163,308	---
Pump No. 2	75.00	24	122	2,920	163,308	---
Pump No. 3	75.00	24	122	2,920	163,308	---
<i>Influent PS Total</i>	---	---	---	---	489,925	3.7%
<b>Preliminary Treatment</b>						
<b>Mechanical Barscreens</b>						
Motor	5.00	4	365	1,460	5,444	---
Washer/Compactor Motor	0.50	4	365	1,460	544	---
Screw Conveyor	5.00	4	365	1,460	5,444	---
<b>Grit Removal</b>						
Grit Pump Motor	7.50	4	365	1,460	8,165	---
Grit Classifier	5.00	4	365	1,460	5,444	---
Grit Screw Motor	0.33	4	365	1,460	359	---
<i>Preliminary Treatment Total</i>	---	---	---	---	25,400	0.2%
<b>Bioreactors</b>						
Basin 1 Brush Aerator 1 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 2 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 3 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 4 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 5 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 6 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 7 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 1 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 2 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 3 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 4 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 5 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 6 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 7 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Oxid Mixer 1 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Oxid Mixer 2 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Oxid Mixer 3 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 1 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 2 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 3 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Anaerobic Mixer 1 Motor	3.90	24	365	8,760	25,476	---
Basin 1 Anaerobic Mixer 2 Motor	3.90	24	365	8,760	25,476	---
Basin 2 Anaerobic Mixer 1 Motor	3.90	24	365	8,760	25,476	---
Basin 2 Anaerobic Mixer 2 Motor	3.90	24	365	8,760	25,476	---
RAS Pump No. 1	15.00	24	292	7,008	78,388	---
RAS Pump No. 2	15.00	24	292	7,008	78,388	---
RAS Pump No. 3	15.00	24	292	7,008	78,388	---
RAS Pump No. 4	15.00	24	292	7,008	78,388	---
RAS Pump No. 5	15.00	24	292	7,008	78,388	---
WAS Pump No. 1 Motor	30.00	1	183	183	4,094	---
WAS Pump No. 2 Motor	30.00	1	183	183	4,094	---
WAS Pump No. 1 Grinder	5.00	1	183	183	682	---
WAS Pump No. 2 Grinder	5.00	1	183	183	682	---
<i>Bioreactors Total</i>	---	---	---	---	5,912,167	44.4%
<b>Chemical P Removal</b>						
Alum Feed Pump No. 1	0.50	12	365	4,380	1,633	---
Alum Feed Pump No. 2	0.50	12	365	4,380	1,633	---
<i>Chemical P Removal Total</i>	---	---	---	---	3,266	0.0%

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2017 through December 31, 2017

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
<b>Secondary Clarification</b>						
Clarifier No. 1 Drive Motor	0.50	24	365	8,760	3,266	---
Clarifier No. 2 Drive Motor	0.50	24	365	8,760	3,266	---
Clarifier No. 3 Drive Motor	0.75	24	365	8,760	4,899	---
Clarifier No. 1 Scum Pump Motor	5.00	24	365	8,760	32,662	---
Clarifier No. 2 Scum Pump Motor	5.00	24	365	8,760	32,662	---
Clarifier No. 3 Scum Pump Motor	5.00	24	365	8,760	32,662	---
<i>Secondary Clarification Total</i>	---	---	---	---	109,417	0.8%
<b>Secondary Pumping Station</b>						
Pump No. 1	75.00	24	122	2,920	163,308	---
Pump No. 2	75.00	24	122	2,920	163,308	---
Pump No. 3	75.00	24	122	2,920	163,308	---
<i>Secondary PS Total</i>	---	---	---	---	489,925	3.7%
<b>Tertiary Filters</b>						
Blower No. 1	75.00	8	183	1,464	81,878	---
Blower No. 2	75.00	8	183	1,464	81,878	---
Backwash Pump No. 1	40.00	2	183	366	10,917	---
Backwash Pump No. 2	40.00	2	183	366	10,917	---
Air Compressor	7.50	4	183	732	4,094	---
<i>Tertiary Filter Total</i>	---	---	---	---	189,684	1.4%
<b>Disinfection</b>						
UV Lamp Bank No. 1 (kW per lamp)	2.8	12	365	4,380	441,504	---
UV Lamp Bank No. 2 (kW per lamp)	2.8	12	365	4,380	441,504	---
<i>Disinfection Total</i>	---	---	---	---	883,008	6.6%
<b>Solids Thickening</b>						
<b>Plant Utility Water</b>						
Plant Water Pump No. 1	15.00	24	243	5,840	65,323	---
Plant Water Pump No. 2	15.00	24	243	5,840	65,323	---
Plant Water Pump No. 3	15.00	24	243	5,840	65,323	---
<b>Thickener</b>						
Thickener No. 1 Drive Motor	3.00	8	365	2,920	6,532	---
Spray Wash Pump 1 Motor	10.00	8	365	2,920	21,774	---
Spray Wash Pump 2 Motor	10.00	8	365	2,920	21,774	---
Thickened Sludge Transfer Pump No. 1	7.50	8	365	2,920	16,331	---
Thickened Sludge Transfer Pump No. 2	7.50	8	365	2,920	16,331	---
Liquid Polymer Batching System	0.50	8	365	2,920	1,089	---
Polymer Tank No. 1 Mixer	1.50	8	365	2,920	3,266	---
Polymer Tank No. 2 Mixer	1.50	8	365	2,920	3,266	---
<i>Thickening Total</i>	---	---	---	---	286,334	2.2%
<b>Aerobic Digestion</b>						
Blower No. 1 Motor	100.00	24	292	7,008	522,586	---
Blower No. 2 Motor	100.00	24	292	7,008	522,586	---
Blower No. 3 Motor	100.00	24	292	7,008	522,586	---
Blower No. 4 Motor	100.00	24	292	7,008	522,586	---
Blower No. 5 Motor	100.00	24	292	7,008	522,586	---
Digester No. 1 Mixer No. 1	40.00	24	365	8,760	261,293	---
Digester No. 1 Mixer No. 2	40.00	24	365	8,760	261,293	---
Digester No. 1 Mixer No. 3	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 1	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 2	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 3	40.00	24	365	8,760	261,293	---
<i>Aerobic Digestion Total</i>	---	---	---	---	4,180,692	31.4%

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2017 through December 31, 2017

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
Dewatering						
Feed Pumps						
Feed Pump 1 Motor	7.50	8	365	2,920	16,331	---
Feed Pump 2 Motor	75.00	8	365	2,920	163,308	---
Feed Pump 3 Motor	7.50	8	365	2,920	16,331	---
Feed Pump 1 Grinder Motor	5.00	8	365	2,920	10,887	---
Feed Pump 2 Grinder Motor	5.00	8	365	2,920	10,887	---
Feed Pump 3 Grinder Motor	5.00	8	365	2,920	10,887	---
Centrifuge No. 1						
Bowl Drive Motor	100.00	8	365	2,920	217,744	---
Back Drive Motor	20.00	8	365	2,920	43,549	---
Screw Conveyor 1 Motor	5.00	8	365	2,920	10,887	---
Centrifuge No. 2						
Bowl Drive Motor	100.00	8	365	2,920	217,744	---
Back Drive Motor	20.00	8	365	2,920	43,549	---
Screw Conveyor 2 Motor	5.00	8	365	2,920	10,887	---
Polymer System						
Liquid Polymer Batching System	5.00	8	365	2,920	10,887	---
Polymer Tank No. 1 Mixer	1.50	8	365	2,920	3,266	---
Polymer Tank No. 2 Mixer	1.50	8	365	2,920	3,266	---
Polymer Pump 1	3.00	8	365	2,920	6,532	---
Polymer Pump 2	3.00	8	365	2,920	6,532	---
Screw Conveyor 3 Motor	10.00	8	365	2,920	21,774	---
Post Lime Treatment						
Lime Volumetric Feeder	1.50	8	365	2,920	3,266	---
Lime Feed Screw Conveyor	3.00	8	365	2,920	6,532	---
Lime/Solids Mixer	20.00	8	365	2,920	43,549	---
Screw Conveyor 4 Motor	5.00	8	365	2,920	10,887	---
Screw Conveyor 5 Motor	15.00	8	365	2,920	32,662	---
Screw Conveyor 6 Motor	15.00	8	365	2,920	32,662	---
Leveling Conveyor 7 Motor	5.00	8	365	2,920	10,887	---
Leveling Conveyor 8 Motor	5.00	8	365	2,920	10,887	---
Dewatering Total	---	---	---	---	747,952	5.6%
<b>Total</b>	---	---	---	---	<b>13,317,768</b>	<b>100.0%</b>

Notes:

(1) One mechanic or hydraulic horsepower is equal to 0.745699872 kilowatts.

**Table 3**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation  
  
Allocation of Function Cost Center Costs by Functional Cost Component  
January 1, 2017 through December 31, 2017

Treatment Process	Operating Cost <sup>(1)</sup>	Capacity (Collection and Conveyance Systems)		Customer (Billing, Collection, and Accounting Services)		Volume (Hydraulic Flow)		BOD		TSS		TN		TP	
		Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
Influent Pumping Station	\$103,790	0%	\$0	0%	\$0	100%	\$103,790	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Preliminary Treatment	\$96,750	0%	\$0	0%	\$0	0%	\$0	35%	\$33,860	60%	\$58,050	0%	\$0	5%	\$4,840
Bioreactors	\$538,700	0%	\$0	0%	\$0	0%	\$0	87%	\$470,810	0%	\$0	10%	\$51,730	3%	\$16,160
Secondary Clarification	\$131,600	0%	\$0	0%	\$0	0%	\$0	59%	\$77,060	30%	\$39,480	8%	\$11,110	3%	\$3,950
Chemical P Removal	\$14,110	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	100%	\$14,110
Secondary Pumping Station	\$103,790	0%	\$0	0%	\$0	100%	\$103,790	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Tertiary Filtration	\$135,250	0%	\$0	0%	\$0	0%	\$0	59%	\$79,200	30%	\$40,580	8%	\$11,420	3%	\$4,060
Disinfection	\$163,790	0%	\$0	0%	\$0	100%	\$163,790	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Solids Thickening	\$153,180	0%	\$0	0%	\$0	0%	\$0	58%	\$89,250	33%	\$51,060	6%	\$9,810	2%	\$3,060
Aerobic Digestion	\$316,650	0%	\$0	0%	\$0	0%	\$0	58%	\$184,500	33%	\$105,550	6%	\$20,270	2%	\$6,330
Solids Dewatering	\$618,290	0%	\$0	0%	\$0	0%	\$0	58%	\$360,240	33%	\$206,100	6%	\$39,580	2%	\$12,370
<b>Total</b>	<b>\$2,375,900</b>	---	<b>\$0</b>	---	<b>\$0</b>	---	<b>\$371,370</b>	---	<b>\$1,294,920</b>	---	<b>\$500,820</b>	---	<b>\$143,920</b>	---	<b>\$64,880</b>

Notes:

- <sup>(1)</sup> Operating costs from *Table 1*.
- <sup>(2)</sup> The costs for BOD and TN removal in the secondary treatment process are based on the rate of oxygen demand assuming 1.5 lbs O<sub>2</sub> / lb BOD and 4.6 lbs O<sub>2</sub> / lb NH<sub>3</sub>-N.
- <sup>(3)</sup> The allocation of secondary clarification cost is distributed between BOD, TSS, NH<sub>3</sub>-N based on the estimated contribution of each to solids production. The costs for BOD and NH<sub>3</sub>-N removal in the secondary clarifiers are based on the rate of oxygen demand while TSS contribution is estimated based on the primary clarifier influent TSS loading.
- <sup>(4)</sup> Solids generated consist of influent solids, excess cell mass production as a direct result of the metabolism of BOD and TN, as well as chemical sludge from TP removal in the secondary treatment process. The allocation of solids handling cost is therefore distributed between BOD, TSS, TN, and TP based on the estimated contribution of each to solids production. Solids production is estimated based on the raw influent TSS loadings and the waste activated sludge loadings as outlined in *Table 4*.



**Table 4**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual WWTP Operations Summary  
January 1, 2017 through December 31, 2017

Pollutant of Concern	Raw Influent <sup>(1a)</sup>		Hauled Septage <sup>(1b)</sup>		Total Combined Process Loadings <sup>(1c)</sup>		Biological Assimilation <sup>(2)</sup>	Final Effluent <sup>(1)</sup>		Removal <sup>(3)</sup>	
	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	lbs/day	mg/L	lbs/day	lbs/day	lbs/year
BOD	312	8,196	2,000	874	334	9,070	---	2	58	9,070	3,310,497
TSS	276	7,258	1,000	437	284	7,696	---	4	106	7,696	2,808,897
TN	38.4	1,008	100.0	44	38.7	1,051	651	2.9	75.3	325	118,613
TP	7.0	184	20.0	9	7.1	193	123	0.3	6.9	63	23,011

**Notes:**

(1) Raw Influent and Final Effluent average concentrations and loadings as reported for 2017

- a. Raw Influent concentrations and loadings do not include hauled waste contributions.
- b. Hauled septage average equivalent concentrations are based on literature value estimates. Loadings are estimated using annual average hauled waste volume in 1d.
- c. Total Combined Process Loadings are the sum of the raw wastewater and the hauled septage loadings.
- d. Annual average daily flows utilized to calculate the equivalent process loadings concentrations:

Raw Influent: 3,201 mgd  
Hauled Waste: 0,052 mgd

(2) Biological assimilation is estimated based on the following assumptions:

Parameter	Unit	Input	Calculation
WAS	mgd	0.170	---
WAS TSS	mg/L	8,832	---
WAS	lbs/day	---	12,556
MLVSS/MLSS Ratio	%	0.85	---
Estimated WAS VSS	lbs/day	---	10,673
Pure Biomass/WAS VSS Ratio	%	0.50	---
Estimated Pure Biomass	lbs/day	---	5,336
Nitrogen Assimulated	%	12.2%	---
Nitrogen Assimulated	lbs/day	---	651
Phosphorus Assimulated	%	2.3%	---
Phosphorus Assimulated	lbs/day	---	123

(3) Removal assumes that all BOD and TSS is removed through the treatment process and the final effluent CBOD and TSS are mostly an artifact of cellular debris.

- a. For TN and TP, the annual pounds removed is the raw influent loading minus the final effluent loading. Nutrient assimilation in the biological treatment process is considered part of the removal process.

**Table 5**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Cost of Removal Summary  
January 1, 2017 through December 31, 2017

<b>Pollutant of Concern</b>	<b>Annual Cost of Removal <sup>(1)</sup></b>	<b>Annual Pounds Removed <sup>(2)</sup></b>	<b>Cost per Pound Removed <sup>(3)</sup></b>
BOD	\$1,294,920	3,310,497	\$0.39
TSS	\$500,820	2,808,897	\$0.18
TN	\$143,920	118,613	\$1.21
TP	\$64,880	23,011	\$2.82

**Notes:**

- (1) Annual Cost of Removal from *Table 3*.
- (2) Annual Pounds Removed based from *Table 4*.
- (3) Cost of Removal = Yearly Cost of Pollutant Removed / Yearly Pounds of Pollutant Removed.

## **APPENDIX 2**

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High Strength Wastewater Surcharge Calculations  
Fiscal Year 2018

Table 1  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation  
Allocation of Total Operating Costs by Functional Cost Center  
January 1, 2018 through December 31, 2018

Account	Budget Amount <sup>(1)</sup>	Influent Pumping Station		Preliminary Treatment		Bioreactors		Secondary Clarification		Chemical P Removal		Secondary Pumping Station		Tertiary Filtration		Disinfection		Solids Thickening		Aerobic Digestion		Solids Dewatering	
		Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
<b>Total Production Costs</b>																							
Fuel and Power	\$518,600	3.7%	\$19,080	0.2%	\$990	44.4%	\$230,220	0.8%	\$4,260	0.0%	\$0	3.7%	\$19,080	1.4%	\$7,390	6.6%	\$34,380	2.2%	\$11,150	31.4%	\$162,800	5.6%	\$29,130
Chemicals																							
Quick Lime	\$98,910	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$98,910
Polymer	\$199,140	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	10.0%	\$19,910	0.0%	\$0	90.0%	\$179,230
Hydrated Lime	\$1,310	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$1,310
Aluminum Sulfate	\$15,390	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$15,390	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0
Sodium Hypochlorite	\$660	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$660	0.0%	\$0	0.0%	\$0	0.0%	\$0
Magnesium Hydroxide	\$11,790	0.0%	\$0	0.0%	\$0	100.0%	\$11,790	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0
Biosolids and Grit/Screening Disposal	\$355,350	0.0%	\$0	5.0%	\$17,770	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	95.0%	\$337,580
<b>Employee Related Costs</b>																							
Salaries and Wages	\$669,620	5.0%	\$33,480	5.0%	\$33,480	25.0%	\$167,410	10.0%	\$66,960	0.0%	\$0	5.0%	\$33,480	10.0%	\$66,960	10.0%	\$66,960	10.0%	\$66,960	10.0%	\$66,960	10.0%	\$66,960
Pensions	\$48,950	5.0%	\$2,450	5.0%	\$2,450	25.0%	\$12,240	10.0%	\$4,900	0.0%	\$0	5.0%	\$2,450	10.0%	\$4,900	10.0%	\$4,900	10.0%	\$4,900	10.0%	\$4,900	10.0%	\$4,900
Group Insurances	\$167,180	5.0%	\$8,360	5.0%	\$8,360	25.0%	\$41,800	10.0%	\$16,720	0.0%	\$0	5.0%	\$8,360	10.0%	\$16,720	10.0%	\$16,720	10.0%	\$16,720	10.0%	\$16,720	10.0%	\$16,720
Other Benefits	\$38,790	5.0%	\$1,940	5.0%	\$1,940	25.0%	\$9,700	10.0%	\$3,880	0.0%	\$0	5.0%	\$1,940	10.0%	\$3,880	10.0%	\$3,880	10.0%	\$3,880	10.0%	\$3,880	10.0%	\$3,880
<b>Operating Supplies and Services</b>																							
Contracted Services	\$67,170	5.0%	\$3,360	5.0%	\$3,360	25.0%	\$16,790	10.0%	\$6,720	0.0%	\$0	5.0%	\$3,360	10.0%	\$6,720	10.0%	\$6,720	10.0%	\$6,720	10.0%	\$6,720	10.0%	\$6,720
Building and Maintenance Services	\$25,430	5.0%	\$1,270	5.0%	\$1,270	25.0%	\$6,360	10.0%	\$2,540	0.0%	\$0	5.0%	\$1,270	10.0%	\$2,540	10.0%	\$2,540	10.0%	\$2,540	10.0%	\$2,540	10.0%	\$2,540
Telecommunication Expenses	\$5,650	5.0%	\$280	5.0%	\$280	25.0%	\$1,410	10.0%	\$570	0.0%	\$0	5.0%	\$280	10.0%	\$570	10.0%	\$570	10.0%	\$570	10.0%	\$570	10.0%	\$570
Postage Printing and Stationery	\$310	5.0%	\$20	5.0%	\$20	25.0%	\$80	10.0%	\$30	0.0%	\$0	5.0%	\$20	10.0%	\$30	10.0%	\$30	10.0%	\$30	10.0%	\$30	10.0%	\$30
Office Supplies & Expenses	\$6,910	5.0%	\$350	5.0%	\$350	25.0%	\$1,730	10.0%	\$690	0.0%	\$0	5.0%	\$350	10.0%	\$690	10.0%	\$690	10.0%	\$690	10.0%	\$690	10.0%	\$690
Advertising & Marketing Expenses	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Employee Related Expense Travel & Entertainment	\$5,020	5.0%	\$250	5.0%	\$250	25.0%	\$1,260	10.0%	\$500	0.0%	\$0	5.0%	\$250	10.0%	\$500	10.0%	\$500	10.0%	\$500	10.0%	\$500	10.0%	\$500
Miscellaneous Expenses	\$48,650	5.0%	\$2,430	5.0%	\$2,430	25.0%	\$12,160	10.0%	\$4,870	0.0%	\$0	5.0%	\$2,430	10.0%	\$4,870	10.0%	\$4,870	10.0%	\$4,870	10.0%	\$4,870	10.0%	\$4,870
Rents	\$1,260	5.0%	\$60	5.0%	\$60	25.0%	\$320	10.0%	\$130	0.0%	\$0	5.0%	\$60	10.0%	\$130	10.0%	\$130	10.0%	\$130	10.0%	\$130	10.0%	\$130
Transportation	\$34,210	5.0%	\$1,710	5.0%	\$1,710	25.0%	\$8,550	10.0%	\$3,420	0.0%	\$0	5.0%	\$1,710	10.0%	\$3,420	10.0%	\$3,420	10.0%	\$3,420	10.0%	\$3,420	10.0%	\$3,420
Uncollectible Accounts Expenses	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Customer Accounting Other	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Regulatory Expense	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Insurance (Other Than Group)	\$14,440	5.0%	\$720	5.0%	\$720	25.0%	\$3,610	10.0%	\$1,440	0.0%	\$0	5.0%	\$720	10.0%	\$1,440	10.0%	\$1,440	10.0%	\$1,440	10.0%	\$1,440	10.0%	\$1,440
Maintenance Service & Supplies	\$59,950	5.0%	\$3,000	5.0%	\$3,000	25.0%	\$14,990	10.0%	\$6,000	0.0%	\$0	5.0%	\$3,000	10.0%	\$6,000	10.0%	\$6,000	10.0%	\$6,000	10.0%	\$6,000	10.0%	\$6,000
General Taxes	\$44,570	5.0%	\$2,230	5.0%	\$2,230	25.0%	\$11,140	10.0%	\$4,460	0.0%	\$0	5.0%	\$2,230	10.0%	\$4,460	10.0%	\$4,460	10.0%	\$4,460	10.0%	\$4,460	10.0%	\$4,460
Miscellaneous Operation and Maintenance	\$146,020	10.0%	\$14,600	10.0%	\$14,600	10.0%	\$14,600	10.0%	\$14,600	1.0%	\$14,600	10.0%	\$14,600	10.0%	\$14,600	9.0%	\$13,140	10.0%	\$14,600	10.0%	\$14,600	10.0%	\$14,600
<b>Total</b>	<b>\$2,585,280</b>	<b>---</b>	<b>\$95,590</b>	<b>---</b>	<b>\$95,270</b>	<b>---</b>	<b>\$566,160</b>	<b>---</b>	<b>\$142,690</b>	<b>---</b>	<b>\$16,850</b>	<b>---</b>	<b>\$95,590</b>	<b>---</b>	<b>\$145,820</b>	<b>---</b>	<b>\$172,010</b>	<b>---</b>	<b>\$169,490</b>	<b>---</b>	<b>\$301,230</b>	<b>---</b>	<b>\$784,590</b>

Notes:  
<sup>(1)</sup> Year End Budget amounts from Fiscal Year 2018 with miscellaneous assumptions and estimations based on supplemental data provided by PAWC staff.  
<sup>(2)</sup> Distribution of electric costs are based on allocation established in Table 2.

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2018 through December 31, 2018

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
<b>Influent Pumping Station</b>						
Pump No. 1	75.00	24	122	2,920	163,308	---
Pump No. 2	75.00	24	122	2,920	163,308	---
Pump No. 3	75.00	24	122	2,920	163,308	---
<i>Influent PS Total</i>	---	---	---	---	489,925	3.7%
<b>Preliminary Treatment</b>						
<b>Mechanical Barscreens</b>						
Motor	5.00	4	365	1,460	5,444	---
Washer/Compactor Motor	0.50	4	365	1,460	544	---
Screw Conveyor	5.00	4	365	1,460	5,444	---
<b>Grit Removal</b>						
Grit Pump Motor	7.50	4	365	1,460	8,165	---
Grit Classifier	5.00	4	365	1,460	5,444	---
Grit Screw Motor	0.33	4	365	1,460	359	---
<i>Preliminary Treatment Total</i>	---	---	---	---	25,400	0.2%
<b>Bioreactors</b>						
Basin 1 Brush Aerator 1 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 2 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 3 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 4 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 5 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 6 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 7 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 1 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 2 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 3 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 4 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 5 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 6 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 7 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Oxid Mixer 1 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Oxid Mixer 2 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Oxid Mixer 3 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 1 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 2 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 3 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Anaerobic Mixer 1 Motor	3.90	24	365	8,760	25,476	---
Basin 1 Anaerobic Mixer 2 Motor	3.90	24	365	8,760	25,476	---
Basin 2 Anaerobic Mixer 1 Motor	3.90	24	365	8,760	25,476	---
Basin 2 Anaerobic Mixer 2 Motor	3.90	24	365	8,760	25,476	---
RAS Pump No. 1	15.00	24	292	7,008	78,388	---
RAS Pump No. 2	15.00	24	292	7,008	78,388	---
RAS Pump No. 3	15.00	24	292	7,008	78,388	---
RAS Pump No. 4	15.00	24	292	7,008	78,388	---
RAS Pump No. 5	15.00	24	292	7,008	78,388	---
WAS Pump No. 1 Motor	30.00	1	183	183	4,094	---
WAS Pump No. 2 Motor	30.00	1	183	183	4,094	---
WAS Pump No. 1 Grinder	5.00	1	183	183	682	---
WAS Pump No. 2 Grinder	5.00	1	183	183	682	---
<i>Bioreactors Total</i>	---	---	---	---	5,912,167	44.4%
<b>Chemical P Removal</b>						
Alum Feed Pump No. 1	0.50	12	365	4,380	1,633	---
Alum Feed Pump No. 2	0.50	12	365	4,380	1,633	---
<i>Chemical P Removal Total</i>	---	---	---	---	3,266	0.0%

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2018 through December 31, 2018

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
<b>Secondary Clarification</b>						
Clarifier No. 1 Drive Motor	0.50	24	365	8,760	3,266	---
Clarifier No. 2 Drive Motor	0.50	24	365	8,760	3,266	---
Clarifier No. 3 Drive Motor	0.75	24	365	8,760	4,899	---
Clarifier No. 1 Scum Pump Motor	5.00	24	365	8,760	32,662	---
Clarifier No. 2 Scum Pump Motor	5.00	24	365	8,760	32,662	---
Clarifier No. 3 Scum Pump Motor	5.00	24	365	8,760	32,662	---
<i>Secondary Clarification Total</i>	---	---	---	---	109,417	0.8%
<b>Secondary Pumping Station</b>						
Pump No. 1	75.00	24	122	2,920	163,308	---
Pump No. 2	75.00	24	122	2,920	163,308	---
Pump No. 3	75.00	24	122	2,920	163,308	---
<i>Secondary PS Total</i>	---	---	---	---	489,925	3.7%
<b>Tertiary Filters</b>						
Blower No. 1	75.00	8	183	1,464	81,878	---
Blower No. 2	75.00	8	183	1,464	81,878	---
Backwash Pump No. 1	40.00	2	183	366	10,917	---
Backwash Pump No. 2	40.00	2	183	366	10,917	---
Air Compressor	7.50	4	183	732	4,094	---
<i>Tertiary Filter Total</i>	---	---	---	---	189,684	1.4%
<b>Disinfection</b>						
UV Lamp Bank No. 1 (kW per lamp)	2.8	12	365	4,380	441,504	---
UV Lamp Bank No. 2 (kW per lamp)	2.8	12	365	4,380	441,504	---
<i>Disinfection Total</i>	---	---	---	---	883,008	6.6%
<b>Solids Thickening</b>						
<b>Plant Utility Water</b>						
Plant Water Pump No. 1	15.00	24	243	5,840	65,323	---
Plant Water Pump No. 2	15.00	24	243	5,840	65,323	---
Plant Water Pump No. 3	15.00	24	243	5,840	65,323	---
<b>Thickener</b>						
Thickener No. 1 Drive Motor	3.00	8	365	2,920	6,532	---
Spray Wash Pump 1 Motor	10.00	8	365	2,920	21,774	---
Spray Wash Pump 2 Motor	10.00	8	365	2,920	21,774	---
Thickened Sludge Transfer Pump No. 1	7.50	8	365	2,920	16,331	---
Thickened Sludge Transfer Pump No. 2	7.50	8	365	2,920	16,331	---
Liquid Polymer Batching System	0.50	8	365	2,920	1,089	---
Polymer Tank No. 1 Mixer	1.50	8	365	2,920	3,266	---
Polymer Tank No. 2 Mixer	1.50	8	365	2,920	3,266	---
<i>Thickening Total</i>	---	---	---	---	286,334	2.2%
<b>Aerobic Digestion</b>						
Blower No. 1 Motor	100.00	24	292	7,008	522,586	---
Blower No. 2 Motor	100.00	24	292	7,008	522,586	---
Blower No. 3 Motor	100.00	24	292	7,008	522,586	---
Blower No. 4 Motor	100.00	24	292	7,008	522,586	---
Blower No. 5 Motor	100.00	24	292	7,008	522,586	---
Digester No. 1 Mixer No. 1	40.00	24	365	8,760	261,293	---
Digester No. 1 Mixer No. 2	40.00	24	365	8,760	261,293	---
Digester No. 1 Mixer No. 3	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 1	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 2	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 3	40.00	24	365	8,760	261,293	---
<i>Aerobic Digestion Total</i>	---	---	---	---	4,180,692	31.4%

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2018 through December 31, 2018

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
Dewatering						
Feed Pumps						
Feed Pump 1 Motor	7.50	8	365	2,920	16,331	---
Feed Pump 2 Motor	75.00	8	365	2,920	163,308	---
Feed Pump 3 Motor	7.50	8	365	2,920	16,331	---
Feed Pump 1 Grinder Motor	5.00	8	365	2,920	10,887	---
Feed Pump 2 Grinder Motor	5.00	8	365	2,920	10,887	---
Feed Pump 3 Grinder Motor	5.00	8	365	2,920	10,887	---
Centrifuge No. 1						
Bowl Drive Motor	100.00	8	365	2,920	217,744	---
Back Drive Motor	20.00	8	365	2,920	43,549	---
Screw Conveyor 1 Motor	5.00	8	365	2,920	10,887	---
Centrifuge No. 2						
Bowl Drive Motor	100.00	8	365	2,920	217,744	---
Back Drive Motor	20.00	8	365	2,920	43,549	---
Screw Conveyor 2 Motor	5.00	8	365	2,920	10,887	---
Polymer System						
Liquid Polymer Batching System	5.00	8	365	2,920	10,887	---
Polymer Tank No. 1 Mixer	1.50	8	365	2,920	3,266	---
Polymer Tank No. 2 Mixer	1.50	8	365	2,920	3,266	---
Polymer Pump 1	3.00	8	365	2,920	6,532	---
Polymer Pump 2	3.00	8	365	2,920	6,532	---
Screw Conveyor 3 Motor	10.00	8	365	2,920	21,774	---
Post Lime Treatment						
Lime Volumetric Feeder	1.50	8	365	2,920	3,266	---
Lime Feed Screw Conveyor	3.00	8	365	2,920	6,532	---
Lime/Solids Mixer	20.00	8	365	2,920	43,549	---
Screw Conveyor 4 Motor	5.00	8	365	2,920	10,887	---
Screw Conveyor 5 Motor	15.00	8	365	2,920	32,662	---
Screw Conveyor 6 Motor	15.00	8	365	2,920	32,662	---
Leveling Conveyor 7 Motor	5.00	8	365	2,920	10,887	---
Leveling Conveyor 8 Motor	5.00	8	365	2,920	10,887	---
Dewatering Total	---	---	---	---	747,952	5.6%
<b>Total</b>	---	---	---	---	<b>13,317,768</b>	<b>100.0%</b>

Notes:

(1) One mechanic or hydraulic horsepower is equal to 0.745699872 kilowatts.

**Table 3**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation  
  
Allocation of Functional Cost Center Costs by Functional Cost Component  
January 1, 2018 through December 31, 2018

Treatment Process	Operating Cost <sup>(1)</sup>	Capacity (Collection and Conveyance Systems)		Customer (Billing, Collection, and Accounting Services)		Volume (Hydraulic Flow)		BOD		TSS		TN		TP	
		Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
Influent Pumping Station	\$95,590	0%	\$0	0%		100%	\$95,590	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Preliminary Treatment	\$95,270	0%	\$0	0%	\$0	0%	\$0	35%	\$33,340	60%	\$57,160	0%	\$0	5%	\$4,760
Bioreactors <sup>(2)</sup>	\$566,160	0%	\$0	0%	\$0	0%	\$0	88%	\$499,510	0%	\$0	9%	\$49,670	3%	\$16,980
Secondary Clarification <sup>(3)</sup>	\$142,690	0%	\$0	0%	\$0	0%	\$0	59%	\$84,350	30%	\$42,810	8%	\$11,260	3%	\$4,280
Chemical P Removal	\$16,850	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	100%	\$16,850
Secondary Pumping Station	\$95,590	0%	\$0	0%	\$0	100%	\$95,590	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Tertiary Filtration	\$145,820	0%	\$0	0%	\$0	0%	\$0	59%	\$86,200	30%	\$43,750	8%	\$11,500	3%	\$4,370
Disinfection	\$172,010	0%	\$0	0%	\$0	100%	\$172,010	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Solids Thickening <sup>(4)</sup>	\$169,490	0%	\$0	0%	\$0	0%	\$0	35%	\$59,810	60%	\$101,690	4%	\$5,950	1%	\$2,030
Aerobic Digestion <sup>(4)</sup>	\$301,230	0%	\$0	0%	\$0	0%	\$0	35%	\$106,310	60%	\$180,740	4%	\$10,570	1%	\$3,610
Solids Dewatering <sup>(4)</sup>	\$784,590	0%	\$0	0%	\$0	0%	\$0	35%	\$276,890	60%	\$470,750	4%	\$27,530	1%	\$9,420
<b>Total</b>	<b>\$2,585,290</b>	---	<b>\$0</b>	---	<b>\$0</b>	---	<b>\$363,190</b>	---	<b>\$1,146,410</b>	---	<b>\$896,900</b>	---	<b>\$116,480</b>	---	<b>\$62,300</b>

**Notes:**

- <sup>(1)</sup> Operating costs from *Table 1*.
- <sup>(2)</sup> The costs for BOD and TN removal in the secondary treatment process are based on the rate of oxygen demand assuming 1.5 lbs O<sub>2</sub> / lb BOD and 4.6 lbs O<sub>2</sub> / lb NH<sub>3</sub>-N.
- <sup>(3)</sup> The allocation of secondary clarification cost is distributed between BOD, TSS, NH<sub>3</sub>-N based on the estimated contribution of each to solids production. The costs for BOD and NH<sub>3</sub>-N removal in the secondary clarifiers are based on the rate of oxygen demand while TSS contribution is estimated based on the primary clarifier influent TSS loading.
- <sup>(4)</sup> Solids generated consist of influent solids, excess cell mass production as a direct result of the metabolism of BOD and TN, as well as chemical sludge from TP removal in the secondary treatment process. The allocation of solids handling cost is therefore distributed between BOD, TSS, TN, and TP based on the estimated contribution of each to solids production. Solids production is estimated based on the raw influent TSS loadings and the waste activated sludge loadings as outlined in *Table 4*.



**Table 4**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual WWTP Operations Summary  
January 1, 2018 through December 31, 2018

Pollutant of Concern	Raw Influent <sup>(1a)</sup>		Hauled Septage <sup>(1b)</sup>		Total Combined Process Loadings <sup>(1c)</sup>		Biological Assimilation <sup>(2)</sup>	Final Effluent <sup>(1)</sup>		Removal <sup>(3)</sup>	
	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	lbs/day	mg/L	lbs/day	lbs/day	lbs/year
BOD	244	8,635	2,000	954	264	9,589	---	2	75	9,589	3,499,983
TSS	341	12,083	1,000	477	346	12,560	---	4	139	12,560	4,584,501
TN	28.4	1,003	100.0	48	28.9	1,051	594	4.3	145.9	311	113,485
TP	5.3	187	20.0	10	5.4	197	112	0.2	0.0	85	30,900

**Notes:**

(1) Raw Influent and Final Effluent average concentrations and loadings as reported for 2018:

- a. Raw Influent concentrations and loadings do not include hauled waste contributions.
- b. Hauled septage average equivalent concentrations are based on literature value estimates. Loadings are estimated using annual average hauled waste volume in 1d.
- c. Total Combined Process Loadings are the sum of the raw wastewater and the hauled septage loadings.
- d. Annual average daily flows utilized to calculate the equivalent process loadings concentrations:

Raw Influent: 4.300 mgd  
Hauled Waste: 0.057 mgd

(2) Biological assimilation is estimated based on the following assumptions:

Parameter	Unit	Input	Calculation
WAS	mgd	0.156	---
WAS TSS	mg/L	8,822	---
WAS	lbs/day	---	11,462
MLVSS/MLSS Ratio	%	0.85	---
Estimated WAS VSS	lbs/day	---	9,742
Pure Biomass/WAS VSS Ratio	%	0.50	---
Estimated Pure Biomass	lbs/day	---	4,871
Nitrogen Assimulated	%	12.2%	---
Nitrogen Assimulated	lbs/day	---	594
Phosphorus Assimulated	%	2.3%	---
Phosphorus Assimulated	lbs/day	---	112

(3) Removal assumes that all BOD and TSS is removed through the treatment process and the final effluent CBOD and TSS are mostly an artifact of cellular debris.

- a. For TN and TP, the annual pounds removed is the raw influent loading minus the final effluent loading. Nutrient assimilation in the biological treatment process is considered part of the removal process.

**Table 5**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Cost of Removal Summary  
January 1, 2018 through December 31, 2018

<b>Pollutant of Concern</b>	<b>Annual Cost of Removal <sup>(1)</sup></b>	<b>Annual Pounds Removed <sup>(2)</sup></b>	<b>Cost per Pound Removed <sup>(3)</sup></b>
BOD	\$1,146,410	3,499,983	\$0.33
TSS	\$896,900	4,584,501	\$0.20
TN	\$116,480	113,485	\$1.03
TP	\$62,300	30,900	\$2.02

**Notes:**

- (1) Annual Cost of Removal from *Table 3*.
- (2) Annual Pounds Removed based from *Table 4*.
- (3) Cost of Removal = Yearly Cost of Pollutant Removed / Yearly Pounds of Pollutant Removed.

# APPENDIX 3

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High Strength Wastewater Surcharge Calculations  
Fiscal Year 2019

Table 1  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation  
Allocation of Total Operating Costs by Functional Cost Center  
January 1, 2019 through December 31, 2019

Account	Budget Amount <sup>(1)</sup>	Influent Pumping Station		Preliminary Treatment		Bioreactors		Secondary Clarification		Chemical P Removal		Secondary Pumping Station		Tertiary Filtration		Disinfection		Solids Thickening		Aerobic Digestion		Solids Dewatering	
		Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
<b>Total Production Costs</b>																							
Fuel and Power	\$528,570	3.7%	\$19,440	0.2%	\$1,010	44.4%	\$234,650	0.8%	\$4,340	0.0%	\$0	3.7%	\$19,440	1.4%	\$7,530	6.6%	\$35,050	2.2%	\$11,360	31.4%	\$165,930	5.6%	\$29,690
Chemicals																							
Quick Lime	\$104,500	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$104,500
Polymer	\$210,390	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	10.0%	\$21,040	0.0%	\$0	90.0%	\$189,350
Hydrated Lime	\$1,380	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$1,380
Aluminum Sulfate	\$16,260	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$16,260	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0
Sodium Hypochlorite	\$1,040	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	100.0%	\$1,040	0.0%	\$0	0.0%	\$0	0.0%	\$0
Magnesium Hydroxide	\$12,460	0.0%	\$0	0.0%	\$0	100.0%	\$12,460	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0
Biosolids and Grit/Screening Disposal	\$510,370	0.0%	\$0	5.0%	\$25,520	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%	\$0	95.0%	\$484,850
<b>Employee Related Costs</b>																							
Salaries and Wages	\$620,060	5.0%	\$31,000	5.0%	\$31,000	25.0%	\$155,020	10.0%	\$62,010	0.0%	\$0	5.0%	\$31,000	10.0%	\$62,010	10.0%	\$62,010	10.0%	\$62,010	10.0%	\$62,010	10.0%	\$62,010
Pensions	\$45,390	5.0%	\$2,270	5.0%	\$2,270	25.0%	\$11,350	10.0%	\$4,540	0.0%	\$0	5.0%	\$2,270	10.0%	\$4,540	10.0%	\$4,540	10.0%	\$4,540	10.0%	\$4,540	10.0%	\$4,540
Group Insurances	\$155,020	5.0%	\$7,750	5.0%	\$7,750	25.0%	\$38,760	10.0%	\$15,500	0.0%	\$0	5.0%	\$7,750	10.0%	\$15,500	10.0%	\$15,500	10.0%	\$15,500	10.0%	\$15,500	10.0%	\$15,500
Other Benefits	\$35,970	5.0%	\$1,800	5.0%	\$1,800	25.0%	\$8,990	10.0%	\$3,600	0.0%	\$0	5.0%	\$1,800	10.0%	\$3,600	10.0%	\$3,600	10.0%	\$3,600	10.0%	\$3,600	10.0%	\$3,600
<b>Operating Supplies and Services</b>																							
Contracted Services	\$84,890	5.0%	\$4,240	5.0%	\$4,240	25.0%	\$21,220	10.0%	\$8,490	0.0%	\$0	5.0%	\$4,240	10.0%	\$8,490	10.0%	\$8,490	10.0%	\$8,490	10.0%	\$8,490	10.0%	\$8,490
Building and Maintenance Services	\$32,130	5.0%	\$1,610	5.0%	\$1,610	25.0%	\$8,030	10.0%	\$3,210	0.0%	\$0	5.0%	\$1,610	10.0%	\$3,210	10.0%	\$3,210	10.0%	\$3,210	10.0%	\$3,210	10.0%	\$3,210
Telecommunication Expenses	\$7,140	5.0%	\$360	5.0%	\$360	25.0%	\$1,790	10.0%	\$710	0.0%	\$0	5.0%	\$360	10.0%	\$710	10.0%	\$710	10.0%	\$710	10.0%	\$710	10.0%	\$710
Postage Printing and Stationery	\$400	5.0%	\$20	5.0%	\$20	25.0%	\$100	10.0%	\$40	0.0%	\$0	5.0%	\$20	10.0%	\$40	10.0%	\$40	10.0%	\$40	10.0%	\$40	10.0%	\$40
Office Supplies & Expenses	\$8,730	5.0%	\$440	5.0%	\$440	25.0%	\$2,180	10.0%	\$870	0.0%	\$0	5.0%	\$440	10.0%	\$870	10.0%	\$870	10.0%	\$870	10.0%	\$870	10.0%	\$870
Advertising & Marketing Expenses	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Employee Related Expense Travel & Entertainment	\$6,350	5.0%	\$320	5.0%	\$320	25.0%	\$1,590	10.0%	\$640	0.0%	\$0	5.0%	\$320	10.0%	\$640	10.0%	\$640	10.0%	\$640	10.0%	\$640	10.0%	\$640
Miscellaneous Expenses	\$61,880	5.0%	\$3,090	5.0%	\$3,090	25.0%	\$15,470	10.0%	\$6,190	0.0%	\$0	5.0%	\$3,090	10.0%	\$6,190	10.0%	\$6,190	10.0%	\$6,190	10.0%	\$6,190	10.0%	\$6,190
Rents	\$1,590	5.0%	\$80	5.0%	\$80	25.0%	\$400	10.0%	\$160	0.0%	\$0	5.0%	\$80	10.0%	\$160	10.0%	\$160	10.0%	\$160	10.0%	\$160	10.0%	\$160
Transportation	\$43,240	5.0%	\$2,160	5.0%	\$2,160	25.0%	\$10,810	10.0%	\$4,320	0.0%	\$0	5.0%	\$2,160	10.0%	\$4,320	10.0%	\$4,320	10.0%	\$4,320	10.0%	\$4,320	10.0%	\$4,320
Uncollectible Accounts Expenses	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Customer Accounting Other	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Regulatory Expense	\$0	5.0%	\$0	5.0%	\$0	25.0%	\$0	10.0%	\$0	0.0%	\$0	5.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0	10.0%	\$0
Insurance (Other Than Group)	\$18,250	5.0%	\$910	5.0%	\$910	25.0%	\$4,560	10.0%	\$1,830	0.0%	\$0	5.0%	\$910	10.0%	\$1,830	10.0%	\$1,830	10.0%	\$1,830	10.0%	\$1,830	10.0%	\$1,830
Maintenance Service & Supplies	\$75,770	5.0%	\$3,790	5.0%	\$3,790	25.0%	\$18,940	10.0%	\$7,580	0.0%	\$0	5.0%	\$3,790	10.0%	\$7,580	10.0%	\$7,580	10.0%	\$7,580	10.0%	\$7,580	10.0%	\$7,580
General Taxes	\$56,330	5.0%	\$2,820	5.0%	\$2,820	25.0%	\$14,080	10.0%	\$5,630	0.0%	\$0	5.0%	\$2,820	10.0%	\$5,630	10.0%	\$5,630	10.0%	\$5,630	10.0%	\$5,630	10.0%	\$5,630
Miscellaneous Operation and Maintenance	\$91,130	10.0%	\$9,110	10.0%	\$9,110	10.0%	\$9,110	10.0%	\$9,110	1.0%	\$910	10.0%	\$9,110	10.0%	\$9,110	9.0%	\$8,200	10.0%	\$9,110	10.0%	\$9,110	10.0%	\$9,110
<b>Total</b>	<b>\$2,729,240</b>	<b>---</b>	<b>\$91,210</b>	<b>---</b>	<b>\$98,300</b>	<b>---</b>	<b>\$569,510</b>	<b>---</b>	<b>\$138,770</b>	<b>---</b>	<b>\$17,170</b>	<b>---</b>	<b>\$91,210</b>	<b>---</b>	<b>\$141,960</b>	<b>---</b>	<b>\$169,610</b>	<b>---</b>	<b>\$166,830</b>	<b>---</b>	<b>\$300,360</b>	<b>---</b>	<b>\$944,200</b>

Notes:  
<sup>(1)</sup> Year End Budget amounts from Fiscal Year 2019 with miscellaneous assumptions and estimations based on supplemental data provided by PAWC staff.  
<sup>(2)</sup> Distribution of electric costs are based on allocation established in Table 2.

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2019 through December 31, 2019

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
Influent Pumping Station						
Pump No. 1	75.00	24	122	2,920	163,308	---
Pump No. 2	75.00	24	122	2,920	163,308	---
Pump No. 3	75.00	24	122	2,920	163,308	---
<i>Influent PS Total</i>	---	---	---	---	489,925	3.7%
Preliminary Treatment						
Mechanical Barscreens						
Motor	5.00	4	365	1,460	5,444	---
Washer/Compactor Motor	0.50	4	365	1,460	544	---
Screw Conveyor	5.00	4	365	1,460	5,444	---
Grit Removal						
Grit Pump Motor	7.50	4	365	1,460	8,165	---
Grit Classifier	5.00	4	365	1,460	5,444	---
Grit Screw Motor	0.33	4	365	1,460	359	---
<i>Preliminary Treatment Total</i>	---	---	---	---	25,400	0.2%
Bioreactors						
Basin 1 Brush Aerator 1 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 2 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 3 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 4 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 5 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 6 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Brush Aerator 7 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 1 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 2 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 3 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 4 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 5 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 6 Motor	75.00	18	365	6,570	367,444	---
Basin 2 Brush Aerator 7 Motor	75.00	18	365	6,570	367,444	---
Basin 1 Oxid Mixer 1 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Oxid Mixer 2 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Oxid Mixer 3 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 1 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 2 Motor	9.00	18	365	6,570	44,093	---
Basin 2 Oxid Mixer 3 Motor	9.00	18	365	6,570	44,093	---
Basin 1 Anaerobic Mixer 1 Motor	3.90	24	365	8,760	25,476	---
Basin 1 Anaerobic Mixer 2 Motor	3.90	24	365	8,760	25,476	---
Basin 2 Anaerobic Mixer 1 Motor	3.90	24	365	8,760	25,476	---
Basin 2 Anaerobic Mixer 2 Motor	3.90	24	365	8,760	25,476	---
RAS Pump No. 1	15.00	24	292	7,008	78,388	---
RAS Pump No. 2	15.00	24	292	7,008	78,388	---
RAS Pump No. 3	15.00	24	292	7,008	78,388	---
RAS Pump No. 4	15.00	24	292	7,008	78,388	---
RAS Pump No. 5	15.00	24	292	7,008	78,388	---
WAS Pump No. 1 Motor	30.00	1	183	183	4,094	---
WAS Pump No. 2 Motor	30.00	1	183	183	4,094	---
WAS Pump No. 1 Grinder	5.00	1	183	183	682	---
WAS Pump No. 2 Grinder	5.00	1	183	183	682	---
<i>Bioreactors Total</i>	---	---	---	---	5,912,167	44.4%
Chemical P Removal						
Alum Feed Pump No. 1	0.50	12	365	4,380	1,633	---
Alum Feed Pump No. 2	0.50	12	365	4,380	1,633	---
<i>Chemical P Removal Total</i>	---	---	---	---	3,266	0.0%

Table 2  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2019 through December 31, 2019

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
<b>Secondary Clarification</b>						
Clarifier No. 1 Drive Motor	0.50	24	365	8,760	3,266	---
Clarifier No. 2 Drive Motor	0.50	24	365	8,760	3,266	---
Clarifier No. 3 Drive Motor	0.75	24	365	8,760	4,899	---
Clarifier No. 1 Scum Pump Motor	5.00	24	365	8,760	32,662	---
Clarifier No. 2 Scum Pump Motor	5.00	24	365	8,760	32,662	---
Clarifier No. 3 Scum Pump Motor	5.00	24	365	8,760	32,662	---
<i>Secondary Clarification Total</i>	---	---	---	---	109,417	0.8%
<b>Secondary Pumping Station</b>						
Pump No. 1	75.00	24	122	2,920	163,308	---
Pump No. 2	75.00	24	122	2,920	163,308	---
Pump No. 3	75.00	24	122	2,920	163,308	---
<i>Secondary PS Total</i>	---	---	---	---	489,925	3.7%
<b>Tertiary Filters</b>						
Blower No. 1	75.00	8	183	1,464	81,878	---
Blower No. 2	75.00	8	183	1,464	81,878	---
Backwash Pump No. 1	40.00	2	183	366	10,917	---
Backwash Pump No. 2	40.00	2	183	366	10,917	---
Air Compressor	7.50	4	183	732	4,094	---
<i>Tertiary Filter Total</i>	---	---	---	---	189,684	1.4%
<b>Disinfection</b>						
UV Lamp Bank No. 1 (kW per lamp)	2.8	12	365	4,380	441,504	---
UV Lamp Bank No. 2 (kW per lamp)	2.8	12	365	4,380	441,504	---
<i>Disinfection Total</i>	---	---	---	---	883,008	6.6%
<b>Solids Thickening</b>						
Plant Utility Water						
Plant Water Pump No. 1	15.00	24	243	5,840	65,323	---
Plant Water Pump No. 2	15.00	24	243	5,840	65,323	---
Plant Water Pump No. 3	15.00	24	243	5,840	65,323	---
Thickener						
Thickener No. 1 Drive Motor	3.00	8	365	2,920	6,532	---
Spray Wash Pump 1 Motor	10.00	8	365	2,920	21,774	---
Spray Wash Pump 2 Motor	10.00	8	365	2,920	21,774	---
Thickened Sludge Transfer Pump 1	7.50	8	365	2,920	16,331	---
Thickened Sludge Transfer Pump 2	7.50	8	365	2,920	16,331	---
Liquid Polymer Batching System	0.50	8	365	2,920	1,089	---
Polymer Tank No. 1 Mixer	1.50	8	365	2,920	3,266	---
Polymer Tank No. 2 Mixer	1.50	8	365	2,920	3,266	---
<i>Thickening Total</i>	---	---	---	---	286,334	2.2%
<b>Aerobic Digestion</b>						
Blower No. 1 Motor	100.00	24	292	7,008	522,586	---
Blower No. 2 Motor	100.00	24	292	7,008	522,586	---
Blower No. 3 Motor	100.00	24	292	7,008	522,586	---
Blower No. 4 Motor	100.00	24	292	7,008	522,586	---
Blower No. 5 Motor	100.00	24	292	7,008	522,586	---
Digester No. 1 Mixer No. 1	40.00	24	365	8,760	261,293	---
Digester No. 1 Mixer No. 2	40.00	24	365	8,760	261,293	---
Digester No. 1 Mixer No. 3	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 1	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 2	40.00	24	365	8,760	261,293	---
Digester No. 2 Mixer No. 3	40.00	24	365	8,760	261,293	---
<i>Aerobic Digestion Total</i>	---	---	---	---	4,180,692	31.4%

**Table 2**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual Distribution of Power Costs  
January 1, 2019 through December 31, 2019

Treatment Process	hp	Operating Time			Annual kWh	% of Total
		Hours/Day	Days/Year	Hours/Year		
Dewatering						
Feed Pumps						
Feed Pump 1 Motor	7.50	8	365	2,920	16,331	---
Feed Pump 2 Motor	75.00	8	365	2,920	163,308	---
Feed Pump 3 Motor	7.50	8	365	2,920	16,331	---
Feed Pump 1 Grinder Motor	5.00	8	365	2,920	10,887	---
Feed Pump 2 Grinder Motor	5.00	8	365	2,920	10,887	---
Feed Pump 3 Grinder Motor	5.00	8	365	2,920	10,887	---
Centrifuge No. 1						
Bowl Drive Motor	100.00	8	365	2,920	217,744	---
Back Drive Motor	20.00	8	365	2,920	43,549	---
Screw Conveyor 1 Motor	5.00	8	365	2,920	10,887	---
Centrifuge No. 2						
Bowl Drive Motor	100.00	8	365	2,920	217,744	---
Back Drive Motor	20.00	8	365	2,920	43,549	---
Screw Conveyor 2 Motor	5.00	8	365	2,920	10,887	---
Polymer System						
Liquid Polymer Batching System	5.00	8	365	2,920	10,887	---
Polymer Tank No. 1 Mixer	1.50	8	365	2,920	3,266	---
Polymer Tank No. 2 Mixer	1.50	8	365	2,920	3,266	---
Polymer Pump 1	3.00	8	365	2,920	6,532	---
Polymer Pump 2	3.00	8	365	2,920	6,532	---
Screw Conveyor 3 Motor	10.00	8	365	2,920	21,774	---
Post Lime Treatment						
Lime Volumetric Feeder	1.50	8	365	2,920	3,266	---
Lime Feed Screw Conveyor	3.00	8	365	2,920	6,532	---
Lime/Solids Mixer	20.00	8	365	2,920	43,549	---
Screw Conveyor 4 Motor	5.00	8	365	2,920	10,887	---
Screw Conveyor 5 Motor	15.00	8	365	2,920	32,662	---
Screw Conveyor 6 Motor	15.00	8	365	2,920	32,662	---
Leveling Conveyor 7 Motor	5.00	8	365	2,920	10,887	---
Leveling Conveyor 8 Motor	5.00	8	365	2,920	10,887	---
Dewatering Total	---	---	---	---	747,952	5.6%
<b>Total</b>	---	---	---	---	<b>13,317,768</b>	<b>100.0%</b>

Notes:

(1) One mechanic or hydraulic horsepower is equal to 0.745699872 kilowatts.

**Table 3**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Allocation of Functional Cost Center Costs by Functional Cost Component  
January 1, 2019 through December 31, 2019

Treatment Process	Operating Cost <sup>(1)</sup>	Capacity (Collection and Conveyance Systems)		Customer (Billing, Collection, and Accounting Services)		Volume (Hydraulic Flow)		BOD		TSS		TN		TP	
		Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
Influent Pumping Station	\$91,210	0%	\$0	0%	\$0	100%	\$91,210	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Preliminary Treatment	\$98,300	0%	\$0	0%	\$0	0%	\$0	35%	\$34,410	60%	\$58,980	0%	\$0	5%	\$4,920
Bioreactors <sup>(2)</sup>	\$569,510	0%	\$0	0%	\$0	0%	\$0	88%	\$500,780	0%	\$0	9%	\$51,650	3%	\$17,090
Secondary Clarification <sup>(3)</sup>	\$138,770	0%	\$0	0%	\$0	0%	\$0	55%	\$75,650	35%	\$48,570	7%	\$10,380	3%	\$4,160
Chemical P Removal	\$17,170	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	100%	\$17,170
Secondary Pumping Station	\$91,210	0%	\$0	0%	\$0	100%	\$91,210	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Tertiary Filtration	\$141,960	0%	\$0	0%	\$0	0%	\$0	55%	\$77,390	35%	\$49,690	7%	\$10,620	3%	\$4,260
Disinfection	\$169,610	0%	\$0	0%	\$0	100%	\$169,610	0%	\$0	0%	\$0	0%	\$0	0%	\$0
Solids Thickening <sup>(4)</sup>	\$166,830	0%	\$0	0%	\$0	0%	\$0	48%	\$80,410	45%	\$75,380	5%	\$8,290	2%	\$2,740
Aerobic Digestion <sup>(4)</sup>	\$300,360	0%	\$0	0%	\$0	0%	\$0	48%	\$144,770	45%	\$135,720	5%	\$14,930	2%	\$4,940
Solids Dewatering <sup>(4)</sup>	\$944,200	0%	\$0	0%	\$0	0%	\$0	48%	\$455,100	45%	\$426,640	5%	\$46,940	2%	\$15,530
<b>Total</b>	<b>\$2,729,130</b>	---	<b>\$0</b>	---	<b>\$0</b>	---	<b>\$352,030</b>	---	<b>\$1,368,510</b>	---	<b>\$794,980</b>	---	<b>\$142,810</b>	---	<b>\$70,810</b>

**Notes:**

<sup>(1)</sup> Operating costs from *Table 1*.

<sup>(2)</sup> The costs for BOD and TN removal in the secondary treatment process are based on the rate of oxygen demand assuming 1.5 lbs O<sub>2</sub> / lb BOD and 4.6 lbs O<sub>2</sub> / lb NH<sub>3</sub>-N.

<sup>(3)</sup> The allocation of secondary clarification cost is distributed between BOD, TSS, NH<sub>3</sub>-N based on the estimated contribution of each to solids production. The costs for BOD and NH<sub>3</sub>-N removal in the secondary clarifiers are based on the rate of oxygen demand while TSS contribution is estimated based on the primary clarifier influent TSS loading.

<sup>(4)</sup> Solids generated consist of influent solids, excess cell mass production as a direct result of the metabolism of BOD and TN, as well as chemical sludge from TP removal in the secondary treatment process. The allocation of solids handling cost is therefore distributed between BOD, TSS, TN, and TP based on the estimated contribution of each to solids production. Solids production is estimated based on the raw influent TSS loadings and the waste activated sludge loadings as outlined in *Table 4*.



**Table 4**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Annual WWTP Operations Summary  
January 1, 2019 through December 31, 2019

Pollutant of Concern	Raw Influent <sup>(1a)</sup>		Hauled Septage <sup>(1b)</sup>		Total Combined Process Loadings <sup>(1c)</sup>		Biological Assimilation <sup>(2)</sup>	Final Effluent <sup>(1)</sup>		Removal <sup>(3)</sup>	
	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	lbs/day	mg/L	lbs/day	lbs/day	lbs/year
BOD	371	10,364	2,000	1,169	396	11,533	---	2	71	11,533	4,209,699
TSS	379	10,576	1,000	585	384	11,161	---	4	125	11,161	4,073,778
TN	41.8	1,168	100.0	58	42.2	1,227	700	4.6	138.7	388	141,577
TP	7.8	219	20.0	12	7.9	231	132	0.2	6.6	92	33,582

**Notes:**

- (1) Raw Influent and Final Effluent average concentrations and loadings as reported for 2019
- Raw Influent concentrations and loadings do not include hauled waste contributions.
  - Hauled septage average equivalent concentrations are based on literature value estimates. Loadings are estimated using annual average hauled waste volume in 1d.
  - Total Combined Process Loadings are the sum of the raw wastewater and the hauled septage loadings.
  - Annual average daily flows utilized to calculate the equivalent process loadings concentrations:

Raw Influent: 3.419 mgd  
Hauled Waste: 0.070 mgd

- (2) Biological assimilation is estimated based on the following assumptions:

Parameter	Unit	Input	Calculation
WAS	mgd	0.183	---
WAS TSS	mg/L	8,869	---
WAS	lbs/day	---	13,506
MLVSS/MLSS Ratio	%	0.85	---
Estimated WAS VSS	lbs/day	---	11,480
Pure Biomass/WAS VSS Ratio	%	0.50	---
Estimated Pure Biomass	lbs/day	---	5,740
Nitrogen Assimilated	%	12.2%	---
Nitrogen Assimilated	lbs/day	---	700
Phosphorus Assimilated	%	2.3%	---
Phosphorus Assimilated	lbs/day	---	132

- (3) Removal assumes that all BOD and TSS is removed through the treatment process and the final effluent CBOD and TSS are mostly an artifact of cellular debris.
- For TN and TP, the annual pounds removed is the raw influent loading minus the final effluent loading. Nutrient assimilation in the biological treatment process is considered part of the removal process.

**Table 5**  
PAWC Coatesville Wastewater Treatment Plant  
High Strength Wastewater Surcharge Rate Evaluation

Cost of Removal Summary  
January 1, 2019 through December 31, 2019

<b>Pollutant of Concern</b>	<b>Annual Cost of Removal <sup>(1)</sup></b>	<b>Annual Pounds Removed <sup>(2)</sup></b>	<b>Cost per Pound Removed <sup>(3)</sup></b>
BOD	\$1,368,510	4,209,699	\$0.33
TSS	\$794,980	4,073,778	\$0.20
TN	\$142,810	141,577	\$1.01
TP	\$70,810	33,582	\$2.11

**Notes:**

- (1) Annual Cost of Removal from *Table 3*.
- (2) Annual Pounds Removed based from *Table 4*.
- (3) Cost of Removal = Yearly Cost of Pollutant Removed / Yearly Pounds of Pollutant Removed.

Statement No. 3

Aiton

**PAWC STATEMENT NO. 3**

**DIRECT TESTIMONY**

**OF**

**BRUCE W. AITON**

**WITH REGARD TO**

**PENNSYLVANIA-AMERICAN WATER COMPANY'S**

**DOCKET NOS.**

**R- 2023-3043189(WATER)**

**R-2023-3043190 (WASTEWATER)**

**DATE: NOVEMBER 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF BRUCE W. AITON**

1 **Q. What is your name and business address?**

2 A. My name is Bruce W. Aiton and my business address is 852 Wesley Drive, Mechanicsburg,  
3 Pennsylvania 17055.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed by Pennsylvania-American Water Company (“PAWC” or the “Company”)  
6 as Vice President of Engineering.

7 **Q. Please describe your educational background and business experience.**

8 A. I have a Bachelor of Science degree in Civil Engineering from California State University,  
9 Sacramento and have been in the engineering and construction field for approximately  
10 forty years. I am a licensed Civil Engineer in the State of California.

11 **Q. Do you belong to any professional or industry associations?**

12 A. Yes, I am a member of American Water Works Association and Water Environment  
13 Federation.

14 **Q. What are your duties and responsibilities in your current position?**

15 A. As Vice President of Engineering for PAWC, I am responsible for the administration of  
16 engineering services, including but not limited to the planning, design and construction of  
17 water and wastewater capital investment projects for PAWC’s systems and facilities.

18 **Q. What is the purpose of your testimony?**

19 A. First, I will discuss the Company’s capital investment planning process. As part of that  
20 discussion, I will explain how implementation of PAWC’s proposed Environmental

1 Compliance Investment Charge (“ECIC”) described by Company witness J. Cas Swiz in  
2 PAWC Statement No. 8 will address the challenges posed by new and changed  
3 environmental mandates between rate cases. Second, I will describe and support the  
4 additions to the Company’s water and wastewater utility plant and equipment that will be  
5 placed in service during the future test year (“FTY”) ending June 30, 2024 and the fully  
6 projected future test year (“FPFTY”) ending June 30, 2025. Third, I will describe the risks  
7 associated with: maintaining safe and adequate water quantity and water quality and  
8 complying with applicable drinking water and environmental regulations associated with  
9 owning and operating facilities for supplying water services to the public; complying with  
10 environmental regulations applicable to owning and operating facilities for furnishing  
11 wastewater service to the public; and the challenges climate change could create for water  
12 and wastewater utilities. Ms. Bulkley, in PAWC Statement No. 13, discusses why  
13 investors’ perceptions of such risks should be considered in establishing a reasonable rate  
14 of return on equity for the Company in this case. Finally, I will address the bulk treatment  
15 service that the Company provides in its York wastewater system.

16 **The Company’s Capital Investment Planning and Governance Process**

17 **Q. Please explain the Company’s capital investment planning and governance process.**

18 A. The Company uses a standardized Capital Program Management (“CPM”) process to  
19 prioritize and manage its capital investments. PAWC conducts planning studies that assess  
20 necessary improvement projects and prioritize those projects. Further, each facility is  
21 evaluated using the Company’s High Risk Asset Management (“HRAM”) process to  
22 identify facilities or individual assets that may pose a high risk to the Company’s system(s)

1 due to either their importance and/or a possibility of failure. All capital investment  
2 programs and projects are then prioritized within an overall strategic planning process,  
3 utilizing the HRAM process. In the HRAM process, facilities and critical assets are  
4 evaluated against risk and consequence of failure to formulate a five-year Strategic Capital  
5 Expenditure Plan (“SCEP”). Following more detailed design engineering, implementation  
6 plans are developed for those projects that are contained in the SCEP. The Company’s  
7 annual capital construction plan is based upon projects and programs contained in the  
8 SCEP. On an annual basis, main replacement projects are prioritized on a state-wide basis.  
9 Numerous factors are considered when determining funding allocations for infrastructure  
10 investment, such as current and future service needs, assessments of the physical condition  
11 of existing plant, economic and risk factors, performance characteristics, regulatory  
12 compliance, and the potential to coordinate with municipalities and other utilities in joint  
13 improvement projects. The CPM governance process provides for formal approvals and  
14 consistent controls that optimize the effectiveness of asset investment and ensures that  
15 capital investment meets the Company’s strategic goals.

16 **Q. How does the Company’s construction planning process impact its claim for plant**  
17 **additions?**

18 A. The Company’s claim for plant additions consists of the projects scheduled for completion  
19 during the FTY and the FPFTY. The overwhelming majority of the Company’s claimed  
20 projects will be constructed and completed as planned. However, as the years progress,  
21 some projects may be substituted for others initially included in the budget due to  
22 unanticipated events requiring an immediate capital addition, such as plant or equipment

1 that has experienced failure and needs to be replaced or delay in permitting of a specific  
2 project. In general, the overall cost of plant construction will be consistent with the values  
3 filed. Often, where one project may lag for a variety of reasons, another may be completed  
4 early, thereby offsetting another project's delay such that the overall program remains  
5 consistent.

6 With timely recovery of its investment, the Company is better able to plan and  
7 deploy capital more efficiently over the long term. The Company employs a proactive  
8 approach to planning construction work and has accelerated investments in replacement of  
9 high risk or poor performing water and wastewater underground infrastructure before  
10 problems arise, such as leaks and main breaks, through its Commission-approved  
11 Distribution System Improvement Charge ("DSIC"). Planned infrastructure replacements  
12 are much less costly on a unit cost basis than the costs of addressing pipe breaks on an ad  
13 hoc basis that can result in service disruptions, property damage, health risks from potential  
14 drinking water contamination exposure during pipe breaks, related community opportunity  
15 costs related to community health and economic development, and the steep increase in  
16 future underground infrastructure investments resulting from prior deferrals of the  
17 replacements. PAWC's above ground assets, such as booster systems and storage tanks,  
18 are not DSIC-eligible property. Therefore, the Commission's approval of the Company's  
19 proposed FTY and FPFTY plant additions will support PAWC's ability to continue  
20 replacing pipes and above ground infrastructure on a planned and proactive basis with  
21 timely recovery of those investments.



1 **Q. Why is PAWC proposing to implement a new ECIC in this case to recover certain**  
2 **environmental compliance costs through an automatic adjustment clause?**

3 A. The Company spends a significant effort evaluating and planning a five-year set of needed  
4 construction improvements. However, emerging regulations or re-interpretations of  
5 existing regulations often result in new environmental compliance obligations that disrupt  
6 the five-year plan of construction work and require the Company to undertake additional  
7 projects on an expedited basis to comply with those changes. Because the timing of these  
8 projects and the need to comply with new environmental mandates are outside PAWC's  
9 control, the Company faces the undesirable situation of complying with these mandates  
10 and potentially having to delay other prudently planned and important projects to stay  
11 within the five-year plan's capital expense forecast. The Company's proposed ECIC would  
12 provide a reasonable rate adjustment mechanism to enable the thorough planning and  
13 execution of a five-year investment plan and support full and timely rate recognition of  
14 PAWC's costs to meet the continuously evolving requirements from the United States  
15 Environmental Protection Agency ("EPA"), Pennsylvania Department of Environmental  
16 Protection ("PADEP"), and other environmental agencies.

17 **Q. Can you provide an example of such a situation with respect to drinking water**  
18 **systems?**

19 A. One example of such a rapidly changing set of regulatory mandates involves the  
20 combination of federal and state regulations concerning per- and polyfluoroalkyl

1 substances (“PFAS”). On March 14, 2023,<sup>1</sup> the EPA issued proposed drinking water  
2 regulations for six PFAS, which will establish legally enforceable levels (Maximum  
3 Contaminant Levels, or “MCLs” and Maximum Contaminant Level Goals (“MCLGs”))  
4 for each of these six PFAS that are known to occur in drinking water. In addition to the  
5 MCLs and enforceable limits for these six PFAS, the EPA is proposing requirements for  
6 the continued monitoring of PFAS, public notification of monitoring results if they exceed  
7 defined limits, and the treatment of drinking water to reduce PFAS to required limits. The  
8 EPA is expected to finalize its PFAS Rule in January 2024 at which point public water  
9 systems will be required to modify their facilities to comply within three years.

10 In addition to these proposed federal regulatory requirements, Pennsylvania has  
11 promulgated state drinking water standards establishing strict MCLs and MCLGs for two  
12 PFAS chemicals, perfluorooctanoic acid (“PFOA”) and perfluorooctanesulfonic acid  
13 (“PFOS”), with compliance monitoring mandates that go into effect January 1, 2024.  
14 Systems with monitored exceedances of these new standards must proceed expeditiously  
15 with corrective actions (in advance of any parallel federal mandates), which in most cases  
16 will require additional or modified treatment systems, modification of sources, or a  
17 combination of actions.

18 Together, these impending federal and state regulations in most cases will require  
19 additional or modified treatment systems, modification of sources, or a combination of  
20 actions. For the Company, these new requirements will require investments in the range

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<sup>1</sup> US EPA Fact Sheet – *EPA’s Proposal to Limit PFAS in Drinking Water*  
[https://www.epa.gov/system/files/documents/2023-04/Fact%20Sheet\\_PFAS\\_NPWDR\\_Final\\_4.4.23.pdf](https://www.epa.gov/system/files/documents/2023-04/Fact%20Sheet_PFAS_NPWDR_Final_4.4.23.pdf)

1 of \$200 million of work before the end of 2027, based on preliminary estimates; specific  
2 projects and investments will depend on the results of monitoring and pilot testing as  
3 envisioned by the regulations. While the Company believes that certain measures should  
4 be taken proactively in the FPFTY to comply with the EPA's impending MCLs for PFAS,  
5 the ECIC will provide the Company a reasonable opportunity to recover the capital costs  
6 and expenses incurred after June 30, 2025 to comply with the new federal standards.

7 **Q. In the situation you just described, why can't the Company wait until the federal**  
8 **PFAS rules are finalized, and then prudently develop project plans to be incorporated**  
9 **into its five-year investment plan following standard utility procedures?**

10 A. As I mentioned, the proposed federal PFAS drinking water standard rule provides a very  
11 short time frame for compliance, and the state rule contemplates an even faster track.  
12 Although the federal rule is not finalized, the Company cannot wait for final adoption of  
13 the federal regulations before commencing actions and investments. Achieving timely  
14 compliance with the proposed federal rule would require one year of pilot testing, nearly a  
15 year of design, between 6 to 12-months of permitting, and construction over a period of 1-  
16 2 years depending on the scope of treatment modifications necessary. And as noted  
17 previously, the state rules on two of the PFAS chemicals go into effect even before the  
18 federal rules. Thus, to achieve the combined mandates of these requirements, the Company  
19 must begin the work well ahead of the final federal rule.

20 At the same time, counsel has advised me that irrespective of the compliance  
21 timeframes set forth in such regulations, class action lawsuits have been brought in some  
22 states against utilities, seeking to impose liability on utilities under theories of product

1 liability, failure to warn, and negligence for the distribution of drinking water containing  
2 PFAS.<sup>2</sup> We are not commenting on the merits of such claims or the defenses which the  
3 utilities may assert. Suffice it to say that as a utility with a strong commitment to providing  
4 safe, reliable water to our customers, the Company believes it is prudent, appropriate, and  
5 consistent with accepted public utility practice to take proactive steps to address the  
6 challenge of PFAS and other emerging issues, without waiting for either regulatory  
7 deadlines or legal actions.

8 **Q. Do you have an example of potential situations involving wastewater systems that**  
9 **might trigger consideration for use of the ECIC?**

10 A. With respect to wastewater systems, PFAS again poses some impending challenges. The  
11 EPA has proposed and is expected soon to finalize rules designating certain PFAS  
12 chemicals as “hazardous substances” under the Comprehensive Environmental Response,  
13 Compensation and Liability Act (“CERCLA”). The full effect of those regulations is at  
14 this point difficult to forecast with any clarity. Because PFAS chemicals are found in a  
15 range of wastewaters (and even stormwater) entering community wastewater systems, they  
16 may either pass through the treatment plant to discharge to a stream or become entrained  
17 in the residuals (sludges) that are produced by treatment processes. The designation of  
18 PFAS chemicals as hazardous substances is anticipated to impact the manner and method  
19 by which wastewater plants can dispose of sludges and other residuals, and may impose  
20 requirements for both additional residual management investment and significantly

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<sup>2</sup> *Deborah Vincent, et al. v. Aquarion Water Company*, Connecticut Superior Court, J.D. Fairfield, Docket No. FBT-CV-23-6128205-S (Complaint filed October 16, 2023); *Frances Hoffnagle v. The Connecticut Water Company*, Connecticut Superior Court, J.D. Hartford, Docket No. HHD-CV-23-6175540-S (Complaint filed October 16, 2023).

1 increased operating costs associated with residuals disposition.

2 **Description of Claimed Plant Additions**

3 **Q. Please describe the Company’s claimed plant additions, as shown in Exhibit No. 3-C.**

4 A. The Company has undertaken gross plant additions (including projects funded by customer  
5 advances and contributions) to be completed by June 30, 2024 (FTY), that are estimated to  
6 total \$742,020,740. The Company has also undertaken, or will undertake, gross plant  
7 additions (including projects funded by customer advances and contributions) to be  
8 completed by June 30, 2025 (FPFTY), that are estimated to total \$797,874,110. Thus, the  
9 total gross plant additions for the FTY and FPFTY are \$1,539,894,850. When projected  
10 retirements of \$253,536,706 are considered for the FTY and FPFTY, the combined net  
11 increase in plant additions for those two years is estimated to be \$1,286,358,144.

12 **Q. In general terms, could you explain why the Company is planning to spend over  
13 \$1 billion on infrastructure investment through the fully projected future test year?**

14 A. Pennsylvania’s water and wastewater infrastructure requires significant upgrade and repair.  
15 In its 2021 Report Card for Pennsylvania’s Infrastructure (“Report Card”), the American  
16 Society of Civil Engineers concluded that the Commonwealth’s water and wastewater  
17 infrastructure received grades of D and D-, respectively.<sup>3</sup> With regard to drinking water,  
18 the Report Card provides the following Executive Summary:

19 Most of Pennsylvania’s public drinking water systems are struggling  
20 to fund projects to meet their replacement goals as well as new  
21 regulations. That’s despite recent investment in main replacement  
22 and improvement in identifying vulnerability to failures for

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<sup>3</sup> Report Card for Pennsylvania’s Infrastructure, Pennsylvania State Council of the American Society of Civil Engineers (available at [https://infrastructurereportcard.org/wp-content/uploads/2020/12/National\\_IRC\\_2021-report.pdf](https://infrastructurereportcard.org/wp-content/uploads/2020/12/National_IRC_2021-report.pdf)).

1 prioritization of repairs. Over the next 10 years, Pennsylvania’s  
2 public water systems are projected to have a \$10.2 billion funding  
3 gap, a number only very slightly offset with recent federal actions  
4 to provide infrastructure funding. In addition, there remain  
5 substantial amounts of lead service lines posing risk to public health,  
6 particularly for underserved communities. Emerging contaminants  
7 such as perfluoroalkyl and polyfluoroalkyl substances (PFAS) pose  
8 growing public health threat. To conquer these issues, water utilities  
9 need to adopt full-cost pricing and find technologies that enable  
10 more efficient operation and emergency response.<sup>4</sup>

11 The Report Card’s Executive Summary for Wastewater is as follows:

12 Aging wastewater management systems discharge billions of  
13 gallons of raw sewage into Pennsylvania’s surface water each year.  
14 The average age of most sewer systems is approaching 75 years with  
15 many pipes over 100 years old. 26% of the state is served by on-lot  
16 systems with nearly one-quarter failure rate. Two-thirds of the  
17 state’s Sewage Facility Plans are over 20 years old. The  
18 Commonwealth has a funding gap of \$8.4 billion over the next 10  
19 years to repair existing systems, upgrade existing systems to meet  
20 regulatory requirements, control Combined Sewer Overflows  
21 (CSOs), address illicit Sanitary Sewer Overflows, and construct new  
22 or expand existing systems to meet increasing demand. Available  
23 funding over that time is estimated to be \$900 million, only about  
24 one-tenth of the required annual investment.<sup>5</sup>

25 Dams fair a bit better with an overall grade of C. However, as pointed out in the

26 Report Card there is still much work to be done:

27 Dams in Pennsylvania manage flood risk, provide fish and wildlife  
28 habitats, recreational opportunities, and drinking water supply. Of  
29 the 1,498 dams in Pennsylvania, over half (54%) are classified as  
30 high-hazard, likely causing death and economic damage under  
31 failure. The average age of Pennsylvania dams is 76 years old,  
32 nearly 20 years older than the national average and well beyond the  
33 typical 50-year design life. The high average age of Pennsylvania  
34 dams makes incorporating resiliency and innovation into the

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<sup>4</sup> *Id.*, at p. 36.

<sup>5</sup> *Id.*, at p. 146.

1 redesign cost-prohibitive, especially for the 61% of owners who are  
2 private citizens or organizations. Raising the grade on Pennsylvania  
3 dams requires increased funding, perhaps the establishment of a loan  
4 or grant program to financially assist owners with repairs,  
5 abandonment, and removal projects. Supporting modernization of  
6 current federal assistance programs through the passage of the  
7 21<sup>st</sup> Century Dams Act would also serve to benefit Pennsylvanians.<sup>6</sup>

8 Many of the high hazard dams owned by the Company are well beyond 90-years and no  
9 longer fully comply with PADEP regulations, thus requiring significant investment in the  
10 dams to achieve compliance with newer regulations and to prevent failure to the dam and/or  
11 spillways.

12 The Company, while overall better than the grades for the Commonwealth, needs  
13 to increase investment in replacement and improvement of its older and high-risk water  
14 mains to avoid the potential health risks, environmental impacts and financial losses noted  
15 in the Report Card. Substantial investment in PAWC's wastewater systems is also required  
16 to properly address combined and sanitary sewer overflows, repair existing systems,  
17 upgrade systems to meet EPA and PADEP regulatory requirements and build new required  
18 facilities. The Company's planned infrastructure investment through the FPFTY and  
19 beyond is intended to continue to address these infrastructure concerns in the  
20 Commonwealth, as well as to meet several environmental and public health standards  
21 described later in my testimony.

22 **Q. Can you provide an update on the actual plant in service through September 30,**  
23 **2023?**

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<sup>6</sup> *Id.*, at p. 29.

1 A. The actual plant retirements and additions through September 30, 2023 are listed in  
2 Schedule BWA-1.

3 **Q. What types of projects are included in the Company's total gross plant additions for**  
4 **its FTY and FPFTY?**

5 A. The projects that comprise the Company's claim for plant additions are set forth by  
6 applicable property account and PAWC Project Number in the portion of PAWC Exhibit  
7 No. 3-C that I am sponsoring, along with the estimated completion date and associated  
8 retirement for each project. As shown in Exhibit No. 3-C, the Company's claimed plant  
9 additions vary from what may be characterized as small, routine projects, such as the  
10 installation of individual distribution mains to substantially larger projects, such as the  
11 Curtis Dam Rehabilitation. The Company's claims also include projects necessary to  
12 satisfy new regulations to ensure the removal of cryptosporidium as well as safety and  
13 reliability projects such as the installation of emergency power generation equipment and  
14 pipeline reinforcements; water storage tank projects; and improvements to acquired  
15 systems which I discuss below along with other large projects.

16 **Q. Does Exhibit No. 3-C also reflect the Company's acquisitions in its FTY and FPFTY?**

17 A. Yes. Exhibit No. 3-C reflects the asset cost, reserve, and depreciated cost by plant account  
18 and year for the acquired assets for the systems which the Company will acquire in the  
19 FTY and FPFTY, including Farmington Township and Audubon Water Company's water  
20 systems, as well as the wastewater systems to be acquired from Butler Area Sewer  
21 Authority, the Borough of Brentwood, Sadsbury Township Municipal Authority and  
22 Farmington Township. Additionally, as the Borough of Brentwood has not yet closed,



1 there are no specific projects associated with the interceptors at this time. However,  
2 subsequent to closing, the acquisition there may be work required on the interceptor pipes  
3 that while not owned by the Company are the responsibility of the Company and required  
4 as a component of adequate, reliable service. Therefore, those projects required will be  
5 treated as capital investment by the Company.

6 **Q. Are there any particular projects that, because of their size or importance, you would**  
7 **like to discuss further?**

8 A. Yes. While there are hundreds of individual plant additions detailed in Exhibit No. 3-C,  
9 the larger individual components of the Company's claim for plant additions are described  
10 below. Water system projects are presented first by year of anticipated completion,  
11 followed by wastewater system projects also by year of planned completion. In the  
12 following summary, I will indicate if a project is either a PADEP or EPA requirement.

13 **FTY (July 2023-June 2024) Water Projects**

14 **1. 42" Edgebrook/Brook Street Waterline Replacement (I24-110070):**

15 The Company plans to replace approximately 3,400 linear feet ("LF") of transmission main  
16 with 42-inch zinc coated HDSS ductile iron ("DI") pipe along Edgebrook Avenue and  
17 Minooka Street in the in the Company's Pittsburgh system in Allegheny County. The  
18 existing main has experienced frequent leaks leading to extensive surface damage.  
19 Replacement of the main will enhance system reliability and improve customer service.  
20 The estimated total cost of the project is approximately \$7,990,178.

21 **2. Snowden Road Main Replacement (I24-110071):**

22 The project will replace approximately 3,300 LF of 24-inch high density polyethylene

1 (“HDPE”) pipe that has been pulled through 48-inch concrete lockjoint pipe with 24-inch  
2 zinc coated DI pipe along Snowden Road in South Park, Allegheny County, in the  
3 Company’s Pittsburgh system. The 24-inch HDPE pipe was installed in 2002 and the  
4 exterior 48-inch concrete lockjoint pipe was installed in 1966. Replacement of the existing  
5 main, which has experienced several leaks, will provide better reliability and improved  
6 service to customers. The estimated total cost of the project is approximately \$2,392,545.

7 **3. Steelton Booster Pump Station (“BPS”) Replacement(I24-140002):**

8 The existing Kelker Street BPS serves 660 customers and experiences low pressure issues  
9 during periods of high flow demands, has low fire flow capability, and is not capable of  
10 providing sufficient flows for flushing the distribution system. The project involves  
11 replacing the existing BPS with a new prefabricated BPS with three domestic pumps and  
12 a high flow pump for satisfying system flushing and fire flow demands. The Company will  
13 construct a new utility building on an adjacent site, for storage and protection of equipment  
14 and materials, and to allow for Supervisory Control and Data Acquisition (“SCADA”)   
15 monitoring and control of the system in the event that the water treatment plant (“WTP”)   
16 is inaccessible. The total estimated project cost is \$2,273,231.

17 **4. Hershey-Steelton Regional WTP (I24-14XX03-02):**

18 PAWC plans to acquire new property in the FTY prior to beginning the design and  
19 construction process for a future regional WTP to serve the Hershey and Steelton Districts.  
20 The existing Hershey WTP and Steelton WTP are approaching the end of their useful lives  
21 and it is not feasible to expand or replace either WTP on the existing site due to limited  
22 space and, in the case of the Hershey WTP, additional water allocation is not available

1 from the Swatara Creek. The Company will purchase property in advance of design and  
2 construction of the Hershey-Steelton WTP due to limited inventory adjacent to the  
3 Susquehanna River. The total estimated project cost is \$1,500,000.

4 **5. Steelton WTP Filter Improvements (I24-140003):**

5 As a new acquisition, an assessment was done on the Steelton WTP. A number of  
6 deficiencies were identified that must be addressed to meet safety, reliability, and  
7 regulatory treatment requirements. These deficiencies will be addressed through  
8 improvements to optimize operation of the filters, including a dedicated backwash tank, air  
9 scour system, a filter to waste capability, and associated filter piping improvements. The  
10 existing gas chlorine system will also be replaced with a bulk sodium hypochlorite storage  
11 and feed system including a chemical unloading station with spill containment. The total  
12 estimated project cost is \$4,946,094.

13 **6. Donaldson Road Water Line Extension (I24-210035)**

14 During the course of the Company's 2022 base rate case and, in particular, at the telephonic  
15 public input hearings held on July 19, 2022, six homeowners on Donaldson Road in  
16 Robinson Township, Washington County requested help to resolve ongoing water quality  
17 issues with the well water in the area that they attributed to strip mining operations. The  
18 affected area was identified by the Office of Consumer Advocate ("OCA") witness  
19 Terry L. Fought based on his review of the homeowners' request for service. PAWC  
20 analyzed the problem and determined that it would be feasible to construct extensions from  
21 its existing mains to the affected area. The Company also determined that the main  
22 extension could be constructed pursuant to Rule 27.1(F) of its water tariff, which authorizes

1 main extensions to be installed without customer contributions, subject to Commission  
2 approval, to address public health and safety concerns. Consequently, in Paragraph 57 of  
3 the Joint Petition for Settlement of Rate Investigation in its 2022 rate case (“2022 Rate  
4 Case Settlement”), the Company agreed to construct a water main extension to the six  
5 residences along Donaldson Road delineated by Mr. Fought. The Commission approved  
6 the 2022 Rate Case Settlement in its final order entered on December 8, 2022. The project  
7 will require the installation of 4,000 LF of new 8-inch and 1.5-inch water main along  
8 Donaldson Road and construction commenced in October 2023. The total estimated project  
9 cost is \$1,362,000.

10 **7. Ellwood - Jackson Township Gradient Improvements (I24-310020):**

11 The project is to design and construct a 750,000-gallon elevated tank, 1,200 LF of 12-inch  
12 and 16-inch main, and a 1,500 gallons per minute (“GPM”) BPS to create a new pressure  
13 gradient in Jackson Township, Butler County. This area of the Ellwood system has  
14 experienced high growth which is impacting pressure. The estimated cost of the project is  
15 \$6,974,000.

16 **8. New Castle WTP Improvements (I24-310018):**

17 The project, which is required by the PADEP, will install ultraviolet light (“UV”)   
18 disinfection to comply with the EPA’s Long Term 2 Enhanced Surface Water Treatment  
19 Rule (“LT2”) and the addition of a fifth filter to achieve reliable capacity with one filter  
20 out of service. The total estimated cost of the project is \$11,500,000.

21 **9. Punxsutawney South Main New Elevated Tank (I24-420008-02):**

22 PAWC will install a second 0.50 million gallon (“MG”) elevated storage tank within the

1 South Main gradient of the Punxsutawney system. The second tank will keep the system  
2 in pressure while the existing tank is out of service for maintenance and repainting. The  
3 overall estimated cost of the project is \$4,500,000.

4 **10. Warren 8,300 LF 12-inch Pipe Replacement On Pleasant Drive (I24-45XX03):**

5 The project includes the replacement of approximately 8,300 LF pipe with 12-inch DI pipe  
6 along Pleasant Drive to add reliability and to increase flows and reinforce the south side of  
7 the Company's Warren system. The total estimated project cost is \$2,490,000.

8 **11. Norristown Lafayette Street Pipe Replacement (I24-510031):**

9 The Lafayette Street distribution main services approximately 33,000 customers in the  
10 Norristown area in Montgomery County. This project involves the replacement of  
11 2,800 LF of 4-inch and 6-inch cast iron ("CI") pipe with 12-inch DI pipe to improve  
12 redundancy and flow. The total estimated project cost is \$1,800,000.

13 **12. Lake Montrose Dam Rehabilitation (I24-540007)**

14 The Lake Montrose Dam built in 1919 impounds 160-MG of water and provides a raw  
15 water source to the Company's 0.65 million gallon per day ("MGD") Montrose WTP. It is  
16 classified as a high hazard (Class C-1) dam under current PADEP dam safety regulations,  
17 which requires the structure to safely convey flood flows equal to the Probable Maximum  
18 Flood ("PMF") for the associated watershed. Although the dam was originally designed  
19 to satisfy the safety standards at the time of construction, the dam's spillway is now  
20 considered inadequate because it can pass only 17% of the PMF before water can overtop  
21 the dam. Overtopping could cause the structure to fail and result in the loss of life and  
22 extensive economic impacts. The project will create additional spillway capacity to ensure

1 safe and reliable operation and to meet current PADEP dam safety regulations. The  
2 estimated cost of the project is \$4,866,026.

3 **13. Montrose WTP Improvements (I24-540012)**

4 The purpose of the project is to provide safe accommodations for deliveries, safe off-street  
5 parking for employees and visitors, and adequate storage space for tools and spare parts at  
6 the Montrose WTP. Due to the existing site constraints, deliveries to the plant are not able  
7 to be made in a safe manner and require plant operators to physically stop traffic along  
8 PennDOT Route 29 by entering the roadway and flagging oncoming traffic. The total  
9 estimated cost is \$3,500,000.

10 **14. Stoney Garden Intake Improvements (I24-560007)**

11 The project is a PADEP requirement. Stoney Garden Dam has a severely deteriorated  
12 spillway, seepage issues, potential embankment stability issues and has a 100-year-old  
13 outlet works and piping. Rehabilitation of the dam includes replacing the deteriorated  
14 spillway, adding seepage drainage facilities, flattening downstream dam embankment for  
15 stability and upgrading outlet works, including replacing the 100-year-old CI pipe from the  
16 dam to the WTP. The total estimated cost is \$8,376,706.

17 **15. Pocono Well Improvements (I24-570011)**

18 The existing well building requires significant improvements and has therefore reached the  
19 end of its useful life. This project includes constructing a new well house, adding a chlorine  
20 contact main, and demolishing the existing well house. The total estimated cost of the  
21 project is \$1,500,000.

22 **16. New Water Main in Exeter Township (I24-590003-02)**

1 This project involves the installation of a new main in Exeter Township that will extend  
2 approximately 4,500 LF. The Company agreed to install the new water main as part of its  
3 acquisition of the Exeter water system to provide water service and fire protection to  
4 approximately 50 homes and businesses in parts of Exeter Township without existing  
5 service. The total estimated cost of the project is \$1,550,000.

6 **17. Glen Corrosion Control (I24-59XX02)**

7 The purpose of this project is to install corrosion inhibitors at various entry points in the  
8 Glen water system. The corrosion inhibitor will aid in ensuring the customers are protected  
9 from potential metals dissolving into the water. The total estimated cost of the project is  
10 \$1,100,000.

11 **18. Lead Service Line Inventory (I24-610022)**

12 To meet current EPA and PADEP Lead and Copper Rule (“LCR”) requirements, PAWC  
13 will develop an inventory to identify the material of all service lines connected to the  
14 Company’s water systems, including the customer-owned and Company-owned segments  
15 by October 2024. The purpose of the inventory is to determine the location of lead and  
16 galvanized services in PAWC’s water systems, track progress toward full replacement of  
17 lead service lines (“LSLs”) and inform communications with the public. This inventory  
18 will be publicly available on the Company’s website so that customers can determine which  
19 of the four categories (lead, galvanized requiring replacement, non-lead and lead status  
20 unknown) is in the service line delivering their water. The project requires the physical  
21 examination of virtually all 680,000 services across Pennsylvania often through pothole  
22 excavation in order to develop the required inventory. The total estimated cost for the

1 project is \$11,163,718.

2 **19. West Shore Clearwell Roof (I24-610023)**

3 The West Shore WTP serves the Mechanicsburg area in Cumberland County. The project  
4 includes replacement of the existing Clearwell roof, which has reached the end of its useful  
5 life. The total estimated cost of the project is \$1,517,344.

6 **20. Penn LCR Upgrades (I24-63XX08)**

7 This project involves the installation of corrosion inhibitors at various entry points in the  
8 Penn water system to meet current LCR requirements. The total estimated cost of the  
9 project is \$1,600,000.

10 **21. Royersford System Loop (I24-640015)**

11 The purpose of this project is to install a water main to connect the western ends of the  
12 Company's Royersford distribution system across Route 422. The total estimated cost of  
13 the project is \$2,985,000.

14 **22. Connect Phoenixville Gradient to Merlin Hills/Terry Lane Gradient (I24-  
15 640016)**

16 The purpose of this project is to install main and pressure relief vaults ("PRV") with control  
17 panels to provide two interconnections into a lower pressure service area of the Royersford  
18 system currently served by interconnections with Phoenixville Borough. The total  
19 estimated cost of the project is \$1,500,000.

20 **23. Pine Ridge Well 5 - New Groundwater Supply (I24-680023)**

21 The project will develop a new groundwater well source for the Pine Ridge water system  
22 in the Lehman-Pike District. The system is currently supplied by four wells and does not



1 have adequate capacity to meet average daily demands in the system if the largest well is  
2 out of service. The project will provide an additional groundwater source to augment  
3 existing supplies and enhance system reliability. The estimated cost of the project is  
4 \$1,073,374.

5 **24. Mid-Monroe Groundwater Development (I24-680024)**

6 The purpose of this project is to develop a new groundwater source for the Mid-Monroe  
7 water system in the Lehman-Pike District. This system is supplied by four bedrock wells  
8 that experience recurring problems with reduced yield and decreasing effectiveness of  
9 redevelopment efforts. The current system does not have adequate capacity to meet  
10 maximum day demands and commercial customers are growing at accelerated rates. The  
11 project will provide an additional groundwater source to augment existing supplies,  
12 enhance system resiliency, and provide growth opportunities. The scope of the project  
13 includes hydrogeology field work, pump sizing and treatment design, well drilling, and  
14 existing treatment building and filter modifications. The total estimated cost of this project  
15 is \$1,299,930.

16 **25. Phillipsburg WTP Filter Improvements (I24-720005)**

17 The Phillipsburg WTP provides potable water to approximately 8000 customers in Centre  
18 County. The project will replace filter media installed more than 15 years ago and  
19 associated underdrain equipment that have reached the end of their useful life. The project  
20 was initiated by PADEP requirements after a filter inspection. Other improvements include

1 replacement of a section of deteriorated pipe and check-valves throughout the plant. The  
2 total estimated cost for this project is \$1,330,147.

3 **26. Dunmore No. 7 Dam Rehabilitation (I24-910005)**

4 This project is a PADEP requirement. Dunmore Dam No. 7, built in 1877 impounds  
5 107 MG of water and provides a raw water source to the Company's 33 MGD Scranton  
6 WTP. It is classified as a high hazard dam (Class B-1) under current PADEP dam safety  
7 regulations, which, as previously noted, require the structure to safely convey flood flows  
8 equal to the PMF for the associated watershed. Although the dam was originally designed  
9 to satisfy the safety standards at the time of construction, the dam's spillway is now  
10 considered inadequate because it can pass only 83% of the PMF before water can overtop  
11 the dam. Overtopping could cause the structure to fail and result in the loss of life and  
12 extensive economic impacts. The project will create additional spillway capacity to ensure  
13 safe and reliable operation and to meet current PADEP dam safety regulations. The  
14 estimated cost of the project is \$17,075,370.

15 **27. Griffin Dam Rehabilitation (I24-910068)**

16 The project is a PADEP requirement. Griffin Dam, built in approximately 1887 and  
17 reconstructed in 1890's, impounds 400 MG of water and provides a raw water source to  
18 the Company's 5 MGD Chinchilla WTP. It is classified as a high hazard dam (Class B-1)  
19 under current PADEP dam safety regulations which, as previously noted, require the  
20 structure to safely convey flood flows equal to the PMF for the associated watershed.  
21 Although the dam was originally designed to satisfy the safety standards at the time of  
22 construction, the dam's spillway is now considered inadequate because it can pass only

1 28% of the PMF before water can overtop the dam. Overtopping could cause the structure  
2 to fail and result in the loss of life and extensive economic impacts. The project will create  
3 additional spillway capacity to ensure safe and reliable operation and to meet current  
4 PADEP dam safety regulations. The estimated cost of the project is \$11,272,153.

5 **28. Scranton Main Replacement West Parker to Viewmont Drive (I24-910090)**

6 The purpose of this project is to replace 5,100 LF of parallel 16-inch and 6-inch diameter  
7 CI mains installed in the 1890s along N. Main Ave in the Scranton water system with a  
8 history of breaks and repairs. The existing 16-inch and 6-inch mains will be replaced and  
9 upgraded to 4,500 LF of 20-inch DI pipe and 800 LF of 24-inch DI water main. The total  
10 estimated cost is \$3,700,000.

11 **29. Watres WTP Solids Handling Improvements (I24-910078)**

12 This project will improve the solids handling system at the Watres WTP. The existing  
13 solids handling facilities are undersized to handle plant upsets and the sand drying beds do  
14 not work well during winter months due to the cold climate, and also cause a safety concern  
15 for workers who must chisel out the solids in the winter months. The improvements  
16 include the installation of mechanical dewatering equipment that will be located inside of  
17 a building, providing a more efficient and safer approach during the colder months. The  
18 estimated cost of the project is \$3,350,000.

19 **30. Lake Scranton 3.5 MG Tank No. 3 (I24-910082)**

20 The Scranton Area WTP utilizes two 2.5 MG storage tanks for chlorine contact time (“CT”)  
21 and system storage. However, 5 MG of storage is not sufficient to meet the system's  
22 average daily demand of 20 MGD. A third 3.5 MG storage tank will be installed in parallel

1 with the existing tanks to improve the reliability of service to customers and maintain the  
2 required CT under all operating conditions. The total estimated project cost is \$6,500,000.

3 **31. Dunmore Dam No. 1 Outlet Works Rehabilitation (I24-910072)**

4 Dunmore Dam No. 1 was built in 1877, impounds 66 MG of water, and provides a raw  
5 water source to the Company’s 33 MGD Scranton WTP. It is classified as a high hazard  
6 dam (Class B-1) under current PADEP dam safety regulations, which require inspection of  
7 the dam’s outlets works every 10 years. The project will modify the Dunmore Dam No. 1  
8 outlet works in several respects to complete the required PADEP inspections, including  
9 installing new sluice gates, slip lining the outlet piping, and installing an access portal near  
10 the downstream toe of the dam. The estimated cost of the project is \$3,226,399.

11 **FTY (July 2023-June 2024) Wastewater Projects**

12 **32. Royersford Wastewater Treatment Plant (“WWTP”) Disinfection**  
13 **Improvements (I24-17XX02)**

14 The Royersford WWTP currently uses gaseous chlorine for disinfection, which is a toxic  
15 gas. For safety reasons and for more effective treatment during high wet weather flow, the  
16 plant will be converted to a UV light disinfection system. The existing chlorine and decolor  
17 system will be maintained as a backup disinfection process. The estimated cost of the  
18 project is \$1,350,000.

19 **33. Fairview South Beinhower Lift Station (I24-600007)**

20 The Beinhower Lift Station is the primary lift station conveying wastewater flows to the  
21 Fairview South WWTP. The project will replace the existing lift station that has reached  
22 the end of its useful life with a new lift station with a greater pumping capacity to provide

1 reliable capacity when the largest pump is out of service. The total estimated cost for this  
2 project is \$1,335,540.

3 **34. Fairview WWTP Dewatering and Chemical Feed System Improvements (I24-**  
4 **600008)**

5 Both the Fairview North and Fairview South WWTP use sodium aluminate in the treatment  
6 of wastewater to promote settling during the treatment process. This project will upgrade  
7 the existing storage and feed systems to meet PAWC's standards for safety and reliability,  
8 including chemical unloading containment. The project also includes replacement of the  
9 dewatering belt press at the Fairview South WWTP that has reached the end of its useful  
10 life. The total estimated cost for this project is \$1,249,744.

11 **35. Coatesville WWTP UV Replacement (I24-670013)**

12 The project will replace obsolete UV units that pose safety and reliability concerns at the  
13 Coatesville WWTP. The estimated cost of the project is \$1,600,000.

14 **36. Saw Creek WWTP Equalization Tank Replacement (I24-690006)**

15 The project will replace the existing heavily corroded steel flow equalization tank at the  
16 Saw Creek Estates WWTP. The existing tank will be replaced with a new, similar sized  
17 concrete tank and equipped with a replacement aeration system and pumps to convey  
18 wastewater to the sequence batch reactors. The estimated cost of the project is \$2,367,202.

19 **37. Scranton WWTP Building Improvements - Phase II (I24-920024-02)**

20 The scope of this project is to construct and renovate office and operations space at the  
21 Scranton WWTP. Phase I involved the construction of office, garage, and operating  
22 facilities for the collections department of the wastewater system and was completed in

1 2023. Phase II of the project will construct laboratory and office space at the WWTP. The  
2 total estimated cost for this portion of the project is \$10,000,000.

3 **38. Outfall No. 6 - Gardner Avenue (I24-920038)**

4 The Scranton combined sewer system (“CSS”) is required to maintain compliance with the  
5 Long Term Control Plan (“LTCP”) required by the EPA. One of the main components of  
6 the LTCP is the construction of upstream storage and flow management structures to  
7 alleviate the uncontrolled outflow of the combined wastewater into the Lackawanna River  
8 during wet weather conditions. This project includes the construction of a new offline  
9 780,000-gallon storage system at Outfall #6 to reduce typical year CSO events from 38 to  
10 7 and to reduce discharge to the Lackawanna River by 8.180 MG. In addition to the new  
11 storage facilities, the project includes the installation of a new inlet and  
12 maintenance/diversion structure, new valve and meter chamber including pinch valve and  
13 flow meter, piping, manholes, and a SCADA system at the existing outfall. The estimated  
14 cost of the project is \$10,000,000.

15 **39. Scranton CSO Outfall Access and Safety Improvements (I24-920042)**

16 The Scranton CSS overflows to more than 80 different outfalls along the Lackawanna  
17 River and its tributaries. PAWC is required to clean and inspect the outfalls regularly.  
18 However, ten of the outfalls are unsafe or impossible to access. The project scope is to  
19 remove overgrowth, extend buried pipes, and install stairs or fall arrest systems on steep  
20 embankments at the ten outfall locations to make them safe to inspect and maintain. The  
21 total estimated cost of this project is \$1,150,000.

1           **40. York WWTP Outfall 001 Improvements (I24-940005)**

2           This project is required by the EPA. The existing York WWTP has a stormwater system  
3           that collects and conveys stormwater from Train 2 to Outfall 001, where it is pumped to  
4           Codorus Creek. When the York WWTP influent flows reach 53 MGD, a portion of the  
5           Train 2 final effluent flow is diverted to the stormwater system for conveyance and  
6           disinfected utilizing the original Outfall 001 chlorine contact tank. This project includes  
7           installation of a new dechlorination system and upgraded controls for proper dosing to  
8           ensure the York WWTP can maintain compliance with the National Pollutant Discharge  
9           Elimination System (“NPDES”) Permit requirements for disinfection and total residual  
10          chlorine discharged to the Codorus Creek. The total estimated cost for this project is  
11          \$1,250,000.

12          **41. York WWTP Boiler Replacement (I24-94XX03)**

13          The scope of this project is to replace the existing boilers and underground hot water piping  
14          at the York WWTP that have reached the end of their useful life. The total estimated cost  
15          for this project is \$1,000,000.

16          **42. Scranton Outfall #027 (I24-920022)**

17          The project is required by the EPA. Outfall #027 is a proposed off-line combined  
18          wastewater storage system being designed and constructed as part of Phase C of the  
19          Scranton LTCP. This project will provide a new 211,000 gallon off-line storage facility  
20          system to collect 90% of the combined wastewater storm surges, as opposed to discharging  
21          into the Lackawanna River, and then gradually pump the collected wastewater back into  
22          the CSS after the wet weather event has passed. The project will provide a new inlet

1 structure, three large diameter pipes installed horizontally acting as storage vessels, and a  
2 discharge pump station. The total estimated cost of the project is approximately  
3 \$5,902,000.

#### 4 **FPFTY (July 2024-June 2025) Water Projects**

##### 5 **43. Hays Mine Raw Pipeline (I24-110035)**

6 The Hays Mine WTP is in the Company's Pittsburgh water system. The project will replace  
7 9,500 LF of three parallel 24-inch CI mains with one 42-inch DI main and will replace  
8 6,600 LF of 36-inch raw water main with 42-inch raw water main, which have suffered  
9 catastrophic breaks in the past, to maintain operations at the Hays Mine WTP. The  
10 estimated cost of the project is approximately \$35,240,404.

##### 11 **44. Aldrich WTP Building Replacement (I24-110085)**

12 The scope of this project is to construct a new building at the Aldrich WTP in the Pittsburgh  
13 water system. The new structure will replace an existing building that has reached the end  
14 of its useful life. The new building will house the SCADA and maintenance services  
15 groups and provide a safe and effective work area. The total estimated cost for this project  
16 is \$1,750,000.

##### 17 **45. Hays Mine Ferric and Corrosion Inhibitor (C9) Tank Replacement** 18 **(I24-11XX19)**

19 The project involves the replacement of three ferric chloride bulk tanks, two ferric chloride  
20 day tanks, one corrosion inhibitor bulk tank, one (1) corrosion inhibitor day tank, and  
21 associated equipment that is nearing the end of its useful life at the Hays Mine WTP. One  
22 existing ferric chloride bulk tank also has an identified leak near the lower half of the base



1 of the tank and another is bulging at the bottom. The estimated total cost of the project is  
2 approximately \$3,136,125.

3 **46. Pittsburgh Water System, Madeline Street Main Replacement (I24-11XX08)**

4 The purpose of this project is the replacement of approximately 3,000 LF of 24-inch water  
5 line and 1,800 LF of 6-inch water line in the Company's Pittsburgh system along Madeline  
6 Street from Agnew Street to Brownsville Road due to main breaks. This project will also  
7 increase the reliability of the system and improve customer service. The total estimated  
8 project cost is \$3,500,000.

9 **47. Aldrich WTP No. 1 Clarifier Rehabilitation (I24-110090)**

10 The purpose of this project is to rehabilitate the circular 800,000-gallon No. 1 clarifier at  
11 the Aldrich WTP in the Company's Pittsburgh system. The Aldrich style clarifiers are steel  
12 tanks that corrode over time. The rehabilitation includes replacement of the drive  
13 mechanism, structural steel repairs of the sludge removal components, concrete tank  
14 repairs, replacement of two 8-inch incline grinder pumps and valves, and replacement of  
15 other isolation valves and appurtenances. The estimated total project cost is \$1,200,000.

16 **48. Aldrich WTP Chemical Pumps Upgrades (I24-110088)**

17 This project involves the replacement of piping, valving, and metering pumps for several  
18 liquid chemical feed systems that have reached the end of their useful lives at the Aldrich  
19 WTP. The estimated total cost of the project is \$1,030,000.

20 **49. Carnegie Operations Center Parking Area Expansion (I24-11XX21)**

21 The Carnegie Operations Center is the primary operations location in PAWC's Pittsburgh  
22 System. The existing parking lot is inadequate for full use of the training center or for

1 other visitors to the location. Therefore, PAWC will acquire a parcel in the FPPTY for the  
2 relocation and expansion of the Carnegie office operations storage yard and ultimately the  
3 parking lot. The total estimated project cost is \$1,400,000.

4 **50. Grant Street Booster Station (I24-210030-04)**

5 The project will install a new BPS on Grant Street east of Verner Avenue in the Company's  
6 McMurray system in Washington County to supply high elevation customers and improve  
7 pressures. The estimated total project cost is \$1,004,295.

8 **51. Avella Road Water Line Extension (I24-210034)**

9 In accordance with Paragraph 57 of the 2022 Rate Case Settlement, the Company will be  
10 extending service to the Avella School District in Washington County to address water  
11 quality issues regarding odor and distaste. The project consists of installing approximately  
12 38,000 LF of new water main along Avella Road that will connect the Company's Mt.  
13 Pleasant gradient and the Church Street gradient. The main extension will serve the Avella  
14 School campus and has the potential for approximately 50 new service connections along  
15 the route in Independence Township, Cross Creek Township, and Mt. Pleasant Township.  
16 New fire hydrants and a pressure reducing valve ("PRV") station will be included in the  
17 project. The estimated cost of the project is approximately \$13,100,000.

18 **52. Old Steubenville Pike & Campbell Road Water Line Extension (I-210036)**

19 In accordance with Paragraph 57 of the 2022 Rate Case Settlement, PAWC will be  
20 extending service to twenty-three new customers in Robinson Township, Washington  
21 County to address the concerns of homeowners and businesses in the area regarding  
22 polluted groundwater discussed by OCA witness, Mr. Fought. Similar to the Donaldson

1 Road Extension, PAWC analyzed the problem and determined that it would be feasible to  
2 construct extensions from its existing mains to the affected area. The Company also  
3 determined that the main extension could be constructed pursuant to Rule 27.1(F) of its  
4 water tariff, which authorizes main extensions to be installed without customer  
5 contributions, subject to Commission approval, to address public health and safety  
6 concerns. This project will require installation of approximately 15,000 LF of 6-inch and  
7 8-inch new water main along Old Steubenville Pike and Campbell Road to service these  
8 residents. The project will also include a PRV station and fire hydrants. The estimated total  
9 cost of the project is \$6,360,350.

10 **53. Jack Clutter Dam Removal Project (I24-21XX07)**

11 Jack Clutter Dam is a regulated, high hazard dam in Washington County. The existing dam  
12 does not meet current PADEP regulations for spillway capacity. The portion of the  
13 Company's system which drew water from Jack Clutter Dam can instead receive water  
14 from the McMurray District, and therefore the dam is no longer required and will be  
15 removed. The estimated total cost of the project is \$1,200,000.

16 **54. Replace Hannas Knob Booster Station (I24-210038)**

17 The Hannas Knob BPS serves approximately 40 customers in the Company's McMurray  
18 district. The existing BPS was constructed in 1970's and has reached the end of its useful  
19 life. A new BPS, with a rated capacity of 75 gpm, will be installed adjacent to the existing  
20 pump station and the existing Hannas Knob BPS will be removed from service. The  
21 estimated total project cost is \$1,600,000.

1           **55.     Connellsville – 12-inch Main Across Youghiogheny River (I24-230012)**

2           The west portion of PAWC’s Connellsville system is served by a single 12-inch main  
3           crossing the Youghiogheny River. The existing main was installed in the 1980s and raises  
4           service reliability concerns. The project will install approximately 1,350 LF of 12-inch  
5           main across the Youghiogheny River near US 119 by horizontal directional drilling to  
6           provide a second water feed to the west portion of the Connellsville system. The estimated  
7           total project cost is \$2,321,880.

8           **56.     Brownsville to California Road 16-inch Main River Crossing (I24-250010)**

9           Currently, approximately 9,200 customers in the Company’s Brownsville system are  
10          served by one 16-inch main that was installed in 1986. If the existing feed failed, the area  
11          would not have a water supply. Accordingly, the project will install approximately 3,000  
12          LF of 16-inch main crossing under the Monongahela River to provide a second water feed  
13          to West Brownsville Road and California Road in the Brownsville system. The total  
14          estimated cost of this project is \$3,260,000.

15          **57.     Brownsville WTP Sedimentation Basin Upgrades (I24-250011)**

16          Numerous improvements are needed to the sedimentation basins at the Brownsville WTP  
17          to improve safety and operational efficiency. The project will install automated sludge  
18          removal equipment, new mixers to replace the existing mixers that are beyond their useful  
19          life, and new sluice gates. PAWC will also cover the basins and perform electrical and  
20          control improvements. The estimated project cost is \$2,680,000.

21          **58.     New Castle WTP Residual Improvements (I24-310026)**

22          The New Castle WTP has a design capacity of 8.4 MGD and serves approximately 43,000

1 customers in Lawrence County. The Company will replace the current sludge press that no  
2 longer has maintenance parts available, and also install a new backwash holding tank and  
3 new filter backwash recycle pumps. A new building will be constructed to house two  
4 presses, polymer feed, electrical room, conveyance system for the finished solids and a  
5 new filtrate pump station. The project will also include improvements to the thickener  
6 building including electrical improvements, new lighting and heating, ventilation and air  
7 conditioning equipment, additional instrumentation, and better access to the thickener  
8 dome roof. The total estimated cost of the project is \$7,500,000.

9 **59. New Castle WTP Filter Rehabilitation (I24-310027)**

10 The four existing filters at the New Castle WTP pose concerns because of the age and  
11 condition of the media. The Company regularly evaluates the condition and efficacy of  
12 filter media. The media requires replacement every 15-20 years. The filter work will  
13 consist of the removal and replacement of existing media, upgrades to valving and  
14 instrumentation, and installation of davit arm retrieval mounts. The total estimated cost of  
15 the project is \$2,000,000.

16 **60. Butler WTP Chemical Improvements (I24-330016)**

17 The Butler WTP currently uses gas chlorine and gas ammonia for disinfection, which are  
18 both toxic gases. The project will convert to the use of liquid sodium hypochlorite and  
19 liquid ammonium sulfate, which is much safer for both the public and Company staff. The  
20 total estimated cost of the project is \$3,900,000.

21 **61. Indiana Pleasant Hills Gradient Improvements (I24-410010)**

22 The Company is undertaking the project to improve reliable flow capacity and pressure at

1 the Pleasant Hills BPS. The pumps are being replaced at the existing Pleasant Hills BPS  
2 and a PRV station will be added within the Pleasant Hills gradient of the Company's  
3 Indiana system. The estimated cost of the project is \$1,225,000.

4 **62. Punxsutawney - Install New Storage at West End Reservoir (I24-420008-02)**

5 The existing 100-year old storage tank at the West End Reservoir in the Company's  
6 Punxsutawney system is at the end of its useful life and a second tank is needed to maintain  
7 system pressure while the old tank is removed. The project consists of two parts. In the  
8 first part, the Company will construct a new ground storage tank at the West End Reservoir  
9 site adjacent to the existing tank. Part Two of the project will consist of demolishing the  
10 existing tank and constructing a second tank within the footprint of the existing tank. The  
11 estimated cost of this project is \$2,414,394.

12 **63. Punxsutawney Snyder Hill Rd./Rockland Extension (I24-42XX02)**

13 This project will extend service to approximately 70 new customers along Snyder Hill  
14 Road in Punxsutawney Borough. The extension of water service into Snyder Hill Road will  
15 provide a safe, potable water supply to an area that has poor well quality and quantity  
16 issues, and improve public safety by providing adequate fire protection in the Rockland  
17 gradient. The project will require installation of approximately 11,000 LF of new 6-inch to  
18 12-inch DI water main. In the 4th quarter of 2023, the Company will seek Commission  
19 approval for the service territory expansion. The estimated cost of this project is  
20 \$2,800,000.

21 **64. Clarion Main Across I-80 at Exit 62 to Feed Sligo (I24-43XX01)**

22 This project will install approximately 3,000 LF of a new 12-inch water main across

1 Interstate 80 at Exit 62 to increase fire flows and reliability of service to customers in the  
2 Sligo area of the Company's Clarion system. The total estimated project cost is \$1,500,000.

3 **65. Clarion WTP - Chlorine Gas Elimination (I24-430007)**

4 This project will replace the gaseous chlorine system with a new bulk liquid sodium  
5 hypochlorite system at the Clarion WTP for safety reasons. The project will also include  
6 safety and operational improvements to the Clarion WTP. The estimated total project cost  
7 is \$3,650,000.

8 **66. Kittanning WTP Filter Improvements (I24-44XX06)**

9 The Kittanning WTP provides water for the Company's distribution system serving  
10 5,250 people. Over time, the filter media degrades and requires replacement. During  
11 replacement, the Company reviews and replaces as needed the underdrains and hardware.  
12 The project will rehabilitate the filters and replace the filter media at the Kittanning WTP.  
13 The estimated cost of the project is \$1,500,000.

14 **67. Second 16-inch Main to East Norriton Township (I24-510028-02)**

15 The purpose of this project is to construct a new BPS at the existing East Norriton tank site  
16 and install approximately 3,000 LF of new 16-inch main, which will take water from the  
17 Dekalb pressure zone and transfer water and provide a secondary feed into the Church  
18 Road pressure zone for reliability. The estimated cost of the project is \$2,000,000.

19 **68. Norristown WTP New Blower and Backup (I24-51XX19)**

20 PAWC will replace the Norristown WTP's aging blower system that experienced  
21 operational issues in past years with a new blower and backup system to improve  
22 reliability. The estimated cost of the project is \$1,000,000.

1           **69. Yardley System: Williams Lane Tank BPS and Chemical Feed (I24-520006)**

2           The project will install pump station upgrades, such as moving the altitude valve inside and  
3           adding a redundancy pump, and will replace the 500,000-gallon Williams Lane Tank in the  
4           Yardley system with a new storage tank due to the age and condition of the existing 80-  
5           year old tank. The estimated cost of the project is \$4,006,940.

6           **70. Yardley College Avenue Wells PFAS Treatment (I24-520007)**

7           The Company will proactively deploy treatment processes to remove PFAS at wells along  
8           College Avenue in the Company’s Yardley system to comply with the new MCLs for six  
9           PFAS that are reasonably anticipated to be imposed by the EPA’s proposed rule, which is  
10          expected to be finalized at the end of 2023. The estimated cost of the project is \$6,000,000.

11          **71. Susquehanna Operations Center (I24-540005)**

12          PAWC will purchase land and build a new operations center for its Susquehanna System  
13          to replace the existing facility that has reached the end of its useful life and no longer meets  
14          the needs of the Company. The total estimated cost for this project is \$3,550,000.

15          **72. Pocono District: Pine Hill and Summit Point PFAS Treatment (I24-570012)**

16          The Summit Point and the Pine Hill wells in the Pocono district serving customers in the  
17          Mount Pocono area have PFAS levels that exceed the MCLs under the EPA’s proposed  
18          standards. The project will deploy treatment processes for PFAS removal at those wells to  
19          ensure compliance with those regulations that are expected to be finalized in the near  
20          future. Piping and pump modifications will be needed to connect the new treatment system  
21          to the distribution network. The estimated cost of the project is \$4,000,000.



1           **73.     Glen Alsace District PFAS Treatment for Wells 8 and 9/9A (I24-590005)**

2           Like the projects in the Yardley and Pocono districts described above, PAWC will  
3           proactively deploy treatment processes to remove PFAS at Wells 8 and 9/9A in the  
4           Company’s Glen Alsace system to ensure compliance with MCLs under the proposed rule  
5           that the EPA anticipates finalizing by the end of 2023. The estimated cost of the project is  
6           \$3,800,000.

7           **74.     Hershey District: Manada Creek Intake Project (I24-62xxxx\_)**

8           Siltation at the Manada Creek Intake Dam has reached a level that limits PAWC's ability  
9           to withdraw and pump water from Manada Creek to the Hershey WTP. The project will  
10          remove the sediment behind the dam to restore the capacity of the intake and provide an  
11          improved gate system that will allow for flushing sediment. The estimated cost of the  
12          project is \$1,200,000.

13          **75.     Wyomissing System High Gradient Tank No. 2 (I24-630009-01)**

14          PAWC will construct new concrete ground storage tanks on existing Company property  
15          with a combined capacity of 0.8 MG storage tank to address storage deficits in the  
16          Wyomissing high gradient. The estimated cost of the project is \$2,000,000.

17          **76.     Wyomissing System High Gradient Tank No. 2 System Connection**  
18                   **(I24-630009-02)**

19          This project involves the replacement of 7,700 LF of main to connect the new Wyomissing  
20          High Gradient storage tank into the Wyomissing High Pressure zone. The estimated cost  
21          of this project is \$2,750,000.

1           **77. Penn System Wells 19 and 23 PFAS Treatment (I24-630010)**

2           Like the projects in the Yardley, Pocono, and Glen Alsace districts described above,  
3           PAWC will proactively deploy treatment processes to remove PFAS at Wells 19 and 23 in  
4           the Company's Penn System to ensure compliance with MCLs under the proposed  
5           NPDWR. The estimated cost of the project is \$3,800,000.

6           **78. West Chester BPS Relocation (I24-650010)**

7           The existing West Chester BPS was constructed over 40 years ago and is at the end of its  
8           useful life. The BPS is a below ground station in a roadway that impedes the ability to  
9           maintain and repair the pumping station. The project will relocate the West Chester BPS  
10          above ground and install an emergency generator to improve reliability and safety. The  
11          estimated cost of the project is \$2,000,000.

12          **79. Coatesville System: Rock Run Dam Improvements (I24-650020)**

13          Rock Run Dam, built in the 1920's, impounds 235 MG of water and provides a raw water  
14          source to the Company's 7 MGD Rock Run WTP. The Company performs regular  
15          inspections of its dams across Pennsylvania and PAWC's recent inspection of Rock Run  
16          Dam identified several deficiencies in the dam structure. The project will implement  
17          various improvements to address those deficiencies, including valve replacement, access  
18          improvements, and intake system improvements. The estimated cost of the project is  
19          \$1,624,212.

20          **80. Coatesville System: Route 340 BPS Replacement (I24-650023)**

21          To improve water quality and eliminate water age concerns, the Hill Road water tank is  
22          taken out of service during the summer. The project will replace the existing Route 340

1 BPS with a capacity of 0.29 MGD with a new 1.44 MG BPS to maintain system pressure  
2 when the Hill Road Water Tank is out of service. The estimated cost of the project is  
3 \$2,000,000.

4 **81. Coatesville System Main Replacement and/or Relining (I24-650024)**

5 The existing 24-inch CI main that runs from Parkesburg, PA to Caln, PA adjacent to  
6 Amtrak railway in the Company's Coatesville system dates back to 1903 and has  
7 experienced multiple breaks recently. The project will slipline or replace approximately  
8 7,500 LF of the existing aging and high-risk 24-inch CI main with HDPE or DI pipe  
9 depending on the condition of the existing pipe. The main will be placed further from the  
10 Amtrak right of way to ensure safe replacement and future pipe access. The estimated cost  
11 of the project is \$7,600,000.

12 **82. Coatesville System Raw Water Main Slip Lining (I24-65XX05)**

13 The project will install 16-inch HDPE in approximately 750 LF of existing 16-inch raw  
14 water main that is in poor condition running from Chambers Lake to the Company's Rock  
15 Run WTP in the Coatesville system. The project is estimated to cost \$2,000,000.

16 **83. Rock Run WTP Wastewater Connection to Public Sewer (I24-650022)**

17 The project will install a new main to connect Rock Run WTP to PAWC's Coatesville  
18 sanitary sewer system so that waste solids do not hinder WTP performance. The project is  
19 estimated to cost \$2,000,000.

20 **84. All Seasons Well Replacement (I24-680032)**

21 The All Seasons water system in the Company's Lehman Pike district has only one well  
22 source to supply 51 customers. Additionally, the existing well has a problem with fine

1 sand in the source water that must be removed before treatment. The project will construct  
2 a new second well and will reconstruct the existing well to prevent sand from entering  
3 through it, so the existing well can serve as a reliable back-up source for the All-Seasons  
4 system. The estimated cost of the project is \$1,000,000.

5 **85. Pine Ridge System Well No. 3 PFAS Treatment (I24-680033)**

6 The groundwater supply at Well No. 3 in the Company's Pine Ridge system contains PFOA  
7 and PFOS levels that require removal to meet current PADEP MCLs for those chemicals.  
8 The project will incorporate activated carbon into the treatment process to absorb excess  
9 PFOA, PFOS and other PFAS in the well water supply to provide safe, high-quality water  
10 to customers. The total estimated cost of this project is \$1,700,000.

11 **86. Philipsburg System Well No. 2 (I24-720002)**

12 The Philipsburg District has a current supply deficit of 0.94 MGD during drought  
13 conditions, and a projected 2026 drought supply deficit of 0.89 MGD. This project is part  
14 of a multi-year project to develop an additional 1 MGD of groundwater source of supply  
15 to ensure a reliable service for customers in the Philipsburg district. The estimated cost for  
16 the project is \$1,704,518.

17 **87. Emigh Run BPS Improvements (I24-720003)**

18 The existing Emigh Run BPS in the Philipsburg system serves a large area which includes  
19 twenty-one pressure gradients, and is currently supplied by a single 12-inch pipeline  
20 located in corrosive soils. The project will install approximately 10,500 LF of new 12-  
21 inch pipeline and two BPS in the Philipsburg system to create an alternate supply from the

1 Windy Hill gradient to the Spring Valley gradient and enhance reliability. The total  
2 estimated project cost is \$4,537,070.

3 **88. Philipsburg – Sandy Ridge BPS and Linwood BPS (I24-720007)**

4 The project will install two new booster stations in the Philipsburg district. The existing  
5 Sandy Ridge BPS is an underground pump station that lacks capacity to serve existing fire  
6 hydrants, and it does not have an emergency generator needed to meet PADEP  
7 Uninterrupted System Service Plan requirements. Additionally, underground booster  
8 stations present safety hazards for workers. Given the small site footprint, an on-site  
9 replacement is not feasible. Therefore, PAWC will acquire new property and construct a  
10 new above-ground prefabricated BPS, along with a new emergency generator. The existing  
11 Linwood BPS is also an underground pump station that lacks fire capacity, does not have  
12 an emergency generator, and presents safety hazards for workers. A replacement pump  
13 station with a new emergency generator will be installed on existing property near the  
14 Phillipsburg WTP. The estimated cost of the project is \$2,000,000.

15 **89. Second Storage Tank at Philipsburg WTP (I24-720008)**

16 PAWC will install a new distribution storage tank at the Philipsburg WTP because the  
17 existing distribution storage tank cannot be taken out of service for painting or other  
18 maintenance due to lack of adequate storage in the system. In addition, the project will  
19 install a new small clearwell or additional chlorine contact piping to ensure the Philipsburg  
20 WTP can meet minimum chlorine contact time requirements. Finally, a small pump station  
21 will also be added to provide potable water to the Philipsburg WTP since the plant's current

1 water supply does not meet chlorine contact time requirements. The estimated cost of the  
2 project is \$4,200,000.

3 **90. Berwick - Salem BPS Replacement (I24-730002)**

4 The existing Salem BPS in the Berwick system is in poor condition, located within the 100-  
5 year floodplain, and located in an underground vault that requires confined space entry for  
6 servicing pumps. In addition, the Salem BPS only has one pump and does not have a fire  
7 pump. This project will replace the Salem BPS with a new BPS outside the flood plain to  
8 provide a reliable water supply for existing customers and improve fire flow. A 2,200 LF  
9 main extension is also required to connect the new BPS to the Berwick distribution system.

10 The total estimated project cost is \$1,629,956.

11 **91. Curtis Dam Rehabilitation (I24-910008)**

12 The Curtis Dam, built in 1886-1887, impounds 379 MG of water and provides a raw water  
13 source to the Company's 33 MGD Scranton WTP. It is classified as a high hazard dam  
14 (Class B-1) under current PADEP dam safety regulations, which as previously noted,  
15 require the structure to safely convey flood flows equal to the PMF for the associated  
16 watershed. Although the dam was originally designed to satisfy the safety standards at the  
17 time of construction, the dam's spillway is now considered inadequate because it can pass  
18 only 26% of the PMF before water can overtop the dam. Overtopping could cause the  
19 structure to fail and result in the loss of life and extensive economic impacts. The project  
20 will create additional spillway capacity to ensure safe and reliable operation and to meet  
21 current PADEP dam safety regulations. The estimated cost of the project is 16,491,001.

1           **92. Maple Lake Outlet Works Rehabilitation (I24-910068)**

2           The Maple Lake Dam, built in 1883, impounds 214 MG of water and provides a raw water  
3           source to the Company’s 12 MGD Nesbitt WTP. It is classified as a high hazard dam (Class  
4           B-1) under current PADEP dam safety regulations, which require the outlet works to have  
5           upstream closure. The Maple Lakes Dam does not currently have upstream closure  
6           capabilities on the outlet works as required by PADEP. The Company will rehabilitate the  
7           dam structure to address the outlet works deficiency through several upgrades, including a  
8           new intake, new valves, a trash rack, an access catwalk to the new valves, outlet pipe slip  
9           lining and a downstream energy dissipation structure. The project is estimated to cost  
10          \$5,541,000.

11          **93. Marshwood Dam Outlet Works Rehabilitation (I24-910070)**

12          The Marshwood Dam, built in 1927, impounds 59 MG of water and provides a raw water  
13          source to the Company’s 33 MGD Scranton WTP. It is classified as a high hazard dam  
14          (Class C-1) under current PADEP dam safety regulations, which require the outlet works  
15          to have upstream closure. The Marshwood Dam does not currently have upstream closure  
16          capabilities on the outlet works as required by PADEP. The Company will rehabilitate the  
17          dam structure to address the outlet works deficiency through several upgrades, including a  
18          new intake, new valves, an access catwalk to the new valves, a trash rack, outlet pipe slip  
19          lining and a downstream energy dissipation structure. The estimated cost of the project is  
20          \$4,988,000.

21          **94. Old Boston Third Tank (I24-910087)**

22          This project will add a third 1 MG finished water storage tank at the Old Boston tank site,

1 which is part of the Watres system in the Wilkes-Barre/Scranton district, to address growth  
2 and increased demands in the system. The tank installation project will also require inlet  
3 and outlet piping, valving, and SCADA work. The total estimated cost of the project is  
4 \$4,000,000.

5 **95. Wilkes Barre/Scranton: Sans Souci Parkway Main Interconnection (I24-**  
6 **910088)**

7 Nanticoke City, located in the Company's Wilkes Barre/Scranton system, is currently  
8 served by a single 18-inch CI main crossing under the Susquehanna River. This project  
9 will install new 12-inch DI water main along Sans Souci Parkway from Hanover Township  
10 to Nanticoke City to supply approximately 15,000 customers. The second feed will reduce  
11 the impact to customers and fire protection during main break events. The total estimated  
12 cost of this project is \$2,000,000.

13 **96. Olwen Heights Storage Tank and Hydropneumatic Tank Replacement (I24-**  
14 **910089)**

15 The project will replace the existing 100,000 gallon water storage tank at the Olwen  
16 Heights Well in the Wilkes Barre/Scranton system, along with the existing hydropneumatic  
17 tanks in the well houses, that have surpassed their useful life and are in degrading condition.  
18 The estimated total project cost is \$1,250,000.

19 **97. Homesite Well PFAS Treatment (I24-910093)**

20 Like the projects in the Yardley, Pocono, Glen Alsace, and Penn districts described above,  
21 PAWC will proactively deploy treatment processes to remove PFAS at the Homesite Well



1 in the Company's Wilkes Barre/Scranton system to ensure compliance with MCLs under  
2 the EPA's proposed rule. The total estimated project cost is \$2,000,000.

3 **98. Rushbrook BPS Upgrades and Roadway Improvements (I24-910095)**

4 The Rushbrook BPS in the Wilkes Barre/Scranton system is past its expected useful life  
5 and accessing the site is a safety concern. The project will upgrade the pumps at the  
6 Rushbrook BPS, install a standby generator and implement roadway improvements. The  
7 cost estimate for the project is \$1,500,000.

8 **99. Ceasetown WTP (I24-91XX03) and Huntsville WTP (I24-91XX08) Chlorine**  
9 **Safety**

10 PAWC will convert the disinfection process at the Ceasetown WTP and the Huntsville  
11 WTP in the Wilkes Barre/Scranton system from the use of chlorine gas to bulk sodium  
12 hypochlorite. The project will eliminate safety hazards associated with the use of large  
13 chlorine gas cylinders. The total estimated cost of each project is \$2,500,000 (or  
14 \$5,000,000 total).

15 **100. White Deer WTP Solids Handling (I24-710008)**

16 The current clarifier and sludge drying beds at the White Deer WTP have design limitations  
17 that prevent their operation as hybrid lagoons and drying beds. Under worst case  
18 backwashing conditions, the current solids handling system does not have adequate  
19 wastewater storage to allow the plant to meet PADEP filter-to-waste regulations.  
20 Additionally, upgrades are required to meet more stringent residual chlorine limits in the  
21 new NPDES permit. Project improvements will include modification of the existing sludge  
22 drying beds and wastewater clarifier, addition of a new filter-to-waste holding tank,

1 installation of a dechlorination chemical feed system, a new recycle pump station, and  
2 associated yard piping. The total estimated cost for this project is \$3,600,000.

3 **101. Milton WTP Raw Water Intake Modification (I24-710018)**

4 The existing intake at the Milton WTP encounters freezing issues during the winter when  
5 river levels are low. The wet well also receives a significant build of silt requiring annual  
6 cleaning. In addition, the existing travelling screen at the Milton WTP has reached the end  
7 of its useful life. The project will upgrade the existing intake to prevent icing or install of  
8 a new passive intake screen system. A mixer or bubbler system will be also installed in the  
9 wet well to minimize silt accumulation. The estimated project cost is \$1,575,000.

10 **FPFTY (July 2024-June 2025) Wastewater Projects**

11 **102. Duquesne Clarifier Rehabilitation - First Clarifier (I24-12XX09)**

12 At the Duquesne WWTP, the existing clarifiers are over 40 years old and have never been  
13 maintained below the waterline. Additionally, maintenance parts have become difficult to  
14 find without significant cost. The Company has rehabilitated the majority of the Duquesne  
15 WWTP except for the clarifiers. This project will rehabilitate the first of the two clarifiers  
16 by replacing the clarifier mechanisms and upgrading electrical and controls. The total  
17 estimated project cost is \$1,230,000.

18 **103. Duquesne WWTP Chlorine Gas Conversion (I24-120023)**

19 The Duquesne WWTP currently utilizes gaseous chlorine for disinfection, a toxic gas. In  
20 order to reduce regulatory compliance risk associated with meeting the plant's permitted  
21 low chlorine residual limit and for safety reasons, the project will convert the gas chlorine

1 disinfection system to a UV system and a liquid sodium hypochlorite back-up disinfection  
2 system. The total estimated cost of this project is \$3,000,000.

3 **104. Exeter: Lincoln Road Pump Station Upgrade (I24-13XX08)**

4 PAWC will install new pumps, a wet well, and upgrade specific electrical equipment within  
5 the existing Lincoln Road pump station in the Exeter wastewater system that has  
6 deteriorated due to the corrosive environment. The total estimated cost of this project is  
7 \$1,250,000.

8 **105. Koppel WWTP – Sequence Batch Reactor (“SBR”) Improvements**  
9 **(I24-350004)**

10 PAWC will install a new SBR- Intermittent Cycle Extended Aeration System (“ICEAS”)  
11 and process controls at the Koppel WWTP to address capacity and I&I levels. Structural  
12 inspection and repairs will be made to the concrete tankage. The estimated cost of the  
13 project is \$1,750,000.

14 **106. Sadsbury Pump Station Rehabilitation (I24-150001)**

15 The Sadsbury pump station in the Company’s Chester County, Sadsbury Township  
16 wastewater system is currently undersized and has experienced sanitary sewer overflows  
17 (“SSOs”) in the past. The purpose of this project is to upgrade the Sadsbury pump station  
18 structurally and mechanically. The total estimated cost of this project is \$2,000,000.

19 **107. Kane Wastewater State Route 321 Lift Station (“LS”) (I24-190006)**

20 This project includes the construction of a new LS in the Kane wastewater system at a new  
21 site near the State Route 321 LS in order to eliminate capacity and access issues. Once the

1 new lift station is in service, the existing lift station will be removed from service and  
2 demolished. The estimated cost of the project is \$1,500,000.

3 **108. Kinzua WWTP Solids Handling (I24-190005)**

4 This project will replace the aged belt filter press and solids conveyance system at the  
5 Kinzua Road WWTP in the Kane wastewater system, which will improve solids handling  
6 at the plant. The estimated total project cost is \$1,050,000.

7 **109. Clarion WWTP Outfall Sewer Replacement (I24-47XX03)**

8 PAWC will replace approximately 2,500 LF of existing 12-inch and 18-inch outfall sewer  
9 pipe that is either undersized, damaged, or exposed within the Trout Run Stream before  
10 discharging into the Clarion River. This project will increase the reliability and capacity of  
11 the Clarion WWTP sewer effluent. The total estimated project cost is \$1,600,000.

12 **110. Fairview North Hydraulic Improvements (I24-60XX03)**

13 The Company's Fairview North wastewater system has experienced growth, and its  
14 existing collection system is not capable of handling the projected additional flows. This  
15 project will enable the existing collection system to convey additional wastewater flows to  
16 the Fairview North WWTP for treatment by adding 2,800 LF of force main to the discharge  
17 of the Pin Oak LS. The cost of the project is offset by capacity charges/tapping fees related  
18 to the growth and development in the Fairview North area. The total estimated cost for  
19 this project is \$1,800,000.

20 **111. Timothy Lake Equalization Pump Station Replacement (I24-69XX03)**

21 The existing Timothy Lake equalization pump station in the Lehman Pike wastewater  
22 system consists of two steel tanks that include pumps and an aeration system that require

1 frequent maintenance. Additionally, the steel tanks are corroded and present safety issues  
2 to Company staff. The project will replace the existing Timothy Lake equalization pump  
3 station with a new complete pump station. The total estimated cost of the project is  
4 \$1,000,000.

5 **112. Marcel Lakes WWTP Equalization Tank (I24-690008)**

6 The purpose of this project is to remove the existing clarifier and replace it with separate  
7 influent and effluent equalization tanks. The equalization tanks are to enable dealing with  
8 flow variation. The total estimated cost of this project is \$2,000,000.

9 **113. Scranton WWTP Emergency Generator (I24-91XX07)**

10 The Scranton WWTP has a dual electrical feed into the plant that are both powered by the  
11 same substation, and the plant does not otherwise have comprehensive emergency backup  
12 power. In the event of an extended power outage, the plant's main systems would not be  
13 able to operate. This project scope includes the installation of a new standby generator,  
14 switchgear, and metering work that will address the complexity of the site logistics and  
15 provide sufficient electrical power supply for continual plant operations in the event of a  
16 power outage. The estimated cost of the project is \$3,000,000.

17 **114. Scranton Outfall Nos. 19 and 20 Lackawanna/Linden Valving**  
18 **Reconfiguration (I24-920045)**

19 Outfall Nos. 19 and 20 in the Scranton wastewater system consist of a large combined  
20 sewer overflow ("CSO") storage tank for the two outfall lines that the Company must  
21 regularly access for cleaning and maintenance. PAWC will install valves before the  
22 overflow storage facilities to allow for the isolation of each storage tank. The project will

1 improve safety and improve operation and maintenance of the CSO outfalls. The total  
2 estimated cost of this project is \$1,100,000.

3 **115. York Wastewater Prospect Street Interceptor (I24-94XX01)**

4 The Prospect Street interceptor sewer line located within the York wastewater collection  
5 system conveys flows (primarily from Spring Garden Township) to the York interceptor  
6 sewer line for treatment at the York WWTP. The project will replace 1,300 LF of 12-inch  
7 interceptor sewer located between manhole MYC-83 and manhole MYC-2038 that is  
8 undersized with 18-inch interceptor sewer line. The total estimated cost for this project is  
9 \$3,050,000.

10 **116. York WWTP Dewatering, UV and Tertiary Treatment Improvements (I24-  
11 94XX05)**

12 This project includes improvements at the York WWTP including dewatering,  
13 UV treatment and tertiary treatment. The dewatering centrifuges and UV disinfection units  
14 have reached the end of their useful life and need replacement. Additionally, in accordance  
15 with the EPA Consent Agreement Project 10, the capacity of the Tertiary Treatment Filters  
16 and the UV System will be increased to allow treatment of the entire wastewater flow and  
17 will eliminate diverted flows above 53 MGD. The total estimated cost for this project is  
18 \$4,600,000.

19 **117. Butler Area Sewer Authority (“BASA”) Fischer–Brewster System  
20 Improvements (I24-XXXXXX)**

21 The project is required by the BASA Corrective Action Plan imposed by the PADEP due  
22 to a history of SSOs within the collection system that the Company expects to acquire in

1 2024. The project includes the replacement of two lift stations (Fisher and Brewster) along  
2 with the construction of wet weather tanks at each station. A third station (Brewster  
3 Booster) will also be improved by installing larger capacity pumps to handle the higher  
4 flows from the other stations. The anticipated budget for this project is \$7,000,000.

5 **118. BASA Greenwood-Bryson-Benbrook System Improvements (I24-XXXXXX)**

6 The project is required by the BASA Corrective Action Plan imposed by the PADEP due  
7 to a history of SSOs within the collection system that the Company expects to acquire in  
8 2024. The project includes the replacement of two lift stations (Greenwood and Bryson)  
9 along with the construction of a wet weather tank at one of the Greenwood stations. A  
10 third station (Benbrook), located between the two other stations will be bypassed with a  
11 new force main from the Greenwood station and replaced with a small grinder pump station  
12 to serve the small collection system that currently flows to the Benbrook Station. The  
13 current estimate for this project is \$3,500,000.

14 **Q. Please explain in general terms the other types of improvements that the Company**  
15 **will make in its water and wastewater systems during the FTY.**

16 A. The Company will replace or upgrade approximately 86,395 existing meters at various  
17 points throughout its water distribution system at an estimated cost of approximately \$28.9  
18 million, exclusive of meters associated with projects previously described. Meters are  
19 routinely replaced as they approach 20 years of age in the case of 5/8 inch meters and at  
20 various other ages for larger size meters. Meters are also replaced due to failures or  
21 malfunctions or to incorporate new meter technology.

1           The Company is also planning to replace approximately 2,930 Company-owned  
2 old water service lines and 415 wastewater laterals at an estimated cost of approximately  
3 \$28.7 million, exclusive of services associated with projects previously described. In  
4 conjunction with its main replacement projects in the FTY, PAWC anticipates replacing  
5 customer-owned LSLs under the Company’s LSL Replacement Plan (“Replacement Plan”)  
6 approved by the Commission at Docket No. P-2017-2606100. Additionally, services are  
7 replaced for a variety of reasons, including leakage discovered through the Company’s leak  
8 detection program and other actions to maintain the quality of water service. Pressure and  
9 water quality problems can result from old service lines made from obsolete materials, such  
10 as galvanized iron. When municipal paving projects are being planned, the Company  
11 reviews its records and determines if there are any obsolete services that should be replaced  
12 along the street. Service replacement costs are minimized by doing the service  
13 replacements before repaving occurs.

14           The Company also plans to replace approximately 130 miles of various diameter  
15 water mains and 23 miles of sewer mains at a total cost of approximately \$269.7 million,  
16 exclusive of the larger pipeline investment projects previously described. This construction  
17 is being done for a variety of reasons including improving flow capabilities, preventing  
18 water quality degradation, systematically replacing aging distribution system  
19 infrastructure, enhancing system reliability and minimizing service disruptions to  
20 customers caused by main breaks. The Company anticipates additional developer projects  
21 in the FTY, which will be funded by developer advances.



1 **Q. Please describe in general terms the types of improvements that the Company will**  
2 **make in its water and wastewater systems during the FPFTY.**

3 A. The following routine improvement activities planned for the FPFTY will be conducted  
4 for the same reasons these projects are undertaken in the FTY. The Company will install  
5 approximately 5,200 new meters and replace or upgrade approximately 71,300 existing  
6 meters at various points throughout its distribution system at an estimated cost of  
7 approximately \$27.0 million, exclusive of meters associated with projects previously  
8 described.

9 The Company is also planning to replace approximately 3,300 old water service  
10 lines and 380 wastewater laterals at an estimated cost of approximately \$30.5 million,  
11 exclusive of services associated with projects previously described. In conjunction with  
12 its main replacement projects in the FTY, PAWC anticipates replacing 900 customer-  
13 owned LSLs under the Replacement Plan. The Company plans to replace approximately  
14 88 miles of various diameter water pipes and approximately 15 miles of sewer main at a  
15 cost of approximately \$181 million, exclusive of the larger pipeline investment projects  
16 previously described. The Company anticipates that additional developer projects will  
17 occur in the FTY, which will be funded by advances.

18 **Risks Associated with Furnishing Public Water and Wastewater Service**

19 **Public Water Service**

20 **Q. Please provide an overview of the risks associated with furnishing safe and adequate**  
21 **water quantity and water quality and complying with drinking water and**

1 **environmental regulations that apply to PAWC’s water supply facilities and**  
2 **operations.**

- 3 A. Water supply utilities are subject to a complex array of regulations at the federal, state and  
4 river basin commission levels with respect to water quantity, water quality and other  
5 environmental aspects of their facilities and operations.

6 With respect to water sources and the quantity of water that can be withdrawn,  
7 PAWC’s surface water and groundwater sources are subject to a combination of common  
8 law riparian rights and groundwater rights coupled with regulatory regimes administered  
9 by the PADEP, the Susquehanna River Basin Commission (“SRBC”) and Delaware River  
10 Basin Commission (“DRBC”). These organizations administer the 1939 Water Rights  
11 Act,<sup>7</sup> which requires that public water supply agencies wishing to withdraw water from  
12 surface sources, or to acquire rights in surface sources, first obtain a permit. Water systems  
13 with sources developed prior to 1939 were accorded “orders of confirmation” confirming  
14 grandfathered withdrawals, but subsequent changes to those systems and/or increased  
15 withdrawals may trigger permitting requirements and possible loss of the “order of  
16 confirmation.” Both SRBC and DRBC are empowered to review and approve projects  
17 having a substantial effect on basin water resources.<sup>8</sup> Pursuant to their project review  
18 authority, SRBC and DRBC review proposed surface and groundwater withdrawals that  
19 may have a “substantial effect” on basin waters (which are defined in both basins to include  
20 withdrawals of greater than 100,000 gallons per day from any source or combination of

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<sup>7</sup> 32 P.S. §§ 631-641.

<sup>8</sup> DRBC Compact § 3.8; SRBC Compact § 3.10(2).

1 sources). Such project review is focused on determining consistency with Commission-  
2 adopted comprehensive plans and “the proper conservation, development, management or  
3 control of the water resources of the basin.” In administering their permitting programs,  
4 the PADEP, SRBC and DRBC apply varying policies imposing limitations on withdrawals  
5 or requirements for conservation releases from reservoirs to protect stream flows.

6 Pennsylvania, overall, does not currently suffer serious constraints on its supply of  
7 usable water.<sup>9</sup> However, that assessment does not apply uniformly to all parts of the  
8 Commonwealth and can change with the climate. This past summer (June to September  
9 2023), the entire Commonwealth experienced uncommonly dry weather. The drier  
10 weather, while not as severe as the Southwest part of the United States, still placed every  
11 county on a drought watch. The potential of having sources compromised and the inability  
12 to provide water is a significant concern. The legacy of coal mining, the effect of oil and  
13 gas drilling, run-off from high-intensity agricultural land use, and contamination from  
14 inadequate or malfunctioning on-lot septic systems create challenges to obtaining adequate  
15 supplies of water in various areas of Pennsylvania. Today, as in the past, these factors  
16 continue to drive requests by homeowners for PAWC to extend its facilities to serve areas  
17 that do not have a public water supply, as is further discussed in Ms. Everette’s testimony  
18 (PAWC Statement No. 1). Under the Commission’s regulations on water utilities’  
19 responsibility for main extensions, PAWC is required to make a significant investment to  
20 extend its facilities to serve bona fide applicants.

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<sup>9</sup> As explained below, climate change is expected to affect the pattern of precipitation in ways that will challenge water suppliers by increasing the severity of both major storm events and intermittent periods of drought.

1           Additionally, as explained above, there are multiple levels of authorization and  
2 regulation that apply to a water system that wants to add a new source of supply or increase  
3 its withdrawals from existing sources. These factors add to the costs and lead-time for  
4 obtaining new, or increasing existing, water sources to meet new demands that may arise  
5 in portions of the Company's system. These are additional risk factors that can directly  
6 affect PAWC's ability to furnish safe, adequate and reliable service, and increase the costs  
7 PAWC incurs to provide that service.

8           Drinking water quality is addressed by a combination of federal regulation  
9 established under the Safe Drinking Water Act of 1973 coupled with state regulation under  
10 the Pennsylvania Safe Drinking Water Act. The federal act established the EPA as the  
11 federal regulatory authority on drinking water. Under that authority, the EPA has created  
12 standards for contaminant levels in drinking water and a series of mandatory treatment  
13 method standards, coupled with monitoring and reporting requirements, and public  
14 notification mandates in the event of contaminant level or treatment method non-  
15 compliance.<sup>10</sup> In turn, Pennsylvania has adopted the federal regulatory standards, plus  
16 some even more stringent rules, as codified in 25 Pa. Code Ch. 109, which are administered  
17 by the PADEP.

18           In recent years, there has been an increase in public concern over potential  
19 contaminants that laboratories can now identify at levels that, in the past, could not be  
20 detected. Certain experts suggest these contaminants might have health effects. The EPA  
21 and state drinking water regulators have responded by increasing their own research and,

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<sup>10</sup> See 40 C.F.R. Parts 141-143.

1 in some cases, imposing or proposing more stringent regulatory standards, such as with  
2 respect to PFAS. As discussed in detail earlier in my testimony, the Company is operating  
3 between the current PADEP PFAS rules and the more stringent EPA standards anticipated  
4 to come out later this year. The Company is anticipating a rush on materials as the industry  
5 grapples with new EPA regulations. To mitigate potential supply shortages, the Company  
6 is proactively deploying treatment processes in its water systems to reduce the levels of the  
7 six PFAS covered by the proposed NPDWR to levels below the proposed EPA standards,  
8 even if the levels of these PFAS in the applicable PAWC system comply with the PADEP  
9 MCLs. The Company is proceeding cautiously based on the best available information  
10 and preparing to achieve treatment levels for such compounds that can reasonably be  
11 anticipated based on current research and actions contemplated by regulators, which the  
12 Company carefully studies and monitors. The continued evolution of drinking water  
13 regulations and best practices requires PAWC to operate dynamically and be prepared to  
14 respond to new contaminants of concern quickly, which can create certain business risks  
15 for PAWC. Current studies indicate that in order to remove PFAS from drinking water,  
16 PAWC may need to employ additional treatment technologies at existing water treatment  
17 facilities. A determination of what technologies to employ if PFAS compounds are present  
18 will require a review of the effectiveness of each technology and an analysis of the costs  
19 and operational feasibility for each location.

20 As the result of conditions that arose in Flint, Michigan and other jurisdictions  
21 across the country, increasing scrutiny is being placed at all levels concerning lead  
22 concentrations in water systems and adoption of more stringent requirements under the

1 EPA’s 2021 Revised LCR. The lead issue arises not from constituents in source water, but  
2 rather from the leaching of lead from older pipes and joints into the water as it passes  
3 through the distribution lines and household service lines. While controlling of the  
4 corrosivity of the water can, in many cases, avoid excessive lead concentrations, the fact is  
5 that the plumbing in many older communities (such as those throughout much of PAWC’s  
6 service territory) contain the type of copper and galvanized pipes with solder joints where  
7 lead contamination is an increased risk. Consequently, the Pennsylvania General Assembly  
8 determined in Act 120 that it is in the public interest for water utilities to replace customer-  
9 owned LSLs “concurrent[ly] with a scheduled utility main replacement project.”<sup>11</sup> In  
10 addition, as recognized by the Commission, physical replacement of the entire LSL is  
11 emerging as a best practice in the water utility industry to improve public health protection  
12 from lead in drinking water.<sup>12</sup> To that end, in 2022, the Commission adopted final  
13 regulations implementing Act 120 that require all Pennsylvania water utilities to undertake  
14 LSL replacements as a matter of course to ensure total removal of LSLs in their water  
15 systems within 25 to 30 years (the “LSLR Regulations”).<sup>13</sup> The LSLR Regulations became  
16 effective on July 23, 2022.<sup>14</sup>

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<sup>11</sup> 66 Pa. C.S. § 1311(b)(2)(i). Section 1311(b)(2) was added to the Pennsylvania Public Utility Code by Act 120, which became law on October 24, 2018. Act 120 authorizes customer-owned LSL replacements that are not performed concurrently with main replacement projects if those replacements are done “under a commission-approved program.”

<sup>12</sup> See *Petition of Pennsylvania-American Water Company for Approval of Tariff Changes and Accounting and Rate Treatment Related to Replacement of Lead Customer-Owned Service Pipes*, Docket No. P-2017-2606100 (Opinion and Order entered Jan. 4, 2019), pp. 6-7.

<sup>13</sup> See 52 Pa. Code §§ 65.51-65.62.

<sup>14</sup> 52 Pa. B. 30 (July 30, 2022).

1           The Company is at the forefront of the water industry in proactively eliminating the  
2 risks posed by the presence of LSLs. PAWC was the first water utility for whom the  
3 Commission approved a plan for replacing LSLs pursuant to Act 120. PAWC's efforts to  
4 eliminate a potential source of elevated lead levels at the customer's tap under its  
5 Replacement Plan require the dedication of management time and resources and the  
6 commitment of significant investment capital. The LSLR Regulations also require the  
7 Company to develop a comprehensive service line inventory that complies with the EPA's  
8 LCR and to modify and resubmit its Replacement Plan to the Commission by July 23,  
9 2024.<sup>15</sup> These factors, in addition to the demands the Company already faces to rehabilitate,  
10 replace, and enhance aging infrastructure and meet evolving regulatory demands, add to  
11 risk factors that PAWC faces to assure that it meets its statutory obligation to furnish safe,  
12 adequate and reliable water service.

13           Finally, upstream releases of chemicals represent a significant risk and concern for  
14 the Company. One recent example of such an event was the train derailment which  
15 occurred early in 2023, just outside East Palestine, Ohio. The train derailment caused the  
16 release of toxic chemicals both into the air and into waterways. The Company received  
17 calls from our concerned customers. While the event did not impact PAWC's source water,  
18 the Company took multiple raw water samples to be certain our customers were protected  
19 and the water the Company was providing was safe. Similarly, a chemical release in a  
20 tributary of the Delaware River caused concern in the Southeast portion of Pennsylvania.  
21 While the releases did not impact PAWC's systems, these incidents illustrate that

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<sup>15</sup> 52 Pa. Code §§ 65.56 and 65.61.

1 contamination is a significant risk faced by water suppliers and the importance of their  
2 ability to operate dynamically to prepare for and respond to future chemical releases by  
3 third parties.

#### 4 **Public Wastewater Service**

5 **Q. Provide an overview of the risks that environmental regulation poses for PAWC as**  
6 **the owner and operator of public wastewater systems.**

7 A. Like the provision of public water supply service, the operation of wastewater collection  
8 and treatment systems entails a range of environmental regulatory risks. Each of the  
9 wastewater systems acquired by the Company over the past several years came with  
10 significant regulatory compliance challenges. For example, the York wastewater system  
11 acquired by the Company in 2022 is subject to a Consent Agreement with the EPA that  
12 requires system upgrades to address violations of untreated wastewater discharges that  
13 have occurred historically. The Company is required to ensure any high flow events  
14 receive treatment prior to discharge.

15 Wastewater operations are also regulated at both the federal and state levels  
16 pursuant to numerous statutes and voluminous regulations. At the federal level, wastewater  
17 systems are regulated pursuant to the Clean Water Act and numerous regulations adopted  
18 by the EPA under that law. At the state level, the Pennsylvania Clean Streams Law, Sewage  
19 Facilities Act, Solid Waste Management Act, Storage Tank and Spill Prevention Act and  
20 other laws administered by the PADEP, coupled with the regulations adopted under those  
21 statutes, set standards and requirements for virtually every aspect of wastewater system  
22 operations.



1           One risk associated with operating wastewater systems is that effluent limitations  
2 imposed on WWTP discharges are stringent and often become more stringent over time.  
3 The Clean Water Act requires wastewater systems to obtain and comply with NPDES  
4 permits, which, in Pennsylvania, are issued by PADEP. NPDES permits establish stringent  
5 effluent limits based upon the stricter of: (1) technology-based effluent limits; and (2) water  
6 quality-based effluent limits.

7           PAWC has faced significant regulatory compliance challenges with each of the  
8 wastewater systems the Company acquired over the past several years. Every five years,  
9 NPDES permits are up for renewal, and in any such renewal, more stringent limits may be  
10 triggered. One example is the Scranton WW, where the application for NPDES permit was  
11 applied for in June 2021 and has not been approved yet. Similarly, the Long-Term Control  
12 Plan for McKeesport was submitted to PADEP August 2022 with no finalization yet.

13           Another risk for PAWC is that several Pennsylvania streams, including those where  
14 PAWC is operating wastewater systems, are parts of watersheds that are classified as  
15 “impaired,” meaning their instream quality does not meet state standards. Such impaired  
16 waters are subject to the development and imposition of Total Maximum Daily Loads  
17 (“TMDLs”) for parameters that contribute to the instream conditions. A prime example is  
18 the Chesapeake Bay watershed, which includes the entire Susquehanna River Basin, where  
19 a TMDL has been established for sediments (total suspended solids) and nutrients  
20 (phosphorous and nitrogen). Where TMDLs are established by the EPA or the PADEP,  
21 stringent waste load allocations are made to point-source discharges (such as WWTPs),  
22 and allocations are also made to non-point sources, such as agriculture and urban runoff.

1 In the case of the Chesapeake Bay TMDL, for example, every WWTP in the Susquehanna  
2 Basin has been accorded an annual “cap load” for total nitrogen and total phosphorous –  
3 where any cap loading exceedance irrespective of the cause (such as increased flows and  
4 loadings from system customers or high stormwater flows entering the system) – can lead  
5 to stiff penalties and other enforcement actions.

6 Wastewater systems also face significant regulatory and environmental liability  
7 risks. Non-compliance with wastewater system effluent limits and other permit conditions  
8 can result in severe penalties. Regulatory violations open the operator to not only  
9 governmental agency enforcement actions, but also private lawsuits in which both  
10 injunctive relief and civil penalties can be imposed.

11 Another risk arises from PAWC’s Scranton, McKeesport and Kane CSSs where  
12 both storm water and sanitary/industrial wastewaters flow in the same sewer lines. CSSs  
13 incur high flows during and after storms, which may exceed the system conveyance and/or  
14 treatment capacity, with excess untreated wastewater discharged to receiving streams  
15 through CSO outfalls. In many cases, separation of CSSs into separate sanitary and storm  
16 systems is logistically and economically infeasible. While the Company and the  
17 communities it serves did not and do not create the problems facing the treatment of  
18 wastewater, additional costs to address actions by previous dischargers and upstream  
19 polluters and cleanup water ways cannot be avoided.

1 EPA's CSO Control Policy,<sup>16</sup> which applies to publicly owned treatment works  
2 ("POTWs") (i.e., those systems owned or operated by state or local governmental  
3 agencies), seeks to reduce CSOs, while recognizing that CSOs cannot be entirely  
4 eliminated. However, the EPA recently issued an enforcement letter no longer allowing the  
5 Company to own a CSO system without fully eliminating any CSO discharge within five  
6 years. Although the federal Clean Water Act generally requires that all wastewater be  
7 treated with at least secondary treatment prior to discharge, the CSO Control Policy  
8 provides an exception for POTWs. Currently, the CSO Control Policy, by its terms, does  
9 not provide similar exceptions for privately-owned sewage systems. Some utilities  
10 (including PAWC) have obtained the EPA's agreement to continue to apply the CSO  
11 Control Policy's exception to systems that were formerly POTWs and were acquired by  
12 private entities. The EPA's recognition of such exceptions must be obtained by negotiation  
13 on a case-by-case basis and typically entails entering into court-approved consent decrees  
14 or agency consent orders that impose stringent capital improvement and operating  
15 obligations on the non-public owner of the wastewater system. In recent years, EPA has  
16 also not been as willing to agree to those exceptions, even where the Company has  
17 improved the level of discharge from the acquired system and the quality of the associated  
18 waterway.

19 Under the CSO Control Policy and applicable NPDES permits, operators of CSSs  
20 must develop and implement LTCPs, consisting of collection system and treatment plant

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<sup>16</sup> 59 Fed. Reg. 18687 (April 19, 1994), available at: <https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf>.

1 improvement projects designed to reduce CSOs to no more than four events per year and/or  
2 capture and treatment of 85-90% of annual storm water flows. These LTCP requirements  
3 often involve very substantial multi-year capital expenditure programs.

4 CSS operators must adopt and implement a Nine Minimum Controls Plan,<sup>17</sup>  
5 consisting of a series of actions that address the management of storm water and  
6 constituents in storm water runoff, including regulation of storm water connections,  
7 regulation of land development/erosion and sedimentation activities, control of industrial  
8 and other dischargers, catch basin maintenance, and street sweeping, etc.

9 Moreover, even where systems being acquired do not involve combined sewers,  
10 high rates of I&I<sup>18</sup> during wet weather can surcharge the system and exceed the hydraulic  
11 or treatment capacity of the WWTP. System upgrades to reduce I&I may require major  
12 capital expenditures. Some I&I can be isolated and remedied, however the bulk of I&I  
13 comes in through small defaults and require relining or replacement of the entire pipeline  
14 with services reconnected to the main. The recently acquired York WW system has had  
15 historically high I&I. To overcome the I&I challenge will require both projects at the  
16 WWTP as well as significant upgrades to the collection system in order to get the I&I down  
17 to a level it does not over stress the WWTP.

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<sup>17</sup>U.S. Environmental Protection Agency, Combined Sewer Overflows Guidance for Nine Minimum Controls, EPA 832-B-95-003 (May 1995), available at: <https://www3.epa.gov/npdes/pubs/owm0030.pdf>.

<sup>18</sup> I&I involves the infiltration of groundwater and stormwater into what is considered to be a sanitary only sewer line, such as through joints and other weaknesses in the pipelines.

1 Challenges Climate Change May Create

2 **Q. Does climate change pose additional risks for water supply and wastewater system**  
3 **utilities such as PAWC?**

4 A. Yes. Whatever the debate may be concerning the causes of climate change, water supply  
5 and wastewater utilities face the reality of changing climatic conditions and attendant  
6 stresses on water resources. “Climate models project that the Commonwealth will see an  
7 increase in average annual precipitation, extreme precipitation events, and drought, as both  
8 “very heavy” precipitation events and consecutive dry days increase.” That means we can  
9 expect more droughts of varying degrees of severity and more frequent and intense high-  
10 flow events and floods – which impact water and wastewater utilities.

11 Water supply systems are fundamentally resource-dependent and, therefore, the  
12 effects of climate change pose a significant on-going risk and create challenges with regard  
13 to maintaining a reliable water supply during the full range of potential future conditions,  
14 including even what might be assumed to be “normal” periods. The safe yields of water  
15 supply sources have historically been evaluated based on historical climatic patterns, data  
16 from so called “droughts of record” or dry period frequency analysis. However, changing  
17 climatic conditions suggest that historical hydrologic data (which in many cases only  
18 reflect 50-100 years of rainfall and stream flow measurement collection – a quite short  
19 period in geologic or climatic time) may not accurately predict future conditions. Thus,  
20 the calculated safe yield of streams, reservoirs and groundwater wells are put in question  
21 as the effects of climate change are experienced across the northeastern United States.  
22 Thus, in response to climate change, water supply systems must address the risks posed to  
23 the reliability and resilience of their sources.



1 WWTP. The York Bulk Customers are sophisticated, knowledgeable, and experienced.  
2 Therefore, they could divert flows to alternative treatment providers or develop a new  
3 treatment system.

4 In the proceeding for approval of PAWC's acquisition of the York wastewater  
5 system at Docket Nos. A-2021-3024681 et al. ("Acquisition Proceeding"), the York Bulk  
6 Customers opposed the transaction and testified that were planning for a competitive  
7 alternative to bulk treatment service from PAWC. As witnesses for the York Bulk  
8 Customers explained in their testimony in the Acquisition Proceeding and discussed in  
9 detail by Company witness Bernard D. Grundusky in Statement No. 7-R submitted on  
10 August 19, 2022 in PAWC's 2022 rate case, unless PAWC entered into the Bulk  
11 Agreements on the terms and rates set forth in those contracts, each of the York Bulk  
12 Customers would leave the York system after PAWC's acquisition and pursue alternative  
13 treatment.

14 **Q. Do you believe it is appropriate and in the public interest for PAWC to continue**  
15 **furnishing wastewater treatment and conveyance services to the York Bulk**  
16 **Customers under the terms and rates set forth in the Bulk Agreements?**

17 A. Yes. The Bulk Agreements create broad public interest benefits, which could not have  
18 been achieved absent a settlement of the Acquisition Proceeding. In fact, that settlement  
19 includes provisions that the Commission would not be authorized to impose unilaterally.  
20 For example, by engaging in rigorous, good faith, arm's length negotiations with the York  
21 Bulk Customers over a six-month period, PAWC was able to secure specific commitments  
22 that it could not have procured otherwise, which include:

- 1           •       The York Bulk Customers agreed that they will not divert flow to other  
2 providers during the 40-year term of the Bulk Agreements. By locking the  
3 York Bulk Customers into a 40-year term, which reasonably encompasses  
4 most of the service life of major treatment and conveyance facilities, PAWC  
5 is able to avoid the possibility that some portion of its investment in those  
6 facilities may become “stranded” by the departure of one or more York Bulk  
7 Customers.
- 8           •       The York Bulk Customers have agreed to use commercially reasonable  
9 efforts to reduce I&I. This provision will enable PAWC to avoid potentially  
10 unforeseen increases in demand on its treatment facilities, which could  
11 adversely affect service and increase costs.
- 12          •       The Bulk Agreements clearly define the services to be provided by PAWC  
13 to the York Bulk Customers by including more carefully delineated terms  
14 and parameters for service than could be set forth in a typical wastewater  
15 service tariff. The more precisely defined terms of service provide for better  
16 metering of service, improved billing, and better identification/tracking of  
17 inter-municipal flows. These improvements help to ensure that the York  
18 Bulk Customers bear the responsibility for the demands and associated costs  
19 they impose on the wastewater treatment and conveyance facilities they use.
- 20          •       As part of the Bulk Agreements, the municipalities agreed to and have  
21 already enacted ordinances/resolutions that require Industrial Pretreatment



- Program (“IPP”) customers within their municipal boundaries to comply with PAWC’s IPP.

**Q. What would be the practical consequences if the York bulk customers exercise their early termination rights under the bulk agreements and left the York wastewater system because of increases to the negotiated contract rate?**

A. The York Bulk Customers represent approximately 54% of the allocated treatment flow at the Company’s York WWTP. If the Bulk Customers left the system, the York WWTP would become uneconomic in the absence of rate increases to retail customers in PAWC’s general sanitary sewer system operations. It would also result in a splintering of the current regional and consolidated wastewater collection and treatment system in the York area, which would be contrary to the Commission policy in favor of regionalization and consolidation. Additionally, the bulk flow from surrounding municipalities is essential to the proper functioning of the York WWTP. The bulk flow from the surrounding municipalities contains additional biological oxygen demand materials that aid in the consumption and digestion of bacteria in the flow stream. The Bulk Agreements also contain provisions that facilitate PAWC’s ability to exchange capacity between the York Bulk Customers, which will help to reduce system peak treatment demand and, in that way, postpone or potentially avoid entirely, the investment in additional treatment capacity.

**Q. Does this conclude your testimony?**

A. Yes, it does.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER  
COMPANY

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DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

VERIFICATION

I, **Bruce W. Aiton**, hereby state that the facts set forth in the pre-marked Statement No. 3 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023



Bruce W. Aiton

**Pennsylvania American Water**  
**Total Aggregate Gross Plant Additions**  
**PAWC Statement No. 3 Schedule BWA-1**

	Estimated	Actual
	2023 Sep YTD	2023 Sep YTD
	Additions	Additions
Water Operations	\$240,925,750	\$262,342,274
Wastewater SSS General Operations	\$16,418,889	\$14,548,281
Wastewater CSS Operations	26,850,990	35,102,387
Royersford WW Operations	-	484,755
Upper Pottsgrove WW Operations	-	472,213
York WW Operations	105,000	2,764,810
Total Wastewater Operations	<u>\$43,374,879</u>	<u>\$53,372,446</u>
Total Water & Wastewater Operations	\$284,300,629	\$315,714,720

Pennsylvania-American Water Company - Water Operations

Estimated vs Actual

Summary of Detailed Plant Accounts

LINE NO.	ACCT. NO.	ACCOUNT TITLE	AMOUNT 12/31/2022	ESTIMATED ADDITIONS	ESTIMATED ACQUISITION	ESTIMATED RETIREMENTS	ESTIMATED BOOK COST 9/30/2023	ACTUAL ADDITIONS	ACTUAL ACQUISITION	ACTUAL RETIREMENTS	ACTUAL BOOK COST 9/30/2023
1	301.00	Organization	\$766,405	\$0	\$0	\$0	\$766,405	\$0	\$0	\$0	\$766,405
2	302.00	Franchises & Consents	2,404,599	0	0	0	2,404,599	0	0	0	2,404,599
3	303.00	Miscellaneous Intangible Plant	15,572	456,000		52,228	419,344	0	0	0	15,572
4		Total Intangible Plant	<u>\$3,186,576</u>	<u>\$456,000</u>	<u>\$0</u>	<u>\$52,228</u>	<u>\$3,590,348</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$3,186,576</u>
5	303.00	Land & Land Rights	\$22,222,038	\$0		\$0	\$22,222,038	\$318,069	\$0	\$11,093	\$22,529,014
6		Total Land & Land Rights	<u>\$22,222,038</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$22,222,038</u>	<u>\$318,069</u>	<u>\$0</u>	<u>\$11,093</u>	<u>\$22,529,014</u>
7	303.14	Water Rights - Hibernia	\$1,942,823	\$0		\$0	\$1,942,823	\$0	\$0	\$0	\$1,942,823
8	303.35	Waste Handling and Treatment Land	155,025	0		0	155,025	0	0	0	155,025
9	303.99	Comprehensive Planning Studies	10,990,375	381,608		0	11,371,983	520,535	0	0	11,510,910
10	304.15	Other Water Source Structures	91,004,897	0		0	91,004,897	7,321,761	20,000	777,503	97,569,155
11	304.20	Power and Pumping Structures	99,745,687	1,194,500		0	100,940,187	255,155	48,974	127,450	99,922,366
12	304.30	Purification Buildings	340,264,511	8,473,176		470,353	348,267,334	2,048,656	0	620,501	341,692,666
13	304.36	Waste Handling Struct. & Improv.	11,896,367	0		0	11,896,367	0	0	0	11,896,367
14	304.61	Office Buildings	47,816,893	791,572		118,629	48,489,836	18,044	0	0	47,834,938
15	304.62	Stores, Shop and Garage Buildings	64,186,673	893,047		133,837	64,945,883	91,950	0	150,185	64,128,437
16	304.63	Miscellaneous Structures and Improvements	19,299,996	0		0	19,299,996	5,883,661	0	611,077	24,572,580
17	305.00	Collecting and Impounding Reservoirs	135,474,936	0		0	135,474,936	0	0	0	135,474,936
18	306.00	Lake, River and Other Intakes	16,689,721	0		0	16,689,721	691,160	0	30,034	17,350,847
19	307.00	Wells and Springs	11,889,909	955,183		86,762	12,758,330	202,155	40,000	54,618	12,077,446
20	310.00	Other Power Production Equipment	18,795,047	375,000		56,200	19,113,847	248,415	49,848	0	19,093,310
21	311.00	Pumping Equipment	97,332,392	981,787		17,352	98,296,826	3,114,936	229,305	543,611	100,133,022
22	320.00	Purification System	331,054,070	37,044,776		4,800,579	363,298,268	8,929,826	0	1,613,683	338,370,214
23	320.30	Granular Activated Carbon	11,616,530	0		0	11,616,530	1,798,386	12,270	22,660	13,404,526
24	320.37	Waste Handling and Treatment Equipment	15,839,221	0		0	15,839,221	0	0	0	15,839,221
25	330.00	Distribution Reservoirs and Standpipes	208,500,037	4,285,350		0	212,785,387	1,941,511	179,349	256,055	210,364,843
26	331.00	Mains and Accessories	3,269,894,465	111,788,711		15,336,657	3,366,346,519	146,980,762	265,542	8,450,570	3,408,690,199
27	333.00	Services	683,180,960	17,361,152		1,344,769	699,197,343	30,779,222	259,745	(5,847,514)	720,067,441
28	334.00	Meters	210,847,927	25,817,157		3,538,053	233,127,032	20,359,589	6,226	4,951,891	226,261,852
29	335.00	Fire Hydrants	135,231,622	6,157,873		693,580	140,695,915	7,337,958	44,874	(2,275,799)	144,890,253
30	340.00	Office Furniture and Equipment	19,119,507	1,947,112		695,952	20,370,668	3,886,184	0	288,471	22,717,220
31	340.31	Computer Software	76,661,613	8,780,613		0	85,442,225	6,367,234	0	6,711,201	76,317,646
32	341.00	Transportation Equipment	81,209,315	4,722,263		707,704	85,223,874	5,273,928	0	7,214,402	79,268,841
33	342.00	Stores Equipment	468,033	0		0	468,033	1,758	0	0	469,790
34	343.00	Tools and Work Equipment	40,504,751	3,222,300		70,823	43,656,228	4,521,337	0	64,889	44,961,200
35	344.00	Laboratory Equipment	2,337,745	0		0	2,337,745	132,283	0	168,435	2,301,593
36	345.00	Power Operated Equipment	2,127,698	375,000		56,200	2,446,498	0	0	4,891	2,122,807
37	346.00	Communication Equipment	14,122,627	4,379,086		185,216	18,316,498	1,533,552	0	472,099	15,184,080
38	347.00	Miscellaneous Equipment	27,698,362	542,484		37,475	28,203,371	628,112	0	75,764	28,250,710
39	348.00	Other Tangible Equipment	795,578	0		0	795,578	0	0	0	795,578
40		Total Tangible Plant	<u>\$6,098,695,313</u>	<u>\$240,469,750</u>	<u>\$0</u>	<u>\$28,350,139</u>	<u>\$6,310,814,925</u>	<u>\$260,868,073</u>	<u>\$1,156,132</u>	<u>\$25,086,679</u>	<u>\$6,335,632,840</u>
41		Total Utility Plant In Service	<u>\$6,124,103,927</u>	<u>\$240,925,750</u>	<u>\$0</u>	<u>\$28,402,367</u>	<u>\$6,336,627,311</u>	<u>\$261,186,142</u>	<u>\$1,156,132</u>	<u>\$25,097,772</u>	<u>\$6,361,348,430</u>

**Pennsylvania-American Water Company - Wastewater SSS General Operations**

**Estimated vs Actual**

**Summary of Detailed Plant Accounts**

<b>LINE NO.</b>	<b>ACCT. NO.</b>	<b>ACCOUNT TITLE</b>	<b>AMOUNT 12/31/2022</b>	<b>ESTIMATED ADDITIONS</b>	<b>ESTIMATED RETIREMENTS</b>	<b>ESTIMATED BOOK COST 9/30/2023</b>	<b>ACTUAL ADDITIONS</b>	<b>ACTUAL RETIREMENTS</b>	<b>ACTUAL BOOK COST 9/30/2023</b>
1	352.00	Franchises & Consents	\$221,140	\$0	\$0	\$221,140	\$0	\$0	\$221,140
2	353.00	Land & Land Rights	6,043,118	0	0	6,043,118	224	0	6,043,342
3		<b>Total Intangible Plant</b>	<b>\$6,264,258</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,264,258</b>	<b>\$224</b>	<b>\$0</b>	<b>\$6,264,482</b>
4	354.20	Structures And Improvements - Collection	\$6,423,992	\$164,831	\$15,927	\$6,572,896	\$1,323,154	\$40,090	7,707,056
5	354.30	Structures And Improvements - SPP	22,206,952	837,500	63,016	22,981,436	79,907	56,588	22,230,271
6	354.40	Structures And Improvements - TDP	156,179,451	0	0	156,179,451	4,912	174,486	156,009,876
7	354.70	Structures And Improvements - General	4,409,295	131,099	6,340	4,534,054	132,624	53,690	4,488,229
8	355.00	Power Generation Equipment	4,962,505	847,042	63,734	5,745,813	11,743	16,516	4,957,732
9	360.10	Collection Sewers - Force Mains	50,941,888	3,177,462	239,082	53,880,269	3,918,775	2,653	54,858,010
10	361.10	Collection Sewers - Gravity Mains	189,276,807	5,580,575	419,900	194,437,482	3,667,927	1,228,808	191,715,926
11	361.20	Manholes	32,362,549	305,502	17,046	32,651,006	0	0	32,362,549
12	363.00	Services	50,818,991	855,050	43,840	51,630,201	672,754	202,393	51,289,352
13	364.00	Flow Measuring Devices	553,242	31,670	6,415	578,497	0	0	553,242
14	365.00	Flow Measuring Installations	272,564	0	0	272,564	0	0	272,564
15	370.00	Receiving Wells	677,388	0	0	677,388	0	0	677,388
16	371.00	Pumping Equipment	16,020,113	2,512,500	189,048	18,343,565	550,923	112,315	16,458,722
17	380.00	Treatment Equipment	79,817,552	0	0	79,817,552	1,567,958	299,660	81,085,850
18	381.00	Plant Sewers	6,584,710	0	0	6,584,710	51,665	0	6,636,374
19	382.00	Outfall Sewer Lines	603,465	0	0	603,465	0	0	603,465
20	389.10	Other Plant And Miscellaneous Equipment - Intangibles	664,467	508,810	0	1,173,278	1,900,256	0	2,564,724
21	390.00	Office Furniture And Equipment	850,486	21,308	0	871,793	17,090	0	867,576
22	390.20	Computers & Peripheral	0	0	0	0	0	0	0
23	391.00	Transportation Equipment	1,733,136	0	0	1,733,136	122,872	0	1,856,007
24	392.00	Stores Equipment	107,351	0	0	107,351	0	0	107,351
25	393.00	Tools, Shop And Garage Equipment	1,087,927	152,683	13,106	1,227,504	33,111	0	1,121,039
26	394.00	Laboratory Equipment	567,441	0	32,838	534,603	4,480	93,172	478,748
27	395.00	Power Operated Equipment	433,205	0	0	433,205	145,249	0	578,454
28	396.00	Communication Equipment	2,940,079	1,071,839	80,736	3,931,182	327,067	249,671	3,017,475
29	397.00	Miscellaneous Equipment	1,376,647	221,016	16,648	1,581,015	15,591	0	1,392,238
30	398.00	Other Tangible Plant	14,232	0	0	14,232	0	0	14,232
31		<b>Total Tangible Plant</b>	<b>\$631,886,435</b>	<b>\$16,418,889</b>	<b>\$1,207,677</b>	<b>\$647,097,647</b>	<b>\$14,548,057</b>	<b>\$2,530,041</b>	<b>\$643,904,451</b>
32		<b>Total Utility Plant In Service</b>	<b>\$638,150,693</b>	<b>\$16,418,889</b>	<b>\$1,207,677</b>	<b>\$653,361,905</b>	<b>\$14,548,281</b>	<b>\$2,530,041</b>	<b>\$650,168,933</b>

**Pennsylvania-American Water Company - Royersford WW Operations**

**Estimated vs Actual**

**Summary of Detailed Plant Accounts**

<b>LINE NO.</b>	<b>ACCT. NO.</b>	<b>ACCOUNT TITLE</b>	<b>AMOUNT 12/31/2022</b>	<b>ESTIMATED ADDITIONS</b>	<b>ESTIMATED RETIREMENTS</b>	<b>ESTIMATED BOOK COST 9/30/2023</b>	<b>ACTUAL ADDITIONS</b>	<b>ACTUAL RETIREMENTS</b>	<b>ACTUAL BOOK COST 9/30/2023</b>
1	353.00	Land & Land Rights	\$3,101	\$0	\$0	\$3,101	\$0	\$0	\$3,101
2		Total Intangible Plant	\$3,101	\$0	\$0	\$3,101	\$0	\$0	\$3,101
3	354.20	Structures And Improvements - Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	354.30	Structures And Improvements - SPP	627,002	0	0	627,002	0	2,114	624,889
5	354.40	Structures And Improvements - TDP	834,576	0	0	834,576	0	7,469	827,107
6	354.70	Structures And Improvements - General	363,546	0	0	363,546	36,170	0	399,716
7	355.00	Power Generation Equipment	932,793	0	0	932,793	0	0	932,793
8	360.10	Collection Sewers - Force Mains	79,236	0	0	79,236	0	0	79,236
9	361.10	Collection Sewers - Gravity Mains	2,677,569	0	0	2,677,569	5,805	0	2,683,374
10	361.20	Manholes	106,954	0	0	106,954	0	0	106,954
11	363.00	Services	99,918	0	0	99,918	32,198	0	132,116
12	364.00	Flow Measuring Devices	45,063	0	0	45,063	0	0	45,063
13	365.00	Flow Measuring Installations	0	0	0	0	0	0	0
14	370.00	Receiving Wells	0	0	0	0	0	0	0
15	371.00	Pumping Equipment	441,374	0	0	441,374	119,460	0	560,834
16	380.00	Treatment Equipment	13,968,926	0	0	13,968,926	77,878	0	14,046,804
17	381.00	Plant Sewers	0	0	0	0	0	0	0
18	382.00	Outfall Sewer Lines	0	0	0	0	0	0	0
19	389.10	Other Plant And Miscellaneous Equipment - Intangibles	0	0	0	0	1,950	0	1,950
20	390.00	Office Furniture And Equipment	23,874	0	0	23,874	-	-	23,874
21	390.20	Computers & Peripheral	0	0	0	0	0	0	0
22	391.00	Transportation Equipment	0	0	0	0	28,696	0	28,696
23	392.00	Stores Equipment	0	0	0	0	0	0	0
24	393.00	Tools, Shop And Garage Equipment	17,036	0	0	17,036	0	0	17,036
25	394.00	Laboratory Equipment	9,068	0	0	9,068	0	0	9,068
26	395.00	Power Operated Equipment	0	0	0	0	0	0	0
27	396.00	Communication Equipment	113,708	0	0	113,708	182,597	0	296,305
28	397.00	Miscellaneous Equipment	112,872	0	0	112,872	0	0	112,872
29	398.00	Other Tangible Plant	0	0	0	0	0	0	0
30		Total Tangible Plant	\$20,453,515	\$0	\$0	\$20,453,515	\$484,755	\$9,583	\$20,928,687
31		Total Utility Plant In Service	\$20,456,616	\$0	\$0	\$20,456,616	\$484,755	\$9,583	\$20,931,788

**Pennsylvania-American Water Company - Upper Pottsgrove WW Operations**

**Estimated vs Actual**

**Summary of Detailed Plant Accounts**

<b>LINE NO.</b>	<b>ACCT. NO.</b>	<b>ACCOUNT TITLE</b>	<b>AMOUNT 12/31/2022</b>	<b>ESTIMATED ADDITIONS</b>	<b>ESTIMATED RETIREMENTS</b>	<b>ESTIMATED BOOK COST 9/30/2022</b>	<b>ACTUAL ADDITIONS</b>	<b>ACTUAL RETIREMENTS</b>	<b>ACTUAL BOOK COST 9/30/2023</b>
1	352.00	Franchises & Consents	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	353.10	Land & Land Rights	3,661,632	0	0	3,661,632	0	0	3,661,632
3		Total Intangible Plant	<u>\$3,661,632</u>	<u>\$0</u>	<u>\$0</u>	<u>\$3,661,632</u>	<u>\$0</u>	<u>\$0</u>	<u>\$3,661,632</u>
4	354.20	Structures And Improvements - Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	354.30	Structures And Improvements - SPP	1,685,520	0	0	1,685,520	0	0	1,685,520
6	354.40	Structures And Improvements - TDP	0	0	0	0	0	0	0
7	354.70	Structures And Improvements - General	122,480	0	0	122,480	31,948	0	154,428
8	355.00	Power Generation Equipment	109,527	0	0	109,527	0	0	109,527
9	360.10	Collection Sewers - Force Mains	756,805	0	0	756,805	0	0	756,805
10	361.10	Collection Sewers - Gravity Mains	9,488,445	0	0	9,488,445	105,900	0	9,594,345
11	361.20	Manholes	0	0	0	0	0	0	0
12	363.00	Services	2,022,553	0	0	2,022,553	130,978	0	2,153,531
13	364.00	Flow Measuring Devices	0	0	0	0	0	0	0
14	365.00	Flow Measuring Installations	0	0	0	0	0	0	0
15	370.00	Receiving Wells	0	0	0	0	0	0	0
16	371.00	Pumping Equipment	144,029	0	0	144,029	0	0	144,029
17	380.00	Treatment Equipment	0	0	0	0	203,386	0	203,386
18	381.00	Plant Sewers	0	0	0	0	0	0	0
19	382.00	Outfall Sewer Lines	0	0	0	0	0	0	0
20	389.10	Other Plant And Miscellaneous Equipment - Intangibles	0	0	0	0	0	0	0
21	390.00	Office Furniture And Equipment	0	0	0	0	0	0	0
22	390.20	Computers & Peripheral	0	0	0	0	0	0	0
23	391.00	Transportation Equipment	0	0	0	0	0	0	0
24	392.00	Stores Equipment	0	0	0	0	0	0	0
25	393.00	Tools, Shop And Garage Equipment	0	0	0	0	0	0	0
26	394.00	Laboratory Equipment	0	0	0	0	0	0	0
27	395.00	Power Operated Equipment	0	0	0	0	0	0	0
28	396.00	Communication Equipment	0	0	0	0	0	0	0
29	397.00	Miscellaneous Equipment	0	0	0	0	0	0	0
30	398.00	Other Tangible Plant	0	0	0	0	0	0	0
31		Total Tangible Plant	<u>\$14,329,358</u>	<u>\$0</u>	<u>\$0</u>	<u>\$14,329,358</u>	<u>\$472,213</u>	<u>\$0</u>	<u>\$14,801,571</u>
32		Total Utility Plant In Service	<u>\$17,990,990</u>	<u>\$0</u>	<u>\$0</u>	<u>\$17,990,990</u>	<u>\$472,213</u>	<u>\$0</u>	<u>\$18,463,203</u>

Pennsylvania-American Water Company - York WW Operations

Estimated vs Actual

Summary of Detailed Plant Accounts

LINE NO.	ACCT. NO.	ACCOUNT TITLE	AMOUNT 12/31/2022	ESTIMATED ADDITIONS	ESTIMATED RETIREMENTS	ESTIMATED BOOK COST 9/30/2023	ACTUAL ADDITIONS	ACTUAL RETIREMENTS	ACTUAL BOOK COST 9/30/2023
1	352.00	Franchises & Consents	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	353.00	Land & Land Rights	5,198,862	0	0	5,198,862	0	0	5,198,862
3		Total Intangible Plant	<u>\$5,198,862</u>	<u>\$0</u>	<u>\$0</u>	<u>\$5,198,862</u>	<u>\$0</u>	<u>\$0</u>	<u>\$5,198,862</u>
4	354.20	Structures And Improvements - Collection	\$320,168	\$0	\$0	\$320,168	\$735,970	\$0	\$1,056,137
5	354.30	Structures And Improvements - SPP	106,379	0	0	106,379	0	0	106,379
6	354.40	Structures And Improvements - TDP	122,160,376	0	0	122,160,376	910,539	95,036	122,975,879
7	354.70	Structures And Improvements - General	5,157	0	0	5,157	16,461	0	21,617
8	355.00	Power Generation Equipment	5,976	0	0	5,976	0	0	5,976
9	360.10	Collection Sewers - Force Mains	78,399	0	0	78,399	0	0	78,399
10	361.10	Collection Sewers - Gravity Mains	55,278,841	0	0	55,278,841	18,541	24,519	55,272,863
11	361.20	Manholes	0	0	0	0	0	0	0
12	363.00	Services	7,255,173	0	0	7,255,173	98,686	(8,912)	7,362,771
13	364.00	Flow Measuring Devices	83,864	0	0	83,864	0	0	83,864
14	365.00	Flow Measuring Installations	0	0	0	0	0	0	0
15	370.00	Receiving Wells	0	0	0	0	0	0	0
16	371.00	Pumping Equipment	199,138	0	0	199,138	197,051	23,707	372,481
17	380.00	Treatment Equipment	41,006,636	0	0	41,006,636	239,799	73,812	41,172,622
18	381.00	Plant Sewers	0	0	0	0	0	0	0
19	382.00	Outfall Sewer Lines	0	0	0	0	0	0	0
20	389.10	Other Plant And Miscellaneous Equipment - Intangibles	0	0	0	0	0	0	0
21	390.00	Office Furniture And Equipment	159,198	0	0	159,198	98,340	0	257,538
22	390.20	Computers & Peripheral	0	0	0	0	0	0	0
23	391.00	Transportation Equipment	1,405,304	0	0	1,405,304	502,917	0	1,908,221
24	392.00	Stores Equipment	0	0	0	0	0	0	0
25	393.00	Tools, Shop And Garage Equipment	57,053	31,250	0	88,303	22,434	0	79,488
26	394.00	Laboratory Equipment	302,464	18,750	1,753	319,461	31,474	117,409	216,529
27	395.00	Power Operated Equipment	0	0	0	0	0	0	0
28	396.00	Communication Equipment	0	55,000	0	55,000	0	0	0
29	397.00	Miscellaneous Equipment	208,925	0	0	208,925	(107,400)	0	101,524
30	398.00	Other Tangible Plant	0	0	0	0	0	0	0
31		Total Tangible Plant	<u>\$228,633,052</u>	<u>\$105,000</u>	<u>\$1,753</u>	<u>\$228,736,299</u>	<u>\$2,764,810</u>	<u>\$325,571</u>	<u>\$231,072,291</u>
32		Total Utility Plant In Service	<u>\$233,831,914</u>	<u>\$105,000</u>	<u>\$1,753</u>	<u>\$233,935,161</u>	<u>\$2,764,810</u>	<u>\$325,571</u>	<u>\$236,271,153</u>



Pennsylvania-American Water Company - Wastewater CSS Operations

Estimated vs Actual

Summary of Detailed Plant Accounts

LINE NO.	ACCT. NO.	ACCOUNT TITLE	AMOUNT 12/31/2022	ESTIMATED ADDITIONS	ESTIMATED RETIREMENTS	ESTIMATED BOOK COST 9/30/2023	ACTUAL ADDITIONS	ACTUAL RETIREMENTS	ACTUAL BOOK COST 9/30/2023
1	352.00	Franchises & Consents	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	353.00	Land & Land Rights	4,463,355	0	0	4,463,355	0	0	4,463,355
3		Total Intangible Plant	\$4,463,355	\$0	\$0	\$4,463,355	\$0	\$0	\$4,463,355
4	354.20	Structures And Improvements - Collection	\$6,232,440	\$1,405,793	\$57,601	\$7,580,632	\$2,425,944	\$13,204	\$8,645,180
5	354.30	Structures And Improvements - SPP	20,953,421	730,561	38,386	21,645,596	32,623	0	20,986,044
6	354.40	Structures And Improvements - TDP	126,015,479	2,988,824	218,901	128,785,403	17,350	161,976	125,870,853
7	354.70	Structures And Improvements - General	0	0	0	0	0	0	0
8	355.00	Power Generation Equipment	932,654	0	0	932,654	0	0	932,654
9	360.10	Collection Sewers - Force Mains	9,494,734	0	0	9,494,734	897,755	278,071	10,114,418
10	361.10	Collection Sewers - Gravity Mains	378,631,623	16,807,495	1,230,976	394,208,143	23,992,358	4,910,835	397,713,146
11	361.20	Manholes	42,198,027	1,345,633	88,189	43,455,471	0	0	42,198,027
12	362.00	Spec Collection Structures	0	0	0	0	0	0	0
13	363.00	Services	13,679,141	712,089	40,814	14,350,415	859,932	38,241	14,500,831
14	364.00	Flow Measuring Devices	2,089,465	0	0	2,089,465	40,012	0	2,129,477
15	365.00	Flow Measuring Installations	0	0	0	0	0	0	0
16	370.00	Receiving Wells	0	0	0	0	0	0	0
17	371.00	Pumping Equipment	14,781,637	945,000	69,212	15,657,425	356,344	6,974	15,131,006
18	380.00	Treatment Equipment	75,500,947	1,122,432	82,207	76,541,172	3,978,527	128,780	79,350,694
19	381.00	Plant Sewers	1,576,345	0	0	1,576,345	0	0	1,576,345
20	382.00	Outfall Sewer Lines	189,250	0	0	189,250	0	0	189,250
21	389.10	Other Plant And Miscellaneous Equipment - Intangibles	10,741,231	105,000	7,690	10,838,541	(1,114)	0	10,740,117
22	390.00	Office Furniture And Equipment	2,360,981	0	0	2,360,981	190,070	0	2,551,051
23	390.20	Computers & Peripheral	0	0	0	0	0	0	0
24	391.00	Transportation Equipment	7,203,931	80,666	5,908	7,278,689	908,435	2,892	8,109,473
25	392.00	Stores Equipment	106,844	0	0	106,844	0	0	106,844
26	393.00	Tools, Shop And Garage Equipment	1,924,409	0	2,216	1,922,193	1,078,712	0	3,003,121
27	394.00	Laboratory Equipment	1,285,384	0	0	1,285,384	125,913	14,941	1,396,356
28	395.00	Power Operated Equipment	1,909,398	34,571	2,532	1,941,437	0	0	1,909,398
29	396.00	Communication Equipment	2,754,188	155,870	0	2,910,057	29,229	489	2,782,928
30	397.00	Miscellaneous Equipment	2,544,799	417,056	0	2,961,854	170,298	2,176	2,712,920
31	398.00	Other Tangible Plant	0	0	0	0	0	0	0
32		Total Tangible Plant	\$723,106,328	\$26,850,990	\$1,844,631	\$748,112,687	\$35,102,387	\$5,558,580	\$752,650,136
33		Total Utility Plant In Service	\$727,569,683	\$26,850,990	\$1,844,631	\$752,576,042	\$35,102,387	\$5,558,580	\$757,113,491

# Statement No. 4

## Gress

**DIRECT TESTIMONY**

**OF**

**STACEY D. GRESS**

**WITH REGARD TO**

**PENNSYLVANIA-AMERICAN WATER COMPANY'S**

**CLAIMED RATE BASE, DEPRECIATION AND AMORTIZATION, TAXES OTHER  
THAN INCOME, ACQUISITIONS IN RATE BASE, ALLOCATION OF COMMON  
COSTS BETWEEN WATER AND WASTEWATER OPERATIONS, RATE CASE AND  
REGULATORY EXPENSE, PROPOSED TARIFF CHANGES, AND RATE  
STRUCTURE AND RATE DESIGN PROPOSAL**

**DOCKET NOS.**

**R-2023-3043189 (WATER)**

**R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF STACEY D. GRESS**

1 **Q. What is your name and business address?**

2 A. My name is Stacey D. Gress, and my business address is 1 Water Street, Camden,  
3 New Jersey 08102.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed by American Water Works Service Company (the “Service Company”) as  
6 Director of Rates and Regulatory for Pennsylvania-American Water Company (“PAWC”  
7 or the “Company”). The Service Company is a wholly owned subsidiary of American  
8 Water Works Company, Inc. (“American Water”) that provides services to PAWC and its  
9 affiliates.

10 **Q. Please summarize your educational background and professional experience.**

11 A. I received a Master of Business Administration Degree, with a specialization in Finance,  
12 from Drexel University in 2007. I also hold a Bachelor of Arts Degree in Economics from  
13 Rutgers University, as well as an Associate in Science Degree for Business Administration  
14 from Camden County College. In October 2017, I attended the Utility Rate School  
15 sponsored by the National Association of Regulatory Utility Commissioners.

16 **Q. What are your duties as Director of Rates and Regulatory?**

17 A. My duties as Director of Rates and Regulatory principally include preparing and presenting  
18 rate applications for PAWC. In addition, I am responsible for certain aspects of the  
19 financial, budgeting and regulatory functions of the Company.

1 **Q. Have you previously submitted testimony before the Pennsylvania Public Utility**  
2 **Commission (the “Commission”)?**

3 A. Yes, I prepared and provided testimony in PAWC’s last two base rate cases at Docket Nos.  
4 R-2022-3031672 and R-2020-3019369. In addition, I have testified before the West  
5 Virginia Public Service Commission on behalf of an American Water subsidiary, West  
6 Virginia-American Water.

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to explain the portions of the Company’s principal  
9 accounting exhibit, Exhibit No. 3-A, that I am sponsoring, which relate to the Company’s  
10 claims for rate base, depreciation and amortization, taxes other than income, and  
11 acquisitions in rate base since its last base rate case. Additionally, my testimony supports  
12 the Company’s claim for rate case and regulatory expense, as well as the allocation of  
13 common costs between water and wastewater operations. I will also describe changes that  
14 the Company is proposing to make to its water and wastewater tariffs in this case. Finally,  
15 I will discuss the Company’s rate structure and rate design proposal.

16 **The Development of the Combined**  
17 **Water and Wastewater Revenue Requirement**

18 **Q. Please explain how the Company developed its revenue requirement in this case.**

19 A. The total Company revenue requirement was developed based on five separate revenue  
20 requirements, defined as follows:

- 21 • Water Operations,
- 22 • Wastewater Sanitary Sewer Systems (“SSS”) General Operations,
- 23 • Butler Area Sewer Authority (“BASA”) Wastewater (“WW”) Operations,

- 1 • Brentwood WW Operations, and
- 2 • Wastewater Combined Sewer Systems (“CSS”) Operations.

3 In this case, the Company is distributing a portion of the revenue requirements for its  
4 wastewater operations to the revenue requirements of its water operations as shown on  
5 Exhibit No. 3-A on the Revenue Requirement Summary. The allocation of a portion of  
6 wastewater revenue requirements to water revenue requirements by utilities that provide  
7 both forms of service was authorized by amendments to the Public Utility Code made by  
8 Act 11 of 2012. Those amendments provide the Commission with a reasonable means of  
9 moderating the rate impact of significant investments needed to improve the service,  
10 reliability and environmental compliance of acquired wastewater systems. The  
11 Commission approved the allocation of a portion of the Company’s wastewater revenue  
12 requirements to water revenue requirements in the Company’s last four base rate  
13 proceedings. In the Company’s last base rate case, Docket No. R-2022-3031672, the  
14 Commission approved a settlement that allocated 33% of the Company’s wastewater  
15 revenue requirement increase to the water revenue requirement in the rates that went into  
16 effect on January 28, 2023.

17 For the Company’s five revenue requirements identified above, the Company has prepared  
18 five detailed revenue requirement studies that set forth the Company’s claims for rate base,  
19 depreciation, operating and maintenance expenses, taxes and pro forma revenues for a  
20 historic test year ending June 30, 2023 (“HTY”), a projected future test year ending  
21 June 30, 2024 (“FTY”), and a fully projected future test year ending June 30, 2025  
22 (“FPFTY”). In Exhibit No. 3-A, the historic test year data are generally identified by the  
23 title or heading “Present Rates at June 30, 2023” and the FTY and FPFTY are generally

1 identified by the title or heading “Present Rates at June 30, 2024,” and “Present Rates at  
2 June 30, 2025,” respectively.

3 **Q. Why did the Company prepare separate revenue requirements?**

4 A. The Company developed revenue requirements for its base water, wastewater sanitary  
5 sewer systems and wastewater combined sewer systems, and also developed individual  
6 revenue requirements for wastewater operations in BASA and Brentwood. The Joint  
7 Petition for Settlement (the “Settlement”), which was approved by the Commission in the  
8 Company’s last base rate case, provides that the Company is not required to provide a  
9 separate study for each combined stormwater system. The Company has included one  
10 Wastewater CSS Operation study for Scranton, McKeesport and Kane wastewater systems,  
11 as permitted under the Settlement.<sup>1</sup>

12 **Rate Base**

13 **Q. What are the Company’s rate base claims in this proceeding?**

14 A. The total Company rate base claim in this proceeding is shown below for each of the five  
15 revenue requirements:

<b>Rate Base</b>	<b>2025 Proposed</b>
Water Operations	\$4,704,067,656
Wastewater SSS General Operations	\$649,330,622
BASA WW Operations	\$231,536,917
Brentwood WW Operations	\$22,053,946
Wastewater CSS Operations	\$489,184,280
<b>Total:</b>	<b>\$6,096,173,421</b>

16  
17 The calculations of these amounts are shown in Exhibit No. 3-A under the respective rate  
18 base sections for each revenue requirement.

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<sup>1</sup> Joint Petition for Settlement of Rate Investigation (“Joint Petition”) at ¶ 14, Docket No. R-2022-3031672.

1 **Q. What are the elements of the Company’s rate base claims?**

2 A. PAWC’s rate base claims consist of several elements. The first and largest element is the  
3 depreciated original cost of net plant in service. To this amount, three items have been  
4 added to each of the rate base claims: (1) materials and supplies; (2) cash working capital;  
5 and (3) accrued taxes net of prepaid taxes.

6 For Water Operations, items four and five described below were added:

7 (4) the unamortized balance of the Commission-approved<sup>2</sup> utility plant acquisition  
8 adjustments associated with the Company’s acquisitions of the water assets of the former  
9 Pennsylvania Gas & Water Company (“PG&W”), Lake Spangenberg Water Company, the  
10 Fernwood Community Water System, and the Olwen Heights Water Service Company,  
11 Inc., as well as the unamortized balance of the Commission-approved acquisition  
12 transaction and closing costs for the Company’s acquisitions of the water assets of the  
13 Steelton Borough Authority, Municipal Authority of the Borough of Turbotville, Valley  
14 Township, SLIBCO Utilities, and Creekside Homeowner’s Association. In addition, the  
15 Company is seeking approval for recovery of the utility plant acquisition adjustments and  
16 transaction and closing costs associated with its planned acquisitions of the water systems  
17 from Farmington Township and Audubon Water Company, which are anticipated to be  
18 completed prior to the end of the FPFTY. As referenced in the testimony of Company  
19 witness Chris Abruzzo, the purchase price of \$5,545,000 for the Farmington acquisition  
20 was allocated in the amounts of \$2,718,300 for water and \$2,826,700 for the wastewater

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<sup>2</sup> References in this testimony to Commission authorized balances and amortizations of acquisition adjustments can be found at Docket No. R-2022-3031672, Joint Petition for Settlement of Rate Investigation, Appendix D, approved by Order entered December 8, 2022, unless specifically stated otherwise.



1 assets. For the Farmington water system, the depreciated original cost was calculated to  
2 be \$2,502,811, resulting in a proposed utility plant acquisition adjustment (“UPAA”) of  
3 \$215,489. The estimated transaction and closing costs for Farmington are \$54,825. For  
4 Audubon, the difference in the purchase price and depreciated original cost resulted in a  
5 proposed UPAA of \$7,639,771. The estimated transaction and closing costs for Audubon  
6 are \$117,954. The UPAA and acquisition transaction and closing costs are similar to those  
7 that I have discussed above and were previously approved by the Commission for other  
8 water system acquisitions. Please refer to the rate base sections of Exhibit Nos. 3-A and  
9 3-C for more detail on these acquisition adjustments; and

10 (5) the unamortized balance of costs incurred by the Company relative to its  
11 position as receiver of the Winola Water Company, Docket No. P-2018-3006216.

12 For the Wastewater SSS General Operations rate base claim, a fourth item was added: the  
13 unamortized balance of the Commission-approved utility plant acquisition adjustments  
14 associated with the Company’s acquisitions of the wastewater assets of the former Clean  
15 Treatment Sewage Company and Delaware Sewer Company, as well as the unamortized  
16 balance of the Commission-approved acquisition transaction and closing costs for the  
17 Company’s acquisitions of the wastewater assets of the Borough of New Cumberland,  
18 Sadsbury Township, Exeter Township, Delaware Sewer Company, the Borough of  
19 Turbotville, Valley Township, Foster Township, the Borough of Royersford, Upper  
20 Pottsgrove Township, and the City of York. In addition, the Company is seeking approval  
21 for recovery of the estimated acquisition transaction and closing costs associated with the  
22 planned acquisitions of wastewater assets of Farmington Township (\$56,895) and  
23 Sadsbury Township Municipal Authority (“STMA”) (Lancaster County) (\$91,470),

1 Docket Nos. A-2023-3042587 and A-2023-3042058, respectively. As discussed in the  
2 direct testimony of my colleague, Mr. Abruzzo (PAWC Statement No. 6), the planned  
3 acquisitions will be completed prior to the end of the FPFTY. These acquisition transaction  
4 and closing costs are similar to the acquisition transaction and closing costs approved by  
5 the Commission and previously discussed in my testimony.

6 For BASA WW Operations, a fourth item was added: the Company is seeking approval for  
7 recovery of \$1,202,635, the estimated acquisition transaction and closing costs associated  
8 with the Company's planned acquisition of the wastewater assets of BASA, Docket No.  
9 A-2022-3037047, which will be completed prior to the end of the FPFTY. These  
10 acquisition transaction and closing costs are similar to the acquisition transaction and  
11 closing costs discussed previously.

12 For Brentwood WW Operations, a fourth item was added: the Company is seeking  
13 approval for recovery of \$701,935, the estimated acquisition transaction and closing costs  
14 associated with the Company's planned acquisition of the wastewater assets of the Borough  
15 of Brentwood, Docket No. A-2021-3024058, which will be completed prior to the end of  
16 the FPFTY. These acquisition transaction and closing costs are similar to the acquisition  
17 transaction and closing costs discussed previously.

18 For the Wastewater CSS Operations rate base claim, a fourth item was added: the  
19 unamortized balance of the Commission-approved transaction and closing costs associated  
20 with the Company's acquisitions of the wastewater assets of the Sewer Authority of the  
21 City of Scranton, the Municipal Authority of the City of McKeesport, and the Borough of  
22 Kane Authority.

1 For the calculation of the Water Operations rate base claim, seven items have been  
2 deducted: (1) a net offset to cash working capital requirements to reflect the timing of the  
3 payment of interest and preferred dividends; (2) unamortized investment tax credits that  
4 were generated prior to 1971; (3) a thirteen-month average of extension deposits in  
5 suspense; (4) contributions-in-aid-of-construction (“CIAC”) and customer advances for  
6 construction (“CAC”) associated with the Company’s acquisition of the water assets of the  
7 former Citizens Utilities Water Company of Pennsylvania (“Citizens”); (5) balance of the  
8 regulatory liability for the federal income tax savings associated with the 2017 Tax Cuts  
9 and Jobs Act (“TCJA”) for January 1, 2018 through June 30, 2018 (the “Stub Period”) and  
10 the unamortized balance of the Negative Deferred Tax Credit reconciliation from  
11 January 28, 2021 through January 27, 2023; (6) other deductions (as described below); and  
12 (7) accumulated deferred taxes.

13 For the calculation of the Wastewater SSS General Operations and Wastewater CSS  
14 Operations rate base claims, three items have been deducted: (1) a net offset to cash  
15 working capital requirements to reflect the timing of the payment of interest and preferred  
16 dividends; (2) the balance of the regulatory liability for federal income tax savings  
17 associated with the TCJA Stub Period relating to Wastewater SSS General and Scranton  
18 WW CSS Operations; and (3) accumulated deferred taxes.

19 For the calculation of the BASA and Brentwood WW Operations rate base claims, two  
20 items have been deducted: (1) a net offset to cash working capital requirements to reflect  
21 the timing of the payment of interest and preferred dividends; and (2) accumulated deferred  
22 taxes.

1 **Q. Please explain how the depreciated original cost of net plant for the FPFTY was**  
2 **determined.**

3 A. Net plant is the total utility plant in service less CIAC, CAC, and excluded property.  
4 Depreciated original cost is the original cost less accrued depreciation. The original cost  
5 of net utility plant as of the end of the FPFTY consists of the amount recorded in PAWC's  
6 plant accounts at June 30, 2023, plus projected additions, net of retirements, through  
7 June 30, 2024 and 2025, respectively, less CIAC and CAC. The original cost of plant in  
8 service at June 30, 2023, and the original cost of claimed additions and retirements, shown  
9 by detailed plant account, are set forth in Exhibit No. 3-A under the respective rate base  
10 sections for each revenue requirement study. Mr. Aiton discusses the more significant  
11 plant additions in his direct testimony (PAWC Statement No. 3).

12 I will address the pending water and wastewater acquisitions that the Company has  
13 submitted applications for since its last base rate case. The accrued depreciation at June 30,  
14 2024 and 2025, respectively, related to net plant in service was determined by the  
15 Company's depreciation consultant, John J. Spanos (PAWC Statement No. 11), and is  
16 shown in Exhibit No. 3-A under the respective rate base sections for each revenue  
17 requirement study.

18 **Q. Do the continuing property records, as maintained by the Company and augmented**  
19 **by depreciated original cost studies and fair market value appraisals for acquisitions,**  
20 **accurately reflect additions and retirements to plant in service?**

21 A. Yes, they do. The Company's filing for the future fair market value acquisition of the  
22 BASA wastewater assets reflects the net value of the assets at the ratemaking rate base  
23 agreed to by the parties in the Joint Petition for Approval of Unanimous Settlement of All

1 Issues, filed with the Commission on August 14, 2023, Docket No. A-2022-3037047.<sup>3</sup> For  
2 the fair market value acquisition of the Brentwood wastewater system, the Company also  
3 reflects the net value of the ratemaking rate base reflected in the Company's acquisition  
4 application at Docket No. A-2021-3024058.<sup>4</sup> Preliminary depreciated original cost studies  
5 were completed and filed with the Commission for the planned acquisitions of Farmington  
6 Township Water and Wastewater assets (Docket Nos. A-2023-3042587 and A-2023-  
7 3042567). The original cost study will be updated after closing to reflect the original cost  
8 and accumulated depreciation as of the closing date. For the planned acquisition of STMA  
9 wastewater assets (Docket No. A-2023-3042058), the Company performed an analysis of  
10 the original cost and accumulated depreciation of this system, and after closing, will file  
11 with the Commission an original cost study to reflect the original cost and accumulated  
12 depreciation as of the closing date. For the planned acquisition of Audubon Water  
13 Company (Docket No. A-2023-3043194), the Company will not prepare an original cost  
14 study, as Audubon Water Company is a Commission-regulated utility, and it is assumed  
15 that the original cost and accumulated depreciation of Audubon Water Company's assets  
16 have been captured in Audubon Water Company's current rates.

17 **Q. Are the data shown on the Company's continuing property records an accurate basis**  
18 **for developing the original cost of property?**

19 A. Yes, they are.

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<sup>3</sup> The Commission is expected to enter a final order in this case at its November 9, 2023 public meeting.

<sup>4</sup> The Commission is expected to enter a final order in this case at its March 14, 2024 public meeting.

1 **Q. Do the Company's rate base claims include the cost of water and wastewater assets**  
2 **that are to be acquired during the pendency of this proceeding, but prior to the end**  
3 **of the FPFTY?**

4 A. Yes, the Company's rate base claims include the cost of water assets to be acquired from  
5 Farmington Township and Audubon Water Company, and the wastewater assets to be  
6 acquired from BASA, the Borough of Brentwood, Farmington Township and STMA.

7 **Q. Has the Company made any adjustments to its historic test year end CIAC and CAC**  
8 **balances?**

9 A. Yes, adjustments have been made to the balances for Water Operations, Wastewater SSS  
10 General Operations, and Wastewater CSS Operations. The June 30, 2023 CIAC balance  
11 for Water Operations has been increased to reflect \$2,436,273 of additional contributions  
12 projected to be received through the end of the FPFTY. In addition, the FTY reflects  
13 \$2,147,017 of additional contributions associated with the planned acquisition of  
14 Farmington Water, and the FPFTY reflects \$4,210,372 of additional contributions  
15 associated with the planned acquisition of Audubon Water. The CAC balance has been  
16 adjusted to reflect \$3,789,774 and \$8,464,954 of additional advances projected to be  
17 received through the FTY and FPFTY, respectively, and decreased for \$3,732,642 and  
18 \$6,535,508 of refunds anticipated to be paid during 2024 and 2025 with respect to customer  
19 advances received in prior years.

20 For the Wastewater SSS General Operations, the June 30, 2023 CIAC balance has been  
21 increased to reflect \$752,142 of additional contributions projected to be received through  
22 the FPFTY. In addition, \$925,000 and \$1,970,206 of contributions associated with the

1 planned acquisitions of STMA and Farmington, respectively, have been included for the  
2 FTY.

3 For the Wastewater CSS Operations, the June 30, 2023 CIAC balance has been increased  
4 to reflect \$132,667 of additional contributions projected to be received through the FPFTY.  
5 The Company does not anticipate any changes to the CAC balances for its Wastewater SSS  
6 General Operations or Wastewater CSS Operations. In addition, the Company does not  
7 anticipate any changes to the CIAC and CAC balances for its remaining operations.  
8 Therefore, no adjustments to the June 30, 2023 balances for those operations are required.

9 These calculations are shown in Exhibit No. 3-A under the respective rate base sections for  
10 the revenue requirements of Water Operations, Wastewater SSS General Operations, and  
11 Wastewater CSS Operations.

12 **Q. Has the Company excluded from its rate base certain property recorded in its utility  
13 plant accounts?**

14 A. Yes. The amount of \$1,558,014 has been excluded from the Company's rate base claim  
15 for Water Operations as shown in Exhibit No. 3-A under the corresponding rate base  
16 section. For the most part, the excluded amount represents the original cost of utility plant  
17 in service for which the Company received relocation reimbursement payments from the  
18 Commonwealth of Pennsylvania. The remainder of the excluded amount consists of  
19 certain allowance for funds used during construction ("AFUDC") accruals that the  
20 Company agreed to remove from rate base pursuant to a stipulation approved in the  
21 Company's rate proceeding at Docket No. R-00932670.

1 **Q. Please explain the addition to rate base for materials and supplies.**

2 A. In accordance with procedures previously approved by the Commission, the Company's  
3 materials and supplies claims were determined by averaging the monthly balances of the  
4 materials and supplies account for the thirteen months ended June 30, 2023. The  
5 calculations of the materials and supplies claims are shown in Exhibit No. 3-A under the  
6 respective rate base sections for each revenue requirement study. The Company's  
7 materials and supplies claim for the BASA WW Operations and Brentwood WW  
8 Operations were derived as follows: (1) monthly balances of the materials and supplies  
9 accounts for PAWC's Wastewater SSS General Operations for the thirteen months ended  
10 June 30, 2023 were summed and the total divided by the number of customers in those  
11 wastewater districts to determine the average materials and supplies balance per customer;  
12 and (2) the average materials and supplies balance per customer was multiplied by the total  
13 number of customers served by the water and wastewater systems. The calculation of this  
14 adjustment is shown in Exhibit No. 3-A under the respective rate base sections for materials  
15 and supplies.

16 **Q. Please explain the Company's claim for cash working capital.**

17 A. The cash working capital requirement is calculated by multiplying the net lag days (revenue  
18 lag days less expense lag days) by the average operating expenses per day (total operating  
19 expenses / 365 days). All calculations have been made to two decimal places. In  
20 accordance with Commission policy, uncollectible accounts expense and amortizations  
21 were subtracted from total operating expenses before performing the calculation. The  
22 calculation of the gross cash working capital requirement is shown in Exhibit No. 3-A



1 under the respective rate base sections for cash working capital for each of the Company's  
2 revenue requirements.

3 **Q. How were the revenue and expense lags determined?**

4 A. Revenue and expense lags were determined by a lead-lag study. The revenue lag consists  
5 of three components: (1) the lag from the midpoint of the service period to the end of the  
6 service period, i.e., the meter-read date; (2) the time required for bill preparation and  
7 mailing; and (3) the lag in receipt of payment. The first component was calculated as  
8 follows: the sum of the number of service days relative to each customer bill in the last  
9 quarter of the HTY was calculated. That figure was divided by two to determine the  
10 interval from the midpoint to the end of the service period. The average of the service days  
11 for the period April through June 2023 was then computed, resulting in a service lag period  
12 of 15.30 days.

13 The second component is billing lag. The billing lag of two days used for this calculation  
14 was proposed by a witness for the Commission's Bureau of Investigation and Enforcement  
15 and agreed to by the Company in a prior base rate case at Docket No. R-2013-2355276.

16 The third component, the collection lag, requires a further calculation to determine the  
17 average length of time that revenues are outstanding before payment. This calculation was  
18 performed as follows: (1) daily accounts receivable balances for the twelve months ended  
19 June 30, 2023 were summed and the total divided by the number of days in the same period  
20 to determine the average accounts receivable balance per day; (2) the Company's total  
21 revenue for the twelve months ended June 30, 2023 was divided by the number of days in  
22 the same period to determine the average revenue billed per day; and (3) the average

1 accounts receivable balance per day was divided by the average revenue billed per day.  
2 The result of the division in (3), above, yields the number of days on average that billed  
3 revenue was outstanding prior to receipt of payment, which in the study was 32.52 days.  
4 This is a standard calculation used by other water utilities in Pennsylvania. Finally, 0.79  
5 days of “Lockbox Collection Lag” was added to the revenue lag, which represents the time  
6 between the collection of customer remittances to a post office box and the deposit of those  
7 funds into the Company’s bank account. The total revenue lag for this study, when the  
8 items above are combined, is 50.61 days.

9 The expense lag was based upon a comprehensive lag study. Using procedures approved  
10 by the Commission in prior proceedings and data obtained from the Company’s centralized  
11 accounts payable system, samples of expense vouchers for each category of expense were  
12 analyzed to determine the lag between the receipt of goods or services and the applicable  
13 payment due date. A summary of the expense lags by category is shown in Exhibit No. 3-A  
14 under the corresponding rate base section. These lag calculations reflect an addition for  
15 “Check Float,” which represents the average amount of time that it takes for a vendor to  
16 deposit a payment from the Company. For the Labor and Service Company calculations,  
17 an addition of 0.05 days was included, which has the same purpose as the “Check Float,”  
18 but is instead calculated by taking a weighted average of direct deposit and check payments  
19 to employees. The detailed calculations of the revenue and expense lag days appear in the  
20 response to Question No. FR V. 8 of the Commission’s Standard Filing Requirements.

21 **Q. Please explain the addition to rate base for accrued and prepaid taxes.**

22 A. This addition to rate base reflects the fact that, on balance, taxes are paid in advance. The  
23 lead/lag in payment of Pennsylvania corporate net income tax is based on payments

1 throughout the test year. The General Assessment tax lead was calculated based upon  
2 actual payment dates in 2022, for the tax period of July 1, 2022 through June 30, 2023 and  
3 a payment in 2023, for the tax period of July 1, 2023 through June 30, 2024. The lead/lag  
4 day calculations for the payment of taxes imposed by the Public Utility Realty Tax Act  
5 (“PURTA”) and federal income tax were based upon statutory payment schedules. The  
6 lag for local property taxes was determined using the regular expense lag calculation,  
7 which was discussed above. Payments are made by check, and the average payment was a  
8 lead of (23.52) days, adjusted to (13.96) when Check Float was accounted for. The  
9 calculations of the lead/lag days for the aforementioned taxes are set forth in Exhibit No.  
10 3-A in the respective rate base sections for each of the Company’s revenue requirements.  
11 The net lead/lag days for each tax are then applied to the pro forma tax amounts, as shown  
12 in the applicable section of Exhibit No. 3-A, to calculate the overall working capital effect  
13 which, in this instance, is positive for all operations. Thus, the average net lead in payment  
14 of these taxes constitutes an addition to cash working capital requirements and, therefore,  
15 is reflected as a rate base addition.

16 **Q. Please explain the addition to rate base for acquisition adjustments.**

17 A. There are two types of acquisition adjustments claimed by the Company in this case. The  
18 first type represents utility plant acquisition adjustments. The second type represents  
19 acquisition transaction and closing costs. These are further broken down to the  
20 unamortized balance of adjustments that were approved in prior base rate cases and  
21 adjustments that the Company is seeking approval for in this case. The applicable rate base  
22 claims and docket numbers are shown on Exhibit No. 3-A under the rate base section  
23 entitled Acquisition Adjustments. Exhibit No. 3-C provides additional support, including

1 a copy of Appendix E of the Joint Petition for Settlement at Docket No. R-2022-3031672,  
2 for those acquisition adjustments approved in the Company's last base rate case. In this  
3 case, as discussed above, the Company is seeking approval of the estimated acquisition  
4 transaction and closing costs for the planned acquisitions of the Farmington Township  
5 water and wastewater systems, the Audubon Water Company water system, the STMA  
6 wastewater system, the Borough of Brentwood wastewater system and the BASA  
7 wastewater system.

8 **Q. Please describe the adjustments made to the transaction cost balances approved in**  
9 **the last rate case for the Creekside Homeowner's Association water acquisition.**

10 A. The total transaction and closing cost estimates at December 31, 2023 approved by the  
11 Commission were reconciled to the actual balance on the Company's books at the time of  
12 this filing. This resulted in an increase to the originally authorized balances by \$11,512  
13 for Creekside water. Supporting detail for this adjustment can be found in the Company's  
14 Exhibit No. 3-A and Exhibit No. 3-C pages for Water Operations.

15 **Q. Please explain other rate base additions for water.**

16 A. The fifth addition to Water Operations, shown in Exhibit No. 3-A in the corresponding rate  
17 base section, is the continued amortization of the Company's receivership costs related to  
18 Winola Water Company, as approved by the Commission in the Company's last base rate  
19 case at Docket No. R-2022-3031672.

20 **Q. Please explain the items that were deducted from rate base for the Company's water**  
21 **and wastewater operations.**

1 A. Three items were deducted from rate base for the Company's water and wastewater  
2 operations. The first deduction, which offsets cash working capital requirements, relates  
3 to the average net lag in payment of interest on long-term debt and dividends on preferred  
4 stock. The deduction was calculated using procedures previously approved by the  
5 Commission and is set forth in Exhibit No. 3-A in the corresponding rate base section for  
6 each of the Company's revenue requirements.

7 The second deduction is for the balance of the regulatory liability for the federal income  
8 tax savings associated with the TCJA for the Stub Period and the unamortized balance of  
9 the Negative Deferred Tax Credit reconciliation from January 28, 2021 through  
10 January 27, 2023. This deduction only relates to Water, Wastewater SSS and Wastewater  
11 CSS operations.

12 The third deduction is for accumulated deferred taxes as addressed by Company Witness  
13 Melissa Ciullo in her direct testimony, PAWC Statement No. 7.

14 **Q. Please describe the adjustment to the Rate Base deduction for the Negative Deferred**  
15 **Tax Credit.**

16 A. In accordance with PAWC Tariff Water-PA P.U.C. No. 5, page 40 (Negative Surcharge  
17 for Deferred Tax Credit), the Company filed, on April 30, 2023, a reconciliation of the  
18 difference between the total credits provided to customers for bills rendered from  
19 January 1, 2022 through January 27, 2023 in the amount of \$11,440,000. The calculated  
20 difference of \$719,248, plus applicable interest has been added to the unamortized balance  
21 approved at Docket No. R-2022-3031672 of \$208,073, plus applicable interest, and is  
22 included as an addition to rate base offsetting the balance of the regulatory liability for

1 federal income tax savings associated with the TCJA Stub Period for Water Operations.  
2 The Company is seeking approval of this adjustment with an amortization period of two  
3 years.

4 **Q. Were additional items deducted from rate base for the Company's water operations?**

5 A. Yes. Four rate base deductions apply only to the Company's water operations. The first  
6 item is unamortized investment tax credits generated prior to 1971. These amounts are  
7 shown in Exhibit No. 3-A under the respective rate base sections. Investment tax credits  
8 accrued in 1971, and thereafter, are amortized to income and are not permitted to be  
9 deducted from rate base under the requirements of Section 46(f) of the Internal Revenue  
10 Code.

11 Another item deducted from rate base for water operations, shown in Exhibit No. 3-A under  
12 the respective rate base sections, is a thirteen-month average of extension deposits in  
13 suspense. The Company requires applicants for water service to advance a portion of the  
14 cost to construct main extensions needed to serve them under specified conditions, as more  
15 fully set forth in the Company's tariff. At the completion of the project, accounting entries  
16 are made to adjust the estimated costs of construction to the actual costs of construction.  
17 The difference is recorded in the extension deposit in suspense account until it is either  
18 refunded to the party that made the advance, or an additional amount owed is collected. In  
19 its final Order at Docket No. R-891208, the Commission agreed with the Office of  
20 Consumer Advocate ("OCA") that an average balance of such funds should be reflected in  
21 rate base, and the Company has made this adjustment, shown in Exhibit No. 3-A, to comply  
22 with that determination.

1 The third rate base offset for Water Operations comprises CIAC and CAC booked by  
2 Citizens prior to its acquisition by PAWC. The Joint Petition for Settlement at Docket No.  
3 R-2009-2097323 (“Citizens Joint Petition for Settlement”), as approved by the  
4 Commission for ratemaking purposes, provided as follows:

5 (i) \$14,147,208, or 40%, of the December 31, 2009, balance of  
6 the net customer advances for which Citizens retained the refund  
7 liability upon the Company’s acquisition of Citizens’ water  
8 utility assets will be deemed deducted from the Company’s rate  
9 base; (ii) \$8,895,830 (100%) of the December 31, 2009 balance  
10 of the net contributions in aid of construction the OCA proposed  
11 to attribute to PAWC from its acquisition of Citizens’ water  
12 assets will be deducted from PAWC’s rate base; (iii) in future  
13 base rate cases, the foregoing balances, adjusted to reflect  
14 accumulated amortization, will be deducted for ratemaking  
15 purposes until such balances are fully amortized; and (iv) the  
16 applicable depreciation rate for PAWC’s transmission and  
17 distribution mains will be used to calculate the amortization of  
18 such balances for ratemaking purposes to offset the portion of  
19 depreciation expense on gross plant in service that is related to  
20 these advances and contributions.

21 The adjustments that were made to implement the terms of the Citizens Joint Petition for  
22 Settlement, set forth above, are detailed in Exhibit No. 3-A under the rate base section.

23 The final rate base deduction is for the Commission-approved amortization associated with  
24 an equipment discount.

25 **Q. Do the adjustments explained above constitute all of the adjustments necessary to**  
26 **establish the Company’s rate base?**

27 **A. Yes, they do.**

1 **Depreciation And Amortization Expense**

2 **Q. Have adjustments been made to the annual depreciation expense recorded on the**  
3 **Company's books at June 30, 2023?**

4 A. Yes. Adjustments to booked amounts were made to a full annual amount of the  
5 depreciation accrual for the Company's plant in service as of June 30, 2023 and for plant  
6 to be added during 2024 and 2025. The annual accrual was determined largely on a  
7 Straight-Line Average Remaining Life basis. The adjustments to reflect the annual accrual  
8 for depreciation related to plant in service in 2023, 2024, and 2025 are shown in Exhibit  
9 No. 3-A under the respective rate base sections, and, as noted previously, are explained  
10 and sponsored by Mr. Spanos.

11 For Water Operations, a reduction to depreciation was made for CIAC and CAC associated  
12 with the Company's acquisition of the water assets from Citizens Joint Petition for  
13 Settlement at Docket No. R-2009-2097323.

14 Additionally, for each of the operational areas, a reduction to depreciation was made for  
15 the capitalized portion of depreciation on vehicles.

16 **Q. Please explain the Company's claim for "Amortizations" that appears in Exhibit**  
17 **No. 3-A.**

18 A. The amortization claims for each of the revenue requirements are described as follows and  
19 are reflected in Exhibit Nos. 3-A and 3-B under the respective operational sections:

20 For Water Operations, nine amortization claims are made:

21 (1) amortization of the UPAA amounts as previously approved by the Commission  
22 which include the Commission-approved utility plant acquisition adjustments associated



1 with the Company's acquisition of the water assets of the former PG&W, Lake  
2 Spangenberg Water Company, the Fernwood Community Water System, the Olwen  
3 Heights Water Service Company, Inc., Indian Rocks Property Owners Association, North  
4 Fayette County Municipal Authority, the Wildcat Park Corporation, the Municipal  
5 Authority of the Borough of Turbotville, and Creekside Homeowner's Association, plus  
6 the proposed UPAA adjustment for the planned Farmington Township and Audubon Water  
7 Company acquisitions. The Company is proposing to extend the amortization period for  
8 those amortizations which are currently due to end at December 31, 2025 in order to reflect  
9 a more appropriate ongoing annual level of expense in proposed rates. The detail of the  
10 amortizations can be found in Exhibit No. 3-A. Additionally, the Company has included  
11 the previously Commission approved amortizations of the transaction and closing costs  
12 associated with the acquisitions of the Borough of Turbotville, Steelton Borough  
13 Authority, Valley Township, SLIBCO Utilities, and Creekside Homeowner's Association,  
14 as well as the proposed amortization of the transaction and closing costs associated with  
15 the water system acquisitions of Farmington Township and Audubon Water Company as  
16 part of this claim;

17 (2) amortization of the previously Commission-approved equipment discount  
18 noted earlier in my testimony;

19 (3) amortization of SFAS 109 regulatory assets – AFUDC as previously approved  
20 by the Commission;

21 (4) amortization of receivership costs for Winola Water Company, Docket No. R-  
22 2022-3031672 as previously discussed in my testimony;

1 (5) amortization of the TCJA Stub Period and deferred taxes, as previously  
2 discussed in my testimony. The Company is proposing a new two-year amortization period  
3 for the TCJA Stub Period June 30, 2024 balance, which is currently due to end at  
4 December 31, 2025, in order to reflect a more appropriate ongoing annual level of expense  
5 in proposed rates. Additionally, as previously discussed in my testimony, the Company  
6 has included the two-year amortization of the reconciliation of the negative surcharge for  
7 deferred tax credits as required under the PAWC Tariff Water – PA P.U.C. No. 5, page 40.  
8 This reconciliation covers the period from January 28, 2021 through January 27, 2023;

9 (6) Commission-approved amortization of DEP Safe Drinking Water fees,  
10 reflecting an updated amortization period of two years on the balance as of June 30, 2024;

11 (7) post-in-service AFUDC for new plant additions made after the acquisition of  
12 Steelton Borough Authority. *See* 66 Pa.C.S. §1329(f), reflecting an updated amortization  
13 period of two years on the balance as of June 30, 2024;

14 (8) deferred depreciation associated with the Steelton acquisition (*see* 66 Pa.C.S.  
15 §1329(f)), as approved at Docket No. R-2020-3019369, reflecting an updated amortization  
16 period of two years on the balance as of June 30, 2024; and

17 (9) Commission-approved amortization of the deferred financial impacts  
18 authorized in the Commission’s September 15, 2021 Order at Docket No. P-2020-3022426  
19 associated with the COVID-19 emergency response. As part of the settlement of the  
20 Company’s last rate case at Docket No. R-2022-3031672, the Company agreed it would  
21 cease the deferral of carrying costs and uncollectible expense as of December 31, 2022.  
22 The balance of the deferral at June 30, 2023 reflects a reduction to the deferred settlement  
23 balance in the amount of \$3,627,490. The Company proposes to amortize the revised

1 balance of the \$1,555,253 liability, as of June 30, 2024, over a period of two years.  
2 Company witness Cas Swiz further discusses the COVID-19 emergency response deferral  
3 in his testimony (PAWC Statement No. 8).

4 For Wastewater SSS General Operations, five amortization claims are made:

5 (1) Commission-approved utility plant acquisition adjustments associated with the  
6 Company's acquisition of the wastewater assets of the former Clean Treatment Sewage  
7 Company, Delaware Sewer Company, and the Borough of Turbotville, and Foster  
8 Township, plus the proposed Negative UPAA, that will be recorded as a regulatory  
9 liability, for STMA. For the former Clean Treatment Sewage Company, the Company is  
10 proposing a new two-year amortization period, which is currently due to end on  
11 December 31, 2025, in order to reflect a more appropriate ongoing annual level of expense  
12 in proposed rates. Additionally, the Company has included the previously approved  
13 amortizations of the transaction and closing costs associated with the acquisitions of the  
14 Borough of New Cumberland, the Borough of Turbotville, Sadsbury Township, Exeter  
15 Township, Delaware Sewer Company, Valley Township, Foster Township, the Borough  
16 of Royersford, Upper Pottsgrove Township, and City of York. In addition, the Company  
17 is proposing a 10-year amortization of the acquisition transaction and closing costs  
18 associated with the planned acquisition of the wastewater assets of Farmington Township  
19 and STMA;

20 (2) Commission-approved amortization of post-in-service AFUDC for new plant  
21 additions made after the acquisition for Exeter Township. The Company also proposes a  
22 new two-year amortization period, similar to what was proposed for the amortization of  
23 the Steelton Borough Authority post-in-service AFUDC;

1           (3) Commission-approved amortization of deferred depreciation associated with  
2 the acquisition Exeter Township. The Company also proposes a new two-year  
3 amortization period, similar to what was proposed for the amortization of the Steelton  
4 Borough Authority deferred depreciation;

5           (4) Commission-approved amortization of the deferred financial impacts  
6 authorized in the Commission’s September 15, 2021 Order at Docket No. P-2020-3022426  
7 associated with the COVID-19 emergency response, as described above; and

8           (5) amortization of the TCJA Stub Period and deferred taxes, as described above.

9 For BASA WW Operations, the only amortization claim being made is the acquisition  
10 transaction and closing costs associated with the Company’s planned acquisition of the  
11 wastewater assets of the BASA, Docket No. A-2022-3037047. These costs are based on  
12 the estimates at the time of the application filing and will be updated with actual costs after  
13 closing.

14 For Brentwood WW Operations, the only amortization claim being made is the acquisition  
15 transaction and closing costs associated with the Company’s planned acquisition of the  
16 wastewater assets of the Borough of Brentwood, Docket No. A-2021-3024058. These  
17 costs are based on the estimates at the time of the application filing and will be updated  
18 with actual costs after closing.

19 For Wastewater CSS Operations, four amortization claims are made:

20           (1) Commission-approved acquisition transaction and closing costs associated with  
21 the Company’s acquisitions of the wastewater assets of Sewer Authority of the City of

1 Scranton, the Municipal Authority of the City of McKeesport, and the Borough of Kane  
2 Authority;

3 (2) deferred depreciation associated with the acquisition of the Municipal  
4 Authority of the City of McKeesport. The Company proposes a new two-year amortization  
5 period, similar to what was proposed for the amortization of the Steelton Borough  
6 Authority deferred depreciation; and

7 (3) Commission-approved amortization of the deferred financial impacts  
8 authorized in the Commission’s September 15, 2021 Order at Docket No. P-2020-3022426  
9 associated with the COVID-19 emergency response, as described above; and

10 (4) amortization of the TCJA Stub Period and deferred taxes, as described above.

11 **Q. Please describe the adjustments made to the UPAA approved in the Company’s last**  
12 **rate case for the Creekside Homeowner’s Association water acquisition and Foster**  
13 **Township wastewater acquisition.**

14 A. The UPAA based on the depreciated original cost (“DOC”) studies filed with the  
15 Company’s acquisition applications, and approved by the Commission, for the Creekside  
16 water and Foster wastewater systems were reconciled to the final DOC studies received at  
17 the time of closing for each acquisition. This resulted in an increase to the originally  
18 authorized Negative UPAA, recorded as a regulatory liability, by \$205,184 for Creekside  
19 water and a decrease of \$13,848 for Foster wastewater. Supporting detail for these  
20 adjustments can be found in the Company’s Exhibit No. 3-A and Exhibit No. 3-C pages  
21 for Water Operations and Wastewater SSS Operations for Creekside and Foster,  
22 respectively.

1 **Q. Please describe the proposed claim for the amortization of the balance of the deferred**  
2 **expense related to the Arrearage Management Plan (“AMP”).**

3 A. In the proceedings involving the Company’s petition for approval of an arrearage  
4 management plan (“AMP”),<sup>5</sup> the Further Amended Joint Petition for Full Settlement filed  
5 with the Commission on September 11, 2023, states in Paragraph 46.c that “During the  
6 period that the AMP is considered a pilot program, the Company will record a regulatory  
7 asset or liability for amounts over or under the amount included in rates for recovery or  
8 refund in the next base rate case.” The AMP has not yet been approved by the Commission;  
9 thus, no credits have been given related to the AMP. As a result of expenses claimed in  
10 the Company’s last base rate case at Docket No. R-2022-3031672, a regulatory liability  
11 was recorded in the amount of \$3,091,875 through June 30, 2024. The Company proposes  
12 to refund the annual amount of \$1,545,937 through amortization expense over a period of  
13 two years.

14 **Property Taxes and General Assessments**

15 **Q. Please explain the adjustments to claims for property taxes.**

16 A. PURTA tax is imposed on certain real property dedicated to utility water service in  
17 Pennsylvania based upon the fair market value of such property, as determined by applying  
18 per-county common level ratios to the assessed values of the property. In Pennsylvania,  
19 property taxes imposed on real property not subject to PURTA are administered at the  
20 county level. In every county, the sum of local tax rates (school taxes, municipal taxes and  
21 county taxes) is applied to the assessed value of each property. However, each county has

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<sup>5</sup> *See* Petition of Pennsylvania-American Water Company for Approval of an Arrearage Management Plan, Docket No. P-2021-3028195.

1 its own system for determining assessed value. The Company's claims for its Water  
2 Operations, Wastewater SSS General Operations, and Wastewater CSS Operations were  
3 calculated based on the ratio of actual 2022/2023 tax liability to tax base. This ratio was  
4 applied to the Company's pro forma claim for property tax eligible utility plant at June 30,  
5 2024 and June 30, 2025. These calculations are detailed in Exhibit No. 3-A, Pennsylvania  
6 Property Tax under the section for Taxes, Other Than Income. The Company's claim for  
7 its BASA and Brentwood WW operations is included as part of the Acquisition O&M  
8 Adjustments in Exhibit No. 3-A, and are described by Company Witness Lori O'Malley  
9 (PAWC Statement No. 5).

10 **Q. Please explain the adjustment for General Assessments.**

11 A. The General Assessments are imposed on regulated utilities to provide funding for the  
12 Commission and Damage Prevention Committee, the Office of Consumer Advocate, and  
13 the Office of Small Business Advocate. The General Assessment rates are applied to a tax  
14 base consisting of revenue from water and wastewater service. To calculate pro forma  
15 General Assessments, the current assessment rates from the fiscal year July 1, 2023 to  
16 June 30, 2024 were applied to a tax base consisting of pro forma sales revenue under  
17 present and proposed rates as shown on Exhibit No. 3-A under the respective rate base  
18 sections. The Company will update these adjustments with the new General Assessment  
19 rates once they are available. Backup for the calculation of these adjustments is provided  
20 in the Company's Exhibit No. 3-A under the respective rate base sections.

21 **Rate Case and Regulatory Expense**

22 **Q. Please explain the adjustment for regulatory and rate case expense.**

1 A. These adjustments are being made to reflect and normalize the costs related to this rate case  
2 and to recover the annual amounts necessary to amortize other regulatory expenses that  
3 were incurred by the Company with the Commission’s prior approval.

4 The costs for preparing and litigating this rate filing consist of the costs associated with the  
5 Company’s consultants and outside legal counsel. Costs for customer communications,  
6 mailings, legal notices, administrative fees, and miscellaneous expenses associated with  
7 this application are also part of the regulatory expense adjustment. Some of these costs  
8 have already been incurred. The Company’s claim reflects its total costs, both incurred to  
9 date and estimated to be incurred through the completion of this case. PAWC proposes  
10 that these costs be normalized over a two-year period, which reflects the average period of  
11 time in between the Company’s last three base rate filings. Detail of the cost categories  
12 included in the projected rate case expense can be found in the Rate Case Expense section  
13 of Exhibit No. 3-B.

14 **Q. Please identify the additional claims for regulatory expense the Company is making**  
15 **in this case.**

16 A. The Company is claiming for recovery three other categories of regulatory expense. First,  
17 the Company is continuing the ten-year amortization of the costs it incurred for a Customer  
18 Class Demand Study performed in accordance with the terms of the Commission-approved  
19 settlement of PAWC’s rate proceeding at Docket No. R-2011-2232243. The costs of that  
20 study were approved for recovery via a ten-year amortization, beginning in January 2018,  
21 as part of the Company’s 2017 base rate case at Docket No. R-2017-2595853. Second, the  
22 Company is continuing the ten-year amortization of the costs incurred for the preparation,  
23 filing, litigation and resolution by settlement of the Company’s petition at Docket



1 No. P-2017-2606100 for approval of a plan to replace customer-owned lead service pipes.  
2 Those costs were approved for recovery via a ten-year amortization, beginning in January  
3 2021, as part of the Company's 2020 base rate case, Docket No. 2020-3019369. Third, the  
4 Company is updating the amortization period for the Commission-approved amortization  
5 of the costs associated with performing a stormwater fee feasibility study, which was  
6 conducted in order to assess potential recovery and rate methodology options for  
7 stormwater costs of combined sewer systems, as required under the approved settlement at  
8 Docket No. R-2020-3019369. The Company is proposing to amortize those costs over two  
9 years, in order to reflect a more appropriate ongoing annual level of expense in proposed  
10 rates.

11 **Q. Has the Company allocated the pro forma rate case and regulatory expense?**

12 A. Yes. The Company uses an allocation factor based on customer counts to apportion the  
13 projected rate case and regulatory expense to the individual water and wastewater  
14 operations for which separate revenue requirement studies have been provided in Exhibit  
15 No. 3-A. The allocation factor will be explained in more detail below. The Rate Case  
16 Expense section of Exhibit No. 3-B shows the costs allocated to each separate revenue  
17 requirement study from applying this allocation factor.

18 **Allocation of Costs Between Water and Wastewater Operations**

19 **Q. Please describe the Company's approach to allocating costs between water and**  
20 **wastewater operations in this rate proceeding.**

21 A. The Company is proposing to allocate costs between water and wastewater operations  
22 utilizing the same allocation methodology the Company used in its last base rate case at  
23 Docket No. R-2022-3031672.

1 **Q. Please describe the cost categories that fall under the term “common costs”.**

2 A. The costs classified as “common costs” include Service Company expenses (including  
3 postage and customer accounting costs), insurance other than group, rate case expense and  
4 regulatory expense, and the costs associated with the PAWC Corporate Headquarters  
5 (Capital Campus) located in Mechanicsburg, Pennsylvania.

6 **Q. What is the methodology used by the Company to allocate common costs between its  
7 water and wastewater operations?**

8 A. The Company allocates the above categories based on four different factors, as shown in  
9 Schedule SDG-1.

10 Factor 1 – Customers (for Service Company and Customer Accounting). This factor was  
11 calculated based on the number of customers as of June 30, 2023. In allocating costs to  
12 PAWC, the Service Company identifies customers that receive both water and wastewater  
13 service from the Company. These accounts are not treated as two separate customers in  
14 the customer-count used to allocate Service Company costs. Instead, each dual service  
15 customer is assigned the value of 1.05 in the count of total Company customers and the  
16 value of 0.05 in the count of wastewater customers. PAWC used the same convention in  
17 allocating costs between water and wastewater operations. The dual service customers  
18 counted in the manner explained above plus wastewater-only customers are summed to  
19 arrive at the wastewater customer count used for the customer-based allocation.

20 Factor 2 – Customers (for Rate Case and Regulatory Expense). This calculation is based  
21 on the total number of customers for each water or wastewater system and allows for  
22 subsets of allocations based on water and wastewater SSS, water and wastewater SSS and

1 wastewater CSS customers. The breakdown of this level is necessary, as there are certain  
2 rate case expense components which only relate to specific customer types. For example,  
3 cost of service and rate design activities are completed for water and wastewater SSS  
4 customers, but separately for wastewater CSS customers. The application of this allocation  
5 factor is shown in the Rate Case Expense section of Exhibit No. 3-B.

6 Factor 3 – Customers (for PAWC’s Corporate Headquarters (Capital Campus)). This  
7 allocation is based on each water or wastewater system’s percentage of the Company’s  
8 total customers as of June 30, 2023.

9 Factor 4 – Depreciated Cost of Utility Plant in Service (for Insurance Other Than Group).

10 This factor is based on the depreciated original cost of total net utility plant in service as of  
11 June 30, 2023 for each water or wastewater system. The percentages of utility plant are  
12 applied to the pro forma Insurance Other Than Group expenses claimed by the Company  
13 to determine the portion of total expenses allocated to water and wastewater operations.  
14 The Company’s expense for Insurance Other than Group consists of property, vehicle and  
15 general liability, which closely aligns with plant assets.

### 16 **Proposed Water and Wastewater Tariffs**

17 **Q. Please discuss the proposed changes shown in the proposed Water Tariff.**

18 A. The Company is proposing changes to its Water Tariff, which include the following:

- 19 1. In the Schedule of Rates, the Company’s low-income discounts have been modified  
20 to add an additional tiered discount for 151%-200% of FPL, as discussed in the  
21 testimony of Charles Rea, (PAWC Statement No. 10). Additionally, the actual  
22 discount rate will be reflected in the tariff as opposed to the billed rate.

- 1           2. The Company proposes including a new Revenue Decoupling Mechanism  
2           ("RDM") as further discussed by Company witnesses Everette and Rea in PAWC  
3           Statement Nos. 1 and 10, respectively.
- 4           3. The Company proposes including a new Environmental Compliance Investment  
5           Charge ("ECIC"), as further discussed by Company witnesses Everette, Aiton, and  
6           Swiz in PAWC Statement Nos. 1, 3, and 8, respectively.
- 7           4. In Rule 3.2 – Application for Street Service Connection, the Company proposes  
8           additional language regarding the installation of additional or replacement  
9           connections to clarify that, following the installation of an initial street service  
10          connection, the customer will be responsible for the costs of installation of new  
11          service connections, including in instances where one property is converted into  
12          multiple premises.
- 13          5. In Rule 4.1 – Right to Reject, the Company proposes language to explicitly permit  
14          the Company to refuse to connect to service lines where (1) a customer-side service  
15          line is made of lead, (2) where a customer-side galvanized service line was or is  
16          downstream of a lead service line or a service line made of unknown material, or  
17          (3) if a customer either refuses or fails to respond to the Company's request to  
18          replace a customer-owned lead service pipe through the Company's Lead Service  
19          Pipe replacement plan.
- 20          6. In Rule 4.9 – Customer Responsibility for Service Pipe, the Company proposes a  
21          clarification that the Company may require documentation to establish the  
22          existence of repaired leaks.

1           7. In Rule 12.1 – Termination by Company, the Company proposes to specifically  
2           allow for termination pursuant to the terms of an agreement with a non-Company  
3           wastewater provider.

4           8. In Rule 27.1 – General Provisions under Main Extensions for Bona Fide Service  
5           Applicants, the Company proposes removing the description of residential service  
6           applicant(s) to clarify that a service applicant may be either residential or non-  
7           residential.

8   **Q.    Please discuss the proposed changes shown in the proposed Wastewater Tariff.**

9    A.    The Company is proposing changes to its Wastewater Tariff, which include the following:

10           1. In the Schedule of Rates, the Company is adding back into Rate Zone 1b-Metered  
11           a section identifying Special Rate Charges that apply to bulk wastewater contract  
12           customers in the York service territory. In the Company’s 2022 rate case, the  
13           entirety of the Special Rate Charges section, which would govern in the absence of  
14           a valid contract for bulk wastewater customers, was removed because the customers  
15           did in fact have valid contracts. It was an oversight that the filing did not instead  
16           include a Special Rate Charges section permitting the Company to charge bulk  
17           wastewater customers in the York service territory the rates set forth in their  
18           respective contracts with the Company. This change corrects that section.

19           2. In the Schedule of Rates, the Company’s low-income discounts have been modified  
20           to add an additional tiered discount for 151%-200% of FPL, as discussed in the  
21           testimony of Charles Rea, (PAWC Statement No. 10).

- 1           3. In the Schedule of Rates, Miscellaneous Fees and Charges, the Company proposes  
2           to add “or water usage” on page 14 to correlate to the updated definition for  
3           Equivalent Dwelling Unit (or EDU) definition on page 22.
- 4           4. In the Schedule of Rates, Miscellaneous Fees and Charges, the Company proposes  
5           to delete the references to special capacity charges applicable to McKeesport.
- 6           5. In the Schedule of Rates, Miscellaneous Fees and Charges, the Company proposes  
7           to correct the Rate Zone 1 Sludge Discharge Fee to replace “Above 12%” with  
8           “Above 10%,” consistent with the hauler agreement.
- 9           6. The Company proposes to include a new RDM as further discussed by Company  
10          witnesses Everette and Rea in PAWC Statement Nos. 1 and 10, respectively.
- 11          7. The Company proposes to include a new ECIC as further discussed by Company  
12          witnesses Everette, Aiton, and Swiz in PAWC Statement Nos. 1, 3, and 8,  
13          respectively.
- 14          8. In the Rules and Regulations, Section A – Definitions, the Company proposes  
15          modifications to the definitions of “Combined Sewer” (No. 12) and “Sanitary  
16          Sewer” (No. 73).
- 17          9. In the Rules and Regulations, Section A – Definitions, the Company proposes  
18          modifications to the calculation described in the definition of “Equivalent Dwelling  
19          Units” (or “EDU”).
- 20          10. In the Rules and Regulations, Section C – Applications for Service, the Company  
21          proposes adding language to Section C.1 – Service Application Required.
- 22          11. In the Rules and Regulations, Section C – Applications for Service, the Company  
23          proposes a new Section C.7, which reflects a change to the tariff consistent with the

1 pro forma tariff submitted for approval as part of the Company's Application  
2 seeking approval of the acquisition of the Brentwood wastewater system at Docket  
3 No. A-2021-3024058.

4 12. In the Rules and Regulations, Section C – Applications for Service, the Company  
5 proposes new Sections C.8, C.9 and C.10, adding language regarding Meter  
6 Installation, Meter Space and Location, and Meter Removal.

7 13. In the Rules and Regulations, Section F – Billing and Collection, the Company adds  
8 a new Section F.9 Calculation of Winter Average Consumption, proposing to use a  
9 winter average consumption to be applied to volume of sewer use for specified  
10 meter reads, as discussed by Company Witness Mr. Rea, (PAWC Statement  
11 No. 10).

12 14. In the Rules and Regulations, Section M.E(2) – Main Extensions for Bona Fide  
13 Service Applicants, the Company proposes to remove the description of residential  
14 service applicant(s) to clarify that a service applicant may be either residential or  
15 non-residential.

16 15. In the Rules and Regulations, Section P – Grinder Pumps for Paint-Elk Wastewater,  
17 the Company proposes to add a section applying to Farmington Wastewater.

18 16. In the Rules and Regulations, Section T.2.1(b)(iii) – Prohibited Discharge  
19 Standards, the Company proposes to add clarifying language to describe exceptions  
20 to substances such as grease, which may cause obstruction to the flow in the sewer  
21 system.

- 1 17. In the Rules and Regulations, Section T – Wastewater Control and Industrial  
2 Pretreatment Regulations, the Company proposes to correct heading and subpart  
3 lettering and numbering on pages 62, 67, and 70.
- 4 18. In the Rules and Regulations, Sections T.2.13 – Grease Traps and T.3.7 –  
5 Additional Pretreatment Measures, the Company proposes to add language  
6 requiring that cleaning and maintenance records for the interceptor or traps must be  
7 made available upon Company request.
- 8 19. In the Rules and Regulations, Sections T.6.8 – Notice of Violation/Repeat  
9 Sampling and Reporting, the Company proposes to add clarifying language that  
10 was unintentionally omitted from the section.
- 11 20. In Rules and Regulations, Section T.6.13 – Certification Statements, the Company  
12 proposes to delete language that applies to Publicly Owned Treatment Works, but  
13 not to the Company.
- 14 21. In Rules and Regulations, Section T.7 – Fees and Charges, the Company proposes  
15 to add language clarifying that the general and specific fees charged in this section  
16 are billed on a quarterly basis.
- 17 22. In Rules and Regulations, Section T.7.2 – Specific Fees parts (a) and (b), the  
18 Company proposes to add defining language for measured pollutant concentrations  
19 as part of the industrial loading fee calculation, as well as excess loading fee.
- 20 23. In Rules and Regulations, Section U – Industrial Pretreatment Program – Pollutant  
21 Removal Costs, the Company proposes to update the BOD5 removal cost price per  
22 pound in the Coatesville district consistent with the settlement in the Company’s  
23 prior base rate case.





1 **Q. Please summarize the rate zones that have been created since the last rate case.**

2 A. Since the last case, no new rate zones have been created. The Company will, upon  
3 completion of the planned acquisitions I described previously in my testimony, add an  
4 additional two water rate zones for the Farmington and Audubon water acquisitions and an  
5 additional four wastewater rate zones for the BASA, STMA, Brentwood and Farmington  
6 wastewater system acquisitions.

7 **Q. Has the Company created separate tariff groups for SSS and CSS customers?**

8 A. In the settlement of the Company's last base rate case at Docket No. R-2022-3031672,  
9 PAWC committed to creating a separate tariff group for current and future CSS customers.  
10 The Company's proposed wastewater tariff reflects the use of Rate Zone 1 for the  
11 consolidation rates of SSS customers, using subparts such as 1a, 1b, 1c, etc., for those SSS  
12 customers who are currently on separate rates, but moving towards consolidation in the  
13 future. Rate Zone 2 will be used for the consolidation rates of CSS customers, using  
14 subparts such as 2a, 2b, 2c, etc., for those CSS customers who are currently on separate  
15 rates, but moving towards consolidation in the future. In addition, the Company created a  
16 Rate Zone 3 for Brentwood, which is a collection only system, whose rates will be derived  
17 from the cost of service for collection services rather than treatment costs.

18 **Q. Does the Company propose the consolidation of water and wastewater rates in this**  
19 **proceeding?**

20 A. Yes. The Company proposes consolidation of certain water and wastewater rate zones and  
21 changes to the current water and wastewater rate structure. Please refer to the direct  
22 testimony of Company witness Charles Rea (PAWC Statement No. 10) for a detailed  
23 explanation of the Company's proposals.

1 **Q. Did the Company employ any of the authority provided by amendments to the Public**  
2 **Utility Code made by Act 11 of 2012 in developing its rate design in this case?**

3 A. Yes, in this case the Company is proposing to incorporate wastewater revenue requirements  
4 into its water revenue requirement. Combining water and wastewater revenue  
5 requirements and the resulting rate design are discussed in the direct testimony of Company  
6 witness Ashley Everette (PAWC Statement No. 1) and the direct testimony of Company  
7 witness Charles Rea (PAWC Statement No. 10).

8 **Q. Please summarize the Company's commitments regarding rate increases for certain**  
9 **prior acquisitions.**

10 A. The Scranton system, acquired by the Company in 2016, is subject to rate increase  
11 requirements or limitations. In the Scranton acquisition proceeding, the Commission  
12 approved the Amended Asset Purchase Agreement ("APA"), which provided that PAWC  
13 would not propose rate increases that would be equal to an amount greater than a 1.9%  
14 Compounded Annual Growth Rate ("CAGR") increase in annual revenues over a ten-year  
15 period relative to the starting amount of annual revenues. As part of the resolution of the  
16 Company's last base rate case, revenues from the Company's Scranton operations were  
17 increased by 63.55%. The pro forma revenues at present rates exceed the level of increase  
18 PAWC is permitted to propose under the CAGR provision during the ten years following  
19 closing of the acquisition. As such, and in compliance with the APA, the Company is not  
20 proposing an increase to the wastewater rates of the Scranton system. However, the  
21 Company does reflect the roll in of the Distribution System Improvement Charge ("DSIC")  
22 at present rate revenues, therefore changing the actual rate being charged to Scranton  
23 customers, while the average monthly bill will remain unchanged.

1 The York wastewater system was acquired by the Company in 2022. Section 6.04 of the  
2 York APA provides as follows:

3 Buyer shall, subject to PaPUC approval in a future base rate proceeding, maintain  
4 base rates for System customers for a minimum period of three (3) years from the  
5 Closing Date.

6 The Foster Township wastewater system was also acquired by the Company in 2022.  
7 Section 4.1 of the Foster APA provides as follows:

8 After Closing, Buyer will begin charging Seller's current rates (as of the date of this  
9 Agreement) as Buyer's base rates (but not other charges, including those discussed  
10 below) within Seller's service area (such service area being consistent with  
11 Schedule 1), which shall not be increased by the Buyer until after December 31,  
12 2024.

13 **Q. Please summarize the Company's commitments regarding rate increases for the**  
14 **pending acquisitions included in this filing and since the last rate case.**

15 A. The Company expects to close on its acquisitions of the BASA wastewater assets in 2023  
16 and the Brentwood wastewater assets in 2024.

17 In the BASA application proceedings, a unanimous Settlement was reached and filed with  
18 the Commission on August 14, 2023 ("BASA Settlement"). The BASA Settlement (p. 7)  
19 provided for the following regarding the proposed rate increase:

20 PAWC will propose to move the System to 1.4x the current System rate or PAWC's  
21 proposed Rate Zone 1 system-average wastewater rates, whichever is lower, upon  
22 the later of (a) the first anniversary of Closing or (b) January 1, 2025.

23 For the Brentwood acquisition, Section 7.03 of the APA provides as follows:

24 The Base Rate shall not be increased until after the second anniversary of the  
25 Closing Date.

26 **Q. Please summarize how the Company has complied with the above-referenced BASA**  
27 **Settlement.**

1 A. The Company proposes rates for the BASA system consistent with the revenue increases  
2 outlined in the Settlement. Please refer to the testimony of Charles Rea (PAWC Statement  
3 No. 10) for detail on the proposed increases.

4 **Q. Please summarize the Company's proposal with respect to the systems for which the  
5 Company has agreed to not increase rates for a certain period of time.**

6 A. For Foster, York, BASA, and Brentwood, the Company requests that the Commission  
7 permit the Company to implement the proposed changes to rates consistent with the  
8 Company's agreements with each of these systems. The Company's pro forma tariff  
9 supplement reflects this proposal by showing each system's current rates as continuing to  
10 be effective and proposed rates taking effect on the date indicated on the pro forma tariff  
11 supplement.

12 **Conclusion**

13 **Q. Does this conclude your direct testimony at this time?**

14 A. Yes, it does.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY  
COMMISSION**

v.

**PENNSYLVANIA-AMERICAN WATER  
COMPANY**

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**DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**VERIFICATION**

I, **Stacey D. Gress**, hereby state that the facts set forth in the pre-marked Statement No. 4 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023



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Stacey D. Gress

**Factor 1: Customers (for Service Company and Customer Accounting)**

As of 06/30/23	Total Customers	Dual Water/Wastewater Customers	Wastewater Only Customer Equivalent (5% of Dual Customers)	Wastewater Only	Total Customers For Allocation (Wastewater: D+E)	Allocation Factor
Water Operations	681,707				681,707	95.4%
Wastewater SSS General Operations	55,222	35,697	1,785	19,525	21,310	3.0%
Wastewater CSS Operations	42,363	32,363	1,618	10,000	11,618	1.6%
<b>Total</b>	<b>779,292</b>	<b>68,060</b>	<b>3,403</b>	<b>29,525</b>	<b>714,635</b>	<b>100%</b>

**Factor 2: Customers (for Rate Case and Regulatory Expense)**

As of 06/30/23	Total Customers	Allocation Factor	Water	WW SSS Only	W & WW SSS Only	WW CSS
Water Operations	688,859	85.5%	100.0%		92.5%	
Wastewater SSS General Operations	56,212	7.0%		100.0%	7.5%	
BASA WW Operations	14,755	1.8%				
Brentwood WW Operations	3,974	0.5%				
Wastewater CSS	42,414	5.3%				100.0%
<b>Total</b>	<b>806,214</b>	<b>100.00%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

<sup>1</sup> Includes Audubon & Farmington Water in Water Operations and Farmington WW & Sadsbury in Wastewater SSS General Operations.

**Factor 3: Customers (for Pennsylvania-American Corporate Headquarters -Capital Campus)**

As of 06/30/23	Total Customers	Allocation Factor
Water Operations	681,707	87.5%
Wastewater SSS General Operations	55,222	7.1%
Wastewater CSS Operations	42,363	5.4%
<b>Total</b>	<b>779,292</b>	<b>100.00%</b>

**Factor 4: Depreciated Utility Plant in Service (Insurance Other Than Group)**

As of 06/30/23	Depreciated Utility Plant in Service	
	Plant in Service	Percentage
Water Operations	4,758,924,437	81.1%
Wastewater SSS General Operations	660,270,985	11.3%
Wastewater CSS Operations	451,444,764	7.7%
<b>Total Net Utility Plant in Service</b>	<b>5,870,640,186</b>	<b>100.00%</b>

<sup>1</sup> 5% is the percentage used per the Service Company methodology of qualifying a dual service customer. The Massachusetts Formula approach supports that dual service customers be counted as one customer plus 5% of another customer.

The Massachusetts Formula includes three factors: gross property, plant and equipment, direct labor expenses, and gross revenues

**Factor 4: Depreciated Utility Plant in Service (Insurance Other Than Group)**  
**Pennsylvania-American Water Company**

**Schedule SDG-1**  
**Page 2 of 2**

<b>As of June 30, 2023</b>	<u>Wastewater SSS</u>		<u>Wastewater CSS</u>	<u>Company Total</u>
	<u>Water Operations</u>	<u>General Operations</u>	<u>Operations</u>	
Non-Depreciable Plant	27,559,070	15,255,948	4,463,355	47,278,373
Depreciable Plant	6,244,774,954	906,492,568	739,866,378	7,891,133,900
<b>Total Utility Plant In Service</b>	<b>6,272,334,024</b>	<b>921,748,516</b>	<b>744,329,733</b>	<b>7,938,412,273</b>
Deduct:				
Contributions In Aid Of Construction	279,323,043	45,689,787	11,746,599	336,759,428
Customer Advances For Construction	61,692,641	833,590	-	62,526,231
Excluded Property	1,558,014	-	-	1,558,014
<b>Sub-Total</b>	<b>342,573,698</b>	<b>46,523,376</b>	<b>11,746,599</b>	<b>400,843,673</b>
<b>Net Utility Plant In Service</b>	<b>5,929,760,326</b>	<b>875,225,140</b>	<b>732,583,134</b>	<b>7,537,568,600</b>
<b>Accumulated Depreciation</b>	<b>1,170,835,888</b>	<b>214,954,155</b>	<b>281,138,370</b>	<b>1,666,928,413</b>
<b>Depreciated Utility Plant In Service</b>	<b>4,758,924,437</b>	<b>660,270,985</b>	<b>451,444,764</b>	<b>5,870,640,186</b>
<b>Percentage of Total</b>	<b>81.1%</b>	<b>11.2%</b>	<b>7.7%</b>	<b>100.0%</b>



Statement No. 5

O'Malley

**DIRECT TESTIMONY  
OF  
LORI O'MALLEY**

**WITH REGARD TO**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**LABOR AND LABOR RELATED EXPENSES,**

**SERVICE COMPANY EXPENSE, PRODUCTION COSTS, ACQUISITION O&M  
ADJUSTMENTS, OTHER OPERATION AND MAINTENANCE EXPENSES, AND**

**MISCELLANEOUS EXPENSE ADJUSTMENTS**

**DOCKET NOS.**

**R-2023-3043189 (WATER)**

**R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF LORI O'MALLEY**

**BACKGROUND**

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**Q. What is your name and business address?**

A. My name is Lori O'Malley. My business address is 1 Water Street, Camden, New Jersey 08102.

**Q. By whom are you employed and in what capacity?**

A. I am employed by American Water Works Service Company, Inc. ("AWWSC" or the "Service Company") as Senior Manager Regulatory Services. The Service Company is a wholly owned subsidiary of American Water Works Company, Inc. ("American Water") that provides services to Pennsylvania-American Water Company ("PAWC", "Pennsylvania-American" or "Company") and its affiliates.

**Q. What are your responsibilities as Senior Manager Regulatory Services?**

A. My responsibilities include the review, preparation and presentation of regulatory filings and related activities for Pennsylvania-American and West Virginia-American Water Company. In addition, my responsibilities include the preparation of written testimony, exhibits and workpapers in support of rate applications and other regulatory filings, as well as responses to data requests related to filing requirements. In this role, I stay apprised of regulatory developments and policy initiatives that may impact regulated water utilities and support the analysis and coordination of process improvements of rates and regulatory processes and services.

1 **Q. Please summarize your educational background.**

2 A. I received a Bachelor of Science Degree in Business Administration with a specialization  
3 in Accounting from Rowan University in 1995. I have also attended the Utility Rate School  
4 sponsored by the National Association of Regulatory Utility Commissioners.

5 **Q. Please outline your business experience.**

6 A. I began my employment with the Service Company as an Accountant for the Regional  
7 Companies in July 1996. At the time, the Regional Companies included American Water  
8 affiliates located in the states of Iowa, Maryland, Michigan, Missouri, Ohio, Tennessee and  
9 Virginia. In October 1998, I was promoted to Senior Accountant and then Accounting  
10 Supervisor in March 1999. In May 2004, I accepted a position in the Regulatory Services  
11 group. From 2004 to today, I have held increasing levels of responsibility as an  
12 Intermediate Financial Analyst, Senior Financial Analyst, Principal Regulatory Analyst,  
13 and my current position as Senior Manager Regulatory Services.

14 **PURPOSE OF TESTIMONY**

15 **Q. What is the purpose of your testimony?**

16 A. The purpose of my testimony is to support and explain the Company's claim for: (1) labor  
17 and labor-related expenses; (2) Service Company expenses; (3) production costs; (4) other  
18 operation and maintenance ("O&M") expenses; (5) miscellaneous expense adjustments;  
19 and (6) acquisition O&M expenses.

20 **Q. What methodology did the Company use in calculating its pro forma expense levels  
21 in this case?**

22 A. In this case, the Company is presenting supporting data for a historic test year ended  
23 June 30, 2023 ("HTY"), a future test year ending June 30, 2024 ("FTY"), and a fully

1 projected future test year (“FPFTY”) ending June 30, 2025. The Company began with the  
2 expenses recorded on its books of account for the HTY and made various adjustments to  
3 reflect known and measurable changes that occurred during the HTY. For the FTY and  
4 FPFTY, the Company made specific adjustments to certain expenses or categories of  
5 expenses based on known and measurable changes (e.g., collective bargaining  
6 agreements), projected changes in expenses or, in some cases for expenses that are variable,  
7 relied upon historical averages to reflect a normalized level of expense. All adjustments  
8 are detailed in PAWC Exhibit Nos. 3-A and 3-B.

9 **Q. Please provide a brief overview of the Company’s O&M expense levels.**

10 A. The Company is requesting \$314,072,831 in O&M expense for the FPFTY. As Company  
11 witness Ashley Everette explains, the Company has managed to keep the rate of increases  
12 in O&M expense below that of inflation. This demonstrates that the Company has been  
13 successful in controlling its O&M costs per customer over the past decade or so and is  
14 continuing to do so. The requested increases in O&M expense over these periods support  
15 the Company’s efforts to continue providing high quality water and wastewater service in  
16 the most cost-effective way to our customers in the long-term.

17 There are numerous factors that contribute to the increase in operating expenses, including  
18 those associated with production costs and employee related expenses discussed by  
19 Company witness Jim Runzer, as well as the addition of multiple acquired systems since  
20 the last base rate case, as addressed in the testimony of Company witness E. Christopher  
21 Abruzzo.

1 **Q. Please explain how the adjustments you describe below apply to the revenue**  
2 **requirement studies set forth in PAWC Exhibit No. 3-A.**

3 A. The adjustments I describe below apply to the expenses reflected in each of the five revenue  
4 requirement studies that are set forth in PAWC Exhibit No. 3-A. Because the adjustments  
5 apply to the expense claims set forth in each revenue requirement study, I will describe  
6 those adjustments generally and not address the specific adjustments reflected in each  
7 study.

8 **LABOR AND LABOR RELATED EXPENSES**

9 **Q. Please describe PAWC’s labor and labor-related expenses.**

10 A. PAWC’s labor and labor-related expenses are associated with employees who support  
11 PAWC exclusively and, therefore, are on the payroll of PAWC. As Mr. Runzer explains,  
12 PAWC’s labor force is responsible for the production of high-quality drinking water,  
13 operating and maintaining the Company’s production and treatment facilities and its  
14 distribution and collection systems, monitoring water quality, providing engineering  
15 services, and generally supporting the efficient management of all of the Company’s  
16 operations.

17 There are three classifications of PAWC employees: collective bargaining unit (“CBU”)  
18 hourly employees, non-collective bargaining unit (“non-CBU”) hourly employees and  
19 exempt employees. CBU hourly employees receive base pay, overtime pay, and, in some  
20 cases, other compensation (such as shift premiums and meal allowances) and are also  
21 eligible for performance pay. Non-CBU hourly employees receive base pay and overtime  
22 pay and are eligible for performance pay. Exempt employees receive base pay and are

1 eligible for performance pay. Therefore, total wages or salaries for each classification of  
2 employees includes fixed pay (base pay) and some form(s) of variable pay (e.g. overtime,  
3 shift pay and performance pay) for eligible employees.

4 The labor and labor-related expenses that are discussed in my testimony include:

5 (1) Salaries and wages (including Annual and Long-Term Performance Pay)

6 (2) Group Insurance

7 (3) Other benefits, including:

8 a. 401k

9 b. Defined Contribution Plan (“DCP”)

10 c. Pension and Other Post-Employment Benefits (“OPEBs”) for certain  
11 eligible employees

12 d. Employee Stock Purchase Plan (“ESPP”)

13 (4) Payroll Taxes

14 These costs are described further in my testimony below.

15 **Q. Please describe the overall approach the Company has used to calculate labor and**  
16 **labor-related expenses.**

17 A. PAWC’s proposed labor and labor-related expenses are reflected in the labor and labor-  
18 related sections of Exhibit Nos. 3-A and 3-B. Pro forma labor and labor-related expenses  
19 were calculated on a position-by-position basis, based on the Company’s HTY actual  
20 number of employees, consisting of 1,219 full-time positions and one part-time position.  
21 The labor expenses claimed for the FTY and the FPFTY reflect a full complement of  
22 employees for each of the Company operations, as set forth in the table below:

<b>PAWC Operations Employee Levels</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Water Operations	1,046	1,076	1,076
Wastewater SSS General Operations	76	75.1	75.1
Butler Area Sewer Authority WW Operations	0	33.9	33.9
Brentwood WW Operations	0	1	1
Wastewater CSS Operations	98	99	99
Farmington Water	0	1	1
Farmington WW	0	1	1
Audubon Water	0	7	7
Total Company	1,220	1,294	1,294

2 The HTY labor hours were annualized and adjusted to a normalized level. These hours  
3 were then multiplied by the actual 2023 wage rates by employee position to determine an  
4 annualized level of expense. This amount was then adjusted using a historic three-year  
5 average (2021-2023) of base pay increases for non-CBU employees. To adjust the level  
6 of expense for CBU employees, the most recent collective bargaining agreements  
7 (“CBAs”) that remain in effect were used to determine costs for each of the FTY and  
8 FPFTY. For those bargaining units for which CBAs expired, a historic three-year average  
9 (2021-2023) of contract wage increases was used to determine projected costs for the FTY  
10 and FPFTY. The Company’s FPFTY annualizes the effects of the increases calculated  
11 using the methodologies described above. The details of these calculations, by employee  
12 position, are set forth in Exhibit No. 3-B.

13 Some labor and labor-related costs are capitalized and added to the costs of utility plant.  
14 Therefore, a capitalization percentage is applied to total labor and labor-related costs to  
15 calculate the portion of those costs that are recorded as capital costs. The Company has



1 calculated capitalization percentages based on the historic three-year average ratio (2021-  
2 2023) of direct labor dollars charged to capital to total direct labor costs. The capitalization  
3 percentages calculated in that manner are 39.55% for the Company's water operations and  
4 22.14% for its wastewater operations. The complement of those percentages represents  
5 the portion of labor and labor-related costs recorded as an expense.

### 6 **Salaries and Wages**

7 **Q. Please describe how the various components of pro forma salaries and wages are**  
8 **calculated.**

9 A. Salary and wage expense has four components: (1) base pay; (2) overtime; (3) shift  
10 premium and meal compensation pursuant to the terms of applicable CBAs; and (4) annual  
11 and long-term performance compensation for eligible employees. Each component is  
12 discussed in further detail below.

13 **Base Pay** – Base pay was calculated for the FTY by applying a three-year average (2021-  
14 2023) of the historical percentage increases to the annualized HTY wage rates for non-  
15 CBU employees. The wage rate projected to be in effect for each month of the FTY is  
16 applied to the working hours for each month. Regular working hours total 2,088 for all  
17 full-time hourly employees and 2,080 for all full-time non-hourly employees. Wage rates  
18 for CBU employees were based on CBAs for each month of the FTY and FPFTY. If wage  
19 rates have not been established by CBAs that will be in effect the end of the FPFTY, the  
20 wage rates were adjusted using an annual increase percentage equal to the historical three-  
21 year average (2021-2023) of contracted increases. Non-CBU employees' wage rates were  
22 based on the rates that became effective on March 6, 2023. Those rates were adjusted

1 through the FPFTY based on a three-year average (2021-2023) of the historical percentage  
2 increases and were annualized as of the end of FPFTY.

3 **Overtime** – Overtime was calculated by starting with the total HTY overtime hours by  
4 position and multiplying those hours by the projected overtime wage rate for each  
5 employee position.

6 **Shift Premium** – CBU employees’ CBAs provide wage premiums for employees working  
7 on uncommon shifts or when employees obtain certain licenses or complete certain  
8 training. The actual total HTY amounts of shift premiums, licensing and training premiums  
9 were determined on a per-employee basis and included in salary and wage expense for the  
10 FTY and FPFTY.

11 **Meal Compensation** – CBU employees’ CBAs provide compensation for meals during  
12 extended shifts and, therefore, meal compensation is included in salaries and wage expense.  
13 A historical three-year average (2021-2023) of meal compensation was determined on a  
14 per-employee basis and included in salary and wage expense for the FTY and FPFTY.

15 **Performance Pay** – The last component of labor expense is the annual and long-term  
16 performance compensation for eligible employees. Performance pay was calculated on a  
17 position-by-position basis for eligible employees based on each position’s target percent,  
18 or percentage of base salary that is provided if program goals are achieved, under both the  
19 Annual Performance Plan (“APP”) and Long Term Performance Plan (“LTPP”). The  
20 target percentage was multiplied by each eligible employee’s pro forma base salary in the  
21 FTY and FPFTY, to determine the cost of compensation under the APP and LTPP. In

1 PAWC Statement No. 2, Mr. Runzer describes the performance pay program in more  
2 detail.

3 **Group Insurance**

4 **Q. Please describe the components of the Company’s group insurance expense.**

5 A. Group insurance includes several insurance coverages that PAWC provides its employees.  
6 These can be grouped into two primary categories: (1) basic life, short-term disability,  
7 long-term disability and accidental death and disability insurance (“AD&D”); and  
8 (2) medical, dental, prescription and vision insurance.

9 **Q. How was the pro forma adjustment for group insurance expense calculated?**

10 A. Costs were calculated for the pro forma adjustment as follows:

- 11 • Basic life, short- and long-term disability and AD&D. The starting point is the  
12 2023 premium rates for each position under the applicable insurance plans for CBU  
13 and non-CBU positions.
- 14 • Medical, dental, and vision insurance. The Company’s cost for this category of  
15 insurance is net of employee contributions. The total costs and employee  
16 contributions vary by plan type (e.g. family, employee, or employee plus spouse).  
17 Costs and contributions were calculated using the 2024 plan rates, on a position-  
18 by-position basis, taking into account actual employee plan selections.

19 Once the 2024 cost level was established, a historical three-year average of the change in  
20 Company costs for group insurance between 2021 and 2024 was applied to the annualized

1 amount for 2024 in order to adjust the insurance expense to the level appropriate for the  
2 FPFTY.

3 **Q. What steps in general has American Water taken to manage the group insurance**  
4 **benefit costs?**

5 A. Group insurance is obtained for employees of PAWC and its affiliates based on benefit  
6 plans administered by American Water. American Water has been proactive in seeking  
7 changes that improve how healthcare is delivered in order to control the costs of providing  
8 health insurance to its employees. These efforts have included offering high-deductible  
9 health plans and a telemedicine option, which lower the overall cost of health insurance  
10 programs. For example, instead of an office or urgent care visit, for which providers charge  
11 \$100 or more, employees have the option to consult with a physician remotely, at a cost to  
12 the insurer of \$59 per visit. American Water also became a founding member of the Health  
13 Transformation Alliance (“HTA”) in 2016 to help achieve the goal of providing higher  
14 quality care at lower cost by identifying facilities and physicians that have better outcomes,  
15 using American Water’s purchasing power to keep costs down, and helping every  
16 employee become a more engaged consumer. Additionally, by joining the HTA pharmacy  
17 coalition, the Company has mitigated cost increases through the pharmacy/prescription  
18 drug program, which includes specialty pricing and rebates.

19 **Q. What is HTA and why is it better than the traditional approach to obtaining**  
20 **healthcare coverage for employees?**

21 A. HTA is a cooperative comprising 50 major corporations that have come together to drive  
22 change in the healthcare system. In addition to American Water, its members include

1 American Express Company, JPMorgan Chase, IBM Corporation, Verizon and Marriott  
2 International Inc., and many more. Acting on its own, any single HTA member is unlikely  
3 to change the trends in healthcare that are driving up costs. By working together, however,  
4 HTA members can create more transparency to drive changes in the way healthcare is  
5 delivered, and those changes can result in lower prices for prescription medicine and  
6 medical services and produce better outcomes, which make health care more affordable.  
7 To that end, the HTA has developed value-driven solutions in the areas of data and  
8 analytics, pharmacy and medical services and consumer engagement specifically designed  
9 to improve patient care and economic value. Lastly, American Water will review current  
10 plan options, and when it is possible, add additional services to its plans to drive claims  
11 down and lower rates. Because the Company's health and welfare plans are self-funded,  
12 when claims are lower, everyone saves. For example, in 2022, American Water added the  
13 PrudentRx Copay program in partnership with CVS Caremark. This allows our active  
14 employees and retirees to get any specialty medications that are on our Exclusive Specialty  
15 Drug List for \$0 out-of-pocket cost to the employee and discounts to American Water.

16 **Other Benefits**

17 **Q. Please describe the components of other benefits the Company provides and how the**  
18 **costs of those benefits were calculated.**

19 A. Other benefits PAWC provides include savings programs, such as 401k plans, DCP,  
20 pension benefits, OPEBs, and the Company's ESPP. The costs of these benefits were

1 calculated on a position-by-position basis. The calculations of the costs included in the  
2 Company's labor-related expense claims are described below.

3 **401k** – PAWC incurs 401k expense when it matches employee contributions to 401k  
4 retirement accounts. The matching amounts are determined by each employee's benefit  
5 group or hire date. For employees whose benefit group falls into an "original" category  
6 (including CBU employees hired before 2001 and non-CBU employees hired before 2006),  
7 the Company matches 50% of the first 5% of the employee's contribution (for a maximum  
8 of 2.5%). For the remaining employees, the Company matches 100% of the first 3%, and  
9 50% of the next 2% of the employee's contributions (for a maximum of 4%). Pro forma  
10 401k costs were calculated for each position based on FTY wages, current employee  
11 contribution levels, and the level of match for the benefit group.

12 **DCP** – DCP, or Defined Contribution Plan, is a retirement savings program for employees  
13 not eligible for the defined benefit pension program. Under the DCP, PAWC contributes  
14 an amount equal to 5.25% of an employee's base pay into a retirement account. The pro  
15 forma DCP expense was calculated by multiplying the FTY and FPFTY regular time pay  
16 of each eligible position by 5.25%.

17 **Pension** – Certain Company employees, upon retirement, are eligible for pension benefits  
18 under a defined benefit plan. Covered employees include non-CBU employees hired  
19 before January 1, 2006, and CBU employees hired before January 1, 2001. Consistent with  
20 PAWC's calculation of pension expense in its last base rate case, the Company calculated  
21 its pension expense claim in this case in accordance with Financial Account Standards Board  
22 Accounting Standards Codification Topic 715 or "ASC 715" (formerly Statement of

1 Financial Accounting Standards 87). The Company started with the report furnished by its  
2 actuary, Willis Towers Watson, that furnished pension costs for 2023 determined in  
3 accordance with ASC 715. From that report, the Company identified the service and non-  
4 service cost components of its pension costs. The service cost portion was reduced by the  
5 capitalization rate of 39.55% described above to determine the portion of total pension  
6 costs recorded as an expense.

7 In addition to the pro forma pension expense determined in the manner described above, the  
8 Company's claim reflects a credit for the annual amortization of a deferred pension asset that  
9 was created when the Company began using the accrual method of accounting, based on  
10 ASC 715, to calculate pension expense for ratemaking purposes in its 2020 base rate case.  
11 Prior to the 2020 case, the Company's pension expense claimed for ratemaking purposes  
12 had been based on its cash contributions to its pension plan. The amortization of the deferred  
13 pension asset is being continued at the level approved in R-2017-2595853. The ten-year  
14 amortization began with the effective date of the rates set in that case and, therefore, will  
15 expire in 2028.

16 **OPEB** – Certain PAWC employees are eligible for OPEBs upon their retirement  
17 depending on their employment start date. Only non-CBU employees hired before  
18 January 1, 2002, and CBU employees hired before January 1, 2006 are eligible for OPEBs.  
19 The investments made to fund OPEBs are divided into three Voluntary Employees  
20 Beneficiary Association Plans (“VEBAs”): Post-Retirement Medical Benefits/Bargaining  
21 Unit, Post-Retirement Medical Benefits/Non-Bargaining Unit, and Life Insurance

1 Benefits. In 2016 and 2018, American Water negotiated a cap on benefits in the Non-  
2 Bargaining Unit and Bargaining Unit VEBAs, respectively.

3 OPEB expense is based on the accrual cost recognized under ASC 715, as projected by  
4 Willis Towers Watson for 2023. The 39.55% capitalization rate was applied the service  
5 cost component that will be charged to capital.

6 In addition, for active bargaining unit employees covered under American Water's  
7 National Benefits Agreement who are not eligible for retiree medical benefits under the  
8 OPEB plan, the Company makes an annual contribution of \$600 per employee to a separate  
9 VEBA plan that is administered by the Utility Workers Union of America. That plan is  
10 designed to reimburse eligible participants for certain health care expenses they incur in  
11 retirement. A pro forma adjustment to reflect these contributions on behalf of eligible  
12 employees of the Company's Water Operations, Wastewater Sanitary Sewer Systems  
13 ("SSS"), and Wastewater Combined Sewer System ("CSS") Operations has been made to  
14 the Company's OPEB expense claim in this case.

15 **ESPP** – ESPP expense is incurred to fund the 15% discount on purchases of American  
16 Water stock by employees who are enrolled in the ESPP. This expense was calculated  
17 based on the FTY and FPFTY salaries and wages for each employee who participates in  
18 the plan. The employees' forecasted base compensation is multiplied by the percentage of  
19 base compensation each employee has selected to devote to purchasing American Water  
20 stock. That amount was then multiplied by the 15% discount on stock purchases to  
21 determine the pro forma expense for the ESPP.



1 **Q. Please describe the Company’s payroll tax expense.**

2 A. Payroll tax expense consists of the federal and state taxes the Company pays based on its  
3 employee’s salaries and wages. The Federal Insurance Contributions Act imposes taxes  
4 on employers for Old Age Survivors and Disability Insurance (“OASDI,” or more  
5 commonly “FICA”) and Hospital Insurance (or more commonly “FICA Medicare”). The  
6 Company is also required to pay Federal Unemployment Tax (“FUTA”) and State  
7 Unemployment Tax (“SUTA”). Pro forma payroll taxes were calculated on a position-by-  
8 position basis using current 2023 tax rates and pro forma wages for the FTY and FPFTY.  
9 The current 6.2% FICA tax rate will apply to wages of up to \$160,200 in 2023. The wage  
10 ceiling for applying the FICA tax rate is estimated to increase to \$168,543 for the FTY and  
11 \$177,321 for the FPFTY, based on a three-year average (2021-2023) of historical actual  
12 increases in the wage ceiling for FICA tax. For the FTY and FPFTY, the Company applied  
13 the FICA Medicare tax rate of 1.45% to all wages, applied the SUTA tax rate of 2.18% to  
14 the first \$10,000 of wages, and applied the FUTA tax rate to the first \$7,000 in wages.

15 **SERVICE COMPANY COSTS**

16 **Q. What kinds of services does PAWC obtain from the Service Company?**

17 A. The services provided by the Service Company include customer service, water quality  
18 testing, environmental compliance, human resources, communications, information  
19 technology, finance, accounting, legal, engineering, supply chain, and risk management.  
20 As part of the broad range of services summarized above, the Service Company provides  
21 a variety of financial and accounting services for Pennsylvania-American that include  
22 payroll, human resources data management, utility plant accounting, cash management,  
23 general accounting and reporting, accounts payable, and tax accounting. As part of its

1 customer-service function, the Service Company handles customer calls, billing, and  
2 collection activities for PAWC and American Water’s other public utility subsidiaries. The  
3 customer service function, which is discussed further by Company witness Deborah  
4 Degillio, also handles customer inquiries and correspondence and processes service order  
5 requests.

6 In addition, the Service Company provides Field Resource Coordination which is  
7 responsible for tracking and dispatching service orders for PAWC’s field representatives  
8 and distribution crews. The Service Company also operates the Central Laboratory located  
9 in Belleville, Illinois, which employs chemists, laboratory technicians, analysts, and  
10 support employees to perform water quality testing and research. The Central Laboratory  
11 is certified by the United States Environmental Protection Agency, the Commonwealth of  
12 Pennsylvania Department of Environmental Protection (“PADEP”) and the regulatory  
13 agencies of other states in which American Water’s subsidiaries provide service. The  
14 Central Laboratory owns and uses state-of-the-art water testing equipment to test source  
15 water and finished water for all American Water’s subsidiaries, including PAWC.

16 **Q. How do Pennsylvania-American’s customers benefit from obtaining the services you**  
17 **described from AWWSC?**

18 A. The Service Company provides PAWC access to highly trained professionals who possess  
19 expertise in various specialized areas, whose background, experience and training are  
20 focused on water and wastewater utility operations and who work exclusively for American  
21 Water’s subsidiaries. Furthermore, the size of AWWSC and the scope of its operations  
22 have enabled it to assemble a uniquely qualified group of professionals who, through

1 AWWSC, have a platform for sharing their extensive knowledge, expertise, and experience  
2 across the American Water system to the benefit of all of American Water's state-regulated  
3 utilities and their customers. The Company benefits from getting these services and  
4 tapping into the expertise of AWWSC's personnel at cost. The Company also benefits  
5 from the size and breadth of American Water, which affords the Company increased  
6 purchasing power that it could not obtain on its own, and provides access to discounts on  
7 equipment and supplies needed for utility operations, including, for example, pipe, fittings,  
8 and water treatment chemicals. In this way, Pennsylvania-American achieves costs savings  
9 that it could not obtain if it were a stand-alone water company.

10 **Q. How does the Service Company charge PAWC for its services?**

11 A. The Service Company provides its services to PAWC at cost and issues monthly invoices.  
12 Under the Service Company's billing system, costs can be billed as direct charges to a  
13 single company or as charges reflecting an allocation among several companies. If the  
14 Service Company can identify costs that relate exclusively to PAWC, 100% of those costs  
15 are charged directly to Pennsylvania-American. Costs the Service Company incurs in  
16 rendering services in common to a group of companies and not exclusive to Pennsylvania-  
17 American are charged to each service recipient in the relevant group based on an allocation.

18 **Q. How are Service Company costs allocated to PAWC?**

19 A. Service Company costs are charged to PAWC and its affiliates using Tier One or Tier Two  
20 allocation factors. The Tier One allocation factor represents the allocation of costs between  
21 regulated and non-regulated companies. The allocation factors are based on cost-causation  
22 drivers for a particular service and include operating revenues, net property, plant and

1 equipment and number of employees. The allocation is calculated using one or an  
2 applicable combination of these allocation factors. If a combination of allocation factors  
3 is used, each factor is equally weighted in the calculation. The Tier Two allocation factor  
4 is used to allocate regulated company costs to the regulated businesses that benefit from a  
5 service. Tier Two factors are primarily based on the number of customers served in the  
6 immediately preceding calendar year.

7 **Q. What level of Service Company expense is Pennsylvania-American seeking in this**  
8 **case and how was it calculated?**

9 A. The Company is seeking recovery of an expense of Service Company charges of  
10 \$63.6 million for the FPFTY. The expense is divided into two categories consisting of  
11 labor and labor-related expenses and all other expenses. For the labor and labor-related  
12 portion, the expenses incurred for the HTY have been adjusted to annualize a base pay  
13 increase in March 2023 of 3.2% for non-CBU employees of the Service Company, and  
14 annual contract increases of 2.75% for CBU employees of the Service Company. For non-  
15 CBU employees, the HTY level of base pay was further adjusted to annualize base pay  
16 increases of 3.14% to calculate the base pay for the FTY and FPFTY. The FTY and FPFTY  
17 percentage was calculated using a historical three-year average (2021-2023). For CBU  
18 employees, the HTY level of base pay was further adjusted to annualize annual contract  
19 increases of 2.60% to calculate the base pay for the FTY and FPFTY. Additionally,  
20 adjustments were made to eliminate severance expense, to normalize pension and OPEB  
21 costs, adjust LTPP based on the latest compensation information, and to reflect the  
22 movement of employees between PAWC and the Service Company.

1 **Q. Please explain the adjustment for employee movements between PAWC and**  
2 **AWWSC.**

3 A. Two PAWC positions in Fleet Management and one in Business Development were  
4 transferred to the Service Company during the HTY. The difference is reflected as an  
5 addition to Service Company expense to annualize the salary and benefits for those  
6 employees to reflect a full year of compensation. The three transferred employees are not  
7 reflected in PAWC's HTY employee numbers.

8 **Q. What other adjustments were made to Service Company expense?**

9 A. Costs pertaining to lobbying, charitable contributions, penalties, and injuries and damages  
10 have been removed and, therefore, are not included in the pro forma expenses reflected in  
11 the Company's expense claim in this case. Additional adjustments were made for  
12 depreciation, interest associated with capital leases, postage, operating expenses for office  
13 space, removal of one-time sales tax refund, and removal of costs related to the Customer  
14 Service Centers in Alton, Illinois and Pensacola, Florida. Finally, an adjustment for  
15 changes in expense was applied to the FTY and FPFTY non-labor cost items excluding  
16 depreciation and capital lease interest. This adjustment was based on a three-year average  
17 (2021-2023) change in expense for the non-labor expense accounts.

18 **PRODUCTION COSTS**

19 **Purchased Power Expense**

20 **Q. Please explain the methodology used to forecast purchased power expense.**

21 A. Purchased power expense is incurred for treating, pumping and delivering water and  
22 collecting and treating wastewater. In order to forecast purchased power expense, HTY

1 expenses were adjusted to remove closed accounts and credit balances, to annualize  
2 electricity expense for active accounts, and to reflect known changes in the prices charged  
3 by the Company's electricity generation suppliers ("EGSs") and in the rates of the electric  
4 distribution companies ("EDCs") that furnish distribution service. Changes experienced  
5 during the HTY and projected to occur during the FTY and FPFTY were used to derive the  
6 expense levels for those years.

7 The Company has contracted with multiple EGSs to supply the Company's electric  
8 generation. The contract prices that were used to calculate electric expense for the FTY  
9 and FPFTY were from contracts that the Company successfully obtained through its  
10 competitive energy procurement process described by PAWC witness Jim Runzer in  
11 PAWC Statement No. 2. For the distribution and transmission portions of the Company's  
12 bills, the applicable EDC's distribution and transmission rates and applicable riders and  
13 surcharges/credits in effect as of June 30, 2023, were reflected to determine total purchase  
14 power expense. The purchased power adjustments are summarized in Exhibit No. 3-A,  
15 and supporting workpapers are provided in Exhibit No. 3-B.

## 16 **Purchased Water Expense**

17 **Q. Please explain the methodology used to forecast purchased water expense.**

18 A. Purchased water expense is composed of two components: contractual usage and  
19 diversion rights. The annualized usage levels from all contracted suppliers in the HTY  
20 were priced at the applicable supplier's rates effective in the FTY, and those rates were  
21 used to annualize purchased water expense for the FTY. For the FPFTY, contractual  
22 usage and diversion rights as of the FTY were increased by a three-year average (2021-

1 2023) change in expense. The purchased water adjustments are summarized in Exhibit  
2 No. 3-A and supporting workpapers are provided in Exhibit No. 3-B.

### 3 **Chemical Expense**

#### 4 **Q. Please explain the methodology used to forecast chemical expense.**

5 A. PAWC uses various chemicals for water and wastewater treatment. In order to obtain the  
6 best available pricing, the Company participates in American Water's system-wide  
7 competitive bidding process and enters into unit-price contracts with the successful bidders  
8 for the chemicals needed at its water and wastewater treatment facilities throughout  
9 Pennsylvania. Chemical usage levels were adjusted in three respects. First, adjustments  
10 were made to eliminate the chemicals that are no longer being used as of June 2023 and to  
11 add chemicals the Company will begin using for the first time starting in or after July 2023.  
12 Then, usage levels were adjusted based on known and measurable changes that occurred  
13 in the HTY or changes that are projected to occur in the FTY and FPFTY.

14 Contract prices effective on July 1, 2023, were applied to the adjusted levels of chemical  
15 usage to project the FTY expense claim. Due to current volatility in the market for  
16 chemicals, many vendors have deviated from annual contracts and have moved to quarterly  
17 or semi-annual contracts. To determine chemical expense for the FTY and FPFTY,  
18 chemical costs were increased by a percentage for each chemical family each year based  
19 on input from our suppliers and indexes related to current volatility in the market. Over  
20 the last two years, the chemical market has seen unprecedented price increases, driven by  
21 many factors such as inflationary increases in commodity and transportation prices, volatile  
22 energy prices caused by, among other factors, the conflict in Ukraine, high labor costs, and  
23 overall supply pressure within a consolidating chemical market. If the Company enters

1 into new unit-price chemical contracts before the close of the record in this case, it will  
2 update its claims to reflect any material price changes. The adjustments for chemical  
3 expenses for all of the Company's water and wastewater systems are summarized in  
4 Exhibit No. 3-A, and supporting workpapers are included in Exhibit No. 3-B.

5 **Change in Consumption**

6 **Q. Please explain the adjustment necessary to account for changes in customer water**  
7 **consumption.**

8 A. PAWC Exhibit No. 3-A sets forth an adjustment to operating expenses to reflect changes  
9 in power and chemical costs due to changes in pro forma water consumption, including the  
10 decline in residential and commercial usage discussed in detail by Mr. Rea in PAWC  
11 Statement No. 10. The adjustment was calculated by computing the ratio of HTY power  
12 and chemical costs to actual HTY consumption. This ratio was then applied to the  
13 projected change in consumption between the HTY and FTY, and the FTY and FPFTY.  
14 The adjustment was applied to both existing water and wastewater operations. Supporting  
15 details are included in Exhibit No. 3-B.

16 **Waste Disposal**

17 **Q. Please explain the methodology used to forecast waste disposal expense.**

18 A. The Company's claims for waste disposal expenses are based on the HTY level of expense,  
19 increased by a three-year average (2021-2023) change in expense for the FTY and FPFTY.  
20 The waste disposal adjustments are summarized in Exhibit No. 3-A. Supporting  
21 workpapers are included in Exhibit No. 3-B.



1 **OTHER OPERATION AND MAINTENANCE EXPENSES**

2 **Transportation Expense**

3 **Q. Please explain the methodology used to forecast transportation expense.**

4 A. Transportation expense includes the fleet management cost per vehicle, costs for fuel,  
5 titling and registration fees, maintenance expense, and reimbursement for Company use of  
6 personal vehicles. The forecast of the fleet management expense is based on the number  
7 of vehicles claimed in FTY and FPFTY. The changes in the number of vehicles from the  
8 HTY level are reflected in the forecast of costs for fuel expense, titling and registration  
9 fees, and maintenance expense. Additionally, these costs, along with the reimbursement  
10 for personal use of Company vehicles, were adjusted by using a three-year average (2021-  
11 2023) CPI Transportation Services factor for the FTY and FPFTY (9.21%).<sup>1</sup> A portion of  
12 the transportation costs is capitalized and, therefore, excluded from O&M expense. The  
13 Company's adjustments to transportation expense are shown in Exhibit No. 3-A. Detailed  
14 supporting calculations are provided in Exhibit No. 3-B.

15 **Insurance Other Than Group**

16 **Q. Please explain the methodology used to forecast insurance other than group**  
17 **insurance.**

18 A. PAWC incurs costs related to several types of insurance, including Auto Liability, General  
19 Liability, Excess Liability and Workers' Compensation. The Company also has other  
20 policy coverages such as Directors and Officers Liability, Employment Practices and  
21 Cyber Crime policies. The FTY expense represents an increase from the HTY based upon

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<sup>1</sup> [http://data.bls.gov/timeseries/CUSR0000SAS4?data\\_tool=XGtable](http://data.bls.gov/timeseries/CUSR0000SAS4?data_tool=XGtable)

1 a number of drivers. The HTY was adjusted using insurance premiums actually incurred,  
2 and projected to occur, during the twelve months ending June 30, 2024, adjusted by the  
3 five-year average of actual retroactive adjustments. The FTY expenses were then adjusted  
4 by applying a five-year average expense increase of 6.53% with exception of claims  
5 amounts which were held at 2023 levels to arrive at the FPFTY costs. Next, the new  
6 Workers' Compensation premium costs were multiplied by the capitalization rate to  
7 eliminate the portion of that cost not charged to operating expenses. The insurance other  
8 than group expense for FTY and FPFTY was allocated between water and wastewater  
9 operations based on allocation Factor 4 (Depreciated Utility Plant in Service). The  
10 development of the capitalization percentage is discussed above in the Labor and Labor  
11 Related section. The factors used to allocate common costs between water and wastewater  
12 operations are discussed in further detail by Company witnesses Gress (PAWC Statement  
13 No. 4). The Company's adjustments to insurance other than group expense are shown in  
14 Exhibit No. 3-A. Detailed supporting calculations are provided in Exhibit No. 3-B.

15 **Rent Expense**

16 **Q. Please explain the Company's adjustment to rent expense.**

17 A. The Company's specific adjustments to rent expense reflect changes projected to occur in  
18 the FTY and FPFTY in current lease agreements for water and combined sewer system  
19 operations. The Company's adjustment to rent expense is shown in Exhibit No. 3-A.  
20 Detailed supporting calculations are provided in Exhibit No. 3-B.

1 **MISCELLANEOUS EXPENSES**

2 **Q. Please explain what is included in the Miscellaneous Expense Adjustment.**

3 A. Exhibit No. 3-A sets forth items that are being adjusted or eliminated from the Company's  
4 O&M claim in this proceeding.

5 First, I will discuss deductions reflected in the Miscellaneous Expense Adjustment.  
6 The Company eliminated duplicative expense items such as pension and OPEB that have  
7 been included in the development of the Company's claim for the ongoing water expense  
8 levels (Exhibit No. 3-A Water Operations). Additionally, donations, lobbying expenses,  
9 and fines incurred during the HTY were removed. Costs associated with temporary  
10 employees were excluded from the Company's claim because the need for these employees  
11 will be significantly reduced by the full-time staffing levels reflected in the salary and wage  
12 claim in this case. This part of the adjustment assumes recognition in this proceeding of  
13 the requested staffing levels. The Company has reduced per-book severance costs, as well  
14 as injuries and damages, to reflect a normalized level that is based on a three-year average  
15 (2021-2023). An adjustment to the cost of credit card and e-check transaction fees has been  
16 calculated using the projected residential customers as of the FTY and FPFTY.

17 For Water Operations, the Company removed a one-time cost for legal fees, as well  
18 as trade show expenses. In addition, the Company removed the annual level of Industrial  
19 Pretreatment Program ("IPP") expenses that are currently being billed to the PAWC  
20 Oneida Valley Treatment Plant by the Butler Area Sewer Authority ("BASA"), since these  
21 will no longer be expensed once the BASA acquisition is completed. The Company has  
22 adjusted per book injuries and damages to reflect a normalized level that is based on a  
23 historic three-year average (2021-2023). Additionally, the Company has included an

1 adjustment in Exhibit No. 3-A to reflect the allocation of a portion of the cost of the Capital  
2 Campus in Mechanicsburg from Water Operations to Wastewater SSS General Operations,  
3 BASA Wastewater Operations, Brentwood Wastewater Operations, and Wastewater CSS  
4 Operations.

5 Second, the Miscellaneous Expense Adjustment also includes additions to the  
6 Company's O&M claim for water operations. The Company added costs associated with  
7 the revolving line of credit because the costs were reclassified from interest expense to  
8 operating costs.

9 An adjustment to General Facility Maintenance expense is shown in Exhibit  
10 No. 3-A to reflect the projected ongoing level of maintenance expense. For Wastewater  
11 SSS General Operations and Wastewater CSS Operations, the Company participates in the  
12 Nutrient Credit Trading program facilitated by PADEP. The program provides a cost-  
13 efficient way for National Pollutant Discharge Elimination System (NPDES) permittees in  
14 the Chesapeake Bay Watershed to meet their effluent cap load limits for nutrients. The  
15 need to purchase nutrient credits fluctuates from year to year, therefore the Company has  
16 adjusted the per book costs to reflect a normalized level that is based on a historic five-year  
17 average (2019-2023).

18 Finally, and as discussed by Ashley Everette in PAWC Statement No. 1, the  
19 Company has included costs related to the Arrearage Management Plan ("AMP") currently  
20 pending before the Pennsylvania Public Utility Commission and the H2O Bill Discount  
21 Program. The total cost of discounts and arrearage forgiveness is based on the average  
22 number of H2O Discount customers in the HTY with arrears multiplied by the annual  
23 credits, assuming 100% participation rate. The adjustment also includes monthly and start-

1 up costs provided by Dollar Energy who will facilitate the AMP and H2O Bill Discount  
2 Program.

3 **ACQUISITION O&M EXPENSES**

4 **Q. Please explain what is included in the Acquisition O&M Adjustment.**

5 A. The Company made adjustments to annualize the O&M expenses not fully recognized in  
6 the HTY for the Company's acquisitions, as follows:

7 **Water Operations:** the water assets of Farmington Township (anticipated  
8 acquisition in 2024) and Audubon (anticipated acquisition in 2024)

9 **Wastewater SSS General Operations:** the wastewater assets of Farmington  
10 Township (anticipated acquisition in 2024) and Sadsbury Township (anticipated  
11 acquisition in 2024)

12 **BASA Wastewater Operations:** the wastewater assets of Butler Area Sewer  
13 Authority (anticipated acquisition in 2023)

14 **Brentwood Wastewater Operations:** the wastewater assets of Brentwood  
15 Borough (anticipated acquisition in 2024)

16 Details supporting these adjustments are provided in Exhibit No. 3-B.

17 **Q. Does this conclude your direct testimony at this time?**

18 A. Yes, it does.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER  
COMPANY

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DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

VERIFICATION

I, **Lori O'Malley**, hereby state that the facts set forth in the pre-marked Statement No. 5 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
\_\_\_\_\_  
Lori O'Malley

# Statement No. 6

## Abruzzo

**PAWC STATEMENT NO. 6**

**DIRECT TESTIMONY  
OF  
E. CHRISTOPHER ABRUZZO, ESQ.**

**WITH REGARD TO  
PENNSYLVANIA-AMERICAN WATER COMPANY'S ACQUISITIONS**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**



**PENNSYLVANIA-AMERICAN WATER COMPANY**  
**DIRECT TESTIMONY OF E. CHRISTOPHER ABRUZZO, ESQ.**

1 **Q. What is your name and business address?**

2 A. My name is E. Christopher Abruzzo, Esq., and my business address is 852 Wesley Drive,  
3 Mechanicsburg, PA 17011.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed by Pennsylvania-American Water Company (“PAWC” or the “Company”)  
6 as Senior Director of Business Development.

7 **Q. What are your responsibilities as Senior Director of Business Development?**

8 A. I develop and maintain necessary contacts to stay abreast of new business opportunities.  
9 I manage the acquisition from initial contact, responding to Requests for Qualifications,  
10 Requests for Proposals, Requests for Bids, preparation of the Application for submission  
11 to the Pennsylvania Public Utility Commission (“Commission”) and manage the  
12 workflows required to close the acquisition. These responsibilities necessitate that  
13 I maintain a working knowledge of regulatory and technical developments, new  
14 technologies and current trends as they affect the water and wastewater utility industries,  
15 and that I be familiar with legislation, regulations and public policy affecting business  
16 opportunities.

17 **Q. Please describe your professional education and experience.**

18 A. I received a Bachelor of Science (B.S.) degree in Food Marketing from St. Joseph’s  
19 University in May of 1988 and my Juris Doctor (J.D.) from the Widener University School  
20 of Law in 1992. I was employed as a criminal prosecutor by the Dauphin County District  
21 Attorney’s Office and the Pennsylvania Office of Attorney General for approximately

1 20 years. In January 2011, I was appointed deputy chief of staff to Governor Tom Corbett.  
2 In that role, I served as the Governor's chief liaison to the Pennsylvania Public Utility  
3 Commission and the Pennsylvania Department of Environmental Protection. I held that  
4 role for two years before being appointed the acting Secretary of the Pennsylvania  
5 Department of Environmental Protection in April of 2013. I was nominated by Governor  
6 Corbett and then confirmed by the Senate of Pennsylvania in December of 2013 as  
7 Secretary of the Department of Environmental Protection. In 2015, I began my  
8 employment with PAWC as the Director of Water Quality and Environmental Compliance.  
9 In that capacity, I participated on the due diligence teams associated with numerous  
10 acquisitions. I held that role for five years before being promoted to the role of Senior  
11 Director of Business Development in September of 2020.

12 **Q. Have you previously testified before the Commission?**

13 A. Yes. I submitted testimony on behalf of PAWC's proposed acquisition of the wastewater  
14 collection and treatment system of the Township of Towamencin, Docket No. A-2023-  
15 3039900 *et al.* and in the Company's base rate cases at Docket Nos. R-2020-3019369 and  
16 R-2017-2595853.

17 **Q. What is the purpose of your direct testimony?**

18 A. I will discuss the water and wastewater system acquisitions that PAWC has included in  
19 this base rate case and provide support for the Company's request for acquisition  
20 adjustments pursuant to 66 Pa. C.S. § 1327 (relating to acquisition of water and sewer  
21 utilities) and 52 Pa. Code § 69.711 (statement of policy regarding small nonviable water  
22 and wastewater systems).

1 **ACQUISITIONS INCLUDED IN THIS BASE RATE CASE**

2 **Q. What acquisitions are being included for the first time in base rates in this base rate**  
3 **case?**

4 A. PAWC has included the following acquisitions in this base rate case:

- 5 (1) Butler Area Sewer Authority (wastewater);
- 6 (2) Borough of Brentwood (wastewater);
- 7 (3) Sadsbury Township Municipal Authority (wastewater)
- 8 (4) Farmington Township (water and wastewater)
- 9 (5) Audubon Water Company (water).

10 At the time of filing this rate case, PAWC provided notice of this rate case to  
11 customers of those entities, even though closing on those acquisitions has not yet occurred.  
12 PAWC also completed the following water and wastewater acquisitions since it filed its  
13 last base rate case: Upper Pottsgrove Township (wastewater), York City Sewer Authority  
14 (wastewater), Foster Township (wastewater), and Creekside Homeowners Association  
15 (water). However, those acquisitions were reflected in the base rates established by the  
16 Commission-approved settlement of PAWC’s 2022 base rate case.<sup>1</sup>

17 **Q. Please provide a detailed description of these acquisitions.**

18 A. **Butler Area Sewer Authority (“BASA”):** On August 14, 2023, PAWC filed a unanimous  
19 settlement of all issues with all active parties to this acquisition proceeding. Administrative  
20 Law Judge Marta Guhl issued a Recommended Decision on September 14<sup>th</sup>, 2023,  
21 recommending that the Commission deny the Joint Petition for Settlement and deny the

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<sup>1</sup> See *Pa. Pub.Util.Comm’n. v. Pennsylvania-American Water Company*, Docket Nos. R-2022-3031672 and R-2022-3031673 (Joint Petition for Settlement of Rate Investigation approved by Order entered December 8, 2022), Appendix E (Amortizations).

1 Application. PAWC and certain other signatories to the Settlement filed Exceptions on  
2 September 21, 2023. Reply Exceptions were filed on September 26, 2023. The  
3 Commission is expected to enter a final order in this case at its November 9, 2023 public  
4 meeting. If the Commission approves the application, as modified by the settlement, the  
5 transaction is expected to close shortly after the Commission’s order becomes final and  
6 unappealable.

7 As discussed below, PAWC has included this acquisition in the instant base rate  
8 case because this proceeding is PAWC’s “next” base rate case after the expected closing  
9 on the acquisition. If the Commission approves the acquisition, its Order will establish the  
10 amount that PAWC is to include in its rate base in its “next” base rate case as a result of  
11 the acquisition. Additionally, it is prudent and fair for the Commission to integrate the  
12 BASA system into the larger PAWC system, and to address expenses associated with the  
13 operation and maintenance of the system, as soon as reasonably possible to avoid  
14 regulatory lag. If the Commission disapproves the acquisition, PAWC reserves the right  
15 to pursue all available legal remedies.

16 The BASA system is a regional wastewater service provider, providing wastewater  
17 service to the City of Butler, the Township of Butler, and portions of the Townships of  
18 Center, Summit, Connoquenessing, and Oakland, as well as the Borough of East Butler.  
19 As of June 30, 2023, the BASA system furnished wastewater service to approximately  
20 14,755 customers. It has no bulk service agreements with any contributing municipalities.

21 The BASA system is a sanitary-only system; there are no combined sewers in the  
22 system. The system consists of 224 miles of interceptor sewers, eight miles of force mains,  
23 twenty-three pump stations, seven flow equalization tanks, and a wastewater treatment

1 plant (“WWTP”) that has a design and permitted average daily flow capacity of  
2 10.0 million gallons per day (“MGD”) and a rated maximum flow capacity of 28.0 MGD.  
3 BASA also owns nearly 6,500 manholes.

4 Public benefits of the transaction include: promotion of the Commission’s policy  
5 favoring regionalization and consolidation of water/wastewater systems and the General  
6 Assembly’s policy goals when it enacted Section 1329; Commission regulation of the  
7 system, giving BASA’s customers access to the Commission, the OCA, the OSBA and  
8 I&E; and enhanced customer assistance programs for all of PAWC’s customers (including  
9 expanded eligibility for hardship grants and a \$3,500,000 Company contribution, over five  
10 years, to its hardship grant program, which would not be recoverable in rates). PAWC will  
11 also make capital improvements to the system to address long-standing environmental  
12 issues.

13 In the settlement, the parties ask the Commission to approve the addition of  
14 \$228,000,000 to PAWC’s rate base, as a result of the acquisition. Including the BASA  
15 acquisition in the instant proceeding will significantly reduce regulatory lag, thereby  
16 mitigating one factor that hinders municipal acquisitions pursuant to Section 1329.

17 **Borough of Brentwood (“Brentwood”):** PAWC’s application to acquire the Brentwood  
18 wastewater system was finally accepted for filing on September 14, 2023. Consequently,  
19 the Commission is required to enter a final decision in the proceeding by March 14, 2024,  
20 which is expected to be prior to the close of the record in this proceeding. If the acquisition  
21 is approved, the transaction is expected to close shortly thereafter.

22 As discussed below, PAWC has included this acquisition in the instant base rate  
23 case because this proceeding is PAWC’s “next” base rate case after closing on the

1 acquisition. The Commission Order approving the acquisition will establish the amount  
2 that PAWC is to include in its rate base in its “next” base rate case as a result of the  
3 acquisition. Additionally, it is prudent and fair for the Commission to integrate the  
4 Brentwood system into the larger PAWC system, and to address expenses associated with  
5 the operation and maintenance of the system, as soon as reasonably possible to avoid  
6 regulatory lag.

7 The Brentwood system is a collection system that collects and ultimately conveys  
8 wastewater to the Allegheny County Sanitary Authority (“ALCOSAN”) wastewater  
9 treatment facility. It serves customers located in the Borough of Brentwood. The  
10 Brentwood system is comprised of gravity sewers, manhole structures and service laterals.  
11 As of June 30, 2023, the Brentwood system furnished wastewater service to approximately  
12 3,974 customers.

13 Public benefits of the transaction include: promotion of the Commission’s policy  
14 favoring regionalization and consolidation of water/wastewater systems and the General  
15 Assembly’s policy goals when it enacted Section 1329; Commission regulation of the  
16 system, giving Brentwood’s customers access to the Commission, the OCA, the OSBA and  
17 I&E; and enhanced customer service for Brentwood’s customers. In addition, PAWC will  
18 make capital improvements to the system to address long-standing environmental issues  
19 due to excessive inflow and infiltration.

20 The Commission’s decision, which should be entered while the record is still open  
21 in this proceeding, will establish the amount that the Company is to include in rate base as  
22 a result of the acquisition. The application requests that the amount to be added to PAWC’s  
23 rate base as a result of the acquisition be \$19,364,443 (the purchase price of the system).

1 Including the Brentwood acquisition in the instant proceeding will significantly reduce  
2 regulatory lag, thereby mitigating one factor that hinders municipal acquisitions pursuant  
3 to Section 1329.

4 **Sadsbury Township Municipal Authority (“STMA”):** Currently pending before the  
5 Commission is PAWC’s application to acquire the STMA wastewater collection and  
6 conveyance system pursuant to 66 Pa. C.S. § 1102. The STMA wastewater system serves  
7 approximately 226 residential and 26 commercial customers in Sadsbury Township,  
8 Lancaster County. Treatment service is provided by Christiana Borough Authority and the  
9 Township of Salisbury. The STMA has no employees and its governing board desires to  
10 exit the business of managing a wastewater system.

11 PAWC filed an application for Commission approval of the STMA acquisition on  
12 August 3, 2023 at Docket No. A-2023-3042058. STMA filed a Petition to Intervene, and  
13 the Office of Small Business Advocate (“OSBA”) and the Office of Consumer Advocate  
14 (“OCA”) filed protests. The matter is currently pending in the Office of Administrative  
15 Law Judge.

16 Public benefits of the transaction include:

- 17 • STMA’s customers will receive service from a large, financially  
18 sound company with the employees and equipment to ensure that  
19 customers receive high quality wastewater service meeting federal  
20 and state requirements;
- 21 • PAWC’s experience in operating wastewater systems will result in  
22 efficiencies;
- 23 • Other efficiencies will result from economies of scale, due to  
24 PAWC’s greater purchasing power;
- 25 • PAWC offers customer assistance programs, whereas STMA does  
26 not; and
- 27 • PAWC’s customers will benefit from an expanded customer base,  
28 allowing the Company to spread costs among a larger number of  
29 customers, which helps to stabilize or reduce per-customer costs  
30 over the long term.

1           The purchase price for the system is \$990,000. PAWC has performed an analysis  
2 of the original cost and accumulated depreciation of the STMA system. After closing,  
3 PAWC will file with the Commission an original cost study to reflect the original cost and  
4 accumulated depreciation as of the closing date. The depreciated original cost of the assets  
5 included in this case is more than the purchase price, therefore, PAWC is proposing to  
6 amortize the difference between what was paid and the cost of the assets, thus lowering  
7 expenses for the Company's existing customers.

8           PAWC has included this acquisition in the instant base rate case because the  
9 transaction is expected to close no later than the end of the FPFTY. Additionally, it is  
10 prudent and fair for the Commission to integrate the STMA system into the larger PAWC  
11 system, and to address expenses associated with the operation and maintenance of the  
12 system, as soon as reasonably possible to avoid regulatory lag.

13       **Farmington:** PAWC filed the application to acquire Farmington Township's wastewater  
14 collection, conveyance and treatment system (Docket No. A-2023-3042587) and water  
15 distribution system (Docket No. A-2023-3042567) on August 28, 2023, pursuant to 66 Pa.  
16 C.S. § 1102. The OSBA filed a Notice of Intervention and OCA filed a Protest. The  
17 matter is currently pending in the Office of Administrative Law Judge.

18           The Farmington Township wastewater system serves approximately 448 customers  
19 in Farmington Township, Clarion County. The wastewater treatment plant has an average  
20 daily flow of 0.1 MGD. The system consists of the treatment plant, four pumping stations,  
21 approximately 340 grinder pumps and 14 miles of collection mains. The water distribution  
22 system serves approximately 464 customers in Farmington Township and consists of  
23 16 miles of water mains, 70 water hydrants and one storage tank. Farmington Township



1 employs one operator who shares responsibility for both the wastewater system and the  
2 water distribution system. The township board desires to exit the business of managing  
3 both systems.

4 Public benefits of the acquisition include:

- 5 • Farmington Township’s residents will receive service from a large,  
6 financially sound company with the employees and equipment to  
7 ensure that customers receive high quality wastewater and water  
8 services meeting federal and state requirements.
- 9 • The water distribution system will be folded into the Clarion water  
10 system which will create cost-savings.
- 11 • PAWC’s experience in operating wastewater systems will result in  
12 proper adherence to environmental regulations; Farmington is  
13 currently operating the wastewater system with an expired NPDES  
14 permit.
- 15 • Farmington’s wastewater plant is projected to be hydraulically  
16 overloaded within the next 5 years. PAWC has the necessary capital  
17 and expertise to reduce or eliminate the stormwater infiltration and  
18 inflow which reduces the potential for overloading.
- 19 • Farmington does not have the necessary personnel or financial  
20 resources to maintain the water distribution system or wastewater  
21 system. Currently, one full-time operator handles all of the  
22 maintenance and operations of both systems.
- 23 • Other efficiencies will result from economies of scale, due to  
24 PAWC’s greater purchasing power.
- 25 • PAWC offers customer assistance programs, whereas Farmington  
26 Township does not.
- 27 • PAWC’s customers will benefit from an expanded customer base,  
28 allowing the Company to spread costs among a larger number of  
29 customers, which helps to stabilize or reduce per-customer costs  
30 over the long term.
- 31 • Farmington will be able to use the proceeds of the sale to retire all  
32 debt associated with both systems, thus eliminating a significant  
33 burden from the township budget.

34 The total purchase price for both systems is \$5,545,000. The allocation of the  
35 purchase price between the water and wastewater systems is shown in PAWC Exhibit  
36 No. 3-C. PAWC has filed an original cost study to determine the original cost and  
37 accumulated depreciation of the Farmington Township water and wastewater assets. The  
38 original cost study will be updated after closing to reflect the original cost and accumulated

1 depreciation as of the closing date. PAWC will pay slightly more than the depreciated  
2 original cost of the assets, therefore PAWC is requesting an acquisition adjustment on the  
3 water system pursuant to 66 Pa. C.S. § 1327 (relating to acquisition of water and sewer  
4 utilities) and 52 Pa. Code § 69.711 (statement of policy regarding small nonviable water  
5 and wastewater systems).

6 PAWC has included this acquisition in the instant base rate case because the  
7 Company anticipates that the transaction will close no later than the end of the FPFTY.  
8 Additionally, it is prudent and fair for the Commission to integrate the Farmington systems  
9 into the larger PAWC systems, and to address expenses associated with the operation and  
10 maintenance of the system, as soon as reasonably possible to avoid regulatory lag.

11 **Audubon Water Company (“AWC”):** PAWC filed the application to acquire AWC on  
12 September 21, 2023, pursuant to 66 Pa. C.S. § 1102. The AWC system is located in  
13 Montgomery County and serves approximately 2,651 residential customers,  
14 167 commercial customers, 90 private fire customers, 29 multi-family dwelling customers,  
15 3 public customers, and 1 public fire customer primarily located within Lower Providence  
16 Township. The AWC system consists of two water systems that are not interconnected  
17 with each other. The main system supplies the town of Audubon and the second system  
18 supplies the Valley Forge Crossing Trailer Park. AWC’s primary source of supply is from  
19 15 groundwater wells located within its service area. There are a total of 12 active wells  
20 in the main AWC system. An additional three wells are located in the Valley Forge  
21 Crossing Trailer Park. The main AWC system consists of five pressure gradients and has  
22 six storage tanks, five booster pump stations, 160 fire hydrants and a distribution network

1 of approximately 40 miles of water mains. There are a total of 13 water treatment facilities  
2 associated with the ground water systems for the AWC system.

3 AWC has 12 full-time employees and one part-time employee. The proposed  
4 acquisition of AWC by PAWC will be accomplished by merger; therefore all current AWC  
5 employees will become PAWC employees at the time of close.

6 AWC and American Water Works Company, Inc. (“American Water”) entered into  
7 a Merger Agreement, pursuant to which all issued and outstanding shares of the capital  
8 stock of AWC will be cancelled and converted to the right to receive American Water  
9 Common Stock equal to a pro rata portion of the merger consideration identified in the  
10 Merger Agreement. The issued and outstanding shares of AWC’s capital stock will be  
11 surrendered to American Water in exchange for American Water Common Stock in  
12 accordance with the Merger Agreement.

13 Pursuant to the Merger Agreement, AWC will first merge with American Water’s  
14 AWC Acquisition Company, LLC, with AWC as the surviving corporation; then AWC  
15 will merge with PAWC.

16 At closing, a number of shares of American Water Common Stock equal to the  
17 Contingent Escrowed Shares identified in the Merger Agreement (value of \$2,000,000)  
18 will be held in escrow. The Merger Agreement provides that PAWC will seek distressed  
19 utility treatment under 66 Pa. C.S. § 1327(a) for the AWC system in its next rate case. If  
20 the Commission grants 1327(a) treatment and some or all of the difference between the  
21 depreciated original cost of the assets and the purchase price is approved for inclusion in  
22 rate base, American Water will release the Contingent Escrowed Shares to AWC in a  
23 corresponding percentage in an amount up to \$2,000,000 upon entry of a final, non-

1           appealable Commission order. If the Commission does not grant the request for 1327(a)  
2           treatment, the purchase price for AWC will be \$6,000,000 and the Contingent Escrowed  
3           Shares will be returned to American Water.

4           PAWC has included in this case the original cost and accumulated depreciation of  
5           the AWC system. As explained in the testimony of PAWC witness Ms. Gress, the  
6           Company proposes to amortize the difference between the depreciated original cost and  
7           the purchase price over a ten-year period.

8           Public benefits of the acquisition include:

- 9           •       AWC's customers will receive service from a large, financially  
10           sound company with the employees and equipment to ensure that  
11           customers receive high quality water service meeting federal and  
12           state requirements.
- 13           •       The water distribution system can eventually be interconnected to  
14           PAWC's Norristown and/or Royersford systems to eliminate the  
15           need to draw water from their insufficient and contaminated wells.
- 16           •       PAWC's experience in operating water systems will result in proper  
17           adherence to environmental regulations.
- 18           •       AWC will have to borrow tens of millions of dollars to remediate  
19           the PFAS contaminated wells it currently relies upon for source  
20           water.
- 21           •       If the transaction does not occur, the capital investment needed in  
22           this system will significantly increase rates for AWC customers.
- 23           •       Other efficiencies will result from economies of scale, due to  
24           PAWC's greater purchasing power.
- 25           •       PAWC offers customer assistance programs, whereas AWC does  
26           not.
- 27           •       PAWC's customers will benefit from an expanded customer base,  
28           allowing the Company to spread costs among a larger number of  
29           customers, which helps to stabilize or reduce per-customer costs  
30           over the long term.

31           PAWC has included this acquisition in the instant base rate case because the  
32           Company anticipates that the transaction will close no later than the end of the FPFTY.  
33           Additionally, it is prudent and fair for the Commission to integrate the AWC system into

1 the larger PAWC system, and to address expenses associated with the operation and  
2 maintenance of the system, as soon as reasonably possible to avoid regulatory lag.

3 **Q. Please describe any settlement commitments for the BASA acquisition that relate to**  
4 **the instant base rate filing and your understanding of how the filing complies with**  
5 **those commitments.**

6 A. At the outset, it should be noted that, in the settled Section 1329 BASA proceeding  
7 discussed above, PAWC, the statutory advocates, and the other parties to the proceeding  
8 agreed that PAWC could include \$228,000,000 in rate base in this proceeding as a result  
9 of the Section 1329 acquisition. Customer notice was provided to the acquired customers  
10 and PAWC's legacy customers in the application proceeding. As a result, rate base issues  
11 related to the BASA acquisition should not be re-litigated in this proceeding.

12 On other issues resolved in the BASA proceeding (such as transaction and closing  
13 costs, accrual of Allowance for Funds Used During Construction ("AFUDC") for post-  
14 acquisition improvements not recovered through the Distribution System Improvement  
15 Charge ("DSIC") for book and ratemaking purposes, and deferred depreciation related to  
16 post-acquisition improvements not recovered through the DSIC for book and ratemaking  
17 purposes), PAWC, the statutory advocates and the other parties to the BASA proceeding  
18 only agreed that PAWC could include a claim for those expenses in this proceeding. On  
19 those issues, the parties reserved their rights to litigate the reasonableness of those claimed  
20 expenses. Nevertheless, I note that Section 1329 expressly permits the recovery of such  
21 expenses.

22 The instant base rate filing also includes a cost-of-service study that removes all  
23 costs and revenues associated with the operations of the BASA system, as well as a cost-

1 of-service study for the BASA system. The instant base rate case also reflects claims for  
2 rate recovery of the BASA transaction and closing costs delineated on PAWC Exhibit No.  
3 3-C, as well as PAWC's outside legal fees associated with the BASA acquisition identified  
4 on PAWC Exhibit No. 3-C.

5 In the settlement, PAWC agreed that it would not propose an increase in BASA's  
6 base rates if the rates would become effective before the later of: (a) the first anniversary  
7 of closing or (b) January 1, 2025. PAWC also agreed that it would propose to move the  
8 system to 1.4x the current system rate or PAWC's proposed Rate Zone 1 system-average  
9 wastewater rates, whichever is lower, upon the later of (a) the first anniversary of Closing  
10 or (b) January 1, 2025. The instant base rate case complies with these provisions by  
11 proposing an increase for BASA system customers as discussed in PAWC Statement No. 4,  
12 the Direct Testimony of Stacey D. Gress, to take effect on the later of the first anniversary  
13 of Closing or January 1, 2025.

14 In addition, PAWC agreed that, in its first base rate case that includes the BASA  
15 system assets, if PAWC proposes a different effective date for new rates for BASA  
16 customers beyond the effective date of new rates for other customers, PAWC would  
17 calculate its proof of revenue as if the BASA customers were paying proposed rates without  
18 any delay to the effective date. PAWC has calculated its proof of revenues in compliance  
19 with this agreement.

20 **Q. Will the Company pay any of Brentwood's legal or engineering fees incurred as part**  
21 **of the transaction?**

22 A. Yes. PAWC will reimburse up to \$70,000 as reimbursement for engineering and legal fees  
23 incurred related to the transaction.

1 **Q. Is the Company seeking to recover the engineering and legal fees reimbursed to**  
2 **Brentwood?**

3 A. Yes. Brentwood's engineering and legal fees are part of the transaction and closing costs  
4 of the acquisition and are appropriately included in rate base as a cost of organization of  
5 newly acquired service territory. Refer to PAWC Exhibit No. 3-C.

6 **SECTION 1327**

7 **Q. What is your understanding of Section 1327?**

8 A. I am advised by counsel that Section 1327 creates a rebuttable presumption that a purchase  
9 price in excess of the original cost less depreciation of an acquired system is reasonable  
10 and should be included in rate base if certain conditions are met. Those conditions are:  
11 (1) the property is used and useful in providing water or wastewater service; (2) the  
12 acquired system had 3,300 or fewer customer connections or was not viable; (3) the  
13 acquired system was not providing adequate, efficient, safe and reasonable service and  
14 facilities; (4) reasonable and prudent investments will be made to provide adequate,  
15 efficient, safe and reasonable service and facilities; (5) the acquired entity agrees to the  
16 acquisition and the negotiations were conducted at arm's length; (6) the actual purchase  
17 price is reasonable; (7) the acquiring public utility is not affiliated with the acquired entity;  
18 (8) the rates charged to the acquiring utility's preacquisition customers will not increase  
19 unreasonably because of the acquisition; and (9) the excess of the acquisition cost over  
20 depreciated original cost will be added to rate base to be amortized over a reasonable period  
21 with corresponding reductions in the rate base.

22 **Q. You testified earlier that the Company is requesting that the Commission grant**  
23 **Section 1327 treatment for the AWC system. Please explain why.**

1 A. The system satisfies each of the nine criteria contained in Section 1327:

2 (1) all of the assets acquired by PAWC are used and useful in the public service;

3 (2) the AWC system has 2,941 customers as of June 30, 2023, which is fewer  
4 than 3,300 customer connections;

5 (3) the AWC system is struggling to provide adequate, efficient, safe and  
6 reasonable service and facilities because the owners of the system are of retirement age  
7 and they are no longer able to properly manage and operate the system. During the spring  
8 of 2023, AWC's system's wells were barely able to meet water demand. Additional  
9 customers are projected to connect in AWC's service area in the near future. With these  
10 additional customers, the system's sources of supply will not be sufficient to meet demand.  
11 In addition, two of the system's wells were tested and found to have elevated levels of  
12 PFAS. As AWC is limited in its sources of supply, AWC will be forced to construct PFAS  
13 treatment for these wells. The cost of constructing and operating these treatment units is  
14 significant, ranging in the tens of millions of dollars, which will cause a significant  
15 financial burden on the system's customers. AWC does not have the ability to spread these  
16 costs over a large customer base nor the technical expertise to properly operate these  
17 complex treatment units. Complicating matters further, the groundwater in the Audubon  
18 area is known or expected to have issues with PFAS. Once the new PFAS regulations take  
19 effect, AWC will be required to test all the wells in its system. These other wells will likely  
20 be impacted by PFAS and any wells not meeting PFAS limits will need additional  
21 treatment, adding to the financial burden placed on the system's customers. In general,  
22 issues with groundwater contamination in the area will limit AWC's ability to develop  
23 additional sources of supply to meet future demands in its service area;



1 (4) PAWC will make reasonable and prudent investments to provide adequate,  
2 efficient, safe and reasonable service and facilities. These investments include:

- 3 • Improvements to provide enhanced safety and security;
- 4 • Remote monitoring and data collection systems;
- 5 • Distribution system improvements to address reliability, water quantity  
6 issues, and to reduce lost water in the system;
- 7 • Improvements to the disinfection systems;
- 8 • Additional interconnections between the AWC system and PAWC's  
9 Royersford and Norristown systems to enhance system reliability,  
10 provide adequate supply for periods of high demand, and to address  
11 future demands in AWC's certificated service area.

12 In addition, PAWC is uniquely suited to acquire the AWC system. PAWC already  
13 has an interconnection with AWC via a pipeline that travels through the system's service  
14 territory. The pipeline connects PAWC's Royersford and Norristown systems, allowing  
15 PAWC to supply the AWC system water from either or both of the PAWC systems. After  
16 acquisition, PAWC will be able to consolidate the sources of supply and halt using any  
17 problematic wells in the AWC system. PAWC has performed PFAS testing on the  
18 Royersford and Norristown sources of supply and has not found any impacts from PFAS.  
19 This acquisition will provide a cost effective solution to the contamination and demand  
20 issues facing the customers of AWC.

21 (5) AWC agreed to the acquisition and the negotiations were conducted at  
22 arm's length;

(6) the purchase price of \$8,000,000 (with the Section 1327(a) contingency) is reasonable. A comparison of AWC’s purchase price per customer (“PP/C”) at a purchase price of \$8,000,000 yields a favorable comparison to the average PP/C for PAWC’s § 1102 transactions over the last five years. AWC’s PP/C of \$2,720 ( $\$8,000,000/2,941$  customers = \$2,720) is almost 20% less than the average § 1102 PP/C during the last five years;

**PAWC § 1102 TRANSACTIONS SINCE 2018**

Date of Closing	System	Purchase Price	Customers	PP/C
7/24/2019	Turbotville Water	\$635,000	330	\$1,900
7/24/2019	Turbotville Wastewater	\$365,000	318	\$1,100
10/27/2022	Foster Township Water	\$3,750,000	456	\$8,200
6/21/2023	Creekside Water	\$171,580	78	\$2,200
Average				\$3,350

(7) PAWC is not affiliated with AWC;

(8) the rates charged to PAWC’s preacquisition customers will not increase unreasonably because of the acquisition. The proposed rate base for this system is \$8 million, which represents less than 0.2% of PAWC’s \$4.7 billion rate base at the end of the FPFTY. The transaction will have a de minimus impact on rates.

(9) the excess of the acquisition cost over depreciated original cost will be added to rate base to be amortized over ten years (a reasonable period) with corresponding reductions in the rate base.

**Q. You also testified earlier that the Company is requesting that the Commission grant Section 1327 treatment for the Farmington water system. Please explain why.**

**A.** Again, the water system satisfies each of the nine criteria contained in Section 1327:

1 (1) all of the assets acquired by PAWC are used and useful in the public service;

2 (2) the Farmington water system has 464 total customers, which is fewer than  
3 3,300 customer connections;

4 (3) the Farmington water system is not providing adequate, efficient, safe and  
5 reasonable service and facilities. The Farmington water system has an extensive history of  
6 recurring violations of the PADEP Safe Drinking Water regulations. The system received  
7 41 Safe Drinking Water violations between 2018 and 2023. As shown below, violations  
8 were received every year during this period and the system has shown no signs of  
9 improvement.

- 10 • 2018 4 violations
- 11 • 2019 10 violations
- 12 • 2020 7 violations
- 13 • 2021 10 violations
- 14 • 2022 5 violations
- 15 • 2023 5 violations

16 Violations include persistent failure to collect weekly water samples, including:  
17 disinfectant residual samples, disinfectant by-product contaminant samples, and lead and  
18 copper samples. The system has also repeatedly failed to collect follow-up disinfectant  
19 residual samples even after initial samples showed residual disinfectant concentrations  
20 below standards. By failing to collect samples, the Farmington system provided inadequate  
21 and unreliable service, exposing customers to the risk of ingesting improperly disinfected  
22 water. Proper water sampling is a basic health and safety function performed by water

1 providers. The failure to properly sample water and provide results to the PADEP is  
2 symptomatic of greater operational problems of a system.

3 The system has also repeatedly failed to issue public notification of its violations  
4 as required by PADEP Safe Drinking Water regulations and failed to issue its EPA  
5 mandated Consumer Confidence Report (CCR) on a timely basis. By failing to inform the  
6 public of critical drinking water alerts and information in a timely manner, the system  
7 provided inadequate and unreasonable service by not communicating public health safety  
8 concerns.

9 (4) PAWC will make reasonable and prudent investments to provide adequate,  
10 efficient, safe and reasonable service and facilities. These investments include an  
11 estimated \$1.04 million of capital improvements in the water system, such as:

- 12 • Security, safety and SCADA improvements at the interconnection/chemical  
13 feed facility and the water storage tank;
- 14 • Automatic flushing units to help maintain water quality at dead end mains;
- 15 • GIS mapping of system;
- 16 • Full meter replacement;
- 17 • Purchase new vehicle to replace old, unreliable vehicle;
- 18 • Leak logger purchase; and
- 19 • Recurring projects (new or relocated mains, capitalized main break repairs,  
20 new/replacement hydrants, new/replacement valves, new/replacement  
21 services, tools & equipment).

22 The following improvements will be made in the wastewater system:

- 23 • Blower-Effluent Sampling-Aeration Building Improvements (IP);

- 1           •     Arc Flash, security, and general safety improvements at plant and all lift
- 2                     stations;
- 3           •     Chemical feed (odor control) systems at Crown and Beer Barn lift stations;
- 4           •     GIS mapping of system;
- 5           •     Disinfection chemical feed system and plant process improvements for
- 6                     diffusers, piping, RAS pumps, decant pumps, etc.;
- 7           •     SCADA installation at plant;
- 8           •     Purchase new vehicle to replace old unreliable vehicle;
- 9           •     System wide I/I study; and
- 10          •     Recurring projects (replacement or relocated mains, capitalized main break
- 11                     repairs, new/replacement manholes, new/replacement services, plant
- 12                     process equipment, tools & equipment).

13           (5)     Farmington agreed to the acquisition and the negotiations were conducted

14           at arm's length;

15           (6)     the allocated purchase price of \$2,718,300 for the water system is

16           reasonable. Farmington Township chose not to pursue a fair market value transaction,

17           despite its ability to do so. The purchase price for the water system was based on the

18           depreciated original cost ("DOC") of the assets of the system. The allocated purchase price

19           of \$2,718,300 is only 8% higher than the water system's DOC of \$2,501,654. Farmington

20           water's PP/C of \$5,858 ( $\$2,718,300/464 \text{ customers} = \$5,858$ ) is 38% less than the average

21           PP/C for PAWC's § 1329 transactions during the last five years:

1

PAWC § 1329 Transactions Since 2018

Date of Closing	System	Purchase Price	Customers	PP/C
11/14/2018	Steelton Water	21,750,000	2325	\$9,354
5/28/2018	Exeter Wastewater	\$93,500,000	9000	\$10,388
9/30/2018	Kane Wastewater	\$17,560,000	2006	\$8,753
12/10/2019	Royersford Wastewater	\$13,000,000	1596	\$8,145
12/17/2019	Valley Water	\$7,325,000	1459	\$5,020
12/17/2019	Valley Wastewater	\$13,950,000	1644	\$8,485
4/28/2020	Upper Pottsgrove WW	\$13,750,000	1428	\$9,628
4/6/2021	York Wastewater	\$235,000,000	158851	\$14,825
Average				\$9,324

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(7) PAWC is not affiliated with Farmington;

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(8) the rates charged to PAWC’s preacquisition customers will not increase unreasonably because of the acquisition of the Farmington water system. The proposed rate base for this system is \$2,718,300 million, which represents less than 0.1% of PAWC’s \$4.7 billion rate base at the end of the FPFTY. The transaction will have a de minimus impact on rates.

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(9) the excess of the acquisition cost over depreciated original cost will be added to rate base to be amortized over ten years (a reasonable period) with corresponding reductions in the rate base.

**SECTION 1329**

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**Q. Please explain your understanding of the Pennsylvania Legislature’s intent in enacting Section 1329 of the Code.**

A. The General Assembly supported and encouraged the sale of municipal water and wastewater systems at valuation levels higher than traditional original cost measures. Some communities desire to monetize their assets to address other public needs. Due to the age of many municipal systems, however, traditional original cost measures produced very low sales prices, discouraging many transactions. By enabling the sale of municipal assets to public utilities at higher valuations, the General Assembly intended to encourage these transactions. This result also promotes the regionalization and consolidation of water and wastewater systems. The Legislature also intended to improve the maintenance and replacement of public infrastructure, and to promote environmental stewardship by facilitating transfers to public utilities with extensive technical expertise and financial resources.

**Q. Please explain the rate-making implications of a Section 1329 proceeding.**

A. In a Section 1329 proceeding, the Commission establishes the amount that the acquiring public utility can put into rate base in its next base rate case as a result of the acquisition. In addition, the acquiring utility can include a claim for transaction and closing costs incurred because of the transaction in its next base rate case. The acquiring utility may also accrue AFUDC for post-acquisition improvements not recovered through the DSIC for book and ratemaking purposes and defer depreciation related to post acquisition improvements not recovered through the DSIC for book and ratemaking purposes. Finally,

1 the selling utility’s cost of service is to be incorporated into the revenue requirement of the  
2 acquiring public utility during the acquiring company’s next base rate case.

3 **Q. What is your understanding of the term “next base rate case,” as used in**  
4 **Section 1329?**

5 A. Section 1329(d)(5) states “The selling utility’s cost of service shall be incorporated into  
6 the revenue requirement of the acquiring public utility as part of the acquiring utility's next  
7 base rate case proceeding.” My understanding from PAWC counsel is that the statute  
8 should be construed using the ordinary definition of “next,” which is “in the time, place or  
9 order nearest or immediately succeeding.” Webster’s New Collegiate Dictionary 774  
10 (1977). So, for example, if the BASA acquisition is approved by the Commission on  
11 November 9, 2023, and closes in December, 2023, the instant base rate case would be the  
12 “next” base rate case because PAWC’s 2022 rate case was concluded on December 8, 2022.  
13 Therefore, this is the first base rate case in which PAWC should include BASA’s assets.

14 Similarly, for the Brentwood acquisition, if the Commission approves this  
15 acquisition in March 2024, and closing occurs shortly thereafter, the “next” base rate case  
16 will be the instant rate proceeding – this proceeding is the rate proceeding immediately  
17 following the Commission’s approval of the acquisition and the Company’s closing on the  
18 acquisition. Therefore, this is the first base rate case in which PAWC should include  
19 Brentwood’s assets.

20 **Q. Based on your experience with the implementation of Section 1329 and PAWC’s**  
21 **pending Section 1329 acquisitions, why is it important to avoid delay in including**  
22 **Commission-approved Section 1329 rate base additions in rate base?**



1 A. There can be a considerable delay between the date a public utility closes on a Section 1329  
2 acquisition (expending significant capital) and the date that the public utility is able to place  
3 the Commission-approved rate base addition for that transaction into rate base. The  
4 monetary impact is significant, considering the large investments that public utilities are  
5 not able to recover for years. This regulatory lag provides a disincentive for an acquiring  
6 utility to engage in Section 1329 acquisitions, which undermines the Legislative intent  
7 behind Section 1329. Section 1329 would be ineffective if willing sellers could not find  
8 willing buyers, due to the lengthy delay between closing on a transaction and the recovery  
9 of those costs. The intended public benefits of acquisitions of municipal water and  
10 wastewater systems – including the monetization of municipal assets, regionalization and  
11 consolidation of systems, and remediation of environmental problems – are being impeded.

12 **Q. Does the Commission have the ability to address the problem of lag in rate recovery**  
13 **of Section 1329 acquisitions?**

14 A. Yes. The Commission should interpret Section 1329 to permit recovery for Section 1329  
15 acquisitions that close while a base rate case is pending. For example, with respect to the  
16 Brentwood acquisition (as discussed above), the Commission should consider the instant  
17 base rate proceeding to be the “next base rate case” under Section 1329(c)(1)(i) when rate  
18 base for the acquired system can be incorporated into the public utility’s rate base. If the  
19 Commission does not construe Section 1329 in a way that reduces regulatory lag and does  
20 not permit public utilities to take the steps necessary to reduce regulatory lag, public  
21 utilities may become less willing to engage in acquisitions or they may file base rate cases  
22 more frequently. Neither result advances the public interest and the intent of the  
23 Legislature in implementing Section 1329 would be impeded.

**CONCLUSION**

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**Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

A. Yes. However, I reserve the right to supplement my testimony as additional issues or facts arise during the course of this proceeding.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY  
COMMISSION**

v.

**PENNSYLVANIA-AMERICAN WATER  
COMPANY**

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**DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**VERIFICATION**

I, **E. Christopher Abruzzo**, hereby state that the facts set forth in the pre-marked Statement No. 6 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
\_\_\_\_\_  
E. Christopher Abruzzo

# Statement No. 7

## Ciullo

**PAWC STATEMENT NO. 7**

**DIRECT TESTIMONY  
OF  
MELISSA CIULLO**

**WITH REGARD TO  
PENNSYLVANIA-AMERICAN WATER COMPANY'S  
INCOME TAXES, PENNSYLVANIA STATE TAX RATE CHANGE, CORPORATE  
ALTERNATIVE MINIMUM TAX**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF MELISSA CIULLO**

1   **Q.    What is your name and business address?**

2    A.    My name is Melissa Ciullo. My business address is 1 Water Street, Camden New Jersey  
3        08102.

4   **Q.    By whom are you employed, and in what capacity?**

5    A.    I am employed by American Water Works Service Company, Inc. as the Vice President of  
6        Tax. I am responsible for management and oversight of the tax function for American  
7        Water Works, Inc. (“AWWC”), and its consolidated subsidiaries, including Pennsylvania-  
8        American Water Company (“PAWC” or the “Company”).

9   **Q.    Please summarize your educational background and professional experience.**

10   A.    I graduated from Stockton College in 2001 with a Bachelor of Science Degree in Business  
11        and a concentration in Accounting. I have a Master of Business Administration Degree in  
12        Accounting and International Business from Rutgers University - Camden. I am a Certified  
13        Public Accountant in the State of New Jersey. I have 20 years of experience as a tax and  
14        accounting professional, including serving utilities with regulated operations in multiple  
15        states. For the 12 years before my employment with American Water, I held various  
16        positions with progressing responsibilities within the tax departments of utility holding  
17        companies Exelon Corporation and PEPCO Holdings Inc. Prior to these roles, I was  
18        employed by the international accounting firm KPMG.

1 **Q. Have you previously testified before any regulatory agencies?**

2 A. I previously provided testimony to the Pennsylvania Public Utility Commission, the  
3 Hawaii Public Utilities Commission, the Indiana Public Utility Commission, the Missouri  
4 Public Service Commission, and the West Virginia Public Service Commission.

5 **Q. What is the purpose of your testimony?**

6 A. My testimony addresses (1) the Company’s computation of income tax expense in  
7 compliance with Act 40 of 2016 (“Act 40”), which added Section 1301.1 to the  
8 Pennsylvania Public Utility Code, (2) a change in Pennsylvania’s corporate tax rate enacted  
9 in July 2022, and (3) the Corporate Alternative Minimum Tax (“CAMT”) adopted as part  
10 of the Inflation Reduction Act (“IRA”), which was enacted in August 2022.

11 **Computation of Income Taxes Consistent With Act 40**

12 **Q. What changes were made by Act 40?**

13 A. Act 40 became law on June 12, 2016, and became effective on August 11, 2016.  
14 Section 1301.1(a) specifies how the Commission is to compute income tax expense for  
15 ratemaking purposes. In addition, Section 1301.1(b) states how any incremental internally  
16 generated funds produced by the application of Section 1301.1(a) should be used by an  
17 affected utility pending the December 31, 2025 “sunset” of Section 1301.1(b).

18 **Q. What does Section 1301.1 direct the Commission to do in calculating income tax  
19 expenses for ratemaking purposes?**

20 A. In summary, Section 1301.1(a) provides that current and deferred income taxes of a  
21 Pennsylvania utility are to be calculated for ratemaking purposes based only on the income,  
22 deductions, and credits of the utility itself. Therefore, the Commission may not calculate  
23 a utility’s current and deferred income taxes for ratemaking purposes by taking into account

1 income, deductions (including taxable losses), or credits of the utility’s parent or affiliated  
2 companies with which it joins in filing a consolidated Federal income tax return. This is  
3 generally referred to as a “stand-alone” computation of income tax expense because it  
4 reflects income tax expense of the utility “standing alone” and without regard to the taxable  
5 income, deductions, or credits of other companies in the same consolidated group.

6 **Q. How does Section 1301.1(a) change prior Commission practice?**

7 A. Section 1301.1(a) terminates the practice of making a “consolidated tax adjustment”  
8 (“CTA”) when calculating a utility’s Federal income taxes for ratemaking purposes in  
9 Pennsylvania. As directed by prior decisions of Pennsylvania appellate courts,<sup>1</sup> the  
10 Commission, until Act 40 became effective, was required to calculate CTAs employing the  
11 “Modified Effective Tax Rate Method,” which the Commission described as follows:

12 [U]nder the Modified Effective Tax Rate Method, which was approved  
13 under *Barasch II, supra*, the consolidated tax savings generated by the non-  
14 regulated companies of a corporate group are allocated to the regulated and  
15 non-regulated members of the group having positive taxable incomes.<sup>2</sup>

16  
17 As calculated under the Modified Effective Tax Rate Method, a CTA captured a portion of  
18 the tax benefits of deductions – including taxable losses – of unregulated affiliates of public  
19 utilities and gave those benefits to the utilities’ customers (as lower income tax expense  
20 than the utilities would have on a “stand-alone” basis), even though the utilities’ customers  
21 did not pay the expenses that gave rise to those tax benefits. With the enactment of Act 40,  
22 Pennsylvania joined the vast majority of other jurisdictions, including the Federal Energy  
23 Regulatory Commission, that do not make CTAs for ratemaking purposes.

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<sup>1</sup> *Barasch v. Pa. P.U.C.*, 493 A.2d 653 (Pa. 1985) (“*Barasch I*”); *Barasch v. Pa. Pub. Util. Comm’n*, 548 A.2d 1310 (Pa. Commw. Ct. 1988) (“*Barasch II*”).

<sup>2</sup> *Pa. Pub. Util. Comm’n v. Philadelphia Suburban Water Co.*, Docket No. R-00016750, *et al.*, 2002 Pa PUC LEXIS 55, \*90-91 (July 18, 2002).



1 **Q. What does Section 1301.1(b) provide?**

2 A. Section 1301.1(b) states as follows:

3 If a differential accrues to a public utility resulting from applying  
4 the ratemaking methods employed by the commission prior to the  
5 effective date of subsection (a) for ratemaking purposes, the  
6 differential shall be used as follows:

7 (1) fifty percent to support reliability or infrastructure  
8 related to the rate-base eligible capital investment as determined by  
9 the commission; and

10 (2) fifty percent for general corporate purposes.

11 As I previously noted, Section 1301.1(c)(1) provides that Section 1301.1(b) will no longer  
12 apply after December 31, 2025.

13 **Q. Have you calculated the “differential” in income taxes referenced in**  
14 **Section 1301.1(b)?**

15 A. Yes, the confidential response to Filing Requirement (FR) IV.14 sets forth the computation  
16 of a CTA using the Modified Effective Tax Rate Method and data for tax years 2017  
17 through 2021, which are the most recent five years for which tax returns have been filed.  
18 The second page of the calculation shows the “differential” in an amount of approximately  
19 \$2.3 million corresponding to the CTA calculated in the manner I described above. In  
20 addition, PAWC witness Ashley E. Everette (PAWC Statement No. 1) addresses the  
21 Company’s investment of 50% of the differential in a manner that complies with  
22 Section 1301.1(b)(1).

23 **Pennsylvania Corporate Tax Rate Change**

24 **Q. Please explain the Pennsylvania Corporate Tax Rate Change.**

25 A. On July 8, 2022, House Bill (“H.B.”) 1342 was signed into law in Pennsylvania, which  
26 incrementally reduces the Commonwealth’s corporate net income tax (“CNIT”) rate from

1 9.99% to 4.99% over a period of nine years. The rate change reduction became effective  
2 for tax years beginning in 2023, reducing the rate to 8.99%. The CNIT rate will continue  
3 to be reduced each year through 2031, when the CNIT rate will be set at 4.99%.

4 **Q. Does the Company's proposed revenue requirement reflect the changes in the CNIT**  
5 **rate determined by H.B. 1342?**

6 A. Yes. As shown in Exhibit No. 3-A, the Company's proposed revenue requirement is  
7 calculated using the 7.99% CNIT rate that will be in effect at the end of the FPFTY.

8 **Q. Has the Company remeasured its Accumulated Deferred Income Tax ("ADIT") to**  
9 **account for the rate change?**

10 A. Yes, the Company estimated a remeasurement of the ADIT in the 3<sup>rd</sup> Quarter of 2022. The  
11 ADIT balance will be remeasured annually to account for the reductions in the Company's  
12 CNIT rate through 2031.

13 **Q. What is the reason for the annual remeasurement?**

14 A. According to ASU 740, Accounting for Income Taxes, ADIT must be reported on the  
15 balance sheet at the rate at which they are expected to settle with the taxing authority. In  
16 the case of the declining state tax rate, it is difficult to estimate precisely at which rate the  
17 accumulated deferred taxes will settle. Therefore, each year, the Company will remeasure  
18 the deferred taxes based on available information at the time of remeasurement.

19 **Q. How much did the Company's Pennsylvania ADIT change as a result of the CNIT**  
20 **rate change?**

21 A. At the time of the remeasurement, the state ADIT was reduced by \$159M, and a  
22 corresponding regulatory liability was created. These amounts will continue to change  
23 (increase or decrease) each year depending on the timing of the settlement of the deferred

1 income taxes. The excess accumulated ADIT (“EADIT”) will not be finalized until the  
 2 final CNIT rate is set at 4.99% in 2031.

3 **Q. How do you propose to return the Pennsylvania EADIT to customers?**

4 A. The Company proposes to calculate the EADIT for rate-making purposes after each CNIT  
 5 rate change by multiplying the normalized gross temporary difference balance at the end  
 6 of the year before the rate change by the incremental change in the tax rate (net of the  
 7 federal effect of state taxes) for the next year. The resulting EADIT will be amortized over  
 8 20 years as an unprotected EADIT, consistent with the treatment of unprotected Federal  
 9 EADIT. This calculation will be updated each year to reflect changes in the CNIT rate and  
 10 layered into the EADIT balance which will be returned to customers. See below for an  
 11 illustrated example.

Year	Tax Rate	Incremental Rate Change	Incremental Rate Change (Net of Federal)	Gross Temporary Difference Balance*	PA EADIT	Amortization - 20 years									
						Year 1	Year 2	Year 3	...Year 20	Year 21	Year 22				
Year 0	9.99%			20,000,000											
Year 1	8.99%	1.00%	0.79%	21,000,000	165,900	8,295	8,295	8,295	8,295						
Year 2	8.49%	0.50%	0.40%	21,500,000	87,075		4,354	4,354	4,354	4,354					
Year 3	7.99%	0.50%	0.40%	24,000,000	94,800			4,740	4,740	4,740	4,740				
Subtotal						8,295	12,649	17,389	17,389	9,094	4,740				

\* For Demonstration Purposes Only the GTD continues to increase at a rate quicker than GTD is reduced. The actual direction of movement will depend on each year's activity.

12  
 13 Additionally, as a result of the CNIT rate change, the regulatory asset related to the  
 14 PA Flow-through tax depreciation will also be remeasured to the reduced tax rate.

15 **Q. How much Pennsylvania EADIT is included in the rate case to be returned to**  
 16 **customers?**

17 A. The reductions in the CNIT rate from 9.99% in 2023 to 7.99% at the end of the fully  
 18 projected future test year ending June 30, 2025 results in Pennsylvania EADIT in the  
 19 amount of \$28,363,055. As discussed earlier in my testimony, the Company proposes to

1 amortize this amount over 20 years resulting in an annual bill credit of \$1,418,153 that will  
2 be returned to customers.

### 3 **Corporate Alternative Minimum Tax**

#### 4 **Q. How does the enactment of the IRA impact the Company?**

5 A. The IRA implemented a new CAMT beginning in 2023 that imposes a 15% tax on adjusted  
6 financial statement income (“AFSI”), for which applicable corporations will be required to  
7 pay the greater of the 15% of adjusted financial statement income or their calculated regular  
8 federal tax liability. Based on the current interim Internal Revenue Service guidance and  
9 forecasted projections, AWWC and its subsidiaries, including PAWC, will be subject to  
10 CAMT beginning with tax year 2024.

#### 11 **Q. Is AWWC an applicable corporation? If so, how was that determined?**

12 A. Beginning with tax year 2024, AWWC is expected to be considered an applicable  
13 corporation. AWWC meets the AFSI test, which states that if a corporation’s average  
14 annual AFSI exceeds \$1 billion over the preceding three-year period, then the corporation  
15 and its subsidiaries are applicable corporations.

#### 16 **Q. For CAMT purposes, how is AFSI determined?**

17 A. The starting point to calculate AFSI is the net income or loss per the financial statements.  
18 The financial statement net income or loss is then adjusted for federal income taxes, book  
19 and tax depreciation, pension, and other post-employment benefits. As a result, for  
20 purposes of determining AFSI or loss, federal income taxes, accelerated tax depreciation,  
21 pension, and other post-employment benefits are exactly the same with respect to the  
22 regular federal income tax liability calculation.

1 **Q. Why does AWWC's and PAWC's CAMT exceed the regular tax liability?**

2 A. Under tax law, certain expenditures capitalized for financial statement purposes qualify for  
3 accelerated tax deductions, such as tax repairs. These accelerated tax deductions, which  
4 lower regular tax, are not included in the AFSI calculation for determining the CAMT  
5 liability. Therefore, the regular tax is below the CAMT tax liability.

6 **Q. How is PAWC expected to account for the CAMT in its financial statements?**

7 A. For income tax accounting purposes, a current income tax liability and current income tax  
8 expense will be recorded for the CAMT liability but will be equally offset by recording a  
9 deferred tax asset and a reduction to deferred income tax expense to reflect the CAMT  
10 credit carryforward. As a result, there is no net incremental income tax expense associated  
11 with the CAMT; however, a deferred tax asset is established for the minimum tax credit  
12 carryforward. Corporations are entitled to a tax credit equal to the amount by which the  
13 minimum tax liability exceeds the regular tax liability. This amount can be carried forward  
14 indefinitely and used in future years when the regular tax liability exceeds the CAMT  
15 liability.

16 **Q. If PAWC is below the \$1 billion threshold, why is PAWC subject to CAMT?**

17 A. PAWC is a subsidiary of AWWC. Strictly for purposes of determining if AWWC exceeds  
18 the \$1 billion threshold in average profits under the AFSI test, AWWC must include all of  
19 its subsidiaries, including PAWC, because AWWC is considered a "single employer  
20 group" under the applicable tax rules. As previously stated, the CAMT applies to  
21 "applicable corporations." If a "single employer group," in the aggregate, exceeds the  
22 \$1 billion profits threshold, each corporation that is part of that "single employer group" is  
23 considered an "applicable corporation" and separately subject to CAMT. In addition, the

1 applicable tax rules further support recording CAMT at the operating companies. That is  
2 illustrated by the fact that if a subsidiary ceases to be a member of an affiliated group of  
3 corporations, the departing subsidiary is entitled to its CAMT credit carryforward and can  
4 utilize that credit in future tax years when its regular tax exceeds its CAMT liability.

5 **Q. What are the rate-making impacts associated with CAMT?**

6 A. Under the normalization method, for ratemaking purposes, accumulated deferred income  
7 taxes are a reduction to the rate base calculation to reflect the lower cost of capital  
8 attributable to accelerated tax benefits. However, the CAMT reduces the tax benefits  
9 associated with accelerated tax deductions. Therefore, a corresponding deferred tax asset  
10 is included as a rate base increase to reflect the appropriate cost of capital.

11 **Conclusion**

12 **Q. Does that conclude your direct testimony at this time?**

13 A. Yes, it does.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER  
COMPANY

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DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

VERIFICATION

I, **Melissa Ciullo**, hereby state that the facts set forth in the pre-marked Statement No. 7 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
\_\_\_\_\_  
Melissa Ciullo

Statement No. 8

Swiz



**DIRECT TESTIMONY  
OF  
J. CAS SWIZ**

**WITH REGARD TO  
PENNSYLVANIA-AMERICAN WATER COMPANY'S  
UNCOLLECTIBLE ACCOUNTS EXPENSE ADJUSTMENT; UPDATE TO THE  
COVID-19 FINANCIAL IMPACT DEFERRAL AMORTIZATION; REQUEST FOR  
REGULATORY ACCOUNTING AUTHORIZATION TO DEFER DEVIATIONS IN  
PENSION, OTHER POST-EMPLOYMENT BENEFITS, AND PRODUCTION  
EXPENSES; AND REQUEST FOR ENVIRONMENTAL COMPLIANCE INVESTMENT  
CHARGE**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF J. CAS SWIZ**

1 **Introduction**

2 **Q. What is your name and business address?**

3 A. My name is J. Cas Swiz. My business address is 727 Craig Road, St. Louis, Missouri  
4 63141.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by American Water Works Service Company, Inc. (“Service Company”)  
7 as Senior Director, Enterprise-Wide Regulatory Strategy. Service Company is a wholly  
8 owned subsidiary of American Water Works Company, Inc. (“American Water”) that  
9 provides services to Pennsylvania-American Water Company (“PAWC” or the  
10 “Company”).

11 **Q. Please summarize your educational background and professional experience.**

12 A. I am a 2001 graduate of the University of Evansville with a Bachelor of Science degree in  
13 Accounting, and a 2005 graduate of the University of Southern Indiana with a Master of  
14 Business Administration. From 2001 to 2003, I was employed by ExxonMobil Chemical  
15 as a Product and Inventory accountant. From 2003 through 2020, I was employed by  
16 Vectren Corporation, a CenterPoint Energy Company, in various accounting and  
17 regulatory roles. Most recently, I was Director, Regulatory and Rates with responsibility  
18 for leading and executing the regulatory strategy of CenterPoint Energy’s Indiana and Ohio  
19 electric and gas jurisdictions. In November 2020, I was hired by the Service Company  
20 within Regulatory Services.

1 **Q. What are your duties as Senior Director, Enterprise-Wide Regulatory Strategy?**

2 A. My primary responsibilities consist of the review and preparation of regulatory filings,  
3 proceedings, and related activities for the regulated subsidiaries of American Water. This  
4 includes the preparation of written testimony, exhibits, and workpapers in support of  
5 regulatory proceedings. In addition, I also review regulatory developments and evaluate  
6 alternative strategies that may impact the operations of the American Water regulated  
7 utility entities.

8 **Q. Have you previously submitted testimony before the Pennsylvania Public Utility  
9 Commission (the “Commission” or “PUC”)?**

10 A. Yes, I submitted testimony in the Company’s most recent base rate proceeding at Docket  
11 Nos. R-2022-3031672 (water) and R-2022-3031673 (wastewater) (the “2022 Base Rate  
12 Case”).

13 **Q. Have you previously submitted testimony before other regulated jurisdictions?**

14 A. Yes. I testified on behalf of Missouri-American Water Company in its most recent base  
15 rate case, Case No. WR-2022-0303. During my employment at Vectren, I submitted  
16 testimony before the Indiana Utility Regulatory Commission in various docketed  
17 proceedings supporting accounting and rate design requests, most recently in Cause Nos.  
18 45378, 44429, and 44430. In addition, I submitted testimony on behalf of Vectren before  
19 the Public Utility Commission of Ohio in various docketed proceedings, most recently in  
20 Case Nos. 20-0099-GA-RDR, 20-0101-GA-RDR, and 18-0298-GA-AIR.

21 **Q. What is the purpose of your testimony?**

22 A. First, I will identify and describe PAWC’s claim for uncollectible accounts expense as  
23 presented in the Company’s principal accounting exhibits. Second, I will support the

1 Company's claim to recover the unamortized balance of the deferred amounts recorded to  
2 the regulatory asset account for incremental COVID-19 related financial impacts  
3 authorized by the Commission's September 15, 2021 Order at Docket No. P-2020-3022426  
4 ("COVID-19 Deferral Accounting Order") and the PUC's December 8, 2022 Final Order  
5 approving the settlement of PAWC's 2022 base rate case ("2022 Rate Case Order"). I will  
6 also support the Company's request to defer and record pension, other post-employment  
7 benefits ("OPEB"), and production expenses. Finally, I will support the implementation of  
8 an Environmental Compliance Investment Charge ("ECIC") pursuant to the alternative  
9 ratemaking authority Act 58 of 2018 ("Act 58"), 66 Pa. C.S. § 1330, granted to the  
10 Commission to provide timely rate recognition of the Company's sustained investments  
11 between rate cases to comply with new and changed government-mandated environmental  
12 standards.

### 13 **Uncollectible Accounts Expense**

14 **Q. Please describe the Company's proposed level of uncollectible accounts expense**  
15 **reflected in PAWC's revenue requirement for the fully projected future test year**  
16 **("FPFTY") ending June 30, 2025.**

17 A. PAWC calculated its claim for uncollectible accounts expense using a two-year historic  
18 average ratio of net write-offs as a percentage of sales revenues. As shown in Table 1  
19 below, the uncollectible accounts rate (1.176%) was calculated by using the Company's  
20 actual write-off experience for the July 1, 2021 through June 30, 2023 period divided by  
21 PAWC's total billed revenues for the same two years.

1

**Table 1**

	7/2021-6/2022	7/2022-6/2023	Two-Year Average
Net Write-Off Activity	\$ 10,174,929	\$ 9,374,665	\$ 9,774,797
Total Billed Revenues	\$ 775,900,531	\$ 886,675,101	\$ 831,287,816
<b>Average Write-Off Percentage</b>	<b>1.311%</b>	<b>1.057%</b>	<b>1.176%</b>

2

3

4

5

6

Applying the two-year average rate of net write-offs to the FPPTY level of total Company revenues for water and wastewater operations results in an annual level of uncollectible expense reflected in new base rates established at the conclusion of this proceeding, as shown on Exhibit No. 3-A, Calculation of Uncollectible Accounts Expenses.

7

**Q. Why is it reasonable and appropriate to calculate uncollectible expense in this proceeding using the two-year average percentage of net write-offs ended June 30, 2023?**

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A. Using the two-year average of net write-offs presented in Table 1, as opposed to the Company's historical approach of using a three-year average, eliminates the impacts of the COVID-19 emergency on customer collections activities. In response to the COVID-19 emergency, the Company implemented several measures to help customers deal with the financial impact of the pandemic, including ceasing service terminations for non-payment from March 12, 2020 through March 31, 2021. The Company resumed collections activities on April 1, 2021, at which point the customer account was evaluated for disconnection if payment had not been received within 90 days from the last billing period. Because of this timeline, overdue account balances dating back to March 2020 were not written off until summer 2021.

1 In addition, PAWC customers have received relief through the Low-Income  
 2 Household Water Assistance Program (“LIHWAP”) administered by the Pennsylvania  
 3 Department of Human Services to assist with unpaid utility bills. Through June 30, 2023,  
 4 PAWC customers have received over \$7.8 million in funding, which has directly  
 5 contributed to relieving outstanding arrearages and helping to reduce write-offs.

6 In sum, the Company used a two-year historic average for the July 2021 to June  
 7 2023 period to normalize the rate of uncollectible accounts to pre-pandemic levels and  
 8 account for the application of LIHWAP funds to reduce unpaid balances. As shown on  
 9 Table 2 below, PAWC experienced variances in monthly net write-offs in the twelve  
 10 months ended June 30, 2021 and net write-offs have been trending back up toward pre-  
 11 pandemic levels since mid-2021.

12 **Table 2<sup>1</sup>**

Net Write-Offs	2017	2018	2019	2020	2021	2022	2023
Jan	\$ 716,536	\$ 685,641	\$ 912,390	\$ 764,828	\$ 349,586	\$ 830,013	\$ 827,805
Feb	\$ 559,995	\$ 692,680	\$ 618,529	\$ 346,622	\$ 297,714	\$ 747,877	\$ 696,968
Mar	\$ 662,432	\$ 592,584	\$ 499,215	\$ 606,378	\$ 484,338	\$ 585,905	\$ 642,204
Apr	\$ 303,116	\$ 332,690	\$ 480,307	\$ 404,114	\$ 305,722	\$ 483,219	\$ 342,099
May	\$ 597,020	\$ 600,851	\$ 568,274	\$ 418,735	\$ 424,310	\$ 478,710	\$ 668,436
Jun	\$ 558,589	\$ 913,277	\$ 472,574	\$ 549,243	\$ 499,818	\$ 778,586	\$ 849,341
Jul	\$ 591,294	\$ 813,965	\$ 558,600	\$ 410,939	\$ 596,656	\$ 815,417	
Aug	\$ 891,413	\$ 910,428	\$ 1,099,073	\$ 200,884	\$ 1,502,577	\$ 1,230,674	
Sep	\$ 630,558	\$ 938,943	\$ 822,732	\$ 268,270	\$ 1,405,223	\$ 1,024,491	
Oct	\$ 830,307	\$ 870,953	\$ 831,211	\$ 189,356	\$ 720,472	\$ 663,419	
Nov	\$ 638,288	\$ 699,334	\$ 684,167	\$ 359,632	\$ 942,686	\$ 878,019	
Dec	\$ 649,591	\$ 720,657	\$ 876,692	\$ 386,722	\$ 1,103,004	\$ 735,792	
Annual	\$ 7,629,139	\$ 8,772,003	\$ 8,423,765	\$ 4,905,724	\$ 8,632,107	\$ 9,252,122	\$ 4,026,853

13  
 14 **Q. Have the outstanding arrearages for PAWC’s customers stabilized from the**  
 15 **significant increases incurred during the COVID-19 emergency?**

<sup>1</sup> Table 2 presents net write-offs for 2017 through June 2023. The disconnection moratorium period is highlighted in green.

1 A. Yes. During the peak of the COVID-19 emergency, PAWC experienced significant  
 2 increases to its outstanding arrearages, specifically with respect to balances that are more  
 3 than 150 days overdue. This trend continued even after the expiration of the moratorium  
 4 on disconnections. However, with LIHWAP funding and collection activities, the aging  
 5 of PAWC’s unpaid balances has returned to pre-COVID-19 levels.

6 **Table 3**

Receivables Balance as of June 30					
Aging Category	2023	2022	2021	2020	2019
Current	\$ 46,404,037	\$ 36,691,897	\$ 34,369,435	\$ 32,684,188	\$ 37,087,580
31-150 Days	\$ 19,890,869	\$ 15,913,935	\$ 21,197,606	\$ 17,994,123	\$ 15,855,887
>150 Days	\$ 14,747,326	\$ 20,551,028	\$ 24,722,737	\$ 14,067,730	\$ 11,733,612
<b>Total</b>	<b>\$ 81,042,232</b>	<b>\$ 73,156,859</b>	<b>\$ 80,289,777</b>	<b>\$ 64,746,041</b>	<b>\$ 64,677,079</b>

7  
 8 As shown in Table 3 above, accounts receivable aged over 150 days as of June 30, 2023  
 9 represent approximately 18% of the Company’s total arrearages, which is in line with the  
 10 percentage as of June 30, 2019. By comparison, as of June 30, 2021, accounts that were  
 11 more than 150 days overdue represented over 30% of PAWC’s total arrearages.

12 **Q. Does the historic write-off data along with the current status of outstanding accounts**  
 13 **receivable support the Company’s recommendation to use the two-year average**  
 14 **write-off percentage for the determination of the going level of uncollectible expense**  
 15 **in this proceeding?**

16 A. Yes, the Company’s rate of uncollectible accounts over the past two years properly  
 17 excludes the impacts of the COVID-19 emergency on customer collections and reflects a  
 18 reasonable estimation of the going level of bad debt expense.

1 **PAWC’s COVID-19 Regulatory Asset**

2 **Q. Please summarize the COVID-19 Accounting Deferral Order and the ratemaking**  
3 **treatment authorized by the Commission for PAWC’s COVID-19 regulatory asset in**  
4 **the 2022 Base Rate Case.**

5 A. On May 13, 2020, the Commission issued a Secretarial Letter<sup>2</sup> that recognized the  
6 additional costs and other financial impacts that the COVID-19 emergency imposed on  
7 utilities as essential businesses, including the increased costs directly resulting from the  
8 service-termination moratorium established by the Emergency Order issued by PUC  
9 Chairman Gladys Brown Dutrieuille on March 13, 2020.<sup>3</sup> The May 2020 Secretarial Letter  
10 directed utilities to track incremental COVID-19 related expenses and any government  
11 assistance that would offset those expenses and permitted utilities to establish a regulatory  
12 asset for bad debt expense attributable to compliance with the Emergency Order.

13 On October 15, 2020, PAWC filed a Petition at Docket No. P-2020-3022426  
14 requesting PUC approval to defer for accounting purposes specific expenses and revenue  
15 losses PAWC incurred in furnishing essential services during the COVID-19 emergency.  
16 In the COVID-19 Deferral Accounting Order (pp. 12-13, 30-32, 42, 49-50), the PUC  
17 authorized PAWC to record COVID-19 related direct costs and savings as a regulatory  
18 asset, along with incremental uncollectible expense and carrying charges on the deferred  
19 amounts. The Commission found that the Office of Consumer Advocate’s proposal for an  
20 uncollectible expense deferral “baseline” clearly conflicted with the Commission’s

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<sup>2</sup> *COVID-19 Cost Tracking and Creation of Regulatory Asset*, Docket No. M-2020-3019775 (Secretarial Letter issued May 13, 2020) (“May 2020 Secretarial Letter”).

<sup>3</sup> *Public Utility Service Termination Moratorium Proclamation of Disaster Emergency-COVID-19*, Docket No. M-2020-3019244 (Emergency Order ratified Mar. 26, 2020) (“Emergency Order”).



1 prescribed approach for calculating deferrals in the May 2020 Secretarial Letter based on  
2 all uncollectible expense above the amount currently reflected in PAWC’s approved base  
3 rates. The PUC also declined to establish a “hard cut-off date” after which no further  
4 COVID-19 related amounts could be deferred.

5 In the 2022 Base Rate Case, PAWC proposed to recover the deferred balance of its  
6 COVID-19 regulatory asset accumulated through July 31, 2022 (totaling \$3,409,217), with  
7 an additional \$517,127 of carrying costs calculated on the deferred amounts through  
8 January 1, 2023, amortized over three years. The Company also proposed to continue  
9 deferring incremental uncollectible expense from and after August 1, 2022 under the  
10 existing Commission authorization for possible recovery in PAWC’s next base rate case.  
11 PAWC had already ceased recording COVID-19 related direct costs and savings in its  
12 COVID-19 regulatory asset on February 1, 2022. Under the settlement approved in the  
13 2022 Rate Case Order (“Settlement”), the Company agreed to a December 31, 2022 end  
14 date for the deferral of incremental uncollectible expense and carrying costs recorded to  
15 the COVID-19 regulatory asset. In the Settlement, the parties also stipulated to (1) the total  
16 deferred balance as of July 31, 2022 included in rates (\$3,409,217, Appendix H), (2) the  
17 total carrying costs calculated on the deferred amounts through January 1, 2023 (\$517,127,  
18 Appendix H) and (3) the amortization period for the deferred balance (3 years,  
19 Appendix D).

20 **Q. When did PAWC begin amortization of the deferred balance in the Company’s**  
21 **COVID-19 regulatory asset agreed to in the Settlement?**

22 A. The Company began amortizing the deferred balance of \$3,926,344 over three years (i.e.,  
23 \$109,065 per month) on February 1, 2023. In accordance with 2022 Rate Case Order,

1 PAWC continued to defer incremental uncollectible expense above or below the amounts  
2 embedded in the Company's rates from August 1, 2022 through December 31, 2022. The  
3 Company did not realize any offsetting COVID-19 related direct savings during that same  
4 five-month period.

5 **Q. What is the unamortized deferred balance in the Company's COVID-19 regulatory**  
6 **asset as of June 30, 2023?**

7 A. As of June 30, 2023, PAWC has recorded a net credit balance of \$(246,472). That balance  
8 reflects five-months of amortization of the net debit balance authorized in the 2022 Rate  
9 Case Order (totaling \$545,325 through June 2023) and an aggregate credit of \$(3,627,491)  
10 for uncollectible expense that was below the amount embedded in PAWC's base rates from  
11 August 1, 2022 through December 31, 2022, along with the corresponding adjustments to  
12 the carrying costs on the deferred net credit balance through January 1, 2023.

13 **Q. Please describe the Company's claim for recovery of its COVID-19 regulatory asset**  
14 **in this proceeding.**

15 A. PAWC projects that the unamortized deferred balance in its COVID-19 regulatory asset as  
16 of July 31, 2024, which aligns with the effective date of new base rates approved in this  
17 proceeding, will be a net credit of \$(1,664,318). The Company proposes to include this  
18 projected deferred balance in base rates amortized over two years (24 months), starting on  
19 August 1, 2024.

20 **Q. What is the annual level of amortization expense PAWC will include in its revenue**  
21 **requirement in this proceeding?**

22 A. PAWC will include a credit of \$(832,159) as annual amortization expense in its revenue  
23 requirement in this proceeding, or approximately \$(69,347) per month.

1 **Q. Why is the Company proposing to amortize the COVID-19 deferred balance over two**  
2 **years?**

3 A. An amortization period of two years aligns with the typical time between PAWC's base  
4 rate cases. It also ensures this credit is appropriately returned to customers in a timely  
5 manner.

6 **Q. Is the Company including any additional carrying costs on the deferred balance in its**  
7 **projections?**

8 A. No. In accordance with the 2022 Rate Case Order, PAWC ceased recording carrying costs  
9 to its COVID-19 regulatory asset as of December 31, 2022. As noted previously in my  
10 testimony, the Company did adjust its claim for reductions to the carrying costs as a result  
11 of the credits recorded to the COVID-19 regulatory asset account from August 1, 2022  
12 through December 31, 2022.

13 **Proposed Regulatory and Accounting Treatment**

14 **Q. Please describe the Company's request to establish tracker and deferral accounts for**  
15 **pension, OPEB, and production expenses.**

16 A. Historically, PAWC has experienced material variances between the levels of pension,  
17 OPEB, and production expenses forecasted for recovery in its base rates and the levels of  
18 those expenses it actually incurred. As I explain below, from year-to-year, actual expenses  
19 can be lower or higher than the amounts reflected in the Company's base rates. Therefore,  
20 the Company is asking for Commission permission to defer and record any amounts above  
21 or below the projected level of pension, OPEB, and production expenses into separate  
22 regulatory asset or liability accounts through the conclusion of the Company's next rate  
23 proceeding. In its next base rate case, the Company will address the ratemaking treatment

1 of the deferred amounts and any request to continue deferred accounting treatment for  
2 pension, OPEB, and production expenses beyond that next base rate proceeding.

3 **Q. Is the Company proposing to recover carrying costs on deferred balances?**

4 A. No. The Company is only proposing to defer any variance between the base level  
5 established in this case and the actual level incurred to an asset or liability account.

6 **Q. What is the definition of a regulatory asset according to the National Association of**  
7 **Regulatory Utility Commissioners (“NARUC”) Uniform System of Accounts**  
8 **(“USOA”) for Class A Water Utilities?**

9 A. “Regulatory Assets and Liabilities” are assets and liabilities that result from rate actions of  
10 regulatory agencies. They arise from specific revenues, expenses, gains or losses that  
11 would have been included in determination of net income in one period under the general  
12 requirements of the Uniform System of Accounts but for it being probable that: 1) such  
13 items will be included in a different period(s) for purposes of developing the rates the utility  
14 is authorized to charge for its utility services; or 2) in the case of regulatory liabilities, that  
15 refunds to customers, not provided for in other accounts, will be required. Regulatory  
16 assets and liabilities can also be created in reconciling differences between the  
17 requirements of generally accepted accounting principles (“GAAP”), regulatory practice  
18 and tax laws.

19 **Q. What is the difference between a tracker mechanism and a rate adjustment clause**  
20 **established under Section 1307 of the Code?**

21 A. Under the mechanism proposed by PAWC, the differences between the pension, OPEB,  
22 and production expenses included in the Company’s rates and its actual pension, OPEB,  
23 and production expenses will be tracked and recorded in deferral accounts. The net balance

1 in the accounts would represent a deferral – either as a regulatory liability or regulatory  
2 asset – that would be credited to, or recovered from, customers in a subsequent base rate  
3 case by means of an appropriate amortization. In contrast, a rate adjustment mechanism  
4 established under Section 1307 of the Public Utility Code typically involves billing  
5 customers a charge calculated to recover a projected annual cost. Annually (or more  
6 frequently), the amount billed to customers is reconciled to the utility’s actual cost and the  
7 difference is either recovered from or refunded to customers through the experience or “E”  
8 factor of the formula for the rate adjustment clause. In that way, customer rates are  
9 periodically adjusted to reflect changes in actual costs and the reconciliation of prior period  
10 over or under-collections.

11 Under a rate adjustment clause, customer rates are subject to change between base  
12 rate cases. Under the deferred accounting mechanism, the Company is proposing for  
13 pension, OPEB, and production expenses, variations between projected and actual  
14 expenses to be recorded and deferred, but customer rates will not reflect the net impact of  
15 those variations until new rates are authorized in a future base rate case.

16 **Pension and OPEB Expense Tracker and Deferral Mechanism**

17 **Q. Why is it appropriate that the Company be permitted to record the amount of Pension**  
18 **and OPEB expenses, above or below the amount authorized in rates, to a regulatory**  
19 **asset or liability between base rate cases?**

20 A. Pension and OPEB costs are difficult to predict. Projections of the Company’s pension  
21 and OPEB costs are calculated by WTW (formerly known as Willis Towers Watson), a  
22 national actuarial firm. As discussed by Company witness Lori O’Malley, the pension  
23 costs of \$22,218 and OPEB costs of \$(5,955,515) claimed in PAWC’s revenue requirement

1 for the fully projected future test year ending June 30, 2025 (“FPFTY”) are based upon the  
2 actuary report provided by WTW for calendar year 2023, calculated in accordance with  
3 Accounting Standards Codification Topic 715 (“ASC 715”)<sup>4</sup>. Although WTW uses sound,  
4 well-established actuarial methods, the pension and OPEB costs that it calculates are  
5 subject to material change from year-to-year, as well as within a year, based on a variety  
6 of factors that I discuss later in my testimony. As a consequence, pension and OPEB costs  
7 exhibit volatility because those costs are a function of variables that are subject to change  
8 over time and, therefore, are difficult to forecast.

9 **Q. What are the principal factors that cause pension and OPEB costs to fluctuate from**  
10 **year to year?**

11 A. Pension and OPEB costs calculated in accordance with GAAP<sup>5</sup> can fluctuate from year to  
12 year because of changes in economic or demographic variables used to determine those  
13 costs that are outside of the Company’s control. Actuaries, including the Company’s  
14 actuary, must make reasonable assumptions to supply the values for those variables,  
15 including interest rates, salary increases, inflation, and the performance of the investment  
16 markets. In addition, demographic assumptions related to the composition of the  
17 population that will receive retirement benefits, the behavior of members of that population  
18 (e.g., decisions about when to retire) and the life expectancy of the recipients of retirement  
19 benefits all impact the assumptions and variables of the calculation.

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<sup>4</sup> The GAAP rules for calculating benefit costs in reporting the income and expense of a business are set forth in Financial Accounting Standards Board Accounting Standards Codification Topic 715, which was formerly Financial Accounting Standard 87.

<sup>5</sup> The GAAP rules for calculating retirement benefit costs in reporting the income and expense of a business are set forth in Financial Accounting Standard Board Accounting Standards Codification Topic 715 (“ASC 715”), which was formerly Financial Accounting Standard 87 (“FAS 87”).

1           Among the primary economic factors that drive fluctuations in retirement costs are:  
2           (1) variations between the returns that are projected on the investments made to fund  
3           current and future retirement costs and returns actually achieved on those investments; and  
4           (2) variations between assumed discount rates and actual discount rates during the period  
5           for which costs are being projected. If investment returns and discount rates increase,  
6           retirement cost obligations measured at year end become smaller (compared to the prior  
7           year end). As a result, current year costs decrease as compared to the prior year. If  
8           investment returns and discount rates decrease, retirement cost obligations measured at  
9           year end become larger, and current year costs increase as compared to the prior period.

10           Although demographic assumptions have exhibited less year-to-year volatility than  
11           investment returns and discount rates, there have been demographic factors that produced  
12           material variations in retirement costs. For example, in 2014, the Society of Actuaries'  
13           Retirement Plans Experience Committee released a report that showed a population-wide  
14           increase in life expectancy, causing many actuarial experts to reassess their populations  
15           and reconsider previous assumptions. Longer life expectancy means that retirement  
16           benefits will be paid for a longer period of time in the future, and therefore the current costs  
17           to fund those future benefits increased.

18           The purpose of the Company's request for deferral accounting authorization is to  
19           protect both customers and the Company from the variations between forecasted and actual  
20           pension and OPEB costs that occur for the reasons I previously explained. This deferral  
21           mechanism is symmetrical. Neither customers nor the Company would be required to bear  
22           more than the Company's actual costs incurred for pension and OPEB expenses.

1 **Q. Please generally describe how the proposed deferred accounting will work for**  
2 **Pension and OPEB expenses.**

3 A. The Company will track the pension and OPEB expenses included for recovery in its  
4 Commission-approved base rates and will also track its actual costs incurred for pension  
5 and OPEB expenses. Each month, one-twelfth (1/12) of the amount authorized for  
6 recovery in base rates (“base level”) will be compared to the Company’s actual monthly  
7 expense. Actual costs incurred in accordance with ASC 715 guidelines above or below the  
8 base level will be credited or debited, as applicable, in separate pension and OPEB deferral  
9 accounts on the Company’s books. The Company will continue to defer the net balance  
10 recorded in those accounts through the end of its next base rate case. In its next base rate  
11 case, the Company may seek rate recovery of the net credit or debit balances in the deferral  
12 accounts, which will represent either regulatory assets or regulatory liabilities as  
13 applicable, amortized to income over an appropriate period as either an increase or  
14 decrease, respectively, to pension and OPEB expense.

15 **Q. Has the Company reviewed how the fluctuations in expense from year to year would**  
16 **have impacted the Company and its customers if tracker and deferral mechanisms**  
17 **for pension and OPEB expenses had been in place previously?**

18 A. Yes. Table 4 and Table 5 below lay out by calendar year the authorized level of Pension  
19 and OPEB expense and the actual amount of expense recorded. In the variance column, a  
20 positive number indicates that the actual expense exceeded the authorized level, and a  
21 negative number indicates that the actual amount was lower than the authorized level.  
22 Significantly, over the eleven years (2012 through 2022) reflected in Table 4 and Table 5,  
23 customers would have realized net benefits (actual costs lower than the rate allowance) in



1 ten years for pension costs and nine years for OPEB costs. In total, over the eleven years  
 2 reflected in my analysis, customers would have realized a net benefit of approximately  
 3 \$76 million for a pension deferral and \$46 million for an OPEB deferral. In 2021 and 2022  
 4 alone, the Company would have recorded a regulatory liability of \$(10,647,622) for  
 5 pension expense and \$(13,308,317) for OPEB expense, which would have been deferred  
 6 and amortized through rates in a subsequent proceeding.

7 **Table 4**

	Pension Expense		
	Authorized Expense	Actual Expense	Variance
2012	\$ 21,675,744	\$ 14,062,463	\$ (7,613,281)
2013	\$ 21,675,744	\$ (3,592,769)	\$ (25,268,513)
2014	\$ 10,036,329	\$ 5,052,844	\$ (4,983,485)
2015	\$ 9,069,256	\$ (1,472,998)	\$ (10,542,254)
2016	\$ 9,069,256	\$ 3,370,585	\$ (5,698,671)
2017	\$ 9,069,256	\$ 3,823,999	\$ (5,245,257)
2018	\$ 4,722,715	\$ 3,330,125	\$ (1,392,590)
2019	\$ 4,389,352	\$ 4,817,385	\$ 428,034
2020	\$ 4,389,352	\$ (419,707)	\$ (4,809,059)
2021	\$ (36,471)	\$ (4,824,802)	\$ (4,788,331)
2022	\$ (390,013)	\$ (6,249,304)	\$ (5,859,291)
2023	\$ 688,289		

8

1

**Table 5**

	OPEB Expense		
	Authorized Expense	Actual Expense	Variance
2012	\$ 4,516,334	\$ 5,171,819	\$ 655,485
2013	\$ 4,516,334	\$ 4,544,186	\$ 27,852
2014	\$ 4,768,889	\$ 1,881,025	\$ (2,887,864)
2015	\$ 4,789,873	\$ 3,880,838	\$ (909,035)
2016	\$ 4,789,873	\$ 1,502,220	\$ (3,287,653)
2017	\$ 4,789,873	\$ 872,561	\$ (3,917,312)
2018	\$ 1,315,566	\$ (4,484,797)	\$ (5,800,363)
2019	\$ 1,049,100	\$ (6,535,965)	\$ (7,585,066)
2020	\$ 1,049,100	\$ (7,922,211)	\$ (8,971,311)
2021	\$ (2,229,277)	\$ (9,016,868)	\$ (6,787,591)
2022	\$ (2,491,160)	\$ (9,011,886)	\$ (6,520,726)
2023	\$ (5,365,458)		

2

3 **Deferred Accounting Treatment - Production Expense**

4 **Q. What is the scope of the “Production Expenses” for which the Company seeks**  
5 **deferral accounting authorization?**

6 A. The Company defines Production Expenses as the costs incurred to provide water and  
7 wastewater services to our customers, including purchased water and wastewater treatment  
8 (NARUC Account 610 and NARUC Account 710), chemicals (NARUC Account 618 and  
9 NARUC Account 718), fuel and power (NARUC Accounts 615-616 and NARUC  
10 Accounts 715-716), and waste disposal (NARUC Account 711). As explained by  
11 Ms. O’Malley, the Company is requesting \$59,989,147 in total Production Expense in its  
12 claimed revenue requirement for the FPFTY, broken out as \$3,098,544 for Purchased  
13 Water and Wastewater Treatment, \$21,276,332 for Fuel and Power, \$27,485,022 for  
14 Chemicals, and \$8,129,249 for Waste Disposal. See Exhibit 3-A, pp. 54-57, 118-120, 238-  
15 240.

1 **Q. Why is PAWC requesting deferred accounting treatment for Production Expenses in**  
2 **this proceeding?**

3 A. Production Expenses are not discretionary and are not driven solely by changes in overall  
4 production volumes. The Company's production expenses can materially increase or  
5 decrease based on the prices charged by suppliers from whom the Company purchases  
6 water, energy, wastewater treatment service, and waste disposal services needed to provide  
7 safe and reliable water and wastewater service to customers. As an example, the chemical  
8 market has been extremely volatile compared to historical levels, driven by many factors  
9 such as impacts from the COVID-19 emergency, global pressures driven by the conflict in  
10 Ukraine, inflationary growth in commodity prices, escalation in energy prices, and overall  
11 supply and demand pressure within a consolidating chemical market. As a result of the  
12 current volatility in the market for chemicals, many vendors have moved from annual  
13 contracts to quarterly or semi-annual contracts. While the Company takes rigorous steps  
14 to ensure that it obtains the best pricing possible when it purchases chemicals, the market  
15 forces that have caused sharp increases in contract pricing in 2022 and 2023 are outside of  
16 the control of the Company and many of its suppliers. The Company anticipates that it  
17 will continue to see chemical price volatility and uncertainty in 2024 and beyond.  
18 Likewise, energy market prices are higher than they have been in many years, and as a  
19 result, PAWC's electric generation suppliers have increased contract rates for power  
20 supply and are less willing to lock in prices for 12-month terms.

21 Market conditions impacting production expenses represent an extraordinary  
22 combination of circumstances that are expected to continue to produce significant price  
23 volatility over the next several years. While the Company actively manages its chemical

1 and energy use through a capital plan that emphasizes efficiency, it cannot avoid incurring  
2 these costs. The accounting deferral for production expenses would protect both the  
3 Company's customers and PAWC against this volatility. PAWC believes its production  
4 expenses are analogous to gas commodity or electric fuel and transmission costs that the  
5 Commission has approved for recovery through automatic adjustment clauses. The only  
6 difference here is that the Company seeks to defer increases or decreases to its Production  
7 Expenses between rate cases for recovery or refund in a future base rate case rather than  
8 implement an automatic rate change currently afforded to our gas and electric counterparts  
9 in the Commonwealth.

10 **Q. Please generally describe how the proposed deferred accounting will work for**  
11 **Production Expenses.**

12 A. The Company would maintain separate regulatory asset and liability accounts for each  
13 production expense category, including (1) Purchased Water and Wastewater Treatment,  
14 (2) Fuel & Power, (3) Chemicals, and (4) Waste Disposal. Beginning the first month after  
15 rates are in effect in this proceeding, the Company will record the difference between the  
16 expense authorized in this case and the actual expense. The amount approved within this  
17 base rate case for all of the Production Expense items will be "unitized" (cost per 1,000  
18 gallons) by taking the total expenses divided by overall water and wastewater usage used  
19 to derive rates and charges in this proceeding. This rate will be multiplied by monthly  
20 usage to determine the authorized amount collected in the current month, which will be  
21 compared to the actual expense for the month. If the actual expense is lower than the  
22 authorized amount in rates, a regulatory liability will be set up to record the difference. If  
23 the actual expense is higher than the authorized amount in rates, a regulatory asset will be

1 recorded. At the time of its next rate case, the Company will present the net amount in  
2 these accounts for return to the customers (in the case of a net credit amount or regulatory  
3 liability) or for collection in rates (in the case of a net debit amount or regulatory asset)  
4 over a reasonable amortization period.

5 **Q. Why is PAWC determining the authorized level of Production Expenses using a**  
6 **“unitized” rate?**

7 A. As I noted earlier, Production Expenses are a function of both supplier prices and  
8 volumetric production. If sales increase in any period, the Company would expect  
9 increases in many of its Production Expenses. By unitizing the amount included in  
10 PAWC’s base rates, any deviation in sales would be contemplated in the authorized level  
11 consistent with the actual expenses.

12 **Q. Would deferred accounting treatment for Production Expenses remove incentives for**  
13 **the Company to reduce costs and improve its efficiency?**

14 A. No. The Company is committed to providing safe and reliable water service to its  
15 customers at affordable rates. This request does not change that; it simply ensures that  
16 customers only pay for the production expenses incurred, nothing more and nothing less,  
17 while allowing the Company to collect the proper revenues to cover production expenses  
18 incurred to continue to provide safe and reliable service. This does not grant the Company  
19 a “free-pass” to mismanage Production Expenses. Any deferred amounts (and offsets to  
20 those amounts) will be subject to detailed ratemaking review to determine prudence and  
21 reasonableness when they are claimed by the Company in its next base rate case.

22 **Q. Have fluctuations in Production Expenses from year to year become significant since**  
23 **volatility in market prices for chemicals, fuel and power began in 2022?**

1 A. Yes. Table 6 below lays out by calendar year the authorized level of Production Expense  
 2 and the actual amount of expense recorded. It is important to note that these figures do not  
 3 represent unitized values, as we are proposing in this case. The Company did not have the  
 4 ability to determine unitized values for historic authorized periods. As shown in Table 6,  
 5 the variance (positive or negative) between the Company’s actual Production Expenses and  
 6 the amount reflected in base rates increased substantially in 2022 in the range of about  
 7 \$7 million to \$9 million compared to the prior ten years.

8 **Table 6**

	Actual Expense				Total Production Expense	Authorized Production Expense	Variance
	Purchased Water	Fuel and Power	Chemicals	Waste Disposal			
2012	\$ 2,802,239	\$ 14,559,776	\$ 8,780,671	\$ 2,407,514	\$ 28,550,200	\$ 27,933,614	\$ 616,586
2013	\$ 2,737,819	\$ 13,087,089	\$ 8,788,867	\$ 2,226,585	\$ 26,840,360	\$ 27,933,614	\$ (1,093,254)
2014	\$ 2,834,201	\$ 13,565,774	\$ 8,739,949	\$ 2,510,009	\$ 27,649,934	\$ 27,762,292	\$ (112,358)
2015	\$ 3,034,120	\$ 13,868,975	\$ 8,971,534	\$ 2,175,025	\$ 28,049,654	\$ 27,762,292	\$ 287,362
2016	\$ 3,108,243	\$ 14,633,813	\$ 9,002,909	\$ 2,844,849	\$ 29,589,813	\$ 27,762,292	\$ 1,827,521
2017	\$ 2,522,714	\$ 15,043,745	\$ 9,278,048	\$ 3,311,148	\$ 30,155,656	\$ 27,762,292	\$ 2,393,364
2018	\$ 2,879,219	\$ 15,961,703	\$ 11,497,503	\$ 4,116,123	\$ 34,454,549	\$ 31,761,277	\$ 2,693,272
2019	\$ 2,578,352	\$ 15,996,797	\$ 11,463,241	\$ 4,280,880	\$ 34,319,270	\$ 31,761,277	\$ 2,557,993
2020	\$ 2,917,143	\$ 14,342,929	\$ 11,520,257	\$ 5,380,249	\$ 34,160,578	\$ 31,761,277	\$ 2,399,301
2021	\$ 3,024,165	\$ 15,334,987	\$ 12,302,485	\$ 5,348,351	\$ 36,009,987	\$ 35,345,221	\$ 664,767
2022	\$ 3,275,530	\$ 19,203,521	\$ 16,777,449	\$ 5,910,418	\$ 45,166,918	\$ 35,631,512	\$ 9,535,406

9  
 10 **Environmental Compliance Investment Charge**

11 **Q. Please generally describe the Company’s proposal to implement a new ECIC.**

12 A. PAWC seeks approval to establish an ECIC pursuant to Sections 1307 and 1330(b)(2) of  
 13 the Public Utility Code. The ECIC is a rate adjustment clause designed to reflect and  
 14 recover, between rate cases, the costs imposed on the Company to address and comply with  
 15 continuously evolving government-mandated environmental standards that are beyond the  
 16 Company’s control and difficult to estimate at any single point in time. As Company  
 17 witness Bruce W. Aiton explains in PAWC Statement No. 3, significant new or changed  
 18 regulatory requirements under a variety of environmental laws create the need for large

1 future investments in the Company’s assets and can impose substantial operations and  
2 maintenance (“O&M”) expenses, often in a short time frame, due to expedited compliance  
3 deadlines required by law or regulation. Under PAWC’s proposal, for inclusion in the  
4 ECIC, the costs must be consistent with the set of projects and activities set forth in an  
5 annual environmental compliance plan (“Environmental Plan”) that is subject to  
6 Commission review and approval as I will discuss later in my testimony.

7 **Q. Why is it appropriate to recover Environmental Plan costs through an alternative**  
8 **ratemaking mechanism under the authority granted to the Commission by Act 58?**

9 A. The Company’s proposed ECIC will provide a reasonable mechanism for adjusting the  
10 Company’s rates between base rate cases to ensure full and timely rate recognition of  
11 PAWC’s investments and measures undertaken to comply with new environmental  
12 regulatory mandates in a prudent and efficient manner as they emerge. PAWC has no  
13 control over the need for and timing of costs to comply with these new or changed  
14 regulatory requirements. The ECIC will also help avoid customer exposure to less frequent  
15 but more significant rate increases in a general base rate case by producing smaller, more  
16 gradual increases to customer bills driven by new regulations. In addition, permitting  
17 PAWC to recover ECIC-eligible capital costs and expenses through an automatic  
18 adjustment clause will reduce a major driver of the need for rate relief that would otherwise  
19 trigger a base rate case filing.

20 In sum, the ECIC helps ensure that PAWC receives adequate revenue to maintain  
21 safe, reliable, and compliant water and wastewater service that both meets government  
22 requirements and advances environmental policy objectives. It is my understanding  
23 through discussions with counsel that the Commission may consider the factors outlined

1 in its Policy Statement at 52 Pa. Code § 69.3302,<sup>6</sup> among any other relevant factors, when  
2 evaluating an alternative ratemaking mechanism. To assist the Commission in its review  
3 of the proposed ECIC, PAWC Exhibit JCS-1 addresses how each of those factors apply to  
4 the ECIC.

5 **Q. Have other jurisdictions approved the use of adjustment clauses for recovery of**  
6 **environmental compliance costs?**

7 A. Yes. As of July 2022, utility commissions in 30 states had approved various forms of  
8 environmental compliance riders or similar alternative ratemaking mechanisms.<sup>7</sup>  
9 Environmental compliance mechanisms are more prevalent for fully-integrated energy  
10 utilities, often for electric utilities with generating assets to comply with Environmental  
11 Protection Agency (“EPA”) mandates under the Clean Air Act. Utilities in other states  
12 have also utilized these recovery mechanisms to address compliance costs as a result of  
13 asbestos removal and manufactured gas plant remediation expenditures. In addition,  
14 another American Water subsidiary, Indiana-American Water Company, has a System  
15 Enhancement Improvement charge that allows for the recovery of environmental  
16 compliance costs imposed on the utility by a federal or state agency.

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<sup>6</sup> “[T]he proposed policy statement is intended only to give guidance to fixed utilities and interested stakeholders on what is to be considered when investigating alternative ratemaking methodologies in a Section 1308 rate proceeding. While intending to assist utilities and stakeholders, the policy statement does not establish a binding norm, nor does it establish a predicate for the adoption of an alternative rate mechanism by any fixed utility.” *Implementation of Act 58 of 2018 Alternative Ratemaking for Utilities*, Docket No. M-2018-3003269 (Implementation Order entered Apr. 25, 2019).

<sup>7</sup> S&P Global Market Intelligence, *Regulatory Focus Topical Special Report – Adjustment Clauses: A state by state overview* (July 18, 2022).



1 **Q. Is PAWC facing a similar regulatory paradigm to fully-integrated electric utilities**  
2 **that are authorized to recover environmental compliance costs through alternative**  
3 **rate mechanisms in other jurisdictions?**

4 A. Yes. As further discussed in Mr. Aiton’s Direct Testimony in PAWC Statement No. 3, the  
5 EPA issued proposed drinking water regulations for six per- and polyfluoroalkyl  
6 substances (“PFAS”), which will establish legally enforceable levels for each of these six  
7 PFAS that are known to occur in drinking water. In addition to proposing enforceable  
8 limits for these six PFAS, the EPA proposes requirements for the continued monitoring of  
9 PFAS, public notification of monitoring results if they exceed defined limits, and the  
10 treatment of drinking water to reduce PFAS to required limits. Once the PFAS Rule is  
11 finalized, which is expected to occur in the coming months, public water systems will be  
12 required to modify their facilities to comply with the Rule within three years. Similarly,  
13 the Pennsylvania Department of Environmental Protection has also adopted drinking water  
14 standards for PFAS that will require compliance monitoring and the adoption of additional  
15 or modified treatment systems, modification of sources, or a combination of actions.

16 PAWC’s compliance with the federal and state PFAS Rules will require significant  
17 capital investment, currently estimated at over \$1 billion of capital expenditures for all of  
18 American Water’s thirteen (13) regulated jurisdictions, along with ongoing annual  
19 operating expenses estimated at approximately \$50 million related to testing and  
20 treatment.<sup>8</sup> For PAWC, this estimated capital investment is substantial yet difficult to  
21 estimate pending the results of monitoring and completion of certain pilot treatment and

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<sup>8</sup> American Water Works Company, Inc. SEC 10-Q, July 26, 2023 (page 33)  
<https://www.sec.gov/ix.xhtml?doc=/Archives/edgar/data/1410636/000141063623000116/awk-20230630.htm>

1 other studies. Company witness Bruce W. Aiton provides a more detailed explanation of  
2 the PAWC impacts in PAWC Statement No. 3.

3 **Q. What projects will be eligible for ECIC recovery?**

4 A. ECIC eligible projects will include capital costs and expenses incurred to comply with  
5 significant new or changed legal or regulatory requirements imposed or reasonably  
6 anticipated to be imposed under applicable Environmental Laws. Applicable  
7 Environmental Laws will include, but not be limited to, any statutes, regulations, orders,  
8 and other legal mandates relating to protection of the environment, public health and safety,  
9 or natural resources, such as the EPA's PFAS Rule.

10 **Q. Will the Environmental Plan be approved by the Commission before the associated**  
11 **costs are eligible for recovery through the ECIC?**

12 A. Yes. PAWC is proposing the following review and approval process for Environmental  
13 Plans, which affords due process to interested stakeholders and provides transparency  
14 regarding all ECIC eligible projects.

- 15 • PAWC will file a copy of its Environmental Plan, detailing the specific projects,  
16 estimates, timing, and justification for inclusion within the ECIC.
- 17 • The Commission will publish the Environmental Plan in the Pennsylvania Bulletin.
- 18 • Answers and/or Comments regarding the Environmental Plan will be due 20 days after  
19 Bulletin publication.
- 20 • If no Answers or Comments are filed and the Commission chooses not to institute an  
21 investigation, the Environmental Plan will be deemed effective 21 days after Bulletin  
22 publication.

- 1           • If a party files an Answer or Comments regarding the Environmental Plan within  
2           20 days of Pennsylvania Bulletin publication or the Commission institutes an  
3           investigation regarding the Environmental Plan, the Commission shall rule on the  
4           Environmental Plan no later than 120 days of the date the Environmental Plan was filed  
5           at the Commission.
- 6           • If only Comments are filed, PAWC will file a revised Plan, Reply Comments, or both  
7           20 days after the Comments are submitted.
- 8           • If Answers are filed, the Plan will be assigned to an Administrative Law Judge for a  
9           hearing to be held within 65 days of the Plan’s filing date.
- 10          • Briefs are due 10 days after the hearing.
- 11          • PAWC will have 10 days after Briefs are filed to submit a revised Plan, Reply Brief,  
12          or both.
- 13          • The Administrative Law Judge will certify the Evidentiary Record.
- 14          • The Commission will rule on the Environmental Plan within 120 days of the Plan’s  
15          filing date.

16          PAWC believes this review process is feasible for the Commission and stakeholders  
17          because it is nearly identical to the process followed by the Commission when reviewing  
18          electric distribution companies’ energy efficiency and conservation plans.<sup>9</sup> In recognition  
19          of the urgency of ECIC eligible projects caused by mandatory regulatory compliance  
20          deadlines, an expedited review process for the Company’s annual Environmental Plan is  
21          reasonable.

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<sup>9</sup> See, e.g., *Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase IV Energy Efficiency and Conservation Plan*, Docket No. M-2020-3020824 (Order entered Mar. 25, 2021), pp. 4-5; *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Implementation Order entered Jun. 18, 2020), pp. 86-91.

1 **Q. How will the ECIC revenue requirement be calculated?**

2 A. The ECIC will capture the fixed costs of the Environmental Plan capital investments placed  
3 in-service after the end of the FPFTY in this case. The fixed costs will include the pre-tax  
4 return on the capital investment, the annual depreciation expense associated with the capital  
5 investments, incremental operating expenses within the Environmental Plan, and any  
6 associated deferrals associated with the capital investments. The fixed costs will be  
7 captured quarterly, with the ECIC effective one month after this date, as shown in the table  
8 below:

Environmental Plan Plant Additions As of	ECIC Rate Effective Date
March 31	May 1
June 30	August 1
September 30	November 1
December 31	February 1

9

10 **Q. How will the pre-tax return applied to ECIC eligible projects be calculated?**

11 A. The pre-tax return will be calculated using the state and federal income tax rates, the  
12 Company's actual capital structure, and actual costs rates for long-term debt and preferred  
13 stock as of the last day for the quarterly period (one-month prior to the ECIC Rate Effective  
14 date). The cost of equity will be the equity return rate approved in the Company's last fully  
15 litigated base rate proceeding for which a final order was entered, not more than two (2)  
16 years prior to the effective date of the ECIC. If more than two (2) years have elapsed  
17 between the entry of a such a final order and the effective date of the ECIC, then the equity  
18 return rate used in the calculation will be the authorized Distribution System Improvement  
19 Charge ("DSIC") Return for Water Utilities calculated by the Commission Staff in the

1 latest Quarterly Report on the Earnings of Jurisdictional Utilities released by the  
2 Commission.

3 **Q. Please describe how the ECIC depreciation expense will be calculated.**

4 A. The ECIC depreciation expense on the original cost of Environmental Plan projects will be  
5 calculated by applying the annual accrual rates employed in the Company's last base rate  
6 case for the plant accounts in which each retirement unit of Environmental Plan projects is  
7 recorded.

8 **Q. Is PAWC requesting authorization to defer any ECIC-related costs until inclusion in  
9 the ECIC rider?**

10 A. Yes. Until such point as the Environmental Plan investments and the associated fixed costs  
11 are included for recovery in the ECIC, PAWC requests authorization to defer depreciation  
12 expense and post-in-service carrying costs ("PISCC") from the period the investment is  
13 placed in-service until it is included in the ECIC rates for recovery. The depreciation  
14 expense deferred will be calculated consistent with the recoverable depreciation expense  
15 in the quarterly revenue requirement. The PISCC will be calculated using the Company's  
16 actual after-tax rate of return for the previous ECIC quarter, applied to the net plant value  
17 (gross plant less accumulated depreciation) of eligible Environmental Plan investments in-  
18 service.

19 **Q. How will these ECIC deferrals be recovered?**

20 A. PAWC will amortize the deferred balances over the remaining life of the investments, with  
21 only the annual amortization expense recovered within the ECIC. The Company will not  
22 seek a return on these deferred balances.

1 **Q. Please describe the schedule for ECIC rider updates.**

2 A. The ECIC will be updated quarterly, with supporting data for each quarterly update filed  
3 with the Commission and served upon the Commission’s Bureau of Investigation and  
4 Enforcement, Commission’s Bureau of Audits, the Office of Consumer Advocate and the  
5 Office of Small Business Advocate at least ten (10) days prior to the effective date of the  
6 update.

7 **Q. How will the ECIC rider be assessed to customers?**

8 A. The ECIC will be expressed as a percentage carried to two decimal places and will be  
9 applied to the total amount billed to each customer for service under the Company’s  
10 otherwise applicable rates and charges, excluding amounts billed for public fire protection  
11 service, the State Tax Adjustment Surcharge (“STAS”), and the DSIC (collectively,  
12 “excluded amounts”). One-fourth of the annual fixed costs associated with the  
13 Environmental Plan projects will be divided by the Company’s projected revenue for sales  
14 for water (including all applicable clauses and riders and less the excluded amounts) for  
15 the quarterly period during which the charge will be collected. The ECIC shall be applied  
16 equally to all customer classes.

17 **Q. Will the ECIC be audited and reconciled?**

18 A. Yes, the ECIC will be subject to audit at intervals determined by the Commission and to  
19 reconciliation annually for the twelve (12) months ending December 31 of each year. With  
20 respect to reconciliation, the revenue received under the ECIC for the reconciliation period  
21 will be compared to the Company’s eligible costs for that period, with any difference  
22 between revenues and costs recouped from or credited to customers, as appropriate, in  
23 accordance with Section 1307(e) over a one-year period commencing on May 1 of each

1 year. The Company may elect to reconcile the ECIC quarterly, but only upon request and  
2 approval by the Commission.

3 Any over- or under-collection of revenues compared to ECIC eligible costs will be  
4 subject to interest, calculated at the residential mortgage lending specified by the Secretary  
5 of Banking in accordance with the Loan Interest and Protection Law (41 P.S. § 101, et  
6 seq.). Interest will be refunded to or collected from customers in the same manner and any  
7 over- or under-recovery collection.

8 **Q. Will the ECIC reset with the implementation of future base rates?**

9 A. Yes. The ECIC will be reset to zero upon application of new base rates to customer billings  
10 that provide for prospective recovery of the annual costs that had theretofore been  
11 recovered under the ECIC.

12 **Q. Will the ECIC be subject to an earnings evaluation?**

13 A. Yes. The ECIC may be reset to zero if, in any quarter, data filed with the Commission in  
14 the Company's then most recent Annual or Quarterly Earnings reports show that the  
15 Company will earn a rate of return that would exceed the allowable rate of return used to  
16 calculate its fixed costs under the ECIC.

17 **Conclusion**

18 **Q. Does this conclude your direct testimony at this time?**

19 A. Yes, it does.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER  
COMPANY

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:  
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DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

VERIFICATION

I, **J. Cas Swiz**, hereby state that the facts set forth in the pre-marked Statement No. 8 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
\_\_\_\_\_  
J. Cas Swiz



**Pennsylvania-American Water Company  
Response to Distribution Rates – Statement of Policy  
Proposed Environmental Compliance Investment Charge (ECIC)**

**52 Pa. Code § 69.3302. Distribution rate considerations.**

(a) In determining just and reasonable alternative distribution ratemaking mechanisms and rate designs that promote the purpose and scope of this statement of policy and the objectives of 66 Pa.C.S. § 1330 (relating to alternative ratemaking for utilities), the Commission may consider, among other relevant factors, the following:

- (1) How the ratemaking mechanism and rate design align revenues with cost causation principles as to both fixed and variable costs.

**The ECIC recovers the costs associated with eligible environmental compliance costs from all customer classes via a percentage applied to the total amount billed. The ECIC is thus applied consistent with PAWC's base rates.**

- (2) How the ratemaking mechanism and rate design impact the fixed utility's capacity utilization.

**This factor is not applicable to water and wastewater utilities.**

- (3) Whether the ratemaking mechanism and rate design reflect the level of demand associated with the customer's anticipated consumption levels.

**See the response to item (1).**

- (4) How the ratemaking mechanism and rate design limit or eliminate interclass and intraclass cost shifting.

**The proposed ECIC will be applied equally to all customer classes and will not affect interclass or intraclass cost shifting.**

- (5) How the ratemaking mechanism and rate design limit or eliminate disincentives for the promotion of efficiency programs.

**The proposed ECIC will not impact efficiency programs or incentives.**

- (6) How the ratemaking mechanism and rate design impact customer incentives to employ efficiency measures and distributed energy resources.

**See the response to item (5).**

- (7) How the ratemaking mechanism and rate design impact low-income customers and support consumer assistance programs.

**The proposed ECIC does not have any specific impacts on low-income customers that do not apply to residential customers (or other customers) generally. Without the ECIC, the same costs for environmental projects would be borne by the same ratepayers effective after the next base rate case. The ECIC will allow for rates to increase as certain environmental projects are undertaken, and thus those increases will be more gradual than if deferred between base rate cases.**

- (8) How the ratemaking mechanism and rate design impact customer rate stability principles.

**The proposed ECIC, updated quarterly and reconciled annually, will provide gradual changes to customer rates and bills as opposed to more significant increases typically experienced in base rate cases.**

- (9) How weather impacts utility revenue under the ratemaking mechanism and rate design.

**The ECIC, like the Company's existing DSIC mechanism, will be reconciled annually whereby actual recoveries are compared to authorized/required recoveries, with any variances recovered from or credited to customers in subsequent ECIC charges. Specific to any weather variability in customer usage, this reconciliation ensures that no more or less than what the Company is required or authorized to recover is actually recovered in rates and charges to customers.**

- (10) How the ratemaking mechanism and rate design impact the frequency of rate case filings and affect regulatory lag.

**The Company's environmental compliance requirements are continuously evolving and is one of the drivers that increases the costs of water and wastewater service and the need for rate relief. As discussed in more detail in PAWC Statement Nos. 3 and 8, the need for and timing of measures to comply with new or changed government mandates under applicable environmental laws are outside of the Company's control. The Company's proposed ECIC will provide a reasonable mechanism for gradually adjusting the Company's rates between base rate cases to ensure full and timely rate recognition of PAWC's investments and related operating costs undertaken to comply with new environmental mandates in a prudent and efficient manner as they emerge. Permitting PAWC to recover ECIC-eligible capital costs and expenses through an automatic adjustment clause will reduce a major driver of the need for rate relief that would otherwise trigger a base rate case filing.**

- (11) If or how the ratemaking mechanism and rate design interact with other revenue sources, such as Section 1307 automatic adjustment surcharges, 66 Pa.C.S. § 1307 (relating to sliding scale of rates; adjustments), riders such as 66 Pa.C.S. § 2804(9)

(relating to standards for restructuring of electric industry) or system improvement charges, 66 Pa.C.S. § 1353 (relating to distribution system improvement charge).

**The Company's proposed ECIC does not interact with other revenue sources. The proposed ECIC excludes assets that are currently eligible for recovery under the existing DSIC mechanism, and will function similar to the DSIC in design, applicability, and recovery. The proposed ECIC will be reset to zero at the implementation of new base rates in future proceedings.**

- (12) Whether the alternative ratemaking mechanism and rate design include appropriate consumer protections.

**The proposed ECIC incorporates consumer protections by:**

- (1) requiring that costs recoverable through the ECIC be consistent with the set of projects and activities set forth in an annual environmental compliance plan to be filed by the Company and approved by the Commission; and**
- (2) requiring the audit and reconciliation annually of the ECIC, to ensure that all costs included for recovery are eligible and appropriate, and that customers in total pay no more or less over the course of a year than the authorized level of costs associated with the Environmental Plan.**

- (13) Whether the alternative ratemaking mechanism and rate design are understandable to consumers.

**The Company does not anticipate that there would be any issues related to customer confusion over the proposed ECIC. Infrastructure mechanisms like the ECIC exist today and are not new to the utility industry. The ECIC is separate and distinct from other existing mechanisms. An explanatory bill insert will be included with the first billing, and customers will be notified of changes in the ECIC by including appropriate information on the first bill they receive following any change.**

- (14) How the ratemaking mechanism and rate design will support improvements in utility reliability.

**The proposed ECIC will support improvements in the ability of PAWC to continue providing safe, adequate, and reliable water quantity and quality, while complying with applicable drinking water and environmental regulations. The ECIC will support investment in PAWC's water and wastewater system to address emerging contaminants in a cost-effective manner.**

# Statement No. 9

## Degillio

**PAWC STATEMENT NO. 9**

**DIRECT TESTIMONY  
OF  
DEBORAH A. DEGILLIO**

**DESCRIBING  
PENNSYLVANIA-AMERICAN WATER COMPANY'S CUSTOMER SERVICE  
OBJECTIVES, CUSTOMER SERVICE ORGANIZATION AND CUSTOMER  
ASSISTANCE PROGRAMS**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF DEBORAH A. DEGILLIO**

1 **Q. What is your name and business address?**

2 A. My name is Deborah A. Degillio. My business address is 1 Water Street, Camden NJ.

3 **Q. By whom are you employed and in what capacity?**

4 A. I am employed by American Water Works Service Company, Inc. (“AWWSC” or “Service  
5 Company”) as Vice President and Chief Customer Officer. I am providing testimony on  
6 behalf of Pennsylvania-American Water Company (“PAWC” or the “Company”).

7 **Q. Please summarize your educational background and professional experience.**

8 A. I received a Bachelor of Science degree in Finance and Math from the University of  
9 Wisconsin at LaCrosse in 1995 and a Master of Business Administration from the Stephen  
10 M. Ross School of Business, University of Michigan, with distinction, in 2012. I have  
11 been employed by AWWSC since April 2007. I have held various positions in the finance  
12 organization, including leading Financial Planning and Treasurer, as well as operational  
13 roles including President of New Jersey American Water Company. I became the Chief  
14 Customer Officer in March of 2019. Previous to my employment with AWWSC, I was  
15 employed by MCR Performance Solutions (“MCR”) from 2000 through 2006. MCR is a  
16 management consulting company, working with utility clients. Prior to MCR, I worked  
17 with other management consulting companies and my focus was with utility clients. I have  
18 over twenty-five years of utility experience, mostly in the finance and customer service  
19 aspects.

1 **Q. What are your current employment responsibilities?**

2 A. My primary responsibility in my role as Vice President and Chief Customer Officer is to  
3 focus on further developing and advancing all aspects of the American Water Works  
4 Company, Inc. (“American Water”) customer experience strategy. I lead the Company’s  
5 efforts in building and maintaining programs that leverage technology and advance the  
6 overall customer experience in an effort to better understand and address customer  
7 concerns. I oversee the Customer Service Organization (“CSO”), which includes over  
8 480 employees and almost 350 third-party, fully dedicated contractors who perform  
9 collections and support our inbound call handling team. My team supports all American  
10 Water regulated subsidiary utilities, including PAWC.

11 **Q. What is the purpose of your direct testimony?**

12 A. First, I will provide an overview of American Water’s customer service function and  
13 functions we perform for PAWC customers. Next, I will explain how the CSO uses  
14 customer feedback to drive high levels of customer satisfaction. I will also discuss the  
15 CSO’s efforts in recent years to improve the quality of PAWC’s customer service and  
16 achieve the Company’s customer service performance objectives. Finally, I will discuss  
17 the customer assistance programs offered by PAWC to help low-income and payment-  
18 troubled customers and enhancements to those programs the Company is proposing in this  
19 proceeding.

20 **CUSTOMER SERVICE OVERVIEW**

21 **Q.** Please describe the CSO and the functions it performs for PAWC customers.

22 A. The CSO is operated by AWWSC and supports the customer service needs of PAWC and  
23 the other American Water utility subsidiaries. The CSO responds to customer inquiries,

1 maintains customer information systems and the “myWater” customer self-service portal,  
2 provides billing and collections services and performs other customer service functions.

3 The CSO’s responsibilities include, but are not limited to, the following:

4 Customer Call Handling

- 5 • Establish and maintain customer/account records;
- 6 • Address customer inquiries concerning billing, credit and collections, service  
7 orders, and other matters;
- 8 • Field all inbound phone calls for initial customer queries and, if necessary,  
9 forward matters to appropriate parties for resolution;
- 10 • Create records of customer interactions in the Company’s customer information  
11 system, SAP and in the myWater customer portal;
- 12 • Assist with payment options, taking payments and assistance programs (e.g.,  
13 payment plans);
- 14 • Process move in and move out requests;
- 15 • Forward certain customer inquiries to field operations and water quality team  
16 members for resolution;
- 17 • Update customers who call to inquire about the status of service orders; and
- 18 • Provide assistance to customers with the myWater portal, such as password  
19 resets.

20 Billing

- 21 • Generate bills according to billing schedules and authorized tariffs;



- 1 • Resolve billing disputes and billing exceptions (out-of-range variances) not  
2 requiring field investigations;
- 3 • Issue service orders to resolve billing investigations requiring field  
4 investigations; and
- 5 • Implement and maintain controls to ensure all “active” accounts are billed  
6 according to authorized tariff frequencies.

### 7 Collections

- 8 • Monitor and/or generate and send for printing and distribution all collections-  
9 related notices;
- 10 • Manage services for customers who call to arrange payments to avoid shut-off  
11 notices for delinquent payments and that notify customers if service  
12 discontinuance is scheduled;
- 13 • Monitor and oversee the process to issue shut-off notices and schedule shut-off  
14 for non-payment;
- 15 • Maintain records for extended payment plans;
- 16 • Process bankruptcy claims; and
- 17 • Process refunds.

### 18 Operations Support and Field Resource Control Center

- 19 • Back-office support for billing exceptions, primarily associated with metering;
- 20 • Identify and investigate customer issues related to service orders for 1) zero  
21 consumption on active meters, 2) consumption on meters at premises with no  
22 active account holder, and 3) certain other meter readings;

- Coordinate and dispatch high priority work (e.g., emergencies, escalations and same-day appointments); and
- Coordinate service alerts.

Other Customer Service Functions

- Management of our customer insights program, including all surveys and customer feedback;
- Implementation of all tariff changes in SAP, including price and rate changes and associated testing of any changes to tariffs;
- Training and quality assurance for the CSO; and
- Support PAWC and its regulated utility affiliates with customer issues management, reporting and other information requests, as well as management of information required for effective handling of customer transactions and requests.

**Q. Are there benefits to PAWC to having customer service provided by the comprehensive and centralized CSO?**

A. Yes. The advantages include efficiency, consistency, and resiliency. By consolidating the customer service function of American Water’s regulated utility operating companies, each operating company enjoys greater economies of scale than would be available to individual, stand-alone company customer service departments. Resources such as equipment, training, monitoring, and supervision can be sourced more efficiently on a consolidated basis, which mitigates the costs ultimately borne by customers. A centralized CSO also ensures consistency of customer service quality and training across jurisdictions

1 and that each operating company benefits from the lessons learned and best practices  
2 developed by the CSO. The use of a centralized, common CSO staff to provide service to  
3 multiple operating companies also means that additional staff are available should one  
4 company experience a spike in call volumes due to, for example, an increased number of  
5 main breaks due to local weather conditions. The geographic diversity of the locations of  
6 the customer care agents (“CCAs”) that support the CSO creates resiliency, ensuring  
7 continued service in case of a severe weather event, work stoppage or other contingency in  
8 a single service territory.

9 **Q. How does the CSO ensure that all CCAs comply with Pennsylvania consumer**  
10 **protection regulations and requirements?**

11 A. With a limited exception for agents who work on weekends or overnights when the CSO  
12 handles only emergency calls, CCAs do not take calls from PAWC customers until they  
13 have completed the three-day Pennsylvania-specific training program. The CSO has a  
14 robust quality assurance (“QA”) process that is executed by an internal team of  
15 professionals who are focusing on agents’ adherence with Pennsylvania consumer  
16 protection rules and internal processes, as well as improvement opportunities for customer  
17 experience and employee training and coaching. We record all inbound calls to our toll-  
18 free numbers and utilize customer feedback to prioritize the calls we send to our QA team  
19 in an effort to focus on calls with the lowest customer satisfaction. We include coaching  
20 and training for our agents in weekly discussions, direct interactions with supervisors and  
21 group training tools, which include compliance with Pennsylvania regulations. In 2021,  
22 17% of calls handled by CCAs were from PAWC customers, and in 2022 19% of calls  
23 handled by CCAs were from PAWC customers. As of September 30, 2023, over 47% of

1 CCAs (internal and agency) were certified in Pennsylvania regulations and available to  
2 handle those call volumes.

### 3 **CUSTOMER INSIGHTS AND SATISFACTION DRIVERS**

4 **Q. Is customer satisfaction used as a key performance indicator of the CSO's customer**  
5 **service?**

6 A. Yes. The CSO is focused on providing customers with convenient access to information  
7 and responsive, personal service to drive high satisfaction ratings. However, customer  
8 satisfaction is more than how fast we answer a call. The syndicated J.D. Power U.S. Water  
9 Utility Residential Customer Satisfaction Study ("J.D. Power Study") measures  
10 satisfaction among residential customers of over 90 water utilities across the United States.  
11 The 2023 J.D. Power Study based on 36,833 responses found that residential customer  
12 satisfaction is driven by the following six factors: quality and reliability (29%), price/value  
13 of service (20%), conservation (15%), billing and payment (14%), communications (15%),  
14 and customer service (6%). Only one of thirteen key customer satisfaction indicators  
15 identified in the 2023 JD Power Study – first contact resolution – related to call center  
16 performance. The other twelve major performance factors involved quality and value of  
17 service and conservation. In his direct testimony, Company witness Jim Runzer (PAWC  
18 Statement No. 2) discusses those areas outside of the CSO that drive customer satisfaction,  
19 for example, the Company's efforts to protect water supplies and improve the impact of  
20 operations on the environment, ongoing enhancements to deliver high quality water to  
21 PAWC customers, PAWC's conservation initiatives, and how we provide tips to customers  
22 to conserve.

1 The CSO employs a robust feedback process and tools to determine how well we meet –  
2 or exceed – customer expectations and to develop customer service performance  
3 objectives. PAWC and the CSO leverage multiple sources of customer feedback to  
4 monitor overall customer satisfaction and satisfaction with individual service experiences,  
5 including targeted surveys taken immediately after phone, field and customer portal  
6 interactions and a customer satisfaction survey of all PAWC customers conducted  
7 quarterly. This approach allows the Company and the CSO to stay abreast of changing  
8 customer expectations and align performance goals to meet those customer needs. For  
9 example, in 2022, the Company adopted a performance objective for first contact  
10 resolution based on customer feedback that a timely response to their inquiries improves  
11 satisfaction and reduces customer effort. CSO leadership regularly engages PAWC  
12 leadership regarding customer service performance objectives in an effort to drive higher  
13 customer satisfaction for PAWC customers by, among other things, sharing customer  
14 feedback data in real time through an online dashboard.

15 **Q. How does the CSO rate with respect to customer satisfaction?**

16 A. I believe the CSO rates quite well. In response to our phone-based and web-based  
17 transaction surveys conducted between January 1, 2023 and August 31, 2023, 70% of  
18 PAWC customers served by the CSO rated our CCAs' overall performance as excellent or  
19 very good, and 94% of PAWC customers rated overall service appointment experience as  
20 excellent or very good.

1 **CUSTOMER SERVICE PERFORMANCE OBJECTIVES AND IMPROVEMENT**  
2 **INITIATIVES**

3 **Q. Has the CSO increased staffing to facilitate Company performance objectives in**  
4 **answering calls in a timely manner and avoiding a significant abandonment rate?**

5 A. Yes. The CSO experienced an unusually high level of attrition among CCAs available to  
6 handle customer calls due to the COVID-19 emergency during the 2020-2022 period.  
7 Since the onset of the pandemic, the CSO has added CCAs across the American Water  
8 footprint to reduce wait times for customers. As of September 30, 2023, 355 CCAs were  
9 available to handle customer calls compared to staffing levels as low as 281 CCAs over  
10 2020 and 2021. This increased complement of trained personnel has improved service  
11 levels with CCAs answering 67% of calls within 60 seconds year to date in 2023 (January  
12 through August) compared to 45% in 2022 overall. As shown in Table 1 below, the CSO’s  
13 hiring and recruitment efforts over the past several years has reduced wait times and the  
14 call abandonment rate for customers that do not utilize the courtesy call-back feature in the  
15 CSO’s interactive voice response (“IVR”) system.

<b>Table 1</b>				
<u>Year</u>	<u>Annual Percentage of Calls Answered in 60 Seconds</u>	<u>First Contact Resolution</u>	<u>Average Speed of Answer (minutes)</u>	<u>Abandonment Rate</u>
2020	67%	N/A	4:43	15%
2021	43%	N/A	10:19	24%
2022	45%	53%	7:50	21%
2023 (January through August)	67%	57%	2:37	9%

1 As shown in Table 1, the Company has made substantial progress in 2023 toward its  
2 performance objectives of answering 80% of calls within 60 seconds and achieving a call  
3 abandonment rate of 8%.

4 **Q. Has the CSO implemented enhancements to the Company's myWater customer**  
5 **service portal to help PAWC customers to efficiently manage their accounts online?**

6 A. Yes. Currently, nearly 50% of PAWC customers complete transactions with the Company  
7 online. The CSO and PAWC continue to expand options for customers to communicate  
8 with the Company and access information about their utility service through online self-  
9 service options. The myWater portal allows PAWC customers to effortlessly make  
10 payments, view water usage history, check balances and schedule appointments for some  
11 service items, 24 hours a day, 7 days a week. Through the portal, customers can also enroll  
12 in the Company's free paperless billing program and schedule automatic payments. The  
13 CSO continually refines the myWater portal to expand functionality and improve the  
14 customer experience. Since the myWater portal was launched in 2020, the CSO has  
15 implemented a variety of enhancements, including allowing automatic credit card  
16 payments, allowing customers to apply for a leak adjustment online, and improved  
17 navigation and scrolling.

18 **Q. Please explain the CSO's efforts to increase paperless billing to increase customer**  
19 **engagement and, ultimately, satisfaction.**

20 A. About 25% of PAWC customers are enrolled in paperless billing today. Increasing  
21 adoption of paperless billing is a key CSO initiative to improve customer satisfaction  
22 because it provides a convenient way for customers to access, pay and store their bills.

1 Using the Company's self-service portal to pay bills online reduces the time spent paying  
2 that bill, the clutter that comes with paper bills and a customer's carbon footprint. Paperless  
3 billing also reduces the Company's postage and paper costs by over \$6.75 per bill per year.  
4 Postage rates increased twice in 2023 including a five percent increase in January 2023 and  
5 another five percent increase in July 2023. Postage rates are forecasted to increase twice a  
6 year going forward, so the operational cost savings from paperless billing will only  
7 continue to grow.

8 In 2023, PAWC encouraged customers to learn more about paperless billing and  
9 enroll in several communications, including a bill insert to all customers in August 2023,  
10 two customer emails in August and October 2023 with approximately 495,000 successful  
11 deliveries and three email campaigns where customers could establish a myWater account  
12 and enroll in paperless billing with one click. The Company's myWater users also receive  
13 a web pop-up every six months to remind them about the paperless billing option. PAWC  
14 employs many other tools to encourage customers to consider paperless billing including  
15 social media, website assets, on-bill and bill envelope messaging, and new welcome kits.  
16 The CSO also has scripting for CCAs to encourage, but not require, new customers to sign  
17 up for paperless billing.

18 **Q. Ms. Degillio, what strategies has the CSO pursued in the last two years to maintain**  
19 **high levels of overall customer satisfaction?**

20 A. As stated above, the CSO is always seeking ways to improve the experience of our  
21 customers and to perform our services more efficiently. I will highlight a few notable  
22 improvements made in the past 24 months based on customer feedback and evolving  
23 industry best practices. First, the CSO bolstered quality assurance for call handling.



1 Previously, we listened to at least ten calls per CCA per month that were randomly selected.  
2 The Company's call handling QA process includes reviewing any call where the customer  
3 rated the call as poor in the post-transaction survey. This not only allows us to provide  
4 better and more timely feedback to our CCAs and supervisors, but we are also able provide  
5 prompt and targeted training to ensure overall customer satisfaction with the CCA.

6 In addition to enhancements to the myWater portal, the CSO has streamlined customer  
7 interactions by updating website and IVR content and adding a virtual assistant to answer  
8 frequently asked questions and recurring concerns quickly so there is less need to talk to a  
9 CCA. The CSO also has pursued technological advancements in recent years to streamline  
10 administrative tasks and provide more time for our employees to focus on customer  
11 interactions. For example, in 2022, the CSO automated employee time and attendance.  
12 Prior to this upgrade, supervisors in both our billing and customer care teams had to engage  
13 in a time-consuming manual process to review when employees logged in for work and  
14 when breaks were taken to manage attendance.

15 **Q. Are there any recent CSO improvements pertaining to PAWC's commercial and**  
16 **industrial ("C&I") customers that you would like to highlight?**

17 A. Yes. Over the past 24 months, we have made improvements for our C&I customers and  
18 residential customers with more than one meter. One example is collective billing, which  
19 is where a customer can combine multiple meters into one bill. The same customer can  
20 access all of their accounts with a single sign-on to the myWater portal. We also held  
21 webcasts for major accounts in 2022 on conservation and diversity, equity, and inclusion.  
22 PAWC's major accounts program also now offers personalized service and a single point

1 of contact for the Company’s largest C&I customers to provide value-based solutions and  
2 improve their overall customer experience.

3 **COMMITMENT TO CUSTOMER ASSISTANCE**

4 **Q. How does PAWC provide assistance to customers who may need help paying their**  
5 **water or wastewater bills?**

6 A. Affordability is critical to PAWC and American Water. Company witness Charles Rea  
7 describes how we assess the affordability of water and wastewater service in his direct  
8 testimony (PAWC Statement No. 10). PAWC has multiple ways to help customers in need,  
9 including low-income customer assistance programs, which I discuss below, budget billing  
10 and payment plans.

11 **Q. Please describe the Company’s existing low-income customer assistance programs.**

12 A. Under the H2O Program, PAWC offers a range of financial assistance for qualifying water  
13 and wastewater customers. The H2O Bill Discount Program (“BDP”) provides substantial  
14 bill reduction assistance for both water and wastewater customers with annual household  
15 incomes at or below 150% of the Federal Poverty Level (“FPL”). Additionally, BDP  
16 participants can receive water-saving device kits and educational programming through the  
17 H2O Program to help those customers conserve water and potentially lower their water and  
18 wastewater bills. BDP participation is “portable,” meaning that an otherwise qualified  
19 customer will not be removed from the BDP if the customer changes their service address  
20 to another location within the Company’s service territory.

21 The H2O Program also provides Hardship Grants for qualifying customers with annual  
22 household incomes at or below 200% of the FPL. A customer may receive a Hardship

1 Grant equal to the customer’s total account balance at the time of grant issuance, up to the  
2 maximum annual grant amount of \$500 for water service and \$500 for wastewater service.  
3 H2O Hardship Grants are funded through an annual corporate donation (currently  
4 \$625,000 for water and \$125,000 for wastewater) as well as customer and employee  
5 donations.

6 **Q. Does the Company perform outreach to customers regarding its low-income**  
7 **assistance programs?**

8 A. Yes. PAWC utilizes a variety of tools and methods to inform its customers about the  
9 benefits provided by the H2O Program, including direct customer communication,  
10 participation in PUC consumer education events and local community events, and Dollar  
11 Energy Fund (“DEF”) outreach.

12 *Direct Customer Communications.* PAWC combines broad-based  
13 communications to all residential PAWC customers with more targeted outreach activities  
14 to educate customers about assistance programs. The broader communications strategy  
15 includes bill inserts, email campaigns, the New Customer Booklet and social media (e.g.,  
16 Facebook, Twitter, and YouTube). PAWC customers may also call our toll-free customer  
17 service line or visit PAWC’s website for information on the benefits available under the  
18 H2O Program (with downloadable flyers available in both English and Spanish) and how  
19 to contact the Company to apply for the program. PAWC also employs targeted social  
20 media, direct mail and in-person outreach in zip codes with higher percentages of low-  
21 income customers overall (i.e., household income of 0-150% of FPL) as well as zip codes  
22 with higher percentages of customers with a household income of 0-50% of FPL. For  
23 example, the Company recently promoted its BDP and Hardship Grants via a direct mailing

1 to the 32 zip codes with the highest percentages of customers in the 0-150% of FPL range,  
2 representing approximately 55,000 customers. PAWC has also partnered with community  
3 service organizations such as the Chester County Food Bank and Phillipsburg YMCA to  
4 make customer assistance program fact sheets available to food pantry recipients.

5 ***PUC Events.*** The Commission’s consumer education events are also an important  
6 part of the PAWC’s outreach program. For many years, PAWC has been an active  
7 participant in the PUC Be Utility Wise (“BUW”) consumer education event promoting  
8 consumer awareness, utility education, life management skills and financial literacy. The  
9 BUW events bring together hundreds of representatives from front-line community-based  
10 organizations (“CBOs”) and other key stakeholders to engage, educate and help them better  
11 understand utility customer assistance programs available in their communities. The event  
12 focuses on ways to help low-income households maintain essential services by: (1) sharing  
13 tools and resources about customer assistance program and conservation; (2) reviewing  
14 information and guidelines about support programs; and (3) exchanging ideas on ways to  
15 improve service to at-risk households.

16 ***Local Community Events.*** PAWC also participates in many local events across the  
17 state, including utility fairs and senior fairs, to interact directly with customers. These  
18 events are held in neighborhood schools, churches, community centers, malls/shopping  
19 centers, and other community locations. For example, in the summer months of 2023,  
20 PAWC participated in several utility or customer assistance program fairs in the following  
21 areas, among others: Lackawanna County, Luzerne County, Coatesville, Port Vue,  
22 Duquesne City, Fayette County, Kane Borough, New Castle City, Clarion Borough, and  
23 Warren City. The Company has also focused on communicating low-income program

1 information in Spanish to several of its communities with higher concentrations of Spanish-  
2 speaking customers.

3 **DEF Outreach.** Finally, DEF provides public education about the Company's  
4 H2O Program through public service announcements, press releases, community speaking  
5 engagements, networking, and other methods deemed effective in alerting the public about  
6 the availability of the Company's low-income assistance programs and how the community  
7 can contribute to the Hardship Fund.

8 **Q. Has the Company proposed an arrearage management program ("AMP") for**  
9 **qualifying low-income customers?**

10 A. Yes. In PAWC's 2020 base rate proceeding, the Company agreed that it would present an  
11 AMP to the Commission for review and approval no later than six months after a final  
12 order in that proceeding. PAWC filed a petition to request approval of its AMP with the  
13 Commission on August 25, 2021 at Docket No. P-2021-3028195. The AMP proceeding  
14 is ongoing and a Further Amended Joint Petition for Full Settlement was filed on  
15 September 11, 2023 ("AMP Settlement"). Under the pending AMP Settlement, a customer  
16 is eligible to enroll in the AMP if: (1) they provide documentation establishing a household  
17 income is at or below 150% of the FPL, subject to the income-related provisions in the  
18 AMP Settlement; (2) they are enrolled or seeking enrollment in the BDP; and (3) they have  
19 at least a \$150 arrearage balance (inclusive of water and/or wastewater charges), including  
20 arrearages that are at least 60 days past due. Customers participating in the AMP will  
21 receive \$25 of arrearage forgiveness for each in-full payment of current charges plus the  
22 \$5 co-pay made while the customer is in the program. Participants must recertify their  
23 income according to timelines detailed in the AMP Settlement in order to remain in the

1 program. If the AMP Settlement is approved, the Company will implement the AMP no  
2 later than twelve months after the Final Order in the AMP proceeding.

3 **Q. Is the Company planning to make any enhancements to these low-income customer**  
4 **assistance programs?**

5 A. Yes, the Company intends to make enhancements to the BDP, AMP and Hardship Fund to  
6 provide additional bill assistance to customers and also align program requirements. For  
7 the BDP, as explained in more detail by Mr. Rea in PAWC Statement No. 10, the Company  
8 is proposing to expand eligibility to customers with household income at or below 200%  
9 of the FPL. If approved by the Commission for the Company's BDP, the Company also  
10 intends to offer the AMP to qualifying BDP participants at or below the 200% of the FPL.  
11 In addition, the Company is actively working on implementing income verification  
12 requirements for the BDP that are consistent with the income verification provisions of the  
13 AMP Settlement. Having these requirements up and running will help facilitate the launch  
14 of the AMP after Commission consideration and approval of the AMP Settlement.

15 PAWC also plans to make enhancements to the Hardship Fund in accordance with a  
16 settlement that is pending before the Commission in the proceeding related to the  
17 Company's proposed acquisition of the Butler Area Sewer Authority's wastewater system  
18 assets (the "BASA Settlement").<sup>1</sup> Specifically, if the BASA Settlement is approved by the  
19 Commission, PAWC will expand eligibility to customers with household income at or  
20 below 250% of the FPL and contribute \$3.5 million to the Hardship Fund (\$700,000

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<sup>1</sup> See *Application of Pennsylvania-American Water Company-Wastewater Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Butler Area Sewer Authority's Wastewater System Assets*, Docket No. A-2022-3037047 (Joint Petition for Settlement filed Aug. 14, 2023, pp. 26-27).

1 annually for 5 years) in addition to PAWC’s annual \$750,000 contribution. This increased  
2 funding level is also expected to provide eligible customers with access to Hardship Fund  
3 dollars year-round regardless of service status. In other words, if the BASA Settlement is  
4 approved, the Company would not likely need to limit Hardship Fund availability during  
5 certain months of the year to only customers at risk of service termination or who are  
6 already disconnected due to non-payment.

7 **Q. What actions does the Company take with regard to Low-Income Household Water**  
8 **Assistance Program (“LIHWAP”) grants?**

9 A. The Company performs targeted customer outreach (e.g., direct mail, e-mail and social  
10 media) about the availability of LIHWAP grants and applies awarded grants to customer  
11 accounts. In the most recent round of LIHWAP funding, for which the application window  
12 closed on August 18, 2023, PAWC has applied over 2,400 grants to customer accounts,  
13 totaling approximately \$1.11 million. In addition, PAWC is automatically enrolling  
14 LIHWAP recipients into its BDP to the extent the customer is not already enrolled.

15 **Q. Have there been any other technology improvements implemented recently to**  
16 **improve customer assistance program delivery?**

17 A. Yes. In 2023, PAWC implemented a customer assistance portal to improve service to our  
18 most vulnerable customers. The overall goal of this tool was to automate the processing  
19 of pledge information from third-party assistance providers, such as DEF, LIHWAP, non-  
20 profits, churches, community groups, etc. Before this tool was implemented, assistance  
21 providers needed to directly contact us with questions about customers and outstanding  
22 balances. If a pledge was approved, the assistance provider then transmitted the amount

1 and account information which was manually added to each account to reflect the pledges.  
2 This new portal automates both the provision of necessary information to the assistance  
3 provider and the loading of the pledge into SAP so that the pledge is reflected in the  
4 customer's account. Overall, this portal improves the efficiency of the pledge-related  
5 activities of the Company and the CSO and delivers more timely pledges to benefit our  
6 customers.

7 **CONCLUSION**

8 **Q. Does this conclude your direct testimony at this time?**

9 **A.** Yes, it does.



BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER  
COMPANY

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DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

VERIFICATION

I, **Deborah A. Degillio**, hereby state that the facts set forth in the pre-marked Statement No. 9 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
Deborah A. Degillio

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**STATEMENT NO. 10 -DIRECT TESTIMONY OF CHARLES REA**

**EXHIBITS NO. 10-A THROUGH 10-E AND CBR-1 THROUGH CBR-11 ON  
PROPOSED RATE DESIGN, WATER AND WASTEWATER SERVICE AFFORDABILITY  
ANALYSIS, DECLINING USAGE ANALYSIS, REVENUE RATE APPLICATION FOR ALL WATER  
AND WASTEWATER OPERATIONS, AND PROPOSED REVENUE DECOUPLING MECHANISM**

**DIRECT TESTIMONY  
OF  
CHARLES REA**

**WITH REGARD TO  
PENNSYLVANIA-AMERICAN WATER COMPANY'S**

**RATE DESIGN PROPOSALS, AFFORDABILITY ANALYSES, LOW-INCOME  
DISCOUNT TARIFF MODIFICATION PROPOSAL, CUSTOMER USAGE AND  
DECLINING USE ANALYSES, REVENUE CALCULATIONS AND PROJECTIONS,  
AND REVENUE DECOUPLING MECHANISM PROPOSAL**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**DIRECT TESTIMONY OF CHARLES REA**

1 **Q. What is your name and business address?**

2 A. My name is Charles B. Rea. My business address is 3409 Research Parkway, Davenport,  
3 Iowa 52806.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed by American Water Works Service Company, Inc. (“AWWSC” or “Service  
6 Company”) as Senior Director, Enterprise-Wide Regulatory Pricing & Affordability. I am  
7 providing testimony on behalf of Pennsylvania-American Water Company (“PAWC” or  
8 the “Company”).

9 **Q. Please summarize your educational background and professional experience.**

10 A. I received a Bachelor of Arts degree in Computer Science from the University of Illinois  
11 at Springfield in 1986 and a Master’s degree in Statistics and Operations Research from  
12 Southern Illinois University at Edwardsville in 1990. I have been employed by AWWSC  
13 since January 2018. Prior to my employment with AWWSC, I was employed by  
14 MidAmerican Energy Company (“MidAmerican”) from June 1990 through January 2018.  
15 I have over 30 years of utility experience covering a wide range of issues including electric  
16 system planning, sales and revenue forecasting, electric load research, marketing, rates,  
17 cost of service, and energy efficiency. Most recently, at MidAmerican, I was Director,  
18 Energy Efficiency and Regulatory Analytics. In that position I had responsibility for  
19 planning, evaluation, and operational management of MidAmerican’s energy efficiency  
20 and demand response programs in Illinois, Iowa, and South Dakota, as well as direct  
21 responsibility for electric and natural gas sales and revenue forecasting, electric peak

1 demand forecasting, load research, retail pricing of electric and natural gas products, and  
2 electric and natural gas cost of service and rate design.

3 **Q. What are your current employment responsibilities?**

4 A. My primary responsibility in my role as Senior Director, Enterprise-Wide Regulatory  
5 Pricing & Affordability, is to serve as a subject-matter expert on rate design, revenue  
6 issues, and affordability issues. I am responsible for the development and preparation of  
7 rate design analyses, as well as presenting cost of service and rate design proposals to our  
8 internal and external stakeholders. In addition, I am the Company's subject-matter expert  
9 on forecasting and the statistical analysis of customer usage for rate case purposes and I  
10 am the Company's subject-matter expert on the analysis of the affordability of the  
11 Company's water and wastewater service to its customers.

12 **Q. What is the purpose of your direct testimony?**

13 A. I will sponsor the Company's proposed rate design for both water and wastewater service  
14 and will provide calculations and evidence necessary to support the Company's proposed  
15 rates. I will also present the Company's affordability analyses for water and wastewater  
16 service and PAWC's proposal to expand access to its Bill Discount Program ("BDP"). In  
17 addition, I further present the Company's analysis of residential, commercial, and public  
18 authorities' water consumption as it relates to the impact of the COVID-19 pandemic on  
19 water usage and long-term trends in water usage. I will, further, present the Company's  
20 determination of Test Year revenues at Present Rates and Proposed Rates. Finally, I will  
21 present the basis and rationale for the Company's proposed Revenue Decoupling  
22 Mechanism ("RDM").

23 **Q. Please identify the exhibits you will be sponsoring in this proceeding.**

1 A. I am sponsoring the following Company Exhibits attached to my testimony:

- 2 • Exhibit CBR-1 – Water Affordability Analysis
- 3 • Exhibit CBR-2 – Wastewater Affordability Analysis
- 4 • Exhibit CBR-3 – Proposed Water Rate Design
- 5 • Exhibit CBR-4 – Proposed Wastewater Rate Design
- 6 • Exhibit CBR-5 – Residential Usage Analysis
- 7 • Exhibit CBR-6 – Commercial Usage Analysis
- 8 • Exhibit CBR-7 – Municipal Usage Analysis
- 9 • Exhibit CBR-8 – RDM Cost Component Calculations
- 10 • Exhibit CBR-9 – RDM Projected Results
- 11 • Exhibit CBR-10 – RDM Analysis for Docket No. M-2015-2518883
- 12 • Exhibit CBR-11 – NARUC Resolution

13 I also am sponsoring Exhibit Nos. 10-A through 10-E, which set forth the proof of revenues  
14 from the application of present and proposed rates for each system.

15 **Q. How is your Direct Testimony organized?**

16 A. My Direct Testimony is organized into the following sections:

- 17 • Affordability
- 18 • Expansion of Low-Income Programs
- 19 • Rate Design
- 20 • Wastewater to Water Revenue Requirement Reallocation (Act 11)
- 21 • Analysis of PAWC Usage
- 22 • Revenue Calculations
- 23 • Revenue Decoupling Mechanism

1 **AFFORDABILITY**

2 **Introduction**

3 **Q. Please describe the concept of affordability.**

4 A. The concept of affordability for water and wastewater service is based on the idea that  
5 everyone should have access to drinking water and wastewater service that is (1) safe,  
6 meaning it complies with the U.S. Safe Drinking Water Act and regulations promulgated  
7 by the U.S. Environmental Protection Agency; (2) reliable, so that it is resilient in the face  
8 of floods, droughts, and other climate risks; and (3) affordable.

9 **Q. Why is affordability of water and wastewater service an important issue to the**  
10 **Company?**

11 A. The Company knows that its water and wastewater service is essential, and we know how  
12 important it is for that service to remain affordable. Maintaining affordability of service is  
13 an important objective for PAWC as discussed in the direct testimony of Ashley Everette  
14 in PAWC Statement No. 1 and Deborah Degillio in PAWC Statement No. 9.

15 **Q. How does the Company assess the affordability of its water and wastewater service?**

16 A. The Company assesses the affordability of its water and wastewater service by comparing  
17 annual bills for water and wastewater service to household income in the communities that  
18 we serve. Such an assessment requires at least two data points – the average monthly or  
19 annual bill for water service and some measure of household income for the customer  
20 population. For the broader residential customer base, commonly available household  
21 income measures are measures of income at different percentiles. Median Household  
22 Income (“MHI”), which is household income at a 50th percentile level (50% of households  
23 in a given population have incomes greater than the median and 50% of households have

1 incomes lower than the median), can be measured at a statewide or community level and  
2 can be paired with a data set that provides the number of customers served in each  
3 community to arrive at a weighted number that represents MHI for the Company's entire  
4 service territory.

5 At a more detailed level, individual household income is considered, and  
6 affordability can then be assessed, across a full range of households based on their various  
7 income levels and bills for water and/or wastewater service. A variety of household income  
8 data is readily and publicly available from the U.S. Census Bureau through the American  
9 Community Survey ("ACS") at the state, county, and community levels.

10 **Q. What types of affordability analyses does the Company conduct?**

11 A. The Company conducts two different types of affordability analysis for its water and  
12 wastewater service. The first analysis is an Enterprise-Level analysis of affordability,  
13 which considers affordability of service at a high level over a multi-year period. The  
14 second analysis is a Community-Level analysis of affordability, which takes a deep dive  
15 into the affordability of service at the individual customer level under current or proposed  
16 rates and current economic conditions.

17 **Q. Has the Company provided an affordability analysis of its water and wastewater  
18 service for the proposed rates in this case?**

19 A. Yes. The Company's affordability study for water service is provided in Exhibit CBR-1  
20 and the affordability study for wastewater service is provided in Exhibit CBR-2. Each  
21 exhibit contains both the Enterprise-Level Analysis and a Community-Level Analysis for  
22 the applicable service.

23



1 **Enterprise-Level Analysis**

2 **Q. Please describe the Company’s Enterprise-Level Analysis of affordability of service.**

3 A. The Enterprise-Level Analysis of affordability for water and wastewater service is a  
4 historical comparison of average monthly bills for PAWC residential customers to  
5 household income for the Company’s residential customers. The metric used to describe  
6 affordability is the Bill-to-Income (“BTI”) Ratio, which is defined as annual water bills  
7 divided by estimated annual household income. This view looks at average residential  
8 monthly bills for all customers over time compared to MHI for the Company’s residential  
9 customer base.

10 **Q. What is the purpose of this Enterprise-Level Analysis?**

11 A. The purpose of the Enterprise-Level analysis is to provide a high-level historical  
12 perspective on how the affordability of service has been trending over time and how it is  
13 expected to continue to trend under proposed rates. Although the Company is proposing  
14 to increase customer rates in this proceeding, the important metric to consider is the impact  
15 that proposed rates and bills have on customer finances and how those impacts have  
16 trended over time and are expected to trend going forward. This metric must consider not  
17 only trends in rates and bills but trends in household income. The BTI Ratio proposed by  
18 the Company considers all of these factors. The Company’s BTI Ratio as presented in the  
19 Company’s affordability analyses is the appropriate metric to use when looking at the  
20 impact of the Company’s rates for water and wastewater service on customers.

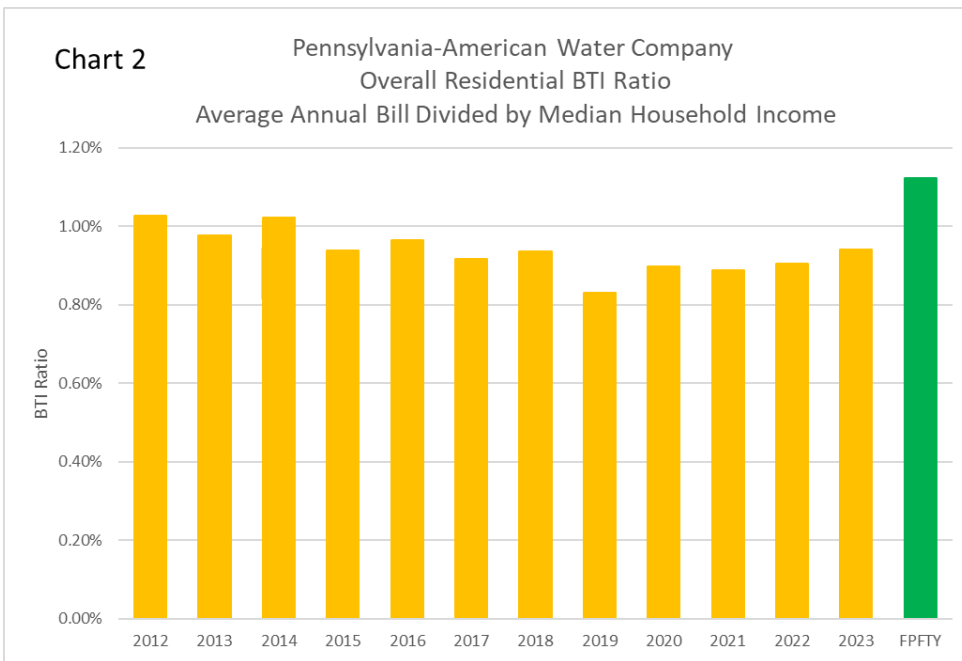
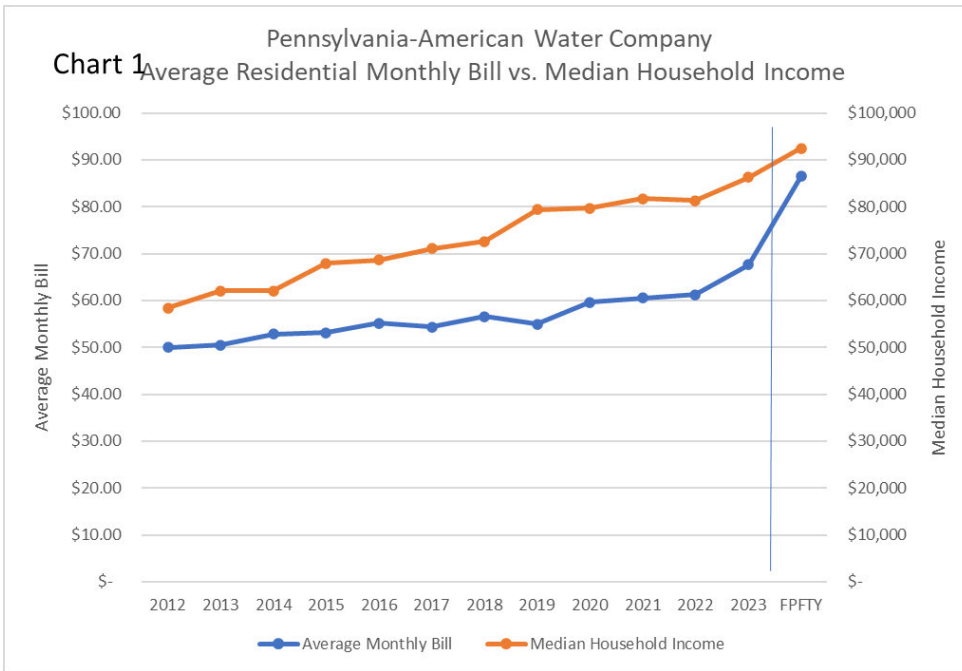
21 **Q. How do you determine MHI for the customers in the Company’s service territory?**

22 A. The MHI for the Company’s service territory is a weighted average of the number of  
23 customers the Company serves in each community in the service territory and the median

1 household income in each of those communities for owner-occupied and single-unit,  
2 renter-occupied homes as reported by data in the ACS based on the most recent year's  
3 available data (2021 in this proceeding). The relationship between this service territory–  
4 specific figure and the MHI for the Commonwealth of Pennsylvania for 2021 (also  
5 provided at the community level through the ACS) is then applied to historical MHI data  
6 for the Commonwealth of Pennsylvania to arrive at historical MHI data for the PAWC  
7 service territory.

8 **Q. What are the results of your Enterprise-Level analysis of affordability for water**  
9 **service?**

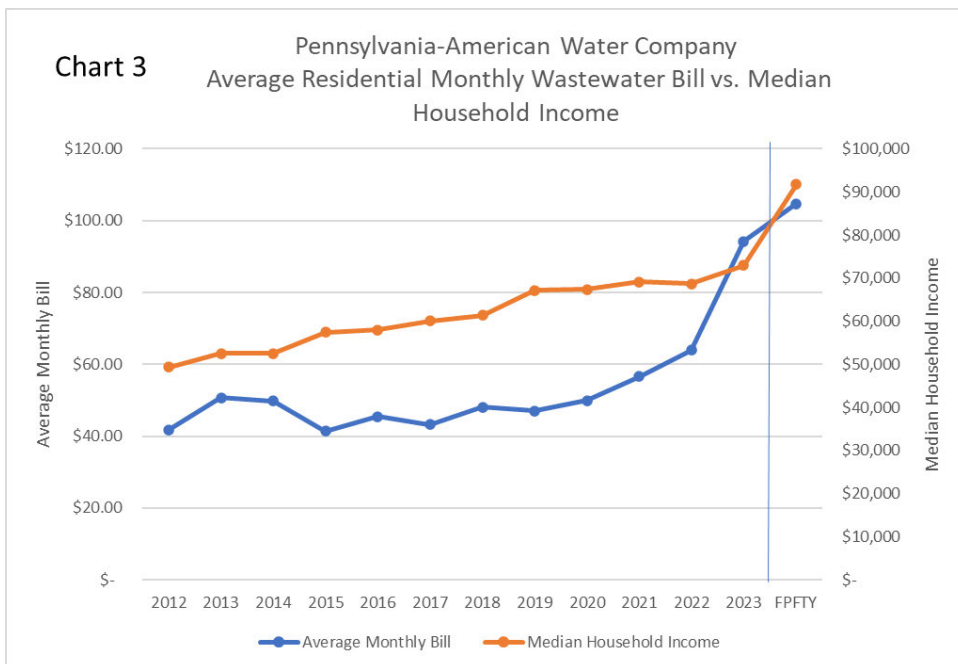
10 A. The charts below compare historical average monthly water bills for water service to MHI  
11 for PAWC customers from 2012 through 2023 stated in absolute terms and stated in terms  
12 of the BTI Ratio, along with estimated average monthly bills under the Company's  
13 proposed rates in this case and the estimated MHI for PAWC water customers for the Fully  
14 Projected Future Test Year ending June 30, 2025 ("FPFTY"). The data shows that the BTI  
15 Ratios for water service for PAWC have held steady from 2012 through 2023 at levels  
16 between 0.8% and 1.0% of MHI. The BTI Ratio at the median income level is expected to  
17 be 1.12% under the Company's proposed water rates in this case.

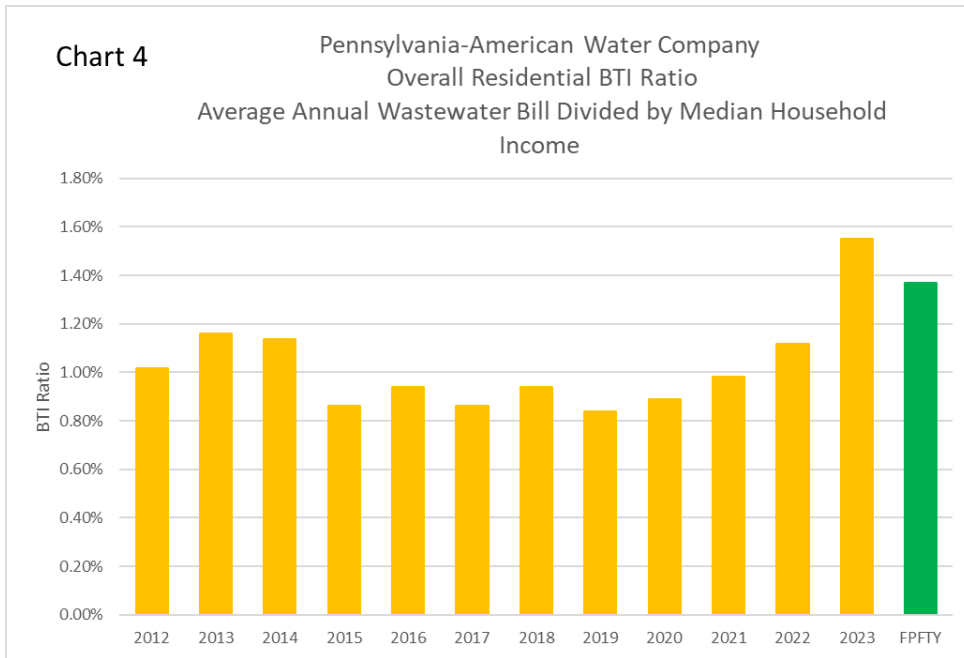


1 **Q. What are the results of your Enterprise-Level analysis of affordability for wastewater**  
 2 **service?**

3 **A.** The charts below compare historical average monthly water bills for wastewater service to  
 4 MHI for PAWC customers from 2012 through 2023 stated in absolute terms and stated in

1 terms of the BTI Ratio, along with estimated average monthly bills under the Company’s  
 2 proposed rates in this case and estimated MHI for PAWC customers for the FPFTY. The  
 3 data shows that the BTI Ratios for wastewater service for PAWC customers have held  
 4 steady from 2012 through 2022 at levels between 0.9% and 1.2% of MHI and rose to 1.55%  
 5 in 2023. The BTI Ratio at the median income level is expected to be 1.37% under the  
 6 Company’s proposed wastewater rates in this case.





1 **Q. Is there a generally accepted standard for the affordability of water and wastewater**  
 2 **service expressed as a percentage of MHI?**

3 A. There is no definitive standard for affordability as a percentage of MHI. Benchmarks for  
 4 affordability expressed as a total bill’s percentage of MHI is a policy decision. However,  
 5 bills that are less than 2.0% or 2.5% of MHI for water and 4.0% to 4.5% of MHI for  
 6 combined water/wastewater are considered “affordable” by some.<sup>1</sup>

7 **Q. In your opinion can the assessment of affordability of service be reduced to basically**  
 8 **a yes or no answer?**

9 A. No, the affordability of water or wastewater service will never be that simple. One can  
 10 generally measure average water bills against any given benchmark and come up with a  
 11 yes or no answer, but affordability of service is a continuum, and that is what the

<sup>1</sup> Teodoro, Manuel P., “*Measuring Household Affordability for Water and Sewer Utilities*,” Journal AWWA (2018), doi:10.5942/jawwa.2018.110.0002.

1 Company's Community-Level analysis, which I describe next in my Direct Testimony,  
2 shows. There will always be customers for whom water service is more affordable than  
3 for others depending on demographics and income levels. This is true across all of the  
4 communities that PAWC serves, including even the wealthiest communities that the  
5 Company serves.

6 **Community-Level Analysis**

7 **Q. Please describe the Company's Community-Level Analysis of affordability of service.**

8 A. The Community-Level Analysis takes a deeper dive into the affordability of water and  
9 wastewater service at a local level across different customer demographics and proposed  
10 rates for each community that the Company serves. For larger communities, the analysis  
11 is done at a zip-code level.

12 **Q. What is the purpose of this Community-Level Analysis?**

13 A. The purpose of the Community-Level Analysis is to identify, at an individual customer  
14 level, the percentages of household income that bills for water and wastewater service are  
15 expected to take up under the Company's proposed rates, and to identify demographic  
16 trends either by geographic location or by income level for customers where affordability  
17 of service may be an issue based on BTI Ratios measured at the individual customer level.

18 **Q. How is this analysis different from the Enterprise-Level Analysis you previously  
19 presented?**

20 A. The Enterprise-Level Analysis and the Community-Level Analysis are two different but  
21 complementary views of affordability. As previously stated, the purpose of the Enterprise-  
22 Level analysis is to provide a high-level historical perspective on how the affordability of  
23 service has been trending over time and how it is expected to continue to trend under

1 proposed rates. The Community-Level analysis takes a deep dive into the affordability of  
2 service at the individual customer level under current or proposed rates and current  
3 economic conditions.

4 **Q. Is there academic research that supports the Company’s approach to assessing**  
5 **affordability of service at this detailed level?**

6 A. Yes. Cardoso and Wichman<sup>2</sup> outline a framework for assessing affordability of water  
7 service that uses the full distribution of household income at the local level rather than MHI  
8 or some other static representative level of income and uses varying levels of water usage  
9 at the individual household level instead of a static representative level of water usage.  
10 While my methodology differs from Cardoso and Wichman in certain areas, the goal  
11 remains the same, which is to analyze affordability at the individual customer level and  
12 identify customer groups where affordability of service may be an issue.

13 **Q. What information is needed to conduct an analysis of the affordability of service at**  
14 **this detailed level?**

15 A. The following information is used to assess affordability of service at the community and  
16 individual customer level:

- 17 • The number of customers served in each community.
- 18 • The distribution of owner-occupied households and renter-occupied households by  
19 income level in each community.

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<sup>2</sup> Cardoso, Diego S. and Wichman, Casey J., “*Water Affordability in the United States*,” *Water Resources Research*, vol. 58, issue 12 (2020).

- 1           • The percentage of occupied housing units that are owner-occupied households or  
2           renter-occupied households that are not in multi-dwelling buildings in each  
3           community.
- 4           • The average number of persons per household in each community for both owner-  
5           occupied and renter-occupied households.
- 6           • The distribution of the size of households (one-person, two-person, etc.) for  
7           households of different income levels.
- 8           • The standard definition of Basic Water Service.
- 9           • Current or proposed rate structures.

10           I will return to the Community-Level Analysis after I discuss the concept of Basic Water  
11           Service.

12   **Q.   Please describe the concept of Basic Water Service.**

13   A.   Basic Water Service is a water usage level that reflects the level of water consumption for  
14   basic human services (cooking, cleaning, sanitation, and general health requirements),  
15   which is then assumed to be constant from month-to-month and not subject to significant  
16   seasonality or weather conditions. This standard can be expressed in terms of gallons per  
17   resident per day. This service is different from discretionary seasonal water usage for  
18   filling swimming pools, lawn irrigation, etc. This definition of Basic Water Service can be  
19   used to customize a level of usage that accurately reflects water service for different sizes  
20   of households.

21   **Q.   How do you define Basic Water Service for the purposes of your customer-level**  
22   **affordability analysis?**



1 A. For the purpose of the Company’s affordability analyses, Basic Water Service is defined  
2 to be 40 gallons of water per household member per day. This figure is based on the review  
3 of relevant literature on the subject and a review of Company billing data for residential  
4 customers in months with minimum levels of discretionary water usage, all of which  
5 supports the definition of 40 gallons of water per household member per day.

6 **Q. Why is this definition of Basic Water Service also suitable for wastewater analysis?**

7 A. The definition of Basic Water Service at 40 gallons per household member per day is also  
8 suitable for wastewater analysis because wastewater billings, especially in light of the  
9 Company’s proposal for winter averaging that I describe later in testimony, are based on  
10 the same type of service that Basic Water Service is meant to represent, namely water  
11 consumption for basic human services (e.g., cooking, cleaning, sanitation, and general  
12 health requirements). All of this service effectively is returned through the wastewater  
13 collection system and, therefore, the definition of Basic Water Service serves as an  
14 appropriate benchmark for analysis of affordability for wastewater service.

15 **Q. Have you benchmarked this definition of Basic Water Service against actual  
16 Company residential billing data?**

17 A. Yes. Based on the statistical modeling I described later in my Direct Testimony, current  
18 and projected levels of residential use per customer in non-seasonal months is  
19 approximately 3,000 gallons per month or less. These values are consistent with the  
20 definition of Basic Water Service at 40 gallons of water per household member per day.

21 **Q. What information does your Community-Level Analysis provide?**

22 A. The Company’s Community-Level Analysis provides a complete set of demographic  
23 information for the Company’s customer base in each community and a set of affordability

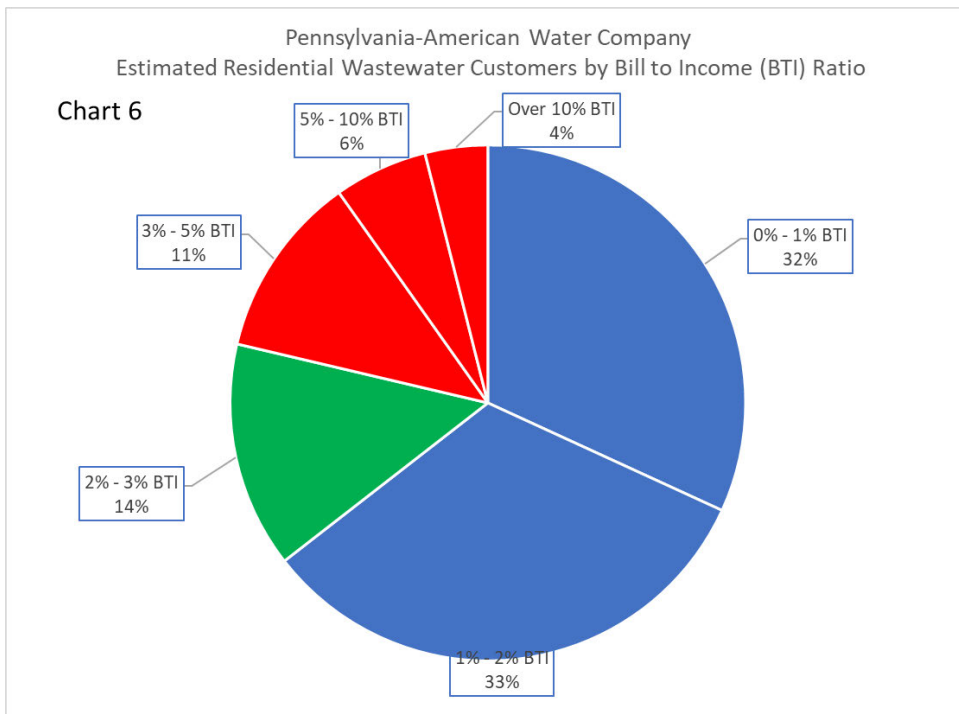
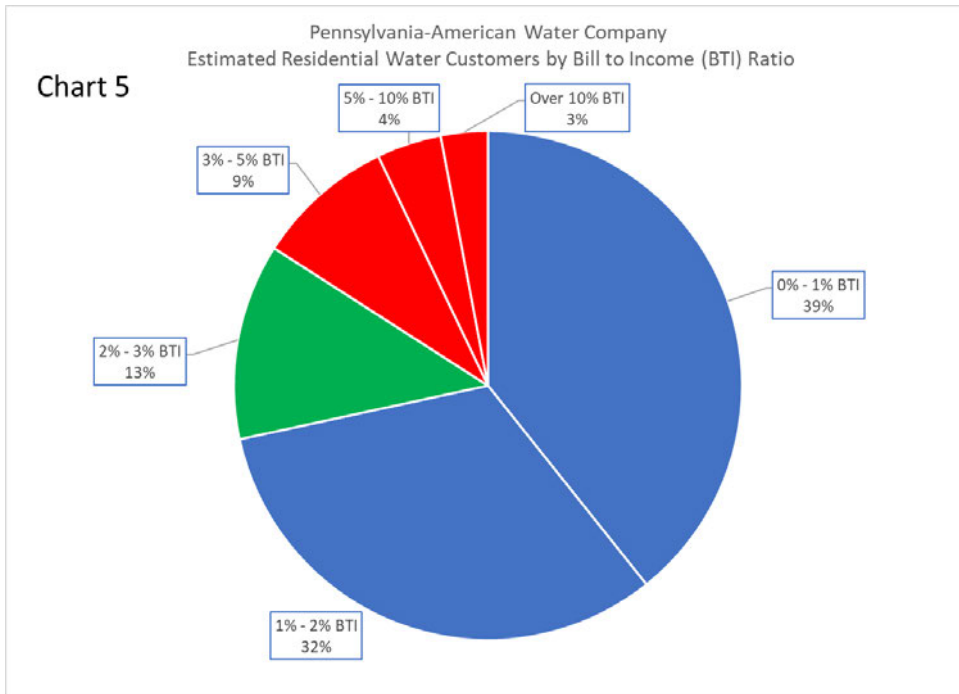
1 data for its service territory in total and for various cross sections of the Company's  
2 customers.

3 **Q. What demographic information does your Community-Level Analysis provide?**

4 A. The demographic information provided by this analysis is primarily economic in nature,  
5 although the analysis can be expanded to provide information on various identifiers such  
6 as race, languages spoken, etc. The primary demographic (economic) information  
7 provided by the analysis is the estimated number of customers at different levels of Federal  
8 Poverty Level ("FPL") and at different levels of household income. FPL is a measurement  
9 set by the U.S. Department of Health and Human Services of the minimum amount of  
10 annual income that is needed for individuals and families to pay for essentials, such as  
11 room and board, clothes, and transportation. The FPL takes into account the number of  
12 people in a household, their income, and the state in which they live. For Pennsylvania,  
13 the FPL guidelines for 2023 are set at \$13,590 for a household size of one and \$4,720 per  
14 year for each additional household member.

15 **Q. What information does your Community-Level Analysis show?**

16 A. Charts 5 and 6 below show, for both water and wastewater service, the relationship between  
17 residential customers' bills for Basic Water Service under the Company's proposed rates  
18 and level of household income.



1 These charts show that under the Company's proposed rate structure, the Affordability  
 2 Index metric (discussed below) for the Company's service territory in total is 71% under  
 3 proposed rates for water service and 65% under proposed rates for wastewater service,

1 meaning that 71% of our residential water customers and 65% of our residential wastewater  
2 customers can expect to see bills for Basic Water Service to be less than 2% of their  
3 household income. The Company estimates that there are approximately 176,900  
4 residential water customers and 38,400 wastewater customers that will see bills for Basic  
5 Water Service above 2% of their household income, which is approximately 29% and 35%  
6 of the total customer population for water and wastewater service, respectively.

7 **Q. Please describe the Affordability Index.**

8 A. The Affordability Index (“AI”) is a metric that reflects the percentage of a group of  
9 customers for whom Basic Water Service is expected to be less than a given percentage of  
10 annual household income. Consistent with my previous discussion in testimony regarding  
11 standards for affordability, the Company uses 2% of household income as the benchmark  
12 for this metric, which is at the conservative end of the range of affordability often cited.  
13 As an example, if, for a certain group of customers, it is estimated that 80% of those  
14 customers will have bills for Basic Water Service less than 2% of annual household  
15 income, the AI value for that group of customers is 80%.

16 The AI metric is designed to reflect the percentage of residential customers in a  
17 state, community, or demographic group for whom Basic Water Service is expected to cost  
18 2% or less of annual household income. An AI value of 100% means that all customers  
19 within a selected group can expect Basic Water Service at less than 2% of household  
20 income. An AI value of 70% means that approximately 70% of customers within a selected  
21 group can expect Basic Water Service at less than 2% of household income, and 30% of  
22 customers in that group can expect Basic Water Service to cost more than 2% of household  
23 income. The AI value is calculated based on modeling of proposed rates and community-

1 level demographic information that I previously described in my testimony, which assesses  
2 affordability across the entire range of customer demographics in each community we  
3 serve.

4 **Q. Why do you use 2% of household income as your benchmark for affordability of**  
5 **water or wastewater service?**

6 A. The 2% benchmark is generally consistent with industry standards for affordability at the  
7 individual household level and is slightly lower than the 4.5% benchmark for combined  
8 water and wastewater service used by Cardoso and Wichman.<sup>3</sup>

9 **Q. Is there a relationship between the data shown in Chart 5 and Chart 6 from the**  
10 **Community-Level Analysis and the data shown in Chart 2 and Chart 4 from the**  
11 **Enterprise-Level Analysis?**

12 A. There is. The data in Chart 2 and Chart 4 shows BTI ratios at the MHI level, which is the  
13 50th percentile household income, meaning that half of all customers have annual  
14 household incomes less than the 50th percentile level and half of all households have  
15 incomes greater than the 50th percentile level. For the 12-month period ending in June  
16 2025, the BTI Ratio is anticipated to be 1.12% for water and 1.37% for wastewater. The  
17 data in Chart 5 and Chart 6 shows the distribution of BTI Ratios for the residential customer  
18 base in total, which inherently includes values for the MHI customer, which lies at the  
19 bottom of the pie chart (6 o'clock) at the point where half of the customers are to the left  
20 and half of the customers are to the right. The bottom point on the pie chart on Chart 5  
21 covers approximately 25% of the 0%-1% BTI Ratio slice, and the bottom point on the pie  
22 chart on Chart 6 covers approximately 50% of the 0%-1% BTI Ratio slice. This data is

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<sup>3</sup> Cardoso, Diego S. and Wichman, Casey J., *supra* note 2.

1 consistent with the BTI Ratios at the 50th percentile income level in Charts 2 and 4. Charts  
2 5 and 6 show a range of BTI Ratios for the entire distribution of customers at a single point  
3 in time. Charts 2 and 4 show BTI Ratios for the 50th percentile household income level  
4 and also provide a historical perspective on how that value has trended over time and is  
5 expected to trend forward under the Company's proposed rates.

6 **Q. Is affordability of service uniform across the Company's service territory?**

7 A. No, it is not. While the Company's water and wastewater rates (and therefore bills) are the  
8 same for the vast majority of our customers, household income can vary significantly  
9 across the Company's service territory. PAWC has a very diverse service territory and  
10 serves customers in urban, suburban, and rural communities with household incomes that  
11 range from over \$100,000 MHI to as low as \$30,000 - \$50,000 MHI. The Company's  
12 affordability analyses provided in Exhibits CBR-1 and CBR-2 provide information on the  
13 number of customers served in each community, the MHI for each community, and the  
14 BTI Ratios for Basic Water Service in each community.

15 **Q. Do you have information on the Affordability Indices of service by income group?**

16 A. Table 1 below shows AI values for the Company's residential customers by income level  
17 for water and wastewater service.

<b>TABLE 1 Affordability Index by Income Level</b>	<b>Water Affordability Index</b>	<b>Wastewater Affordability Index</b>
Above \$150k	100%	100%
\$100k - \$150k	99%	98%
\$75k - \$100k	93%	87%
\$50k - \$75k	78%	73%
\$35k - \$50k	55%	49%
\$25k - \$35k	39%	34%
\$20k - \$25k	0%	14%
\$15k - \$20k	0%	5%
\$10k - \$15k	0%	1%
\$5k - \$10k	0%	0%
\$0k - \$5k	0%	0%

1 **Q. Does your analysis consider customers who rent in multi-family buildings without**  
2 **individual meters?**

3 A. No. The Company’s Community-Level Analysis only considers customers that are  
4 assumed to be direct customers of the Company, meaning that they are directly responsible  
5 for payment of services to the Company. Direct customers are assumed to be owner-  
6 occupied households and single-family, renter-occupied households as reported by ACS  
7 data.

8 **Q. Why does your Community-Level Analysis only concentrate on customers that are**  
9 **direct customers of the Company?**

10 A. The Company’s affordability analysis concentrates on customers that are direct customers  
11 of the Company for two reasons:

- 1           • The use of an MHI statistic, which best estimates household income for direct  
2           customers of the Company, is consistent with the calculation of the average bill,  
3           which is also based on direct customers.
- 4           • For indirect customers of the Company (e.g., renters in multi-family buildings), it  
5           is impossible to know definitively what these households pay in rent for water or  
6           wastewater service. Presumably, building owners that receive water and/or  
7           wastewater service from PAWC are recovering those costs through rents, but there  
8           is no way to know if owners are overcharging or undercharging renters or if they  
9           are also charging renters for building water or wastewater service that renters are  
10          themselves not actually using.

11 **Q. Will the Company’s proposed change in rates have an impact on people who use the**  
12 **Company’s service but are not direct customers of the Company?**

13 A. It is impossible to know what the impact of the Company’s proposed rates will be on  
14 indirect customers of the Company. Rents may increase in part to recover increases in  
15 water service costs, but rents increase for many reasons, and the extent to which any  
16 increases can be attributable to the Company’s proposed rates and the timing of such  
17 increases cannot be determined.

18 **Q. How is all of this affordability information useful?**

19 A. Assessing affordability information of water and wastewater service for the entire  
20 residential customer population can demonstrate whether customers, in general, are having  
21 or would have difficulty paying their water bills under the Company’s current or proposed  
22 tariff structure. Assessing affordability information of water and wastewater service for  
23 lower-income customers can indicate the number of customers that may be having trouble



1 paying their utility bills, where the customers are in the Company's service territory, and  
2 the extent to which those bills may pose challenges for certain customers. This can, in  
3 turn, inform decision-makers about the size and scope of efforts that may be needed to help  
4 these vulnerable customers better afford water and wastewater service, both in terms of  
5 general rate design proposals that can reduce the cost of Basic Water Service for all  
6 customers, including lower-income customers, and customer assistance programs that may  
7 include customer grants, tariff discounts, levelized billing, and outreach programs.

8 **Q. What conclusions do you draw based on the Company's affordability analyses?**

9 A. There are three conclusions that can be drawn from Company's affordability study:

- 10 • The affordability of the Company's water and wastewater service from 2012  
11 through the forecast test period indicates that the way the Company has invested in  
12 and managed its water and wastewater systems has indeed been for the long-term  
13 benefit of our customers.
- 14 • The Company's water and wastewater service has been, is, and is expected to  
15 continue to be affordable for the majority of its residential customers, including  
16 under the rates proposed in this case.
- 17 • There are, however, groups of customers for whom affordability of water and  
18 wastewater service may be challenging.

19 **Q. How do the Company's affordability analyses and mitigation strategies enhance the**  
20 **value of the Company's water and wastewater service?**

21 A. All stakeholders (regulators, customers, consumer advocates, community leaders,  
22 employees, shareholders, etc.) benefit from a financially sound utility providing safe,  
23 reliable, and affordable service to its customers. The Company's analyses provide

1 important insights into the affordability of its services and can help inform all stakeholders  
2 on strategies for improving affordability for customer groups that may be struggling  
3 financially.

4 **LOW-INCOME PROGRAMS**

5 **Current Program**

6 **Q. Please describe the Company's current BPD for water and wastewater service.**

7 A. The Company's current BPD offers three tiers of discounts for both water and wastewater  
8 service based on different levels of household income, stated as multiples of FPL. The  
9 Company's current discount program is as follows:

<b>TABLE 2 Eligible Customers</b>	<b>Water Service Charge Discount</b>	<b>Water Service Volumetric Discount</b>	<b>Wastewater Total Bill Discount</b>
0% - 50% FPL	80%	80%	80%
51% - 100% FPL	65%	50%	55%
101% - 150% FPL	40%	25%	30%

10 **Q. When was the BDP approved?**

11 A. While the Company's low-income discount programs are well established, the current  
12 program offering different discounts for three tiers of household income was approved by  
13 the Commission in the Company's last base rate case in Docket No. R-2022-3031672.

14 **Q. How many customers are eligible for the BDP?**

15 A. Based on the affordability analysis provided in this case, the number of eligible customers  
16 for the current program by income level is as follows:

**TABLE 3**

<b>Eligible Customers</b>	<b>Water</b>	<b>Wastewater</b>
0% - 50% FPL	21,906	4,743
51% - 100% FPL	35,081	7,877
101% - 150% FPL	51,176	10,859

1 **Expansion Proposal**

2 **Q. Is the Company proposing to make changes to the BDP as a part of this proceeding?**

3 A. Yes. The Company is proposing an expansion of the existing program to include additional  
4 customers whose bills for water or wastewater service are likely to exceed 2% of household  
5 income.

6 **Q. Please describe how the BDP will be expanded .**

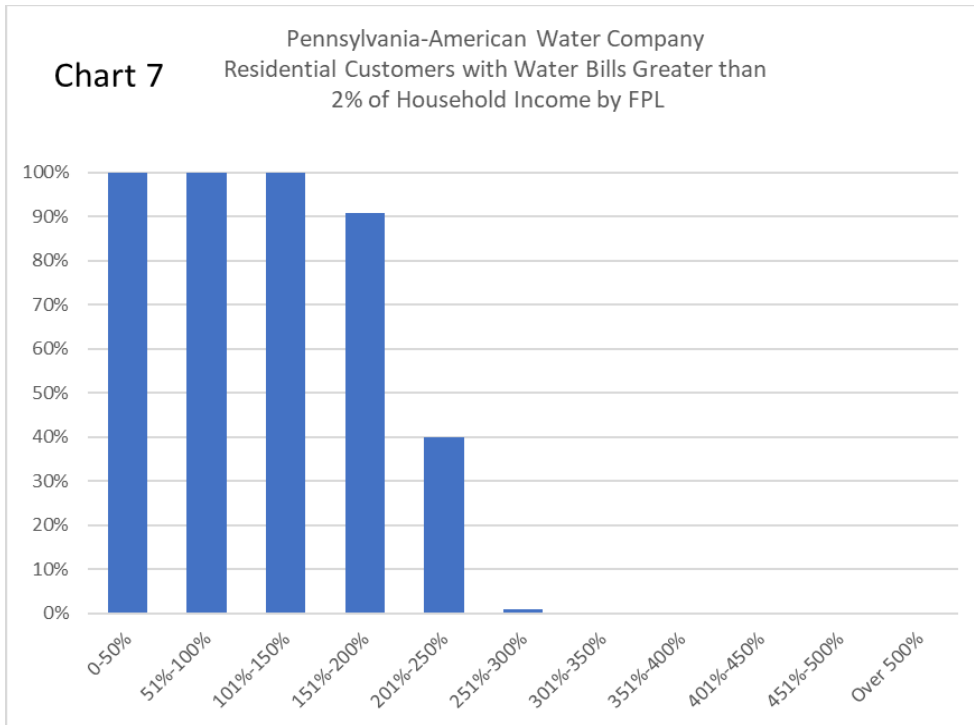
7 A. The Company is proposing in this case to add a fourth tier of eligibility to the current BDP  
8 and expand the program offerings to customers whose household incomes are between  
9 151% and 200% of FPL. For water customers in this fourth tier of eligibility, the Company  
10 is proposing to offer discounts of 30% on the 5/8” meter charge and 15% on the volumetric  
11 rate. For wastewater customers in this fourth tier of eligibility, the Company is proposing  
12 to offer a discount of 20% on the total wastewater bill.

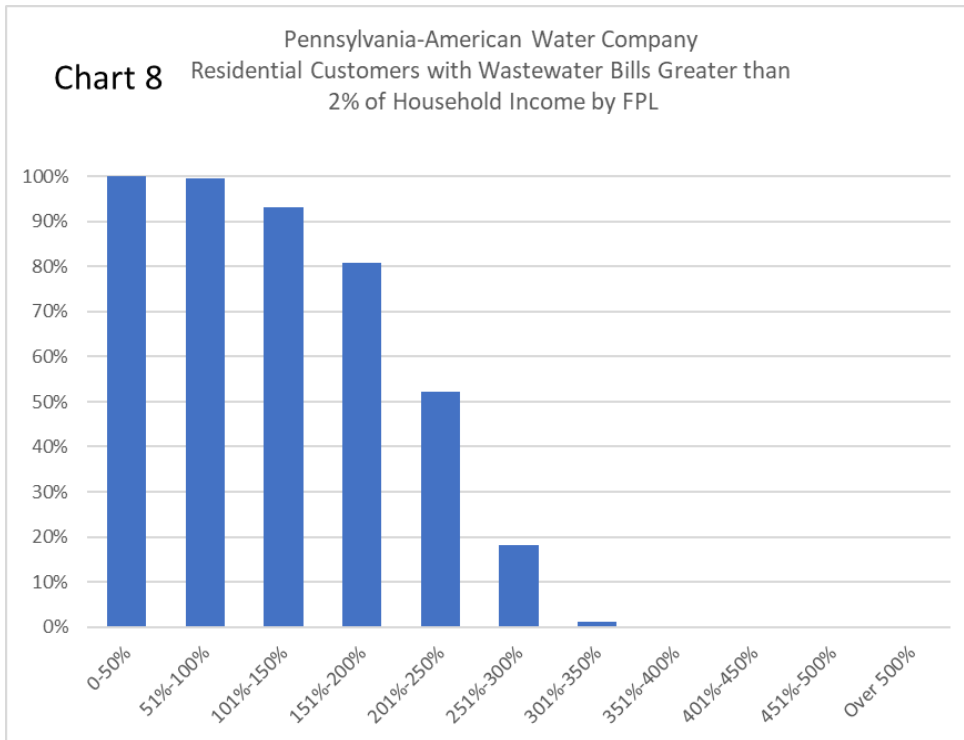
13 **Q. Is the Company proposing any changes to the discounts offered to customers at or  
14 below 0-150% of FPL?**

15 A. No. The Company is not proposing any changes to the programs for existing eligible  
16 customers. The proposed changes are only intended to expand eligibility to customers at  
17 the 151% to 200% FPL level.

1 **Q. Why is the Company proposing to expand the BDP?**

2 A. The Company is proposing to expand the low-income discount tariff to households with  
3 annual household income between 151% and 200% to address affordability issues under  
4 proposed rates in that demographic. The charts below show the percentage of customers  
5 at each interval of annual household income whose water or wastewater bills under the  
6 Company's proposed rates are expected to be more than 2% of household income prior to  
7 any discounts being offered.





1 These charts show that a majority of customers with household incomes between 151%  
 2 and 200% of FPL will have bills for water and/or wastewater service at greater than 2% of  
 3 household income. These customers are currently not eligible for the Company’s low-  
 4 income discount tariff. The Company’s proposal to expand the current low-income  
 5 discount tariff will increase affordability of service for these customers.

6 **Q. If the BDP is expanded as the Company proposes, how many additional customers**  
 7 **would become eligible for the BDP?**

8 A. A substantial number of additional customers would be eligible for the BDP under the  
 9 Company’s proposal. Based on the Company’s affordability analyses, the Company  
 10 estimates that there are 51,252 residential water customers with household incomes  
 11 between 151% and 200% of FPL, and 10,353 residential wastewater customers with  
 12 household incomes between 151% and 200% of FPL.

1 **Customer Impacts**

2 **Q. What will the impact be to newly participating customers in this program?**

3 A. For newly participating customers with average monthly usage, the Company's proposed  
4 discounts in this fourth tier would equate to a bill savings of \$16.23 for water (18% of the  
5 total bill) and approximately \$20.00 per month for wastewater depending on the  
6 customer's specific rate and location.

7 **Q. What participation rate is the Company assuming for the newly eligible 151%-200%**  
8 **FPL block?**

9 A. For the purposes of ratemaking, the Company is assuming the same participation rate for  
10 the 151% to 200% FPL group that the Company observes in the 101% to 150% FPL  
11 group.

12 **Q. Based on the total eligible population of customers and the expected participation**  
13 **rate, what level of additional discounts is the Company assuming in this proceeding?**

14 A. The total associated level of annual discounts offered in this tier is expected to be  
15 approximately \$3 million for water service and approximately \$660,000 for wastewater  
16 service.

17 **Q. How will this additional level of discount be recovered?**

18 A. The additional costs associated with the BDP expansion will be recovered in the same  
19 manner as existing BDP costs – through residential customer base rates.

20 **Q. What overall impact on affordability of service does the Company expect from the**  
21 **proposed expansion of these low-income discount tariffs?**

22 A. The improvement in the affordability of service for participating customers in the 151% to  
23 200% FPL group is expected to be significant. For water service, more than half of the

1 customers in the 151% to 200% FPL group whose bills were expected to be more than 2%  
2 of household income will now be below that threshold. For wastewater service,  
3 approximately one third of the customers in the 151% to 200% FPL group whose bills were  
4 expected to be more than 2% of household income will now be below that threshold.

## 5 RATE DESIGN

### 6 Introduction

7 **Q. Do you sponsor exhibits that provide the Company's complete proposed rate design**  
8 **in this case?**

9 A. Yes. Exhibits CBR-3 and CBR-4 provide the Company's proposed rate design for water  
10 and wastewater service in this case, which are based on the current rate design as modified  
11 by the proposals discussed below.

12 **Q. Please discuss some of the important guiding principles associated with sound rate**  
13 **design.**

14 A. There are a number of important principles that pricing analysts and policymakers consider  
15 when developing appropriate design mechanisms for retail water and wastewater service:

- 16 • **Cost Causation:** An important goal of rate design is to develop prices for water  
17 and wastewater service to retail customers that are intended to recover the  
18 Company's approved revenue requirement and that reflect the cost of providing  
19 service to retail customers. Cost of service results inform pricing decisions and  
20 guide how rates should be set such that each customer class contributes to the  
21 revenue requirement commensurate with their cost to serve. The principle of cost  
22 causation, which simply states that customers should pay for the costs that they are

1 deemed to cause the Company to incur, reflects the use of cost of service results in  
2 designing rates.

- 3 • **Revenue Stability:** Rates should be designed in a way that provides revenue  
4 stability to the utility and that can be reasonably expected to recover the utility's  
5 revenue requirement over the long run. Consistent recovery of the approved  
6 revenue requirement through well-designed rates helps the utility to prudently  
7 manage and invest in the water and wastewater systems, while poor rate design  
8 decisions can hamper the utility's ability to make investments, operate, and  
9 maintain the water and wastewater systems in a manner consistent with the long-  
10 term interest of its customers.

- 11 • **Efficiency of Use:** Rates should be designed to encourage the efficient use of water  
12 resources by customers. The volumetric charges for water service should  
13 appropriately reflect the variable cost of providing water service while also  
14 providing customers an appropriate incentive to conserve water and manage their  
15 bills. Rates should communicate to customers the full cost of providing water  
16 service.

- 17 • **Gradualism:** Changes in rate design should be made in a manner that avoids  
18 inappropriate levels of rate shock. Rate shock can come both from general  
19 increases in revenues that can affect all customers and from changes in rate designs  
20 that can cause large increases to specific groups of customers. Drastic changes in  
21 rates can cause customer confusion and dissatisfaction and have adverse effects on  
22 the utility's ability to provide quality customer service.



- 1       •     **Avoidance of Discrimination:** Rates should not unduly discriminate between  
2             particular customer groups or provide different price signals to similarly situated  
3             customers taking similar services from the utility.
- 4       •     **Simplicity and Feasibility:** Rate designs should be relatively simple, easy to  
5             understand, easy to communicate and manage, and should result in bills that are  
6             clear and understandable.
- 7       •     **Affordability:** Development of rate designs that enhance the affordability of  
8             service to more vulnerable customers while still adhering to other more established  
9             principles of rate design is an important way that utility providers can enhance and  
10            maintain the value of service.

11 **Q.    How does the Company incorporate these guiding principles in its rate design?**

12 A.    Cost causation is the foundation of the Company’s rate design. Revenue targets for  
13       customer classes, to be recovered through rate design, begin with the results of the  
14       Company’s cost of service analysis, which allocates revenue requirements to customer  
15       class based on cost-causation principles. Cost causation, however, is not the be-all and  
16       end-all of rate design. All of the rate design principles I discuss are important; none more  
17       so than any other, and it is the consideration and balancing of these principles in total that  
18       constitutes the public policy aspect of ratemaking and leads to a determination of just and  
19       reasonable rates. Layered on top of cost causation are the other principles that I previously  
20       discussed (gradualism, revenue stability, avoidance of discrimination, affordability, for  
21       example), which ultimately result in a rate design that is fair to all customer groups and  
22       that is just and reasonable.

1 **Water Rate Design**

2 **Q. Please describe the Company's current tariff structure for water service.**

3 A. The Company currently offers water service in five different rate zones. These rate zones  
4 are as follows:

- 5 • Rate Zone 1 - General Statewide Rate
- 6 • Rate Zone 2 - Valley
- 7 • Rate Zone 3 - SLIBCO
- 8 • Rate Zone 4 - Turbotville
- 9 • Rate Zone 5 - Steelton

10 The largest of these rate zones by far is Rate Zone 1, with over 99% of the Company's total  
11 water revenue.

12 **Q. Please describe the Company's current rate structures for these tariffs for residential  
13 and nonresidential customers in Rate Zone 1.**

14 A. The Rate Zone 1 tariff offers service to all residential and non-residential customer classes  
15 through a monthly fixed charge that varies with the size of the meter (identified in PAWC's  
16 water tariff as a "service charge") and volumetric rates (identified in PAWC's water tariff  
17 as "consumption charges"). There are separate rate structures for each customer class.

- 18 • The residential water service charge for most customers is \$17.50 per month for a  
19 5/8", 3/4", 1" and 1 1/2" meter, and the service charge increases with the size of the  
20 meter beginning with 2" meters. A single volumetric rate of \$1.6108 per hundred  
21 gallons applies to all residential customers.
- 22 • The commercial water service charge begins at \$18.50 per month for a 5/8" meter,  
23 and the service charge increases with the size of the meter beginning with 3/4"

1 meters. A two-block volumetric rate applies to commercial customers of  
2 \$1.5613 per hundred gallons for the first 16,000 gallons per month and \$1.1493 per  
3 hundred gallons for usage over 16,000 gallons per month.

- 4 • The municipal water service charges are the same as the commercial service  
5 charges, but the volumetric rates are different. A two-block volumetric rate applies  
6 to municipal customers of \$1.6700 per hundred gallons for the first 16,000 gallons  
7 per month and \$0.9140 per hundred gallons for usage over 16,000 gallons per  
8 month.
- 9 • The industrial water service charge begins at \$28.00 per month for a 5/8" meter,  
10 and the service charge increases with the size of the meter beginning with  
11 3/4" meters. A three-block volumetric rate applies to industrial customers of  
12 \$1.4200 per hundred gallons for the first 16,000 gallons per month, \$1.0804 per  
13 hundred gallons for the next 584,000 gallons of usage per month, and \$0.8499 per  
14 hundred gallons for usage over 600,000 gallons per month. In addition, the  
15 Company offers industrial curtailment rates that are identical to those described  
16 above, but with an additional rate step of \$0.5110 per hundred gallons for all usage  
17 above 15,000,000 gallons per month and the requirement that the customer meet  
18 specified requirements to qualify for the rate, such as a minimum monthly purchase  
19 volume, a minimum load factor, and on-site water storage for industrial (non-fire  
20 protection) use during periods of curtailment.
- 21 • The Sales to Other Water Utilities service charge begins at \$29.10 per month for a  
22 5/8" meter, and the service charge increases with the size of the meter beginning  
23 with 3/4" meters. The volumetric rates for Group A service is \$0.7950 per hundred

1 gallons for all water service and the volumetric rate for Group B service is \$1.1300  
2 per hundred gallons for all water service.

3 **Q. Does the Company have special rates for larger customers?**

4 A. The Company offers a limited number of special rates designed to retain and attract the  
5 load of larger customers in Rate Zone 1 that have competitive alternatives to service from  
6 the Company. Currently, the Company has customers that are served on two of those rates:  
7 the Demand-Based Industrial Service rate and the Demand-Based Resale Service rate.

8 **Q. Does the Company offer fire protection service?**

9 A. Yes. The Company offers both public and private fire protection service. Public fire  
10 protection rates are based on a monthly hydrant fee that varies depending on where in the  
11 service territory the service is offered and the vintage of the rates. These rates are subject  
12 to the requirement that revenues from fire hydrants can be no more than 25% of the  
13 calculated cost of service for public fire service. Private fire service rates are also offered  
14 and are generally based on the size of the service line used in providing the service. Service  
15 is offered on both a metered and an unmetered service basis.

16 **Q. Please describe the Company's current rate structures in the other pricing zones  
17 where water service is offered.**

18 A. In zones other than Rate Zone 1, the Company's rate structures are as follows:

- 19 • Rate Zone 2 (Valley): Service in Rate Zone 2 is offered to all customers through a  
20 monthly service charge of \$28.12 for all customers, and a volumetric charge that  
21 provides an allowance for the first 3,400 gallons of monthly usage at no additional

1 charge, and a volumetric rate of \$0.8400 per hundred gallons for all water used  
2 above 3,400 gallons per month.<sup>4</sup>

3 • Rate Zone 3 (SLIBCO): Service in Rate Zone 3 is offered to all customers through  
4 service charges that increase with the size of the meter starting at \$63.55 for a 5/8”  
5 and 2” meter and increasing to \$309.90 for an 8” meter. Volumetric rates for all  
6 customers start at \$1.8940 per hundred gallons for the first 20,000 gallons of usage  
7 per month and drop to \$1.6780 per hundred gallons for the next 80,000 gallons of  
8 usage, and \$1.3810 per hundred gallons for all usage above 100,000 gallons per  
9 month.

10 • Rate Zone 4 (Turbotville): Service in Rate Zone 4 is offered to all customers  
11 through a monthly service charge that varies with the size of the meter and  
12 volumetric rates. Service charges are identical to Rate Zone 1. Volumetric rates  
13 are the same as Zone 1, except for the commercial rate, which is \$1.0706 per  
14 hundred gallons for all commercial usage.

15 • Rate Zone 5 (Steelton): Service in Rate Zone 5 is offered to all customers through  
16 a monthly service charge that varies with the size of the meter and volumetric rates.  
17 Volumetric rates are set at \$1.6108 per hundred gallons for the first 20,000 gallons  
18 of usage per month and \$1.2500 per hundred gallons for usage above 20,000 gallons  
19 per month. For all customers except for industrial customers, monthly service  
20 charges are identical to those for Rate Zone 1. For industrial customers, the

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<sup>4</sup> The Company’s currently approved tariff includes a step-in rate for Valley. The rates shown here will be effective November 19, 2023.

1 monthly service charges are \$24.83 for 5/8" and 3/4" meters and escalate for larger  
2 meter sizes above 3/4".

3 **Q. Is the Company proposing consolidation of rate zones for water service in this case?**

4 A. Yes. The Company is proposing in this case to move Rate Zone 2 Valley, Rate Zone 3  
5 SLIBCO, Rate Zone 4 Turbotville, and Rate Zone 5 Steelton rates to Rate Zone 1 rates.  
6 The Company is also proposing to move Farmington toward consolidation with Rate Zone  
7 1. No changes are proposed for Audubon rates.

8 **Q. Is the Company proposing to change the monthly service charges in this case?**

9 A. Yes. Consistent with the cost-of-service analysis supported by Company witness Connie  
10 Heppenstall in PAWC Statement No. 12, the Company is proposing a 5/8" monthly meter  
11 service charge of \$20.00 per month for residential, commercial, and municipal customers  
12 in Rate Zone 1 and in the other rate zones being combined with Rate Zone 1. The Company  
13 is proposing to increase meter charges for residential, commercial, and municipal  
14 customers for other meter sizes proportionally, except that residential meter charges for  
15 3/4", 1", and 1 1/2" meters will all be set at \$20.00. No increases are proposed to existing  
16 Rate Zone 1 industrial and Other Water Utility ("OWU") meter charges.

17 **Q. Is the Company proposing to change the rate structure associated with its volumetric  
18 rates?**

19 A. The only changes in the volumetric rate structure proposed in this case are changes in the  
20 steps for volumetric rates necessary to move the rate zones I previously mentioned  
21 (Steelton, Valley, and SLIBCO) to Rate Zone 1 rates. No other changes in volumetric rate  
22 structures are being proposed.

1 **Q. Are there any other changes the Company is proposing to its water service rate**  
2 **design?**

3 A. The only other change proposed to the Company's water service rate design is an expansion  
4 of the low-income discount tariff program, as described earlier in my testimony.

5 **Q. Please describe how the Company is proposing to allocate its proposed revenue**  
6 **increase for water service to each customer class.**

7 A. The Company is proposing in this case to set water service rates based on the cost of service  
8 studies sponsored by Ms. Heppenstall, with the exception of the increase to the OWU class,  
9 which is capped at 30%, and the remaining OWU allocated revenue requirements allocated  
10 to other customer classes based on relative levels of cost of service. In addition, the  
11 Company is proposing a reallocation of a portion of its wastewater revenue requirements  
12 to its water service customers consistent with Act 11 of 2012, which I describe later in my  
13 testimony.

14 **Q. Do you have a schedule that shows the Company's current and proposed rate design**  
15 **for water service?**

16 A. Yes. The Company's proposed rate design in this case for water service is provided in  
17 Exhibit CBR-3.

18 **Wastewater Rate Design**

19 **Q. Please describe the Company's current tariff structure for wastewater service.**

20 A. The Company provides wastewater service under a variety of different rate schedules and  
21 in a variety of different rate zones. The categories of rate zones under which the Company  
22 offers wastewater service are as follows:

- 1           • Sanitary Sewer Systems (“SSS”):
  - 2               ○ Rate Zone 1: PAWC Statewide
  - 3               ○ Rate Zone 2: New Cumberland
  - 4               ○ Rate Zone 5: Valley
  - 5               ○ Rate Zone 7: York
  - 6               ○ Rate Zone 8: Foster Township
  - 7               ○ Rate Zone 9: Royersford
- 8           • Combined Sewer Systems (“CSS”):
  - 9               ○ Rate Zone 3: Scranton
  - 10              ○ Rate Zone 4: Kane
  - 11              ○ Rate Zone 6: McKeesport

12 **Q. Please describe the Company’s current rate structures in its SSS rate zones.**

13 **A.** Rate structures differ for the six rate zones in the SSS group as follows:

- 14           • Rate Zone 1 (Statewide Rate): Service in Rate Zone 1 is offered through a single  
15               monthly service charge and volumetric rate for all residential and nonresidential  
16               service. The monthly service charge is \$14.30 for residential customers and \$35.00  
17               per month for nonresidential customers. The volumetric rate applies to all metered  
18               usage and is \$2.8750 per hundred gallons for residential service and \$2.1030 per  
19               hundred gallons for nonresidential service. Unmetered service is offered to  
20               residential customers at \$106.00 per month.
- 21           • Rate Zone 2 (New Cumberland): Service charges in Rate Zone 2 are identical to  
22               service charges in Rate Zone 1, but the volumetric rates for service are slightly



1 lower. In Rate Zone 2, the volumetric rate is \$2.4500 per hundred gallons for  
2 residential service and \$1.9000 per hundred gallons for nonresidential service.

- 3 • Rate Zone 5 (Valley): Rates in Rate Zone 5 are identical to Rate Zone 1.
- 4 • Rate Zone 7 (York): Service in York is offered through a single monthly service  
5 charge for all customers of \$18.00 per month, which includes an allowance of 2,000  
6 gallons, plus a volumetric rate of \$0.9370 per 100 gallons for usage over 2,000  
7 gallons per month. The Company’s currently approved tariff allows for a second  
8 step of rates to be effective May 27, 2025. These rates include a service charge of  
9 \$18.00 per month for residential customers and \$30.00 per month for nonresidential  
10 customers. The volumetric rate effective May 27, 2025, consists of a free  
11 allowance of 2,000 gallons per month and a volumetric charge for service above  
12 the allowance of \$2.7375 per hundred gallons for residential customers and \$1.6380  
13 per month for nonresidential customers. In addition, bulk service will be offered  
14 through a volumetric rate of \$0.3750 per hundred gallons for Rate A bulk customers  
15 and \$0.261 per hundred gallons for Rate B bulk customers.
- 16 • Rate Zone 8 (Foster): Rates in Rate Zone 8 consist of a flat rate of \$85.00 per  
17 equivalent dwelling unit (“EDU”) per month until December 31, 2024. The  
18 Company’s currently approved tariff includes a second step for Foster of a flat rate  
19 of \$106.00 per EDU per month, which is identical to the flat rate in Rate Zone 1.
- 20 • Rate Zone 9 (Royersford): Service in Royersford is offered through a single  
21 monthly service charge for all customers of \$48.00 per month and a volumetric rate  
22 consisting of an allowance for the first 3,000 gallons at no additional charge and a  
23 volumetric charge of \$0.9400 per hundred gallons for service above the allowance.

1 In addition, an unmetered service option is available for \$50.00 per month to  
2 residential customers and \$67.00 to nonresidential customers.

3 **Q. Please describe the Company's current rate structures in its CSS rate zones.**

4 A. The rate structures differ for the three rate zones in the CSS group as follows:

- 5 • Rate Zone 3 (Scranton): Service in Rate Zone 3 is offered through a single monthly  
6 service charge and volumetric rate for all residential and nonresidential service. For  
7 residential customers, the monthly service charge is \$19.50 and the volumetric rate  
8 is \$2.3510 per hundred gallons, respectively, at proposed rates. For nonresidential  
9 customers, the monthly service charge is \$35.00 and the volumetric rate is \$1.7270  
10 per hundred gallons. Unmetered service is offered to residential customers at  
11 \$95.00 per month.
- 12 • Rate Zone 4 (Kane): Service in Rate Zone 4 is offered through a monthly service  
13 charge structure to all customers at \$40.00 per month for customers with a 5/8"  
14 water meter and \$100.00 per month for customers with water meters larger than  
15 5/8" diameter. Volumetric rates are offered through a stepped rate at \$2.10 per  
16 hundred gallons for the first 10,000 gallons of metered water usage per month and  
17 \$1.80 per hundred gallons for all metered water usage above 10,000 gallons per  
18 month. Unmetered service is offered to residential customers at \$110.00 per month.
- 19 • Rate Zone 6 (McKeesport): Service in Rate Zone 6 is offered through a monthly  
20 service charge of \$14.30 per month for residential accounts and \$35.00 per month  
21 for nonresidential accounts. A volumetric rate of \$2.8750 per hundred gallons  
22 applies to residential usage and a volumetric rate of \$2.1416 per hundred gallons  
23 applies to all non-residential usage. Additionally, there is a bulk service rate in

1           McKeesport that consists of a \$86.00 per month service charge and a volumetric  
2           rate of \$1.6680 per hundred gallons.

3 **Q. Please describe the proposed rate structures in the other rate zones in this proceeding.**

4 A. The rate structures for the remaining three rate zones not included in the CSS and SSS  
5 groups are as follows:

- 6           • Brentwood Acquisition: Upon closing, collection service in Brentwood will be  
7           offered through a single monthly service charge for all customers of \$4.57 per  
8           month and a volumetric rate consisting of \$0.8910 per hundred gallons of usage.

9           The Company has proposed in the Brentwood acquisition proceeding that,  
10           consistent with Brentwood’s current practice, PAWC will be the billing agent for  
11           charges for treatment from the Allegheny County Sanitary Authority  
12           (“ALCOSAN”) and such charges will be directly flowed through to Brentwood  
13           customers.

- 14           • BASA Acquisition: Upon closing, service in the BASA territory will be offered on  
15           an unmetered basis only and will be based on EDUs. The EDU rate for the BASA  
16           territory will be \$45.50 per EDU for most customers.

17 **Q. Is the Company proposing to recover all of the revenue requirements for wastewater  
18           service from its wastewater customers?**

19 A. No. The Company is proposing to reallocate a portion of the wastewater revenue  
20 requirement calculated in this case to its water service customers under the provisions of  
21 Act 11 of 2012 (“Act 11”). I will describe this reallocation and provide support for this  
22 reallocation in the next section of my testimony.

1 **Q. Is the Company proposing consolidation of rate zones for wastewater service in this**  
2 **case?**

3 A. Yes. Consistent with the Commission’s goal of single-tariff pricing, the Company is  
4 proposing to move all CSS customers to a single tariff with a single set of rates, with the  
5 exception of the Scranton system, and is proposing to move New Cumberland and Valley  
6 to SSS Wastewater Rate Zone 1. The Company is also proposing to set fixed charges to  
7 be the same for all wastewater customers unless prohibited by prior agreement and move  
8 rates in the SSS group for the York and Royersford system closer to Zone 1 Rates.

9 **Q. What is the Company’s proposal for wastewater service rate design and tariff**  
10 **consolidation in this case?**

11 A. The Company’s proposal for wastewater service rate design and tariff consolidation in this  
12 case includes the following:

- 13 • The Company is proposing to set all residential service charges at \$20 per month  
14 and all non-residential service charges at \$50 per month, with the exception of  
15 (a) BASA where the residential service charge is proposed at \$10 per month,  
16 (b) Brentwood where the residential service charge is proposed at \$10 per month  
17 and the non-residential service charge is proposed at \$20 per month, and Scranton.
- 18 • No changes are proposed for Scranton rates except for the roll-in of the Distribution  
19 System Improvement Charge (“DSIC”) mechanism, which results in the same  
20 percentage increase to all rate components in Scranton.
- 21 • The Company is proposing to merge rates for Kane and McKeesport customers into  
22 a single rate design that results in residential bills at average usage levels of  
23 approximately \$110 per customer, which is approximately \$10 higher per customer

1 than SSS rates, which recognizes the differences in operating systems between CSS  
2 and SSS systems. Volumetric rates for non-residential customers for Kane and  
3 McKeesport are set at \$1.90 per hundred gallons. Port Vue rates are proposed to  
4 be merged into McKeesport/Kane rates, but no increase is proposed for  
5 McKeesport bulk customers.

6 • SSS volumetric rates are increased to a level that brings residential bills for average  
7 levels of usage for Zone 1 customers to approximately \$100 per month, with  
8 proportional increases to non-residential volumetric rates. No increases are  
9 proposed for large industrial contract customers.

10 • The Company is proposing to phase-out the allowance for the first 2,000 gallons in  
11 York rates by setting the volumetric rates for York at \$0.75 per hundred gallons for  
12 the first 2,000 gallons for residential customers, and \$0.40 per gallon for non-  
13 residential customers. Volumetric rates above 2,000 gallons are set equal to Zone  
14 1 rates.

15 • Royersford volumetric rates are increased to a level that results in residential bills  
16 for average usage at approximately \$65 per month, which is a \$15 increase and is  
17 consistent with average bills and increases for York customers. Non-residential  
18 volumetric rates in Royersford are increased to \$0.75 per hundred gallons.

19 **Q. Is the company proposing any changes to its wastewater rate design in this case?**

20 A. Yes. The Company is proposing to change the way that it determines the volumetric  
21 component of bills for residential customers from the method used today, where volumetric  
22 charges are based on total metered water usage for the month, to a methodology referred  
23 to as winter averaging.

1 **Q. Please describe the concept of winter averaging.**

2 A. Winter averaging is a method for determining volumetric components of wastewater bills  
3 that attempts to separate metered water usage that is likely to go through the wastewater  
4 system from water usage that is used for outdoor purposes in the summertime  
5 (e.g., watering lawns, filling pools, etc.). Under winter averaging, a customer's bill in the  
6 winter time is determined by actual metered water usage for the month, and in the  
7 summertime the customer's bill is determined by the lesser of actual metered water usage  
8 for the month or the average water consumption for that customer in the winter months.

9 For example, in the winter period, if a customer's metered water use is 4,000  
10 gallons, the customer is billed for 4,000 gallons of water usage on their wastewater bill. In  
11 the summer period, if a customer's metered water use is 6,000 gallons and their average  
12 winter usage over the previous winter months was 5,000 gallons per month, the customer  
13 would only be billed for 5,000 gallons on their wastewater bill. If that customer's metered  
14 use was 3,000 gallons and their average winter usage over the previous winter months was  
15 5,000 gallons per month, they would be billed for 3,000 gallons of usage on their  
16 wastewater bill.

17 **Q. Is this a common way to design volumetric rates for wastewater service?**

18 A. It is. There are numerous examples of wastewater utilities that bill customers in the  
19 summertime based on this winter averaging method. The Company's affiliates in Illinois  
20 and New Jersey used this method before determining wastewater bills in the summertime.  
21 Illinois-American Water Company, which has a significant wastewater customer base, bills  
22 all of its residential customers across the state using this winter averaging methodology.  
23 New Jersey-American Water Company, which also has a significant wastewater customer

1 base, uses this winter averaging methodology in select tariffs in the New Jersey-American  
2 Water Company service territory.

3 **Q. How is the Company defining winter months under its winter averaging proposal?**

4 A. The Company is defining the winter months for the winter averaging period to be January,  
5 February, and March. These three months are the months for which the baseline usage will  
6 be determined for the purposes of billing for the rest of the year.

7 **Q. Is the winter average calculation the same for every customer?**

8 A. No. The winter averaging calculation will be customized to each individual customer. The  
9 methodology will be the same for all customers, but the calculations will be done on an  
10 individual customer basis so that each individual customer will be billed based on their  
11 winter average usage, not the average winter monthly usage for residential customers in  
12 total.

13 **Q. What happens in cases where the customer is new or otherwise doesn't have any  
14 winter billing history to base a winter average usage on?**

15 A. In cases where the customer is new or there is no winter average billing data upon which  
16 to base a calculation, the Company will assume a standard usage level of 3,000 gallons per  
17 month for a comparison point for billed summer usage.

18 **Q. Why is the Company proposing to move to a winter average rate design for residential  
19 wastewater service?**

20 A. The Company is proposing to move to this winter averaging methodology to more closely  
21 align wastewater bills in the summertime with cost-causation rate design principles. Under  
22 the current rate structure, customers are charged for wastewater service in the summertime  
23 based on metered water usage that is not actually going through the wastewater system.

1 This winter averaging methodology remedies that inconsistency in the Company's  
2 wastewater rate design and better aligns customer usage with the amounts billed.

3 **Q. What effect does this proposed move to winter averaging have on volumetric rates for**  
4 **wastewater service?**

5 A. The effect of this winter average methodology on wastewater volumetric rates is that rates  
6 will be slightly higher than they otherwise would have been for the same revenue  
7 requirement. Volumetric billing determinants for wastewater service will be slightly lower  
8 than they otherwise would have been because usage that would have been included in the  
9 summertime, as water that was being used for outdoor purposes will now be excluded from  
10 the rate calculation.

11 **Q. Do you have a schedule that shows the Company's current and proposed rate design**  
12 **for wastewater service?**

13 A. Yes. The Company's proposed rate design in this case for water service is provided in  
14 Exhibit CBR-4.

15 **Scale-Back Proposal**

16 **Q. In the event that the Commission approves a revenue requirement in this proceeding**  
17 **that is less than that proposed by the Company, either for water service or wastewater**  
18 **service or both, what is the Company's proposal for the scale back of its proposed**  
19 **water and wastewater rates?**

20 A. In the event that the Commission approves a revenue requirement that is less than that  
21 proposed by the Company, the Company proposes to reduce the revenue requirements for  
22 water service and wastewater service, and the proposed amount of reallocation from  
23 wastewater to water under Act 11 to be proportional so that the same relative percentages



1 to the total of water service revenue requirement, wastewater service revenue requirement,  
2 and Act 11 reallocation amounts be maintained at proposed levels. The Company believes  
3 that the rate design proposed in this case is reasonable and that the levels of rates for water  
4 service and wastewater service relative to each other should be maintained as proposed in  
5 the event that a lower revenue requirement is approved by the Commission in this case.

## 6 **REALLOCATION OF WASTEWATER REVENUE REQUIREMENT**

### 7 **Company Proposal**

8 **Q. What is the Company's proposal with respect to wastewater revenue requirement**  
9 **reallocation?**

10 A. The Company is proposing to reallocate a portion of the total calculated wastewater  
11 revenue requirement shown in Exhibit 3-A to water service customers. This reallocation  
12 of wastewater revenue requirement to water customers is provided for in Act 11. Under  
13 Act 11, the Commission may, when approving base rates and after providing notice and an  
14 opportunity to be heard, authorize utilities to allocate a portion of the wastewater revenue  
15 requirement to the combined water and wastewater customer base if in the public interest.

16 **Q. What portion of the wastewater revenue requirement is the Company proposing to**  
17 **reallocate to water customers?**

18 A. The total calculated revenue requirement for wastewater service is \$263,574,897. The  
19 Company is proposing to recover \$192,487,503 of that revenue requirement from  
20 wastewater customers under its proposed rates in this case. This is approximately 73% of  
21 the total. The remaining \$71,087,394 is proposed to be a revenue requirement reduction  
22 for wastewater service customers that will be recovered from water service customers.

1 **Q. Please provide a summary of the amounts of PAWC’s proposed wastewater revenue**  
2 **requirement that it proposed to be reallocated to water customers, by customer class,**  
3 **pursuant to Act 11.**

4 **A.** The reallocation of wastewater revenue requirements by water customer class is as follows:

**TABLE 4**  
**Wastewater Reallocation to**  
**Water Customers by Class**

	<b>Amount</b>
Residential	\$46,505,573
Commercial	\$18,320,153
Municipal	\$3,939,176
Industrial	\$1,635,240
<i>Private Fire</i>	\$341,990
<i>Other Revenue</i>	\$345,262

5 **Q. Please identify the amounts to be reallocated to water customers under Act 11 by**  
6 **wastewater rate zone category.**

7 **A.** The reallocation of wastewater revenue requirement by wastewater pricing group is as  
8 follows

**TABLE 5**  
**Wastewater Reallocation by**  
**Wastewater System**

	<b>Amount</b>
Group SSS	\$31,962,411
Group CSS	\$16,007,052
Brentwood	\$1,565,232
BASA	\$21,552,699

9 **Rationale**

10 **Q. What is the guiding principle behind the Company’s reallocation proposal?**

11 **A.** The guiding principle behind the Company’s reallocation proposal is to target residential  
12 bills for average wastewater usage of approximately \$100 per month for customers in the

1 SSS Zone and \$110 per month for customers in the CSS Zone, subject to the other  
2 constraints I have already noted. This reallocation also results in residential bills for  
3 average water usage of approximately \$90 per month, which brings parity to residential  
4 bills for water service and wastewater service at average usage levels. This also results in  
5 a BTI Ratio for wastewater residential customers that is less than 2023 levels, which in  
6 turn helps to manage the affordability of wastewater service and bring a level of parity to  
7 the affordability of water and wastewater service.

8 **Q. Why is the Company proposing a reallocation of wastewater revenue requirements**  
9 **to water customers under Act 11 in this case?**

10 A. The Company is proposing a reallocation of wastewater revenue requirements to water  
11 customers under Act 11 for three reasons:

- 12 • Rate increases in several wastewater zones would be significant if the full revenue  
13 requirement proposed for those rate zones were to be implemented. Affordability  
14 of wastewater service in those communities would be significantly eroded without  
15 an allocation of a portion of those revenue requirements to water customers.
- 16 • In the BASA system, the parties in that acquisition proceeding have agreed to  
17 propose a 40% increase for BASA customers in the first case in which BASA is  
18 included, which leaves a significant gap between revenues at proposed rates and  
19 the revenue requirements to serve the BASA system proposed by the Company.  
20 After the proposed 40% increase as agreed to in the settlement, there is an  
21 approximate \$21.5 million shortfall the Company proposes to recover from water  
22 customers through the Act 11 reallocation.

- 1 • Similar to the BASA system, the Company in the Brentwood acquisition  
2 proceeding is targeting an 11% bill increase (inclusive of ALCOSAN charges) for  
3 both residential and non-residential customers in the first base rate case in which  
4 Brentwood is included, which leaves a gap of approximately \$1.6 million between  
5 revenues at proposed rates (inclusive of the 11% increase) and the revenue  
6 requirements to serve the Brentwood system proposed by the Company, which the  
7 Company proposes to recover from water customers through the Act 11  
8 reallocation.
- 9 • In the Scranton system, the Company is not permitted to propose increases in rates  
10 that would result in annual revenues of \$26,272,739, as explained in the direct  
11 testimony of Stacey D. Gress (PAWC Statement No. 4). This limitation means that  
12 the proposed revenue requirement increase of approximately \$16 million for the  
13 CSS Group would otherwise have to be recovered from customers in Kane and  
14 McKeesport, which would result in significant increases for those customers.

15 **Q. Is it in the public interest in this proceeding to reallocate a portion of the wastewater**  
16 **revenue requirement to water customers?**

17 A. Yes, the proposed reallocation of wastewater revenue requirement to water service  
18 customers is appropriate and in the public interest from both a rate design and a policy  
19 perspective.

20 **Q. Why is the Company's proposal in the public interest from a rate design perspective?**

21 A. A primary rate design principle that supports the partial reallocation of wastewater cost of  
22 service to water customers is the principle of gradualism. The gradualism principle in rate  
23 design is based on the idea that changes in rates and rate design should be made in a way

1 that avoids rate shock. Rate shock can come both from general increases in revenues that  
2 can affect all customers, as well as from changes in rate designs that can cause large  
3 increases to specific groups of customers. Drastic changes in rates can cause customer  
4 confusion and dissatisfaction and have adverse effects on the utility's ability to provide  
5 quality customer service. The increases that would be applied to certain communities in  
6 the Company's wastewater territory, absent the Company's reallocation proposal, would  
7 certainly fall within this concept.

8 Another important rate design principle is the concept of affordability. As  
9 I mentioned previously, it is certainly in the public interest to have affordable water and  
10 wastewater service for as many customers as possible. Under the Company's proposed  
11 benchmark of 2% of household income at the individual household level, the Company's  
12 proposal seeks to maximize the total number of customers for whom water and wastewater  
13 service will fall below that threshold.

14 **Q. What are the important policy considerations that support the Company's proposal?**

15 A. From a policy perspective, it is important to note that PAWC is an integrated company that  
16 provides both water and wastewater services on a consolidated basis. The Company  
17 provides such services through the efforts of both PAWC employees and the resources of  
18 the Service Company. This consolidation of functions creates opportunities to capture  
19 economies of scale that ultimately will drive down costs to customers, which do not exist  
20 where water and wastewater operations are fragmented. It is in the long-term best interest  
21 of our customers and the Commonwealth of Pennsylvania to adopt policies that encourage  
22 the development of these cost-reducing or mitigating economies of scale. The temporary

1 reallocation of revenue requirement between water and wastewater systems is an important  
2 piece of that equation.

3 Capital expansion plans often drive the need for utility rate increases. As PAWC  
4 witness Bruce Aiton points out in PAWC Statement No. 3, a significant driver of this rate  
5 increase request is PAWC's ongoing infrastructure investment plans. In the short term,  
6 capital additions in different parts of the Company's water and wastewater systems will  
7 exhibit peaks and valleys. This can be especially true in newly acquired systems where  
8 upfront investment needs may be more significant than in other systems where the  
9 Company has been making more modest, annual investments over a longer period of time.  
10 Over time these investment plans will revert to an average long-term investment pattern,  
11 and the associated changes in rates will reflect that long-term investment pattern. The  
12 initial rate changes in newly acquired systems can be extreme, however, if all of the  
13 investments are required to be recovered exclusively from the customers of those systems  
14 upfront. A reallocation of a portion of the revenue requirement to a larger customer base  
15 can ease the burden on new system customers and further the goal of consolidation and  
16 prudent investment in these systems. The long-term benefits of consolidation are already  
17 experienced by existing customers, and this proposal allows those benefits to be extended  
18 to new customers as well.

19 **Impacts to Customers**

20 **Q. What will be the impact of the Company's proposal to reallocate a portion of**  
21 **wastewater revenue requirement to water service customers on the Company's water**  
22 **service bills?**

1 A. Based on the Company’s cost of service and proposed customer class revenue allocation  
2 in this case, this reallocation results in an increase in residential water volumetric rates of  
3 \$0.19 per hundred gallons, which would increase the monthly water bill of a Rate Zone 1  
4 residential water customer with an average usage of 3,200 gallons per month by  
5 approximately \$6.08 per month. In contrast, this reallocation results in lower wastewater  
6 residential bills for approximately the same usage level of anywhere from \$10 to \$90 per  
7 month depending on the rate and location of the customer.

8 **QUANTITATIVE STATISTICAL ANALYSIS OF WATER CONSUMPTION**

9 **Introduction**

10 **Q. Are there revenue adjustments the Company is proposing in this case that require**  
11 **quantitative analysis of water consumption by PAWC’s water customers?**

12 A. Yes. I will explain the modeling used to develop the revenue forecasts for residential,  
13 commercial and municipal customers, and in the next section, I will discuss the  
14 development of the revenue projections for all customer classes (residential, commercial,  
15 industrial, municipal, and sales for resale). For residential, commercial, and municipal  
16 customers, the Company is proposing adjustments for the normalization of the actual  
17 billing determinants for the Historic Test Year ending June 30, 2023 (“HTY”), related to  
18 trends in declining use, weather normalization, and the impact of the COVID-19 public  
19 health emergency on water consumption for PAWC’s water customers. These adjustments  
20 require the Company to analyze water consumption and determine (1) if there is a  
21 significant and pervasive rate of decline in water use per customer over time; (2) if there  
22 are significant relationships between water consumption and weather conditions in the  
23 Company’s service territory, if weather was different from normal in the HTY period, and

1 assuming both of those conditions exist, if a weather normalization adjustment to usage is  
2 appropriate to reflect normal weather conditions for the Future Test Year ending June 20,  
3 2024 (“FTY”), and the FPFTY; and (3) if the COVID-19 public health emergency has had  
4 a significant impact on water consumption for PAWC’s customers, to determine if a  
5 COVID-19–related adjustment to usage is appropriate for the HTY and FPFTY.

6 **Q. How do you determine the parameters and relationships necessary to analyze**  
7 **declining water use, weather impacts on water consumption, and the impact of**  
8 **COVID-19 on water consumption for PAWC’s customers?**

9 A. The parameters and relationships necessary to analyze declining use, weather, and COVID-  
10 19 on water consumption for PAWC’s customers are estimated through the use of statistical  
11 linear regression modeling.

## 12 **Review of Methodologies**

13 **Q. What is a statistical linear regression model?**

14 A. Statistical linear regression modeling is a commonly used type of mathematical predictive  
15 analysis. The overall idea of regression modeling is to examine two things: (1) whether a  
16 set of independent explanatory variables do a good job of predicting an outcome  
17 (dependent) variable, and (2) which independent explanatory variables are significant  
18 predictors of the dependent variable, and in what way in particular do they help predict the  
19 results of the dependent variable.

20 There are three major uses for statistical linear regression analysis. These major  
21 uses are: (1) determining the predictive power of independent explanatory variables;  
22 (2) forecasting the effect that independent variables have on a dependent variable; and  
23 (3) trend forecasting. First, the regression analysis can be used to identify the strength of



1 the effect that independent explanatory variables have on a dependent variable. A typical  
2 question is: “What is the strength of the relationship between summer heat, precipitation,  
3 and water sales?” Second, the regression analysis can be used to forecast effects or impacts  
4 of changes. That is, the regression analysis helps us understand how much the dependent  
5 variable changes with a change in one or more of the independent variables. A typical  
6 question is: “What volume of water sales can the Company expect to lose for each inch of  
7 rainfall above normal in any given period?” Third, regression analysis can predict trends  
8 and future values. The regression analysis can be used to get point estimates of future  
9 values of the dependent variable based on assumed values for the independent variables.  
10 A typical question can be: “Given current trends in water sales, what can we expect water  
11 sales to be each month next year assuming normal weather?”

12 **Q. What does a statistical regression model produce?**

13 A. A statistical linear regression analysis is a way of mathematically validating which  
14 independent variables have a significant impact on the dependent variable – i.e., the main  
15 factor, or the factor you are trying to better understand or predict. A statistical linear  
16 regression model produces an equation that describes a historical relationship between a  
17 set of independent variables and a single dependent variable that can be used to forecast  
18 future values of the dependent variable based on assumed values of the independent  
19 variables. An example of such an equation is shown below:

$$\text{UPC}_n = a_0 + (a_1 \times \text{RAIN}_n) + (a_2 \times \text{CDD}_n) + (a_3 \times \text{HDD}_n) + \\ (a_4 \times \text{COVID}_n) + (a_5 \times \text{TIMEn})$$

22 Where:  $\text{UPC}_n =$  Use per customer in month n

23  $\text{RAIN}_n =$  Rainfall in month n

- 1                    CDD<sub>n</sub> =        Cooling Degree Days (“CDD”) in month n
- 2                    HDD<sub>n</sub> =        Heating Degree Days (“HDD”) in month n
- 3                    COVID<sub>n</sub> =      COVID-19 effect in month n (0% to 100%)
- 4                    TIME<sub>n</sub> =       Year/Month for month n
- 5                    and:            a<sub>0</sub> =            constant term
- 6                                    a<sub>1</sub> =            coefficient for RAIN
- 7                                    a<sub>2</sub> =            coefficient for CDD
- 8                                    a<sub>3</sub> =            coefficient for HDD
- 9                                    a<sub>4</sub> =            coefficient for COVID-19 impact per customer
- 10                                  a<sub>5</sub> =            coefficient for TIME (declining use value)

11                    In this example, use per customer is the dependent variable (outcome) and all other  
 12                    variables are independent variables (predictors).

13    **Q.    Can statistical linear regression models be used to weather normalize historical water**  
 14                    **sales for different customer classes?**

15    A.    Yes. In the statistical model in the example above, the a<sub>1</sub> coefficient for RAIN can be used  
 16                    to estimate the impact of rainfall on use per customer in any given historical period and  
 17                    estimate what the usage per customer would have been if rainfall had been different,  
 18                    especially when actual precipitation was higher or lower than normal. Below is a sample  
 19                    calculation of how weather normalization works with a statistical regression model that  
 20                    uses weather as a strong predictive independent variable that affects the use per customer  
 21                    dependent variable.

1                     $IMPACT_n = a_1 \times (ACTUAL\ RAIN_n - NORMAL\ RAIN_n)$

2                    Where:             $IMPACT_n =$  Weather impact due to abnormal rainfall in period n

3                                     $ACTUAL\ RAIN_n =$  Actual Rainfall (in inches) in period n

4                                     $NORMAL\ RAIN_n =$  Average Rainfall (in inches) in period n

5                    If the value of the a1 coefficient for rainfall is -0.30 in this example, actual rainfall for the  
6                    period is 6 inches and normal rainfall for the period is 4 inches, the weather impact for the  
7                    period due to higher-than-normal rainfall is a negative 600 gallons per customer, meaning  
8                    that the Company sold 600 fewer gallons per customer of water than it otherwise would  
9                    have  $[-0.30 \times (6 - 4) = -0.60]$ . If there are multiple weather variables in the statistical  
10                   regression analysis, this calculation is completed separately for each variable and the sum  
11                   of the calculations is rolled up into a single weather impact. This approach to weather  
12                   normalization allows an analyst to independently assess the impact of each weather  
13                   component, and also allows an analyst to state the weather impacts over time both in terms  
14                   of consumption and in terms of revenues by multiplying the consumption impact by a  
15                   volumetric price.

16 **Q. Can statistical linear regression models be used to estimate the impacts of COVID-19**  
17 **on water sales for different customer classes?**

18 A. Yes. In the statistical model example above, the a4 coefficient for COVID-19 is the  
19 estimate of the impact of the COVID-19 public health emergency on monthly use per  
20 customer. The historical data set contains a variable for each month that indicates the  
21 assumed qualitative level impact from COVID-19 in that month. In all months prior to  
22 April 2020, that value was set at 0%. From April 2020 on, that value is set at 100% when  
23 maximum COVID-19 impacts are observed, or at a level less than 100% where we see

1 reduced COVID-19 impacts on usage. The coefficient for the COVID-19 impact variable  
2 estimates the average monthly use per customer based on the months that have been  
3 designated as COVID-19 months. This coefficient can then be used to (1) identify a normal  
4 level of usage that is not influenced by the impact of COVID-19, in a manner similar to a  
5 normalization calculation that adjusts for the influence on water usage associated with  
6 weather conditions that depart from normal, and (2) reflect estimates of future impacts of  
7 the COVID-19 public health emergency.

8 **Q. Can these models be used to estimate trends in declining use per customer for**  
9 **different customer classes?**

10 A. Yes. In the same statistical model example represented above, the a5 coefficient for TIME  
11 is the estimate of declining use per customer per month. This coefficient measures the rate  
12 of decline in use per customer over the historical data set independent of the effect of any  
13 other variable in the model. The historical data set contains a variable for each month that  
14 is a timestamp that starts at one for the first month in the dataset and increases by one for  
15 every month going forward. This acts as a trend variable for both historical periods in the  
16 dataset and future forecast periods. The coefficient for this trend variable is applied to  
17 future increasing values of the trend which results in decreasing forecasts of use per  
18 customer.

19 **Q. How does one assess the accuracy of a statistical linear regression model?**

20 A. A statistical linear regression model produces a set of statistics that can be used to judge  
21 the accuracy and fitness of the model. The most common statistics are (1) the “R-Squared”  
22 value, which is a statistical measure in a regression model that determines the proportion  
23 of variance in the dependent variable that can be explained by the independent variables,

1 and (2) values and standard deviations for the coefficients, which can be used to determine  
2 “t-statistics” and “p-values,” which tell how accurately and precisely the different  
3 coefficients are being calculated and whether the associated independent variables are  
4 strong predictors of the dependent variable.

5 In the equation described above, the “R-Squared” value is a statistic that measures  
6 the percentage of variation from period to period in the dependent variable (water use per  
7 customer) that is explained by the mathematical relationship with the independent  
8 variables. The R-Squared can range from 0% (no explanatory ability) to 100% (perfect  
9 explanatory accuracy). In general, the higher the R-squared, the better the predictive value  
10 of the model.

11 The second major test involves comparisons of the values of each of the model  
12 coefficients and their associated standard errors. Because a statistical regression model  
13 estimates an explanatory relationship between a dependent variable and a set of  
14 independent variables, there will always be some degree of uncertainty around what that  
15 explanatory relationship actually is. As a result, each model coefficient has a level of  
16 uncertainty around it, and this level of uncertainty is represented by measuring how many  
17 standard errors each coefficient is away from zero, which the model also calculates.

18 Dividing the value of each coefficient by its standard error yields a t-statistic, which  
19 can be used to judge the predictive power of the independent variable that the coefficient  
20 represents. For example, in the case of the generic statistical model described above, if the  
21 value of the  $a_1$  coefficient for rainfall is -0.30 and the standard error for that coefficient is  
22 0.05 (meaning that the real value of the coefficient could be anywhere between -0.35 and  
23 -0.25 with -0.30 being the most likely value), the value of the t-statistic is -6.0 (-0.30

1 divided by 0.05 = 6.0). Generally speaking, t-statistic values greater than 2.0 for positive  
2 coefficients or less than -2.0 for negative coefficients indicate an acceptable predictive  
3 relationship between that independent variable and the dependent variable of interest. The  
4 higher the t-statistic value, the greater the confidence we have in the coefficient as a  
5 predictor. Values between 2.0 and -2.0 indicate that the predictive power of that  
6 independent variable may not be very strong.

7 **Q. Are there other more qualitative ways to determine whether a statistical linear**  
8 **regression model is accurate and produces reasonable results?**

9 A. Yes. There are also several qualitative ways to determine whether a statistical regression  
10 model accurately describes the relationship that a chosen set of independent variables has  
11 with the dependent variable:

- 12 • **Does the model represent reality?** If it is generally known that water consumption  
13 is seasonal and is driven in the summertime by heat and precipitation, it is logical  
14 to assume that a statistical model that attempts to describe and predict seasonal  
15 water consumption would have explanatory variables related to summer heat and  
16 precipitation, and those explanatory variables would be shown to have a strong  
17 predictive value in the model. Models that attempt to accurately describe the  
18 drivers behind water consumption that do not contain statistically significant  
19 coefficients for independent variables that are logically known to drive water  
20 consumption are likely not strong predictive models.
- 21 • **Are the signs of the coefficients for major independent variables correct?** If  
22 water consumption increases in the summertime with increasing heat and decreases  
23 in the summertime with increasing precipitation, it is logical to expect that the

1 coefficients for the independent variables that represent summertime heat and  
2 summertime precipitation would be positive and negative, respectively.

- 3 • **Is the model based on a robust data set?** It is easy for a statistical model with  
4 many independent variables and relatively few observations of the dependent  
5 variable to accurately explain variation in the dependent variable, but that does not  
6 mean that the model has strong predictive power if the data set being analyzed is  
7 small in scope. A statistical model that attempts to describe water consumption and  
8 that has good predictive explanatory power over multiple years of monthly  
9 historical data is very useful and accurate in projecting future trends and in  
10 explaining how changes in strong predictive independent variables will affect levels  
11 of the dependent variable.

- 12 • **Do the impacts on the dependent variable that the model describes make**  
13 **logical sense?** It is possible, outside of a statistical linear regression model, to make  
14 ballpark estimates of other facts like the impact of COVID-19 on water  
15 consumption and long-term trends in declining use. This can be done with a simple  
16 linear plot of annual usage data by year. For example, if a linear plot of annual  
17 usage data suggests that there is a downward trend of approximately 1,000 gallons  
18 per customer per year, one would expect that a statistical model that is measuring  
19 that impact would yield a result that is similar. The same is true when looking at  
20 the potential impacts of COVID-19 on water consumption. If a visual examination  
21 of data suggests that water use per customer for a commercial class has decreased  
22 by 2,000 gallons per customer in 2020 due to the COVID-19 emergency, it is

1 logical to expect a statistical regression model that attempts to statistically measure  
2 that impact to yield estimates consistent with that expectation.

### 3 **Pennsylvania Modeling and Results**

4 **Q. Please describe the statistical linear regression model you are using to analyze water**  
5 **consumption data for PAWC.**

6 A. In this proceeding, we are using multiple regression statistical models to analyze use per  
7 customer for the residential and commercial classes that relate the dependent variable  
8 (i.e., water use per customer) to a collection of independent variables. The models use 120  
9 months of monthly data beginning in July 2013 through June 2023. Each regression model  
10 uses independent variables that can be broken down into four categories to explain monthly  
11 use per customer. The four categories are:

- 12 • **Weather**: The weather variables used in the models are Cooling Degree Days  
13 (“CDDs”), Heating Degree Days (“HDD”), and precipitation. These weather  
14 variables are a weighted average of current month and lagged month weather  
15 readings taken by the National Oceanic and Atmospheric Administration at  
16 Pittsburgh Allegheny County Airport. This weighted average lagged approach is  
17 used to account for the differences between billing month sales and calendar month  
18 weather. Coefficients from these variables show the impact of weather on monthly  
19 use per customer over the 10-year period. Weather variables are modeled as  
20 monthly deviations from normal for each month in the data set (actual weather for  
21 the month less normal weather for the month for each individual weather variable).  
22 Normal weather is calculated for each month of the year based on the weather over  
23 the 10-year period that the historical data spans.



1           • **Time**: The time variable is a trending variable that notes the passage of time in the  
2           model and produces a coefficient that estimates the monthly decline in usage per  
3           customer over the 10-year model. The time variable captures the range of  
4           conservation efforts that have been implemented by customers over time, such as  
5           the installation of more water-efficient fixtures and appliances. Time on its own is  
6           of no consequence, but it is a powerful variable because it is the medium for  
7           capturing the conservation effect.

8           • **COVID-19 indicator**: The COVID-19 indicator variable is set at 0% for months  
9           prior to April 2020, 100% for the months of April 2020 through December 2020,  
10          and 40% for the months from January 2021 through June 2023. The effect of this  
11          variable in the model is to look specifically for increases or decreases in use per  
12          customer for the April 2020 through June 2023 timeframe that may have happened  
13          due to systemic changes in the amounts of water customers use as a result of the  
14          COVID-19 public health emergency.

15          • **Monthly indicators**: The monthly indicator variables in the model measure  
16          structural monthly and/or seasonal changes in use per customer that cannot be  
17          explained by any of the other variables in the model.

18 **Q.    What information do these models provide that is useful for developing pro forma**  
19 **adjustments to revenues that you are sponsoring in your testimony?**

20 A.    Each model produces a set of weather coefficients that can be used to weather-normalize  
21 historical sales for the HTY period, a coefficient that indicates the monthly trend in

1 declining use per customer for each class, and a coefficient that shows for each class the  
2 average use per customer impact associated with changes in usage due to COVID-19.

3 **Q. You mentioned that you have developed models for customer usage relating to the**  
4 **residential, commercial, and municipal classes. Are you also modeling usage for the**  
5 **industrial and sales for resale customer classes?**

6 A. No. The statistical modeling in this case is only for the residential, commercial, and  
7 municipal classes. Usage estimates for the industrial and sales for resale classes are  
8 developed using a simple multi-year average and are described later in the revenue section  
9 of my testimony.

10 **Q. You previously discussed the various statistical tests used for accuracy and**  
11 **predictability. Please discuss the results of these tests for your models and why they**  
12 **are appropriate to use in this proceeding.**

13 A. As shown in Exhibits CBR-5, CBR-6, and CBR-7, the Adjusted R-Squared statistics for  
14 the residential usage model is 85%, the Adjusted R-Squared statistic for the commercial  
15 usage model is 82%, and the Adjusted R-Squared statistic for the municipal model is 77%.  
16 This indicates that in all models, the explanatory variables (weather, COVID-19 impacts,  
17 declining use, etc.) strongly explain the variability in use per customer over time. The  
18 values of the coefficients, standard errors, and t-statistics for the major explanatory  
19 variables in the models are as follows:

**TABLE 6****Residential Model Major Explanatory Variables**

	<b>Coefficient</b>	<b>Standard Error</b>	<b>t-Statistic</b>
Declining Use Trend	-0.0043	0.0004	-10.8213
Precipitation	-0.0333	0.0094	-3.5456
CDD	0.0009	0.0004	2.2482
HDD	0.0004	0.0001	3.0833
COVID-19 Impact	0.2962	0.0498	5.9428

**TABLE 7****Commercial Model Major Explanatory Variables**

	<b>Coefficient</b>	<b>Standard Error</b>	<b>t-Statistic</b>
Declining Use Trend	-0.0180	0.0036	-5.0336
Precipitation	-0.1797	0.0825	-2.1788
CDD	0.0058	0.0037	1.5722
COVID-19 Impact	-2.4496	0.4521	-5.4178

**TABLE 8****Municipal Model Major Explanatory Variables**

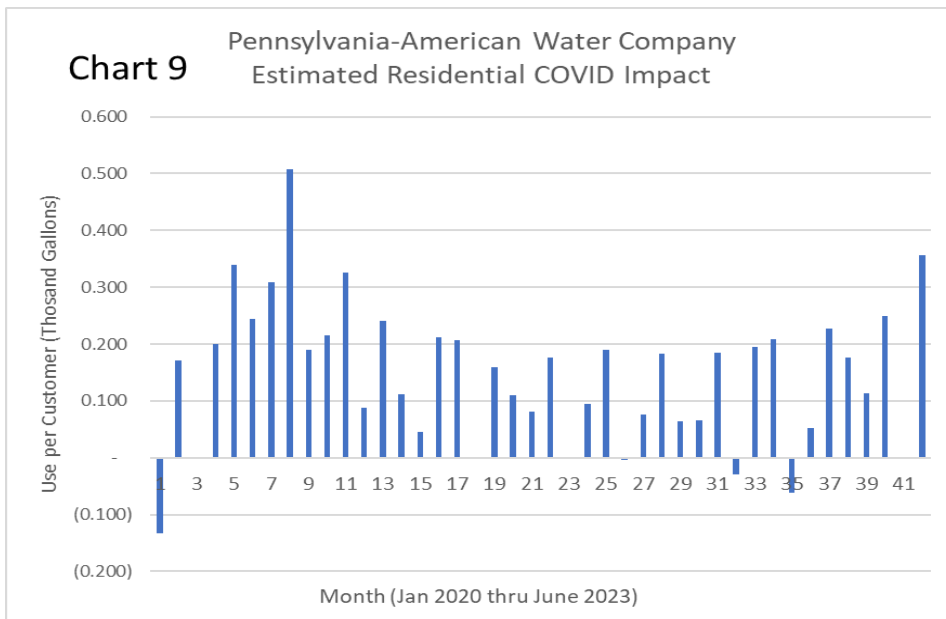
	<b>Coefficient</b>	<b>Standard Error</b>	<b>t-Statistic</b>
Declining Use Trend	-0.0055	0.0143	-0.3854
Precipitation	-0.8998	0.3143	-2.8626
CDD	0.0225	0.0136	1.6587
COVID-19 Impact	-18.0782	1.8153	-9.9590

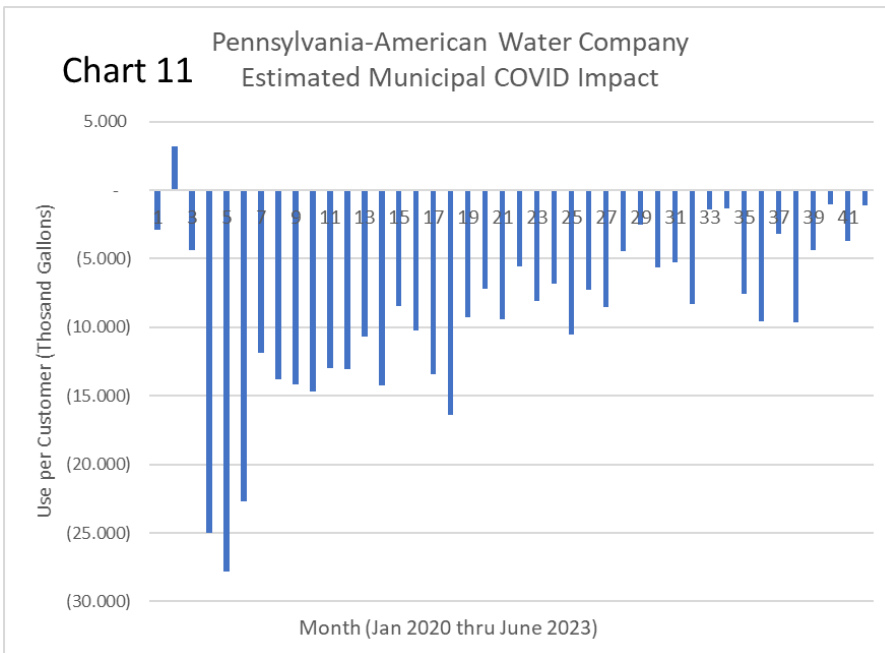
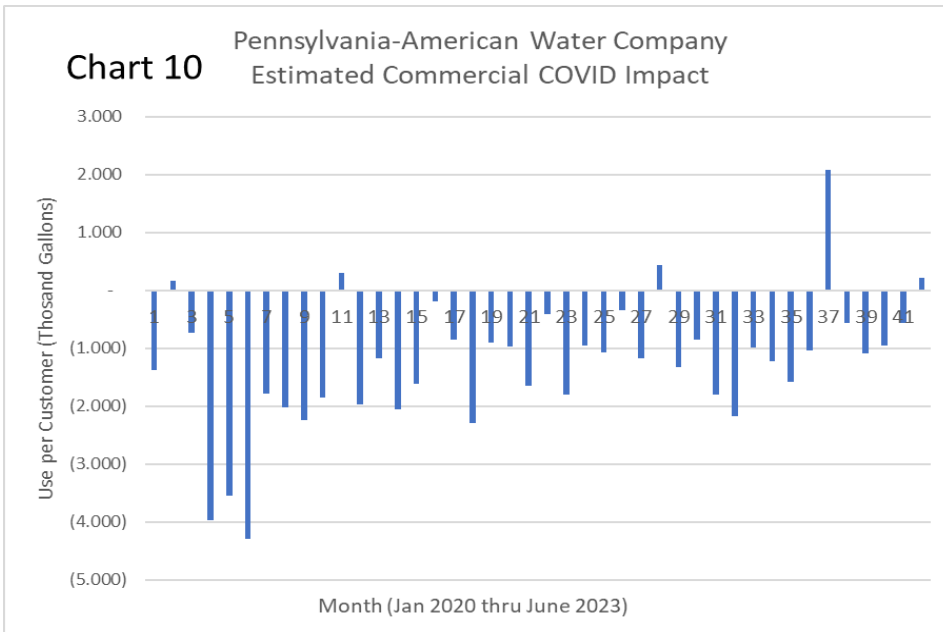
1 The statistics for the individual explanatory independent variables above show a high  
2 degree of explanatory power with all parameters having t-statistics all outside of the +/-  
3 2.00 range apart from the CDD variable for the commercial class, which is marginally not  
4 statistically significant, and the trend variable for the municipal class, which is not  
5 statistically significant. The signs for the precipitation variables are negative as expected,  
6 meaning that more rainfall over a summer period results in less seasonal water usage from  
7 our residential customers. The signs for the CDD variable is positive, which indicates that  
8 the hotter the weather gets in the summer, the more water customers use, which is expected,  
9 and the COVID-19 impact variable indicates that residential usage went up as a result of

1 COVID-19 and commercial and municipal usage went down. The sign for the declining  
2 use variable for the residential and commercial classes are negative and are statistically  
3 significant, which means that there is a pervasive decline in use per customer for residential  
4 and commercial customers over the 10-year historical period.

5 **Q. Please describe specifically how you are modeling the effect of the COVID-19**  
6 **pandemic in your statistical analysis.**

7 A. As stated previously, the COVID-19 indicator variable in each model is set at 0% for  
8 months prior to April 2020, 100% for the months of April 2020 through December 2020,  
9 and 40% for the months from January 2021 through June 2023. The effect of this variable  
10 in the model is to look specifically for increases or decreases in use per customer for April  
11 2020 through June 2023, which may have happened due to systemic changes in the  
12 amounts of water customers used as a result of the COVID-19 public health emergency.  
13 The charts below show estimated impacts by month on use per customer by class associated  
14 with the COVID-19 pandemic as identified by the Company’s modeling.





- 1 **Q. Based on this information, what assumptions are you making going forward**
- 2 **regarding the impacts on customer usage related to the COVID-19 pandemic?**
- 3 **A. The Company’s forecast of use per customer includes no ongoing impacts related to the**
- 4 **COVID-19 pandemic, meaning that forecasted impacts for each of the residential,**

1 commercial, and municipal classes is forecasted to be zero, and usage is expected to revert  
2 back to the underlying trend seen before the pandemic.

3 **Declining Usage Discussion**

4 **Q. Your regression models show a trend of declining use per customer. What is the**  
5 **amount of declining use your models have identified?**

6 A. The annual amount of declining use identified for residential customers is approximately  
7 610 gallons per year per customer. The annual amount of declining use identified for  
8 commercial customers is approximately 2,600 gallons per year per customer. The annual  
9 amount of declining use identified for municipal customers is approximately 800 gallons  
10 per year per customer.

11 **Q. Why do you believe that declining use is a valid trend for residential and commercial**  
12 **customers that will continue?**

13 A. Consumption patterns for the Company's customers are similar to those for other American  
14 Water operating companies, which have experienced a decline in consumption per  
15 customer averaging approximately -2.0% per year over the last 10 years. According to the  
16 2010 Water Research Foundation report, "many water utilities across the United States and  
17 elsewhere are experiencing declining water sales among households." The report further  
18 states: "A pervasive decline in household consumption has been determined at the national  
19 and regional levels."<sup>5</sup>

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<sup>5</sup> Coomes, Paul et al., *North America Residential Water Usage Trends Since 1992* – Project #4031, p. 1 (Water Research Foundation, 2010).

1 **Q. What is causing the decline in customers' usage?**

2 A. Several factors drive the decline in usage. These factors include the incremental  
3 introduction of low-flow fixtures and appliances, new regulations that lead to further  
4 reductions in fixture flow rates, conservation programs, and public initiatives that have led  
5 to greater consumer water conservation awareness.

6 Plumbing fixtures such as toilets, showerheads, and faucets available to consumers  
7 today are more water-efficient than those fixtures manufactured in the past. Similarly,  
8 appliances such as dishwashers and washing machines are also more water efficient. When  
9 a customer replaces an older toilet, washing machine, or dishwasher with a new unit, the  
10 new unit will almost certainly use less water than the one it replaced. Similarly, the  
11 construction of new homes results in the installation of water-efficient fixtures meeting  
12 new, more efficient, regulatory standards.

13 **Q. How much water do the new fixtures and appliances save?**

14 A. The Energy Policy Act of 1992 mandated the manufacture of water-efficient toilets,  
15 showerheads, and faucet fixtures. For example, a toilet manufactured after 1994 must use  
16 no more than 1.6 gallons per flush, compared to a pre-1994 toilet, which typically used  
17 from 3.5 to 7 gallons per flush. In fact, toilets using only 1.28 gallons per flush or less are  
18 becoming more prevalent in the marketplace. Replacing an old toilet with a new one,  
19 therefore, can save from 2 gallons to nearly 6 gallons per flush.

20 The Energy Independence & Security Act of 2007, which established stringent  
21 efficiency standards for dishwashers and washing machines, has further reduced indoor  
22 water consumption. Dishwashers manufactured after 2009 and washing machines  
23 manufactured after 2010 must use 54% and 30% less water, respectively. All other factors

1 being equal, a typical residential household in a new home constructed in 2015, with water-  
2 efficient toilets, washing machines, dishwashers, and other fixtures, uses approximately  
3 35% less water for indoor purposes than a non-retrofitted home built prior to 1994.

4 **Q. Are there other factors contributing to the continued decline in water consumption**  
5 **patterns?**

6 A. Yes. Programs to raise customer awareness and interest in the benefits of conserving water  
7 and energy continue to increase. As awareness of water and energy efficiency increases,  
8 customers may decide to replace a fixture or appliance even before it has broken.  
9 Additionally, customers may further reduce consumption by changing their household  
10 water use habits in other various ways.

11 **Q. Do you expect the trend of declining usage to continue in the future?**

12 A. Yes. Water-efficient fixtures and other drivers such as conservation education and  
13 government-mandated standards will continue to drive further efficiency into residential  
14 and nonresidential usage per customer. In fact, the trend is well established and continues  
15 to affect water usage on the Company's system, as well as most water utilities across the  
16 United States. The rate of the continued trend is dependent on the pace of fixture  
17 replacement within the Company's footprint, as well as the broadening acceptance of a  
18 conservation ethic through customer and business awareness programs, government  
19 conservation policy, and similar behavior modification-related programs.

20 Technology is now available for newer, more water-efficient products that further  
21 improve on Energy Policy Act levels, and there has been a growing movement to codify  
22 these more stringent specifications. The introduction of progressive code modifications –  
23 such as the International Code Council's International Green Construction Code and the



1 International Association of Plumbing and Mechanical Officials Green Plumbing and  
2 Mechanical Code Supplement (2011) – support uniform implementation of increased water  
3 efficiency standards. An article in the June 2012 issue of the AWWA Journal titled  
4 “Insights into declining single-family residential water demands” recognizes this decline  
5 in water consumption: “[r]educed residential demand is a cornerstone of future urban water  
6 resource management. Great progress has been made in the last 15 years and the industry  
7 appears poised to realize further demand reductions in the future.”<sup>6</sup> The trend of declining  
8 water consumption based on improved water efficiency has continued over time.

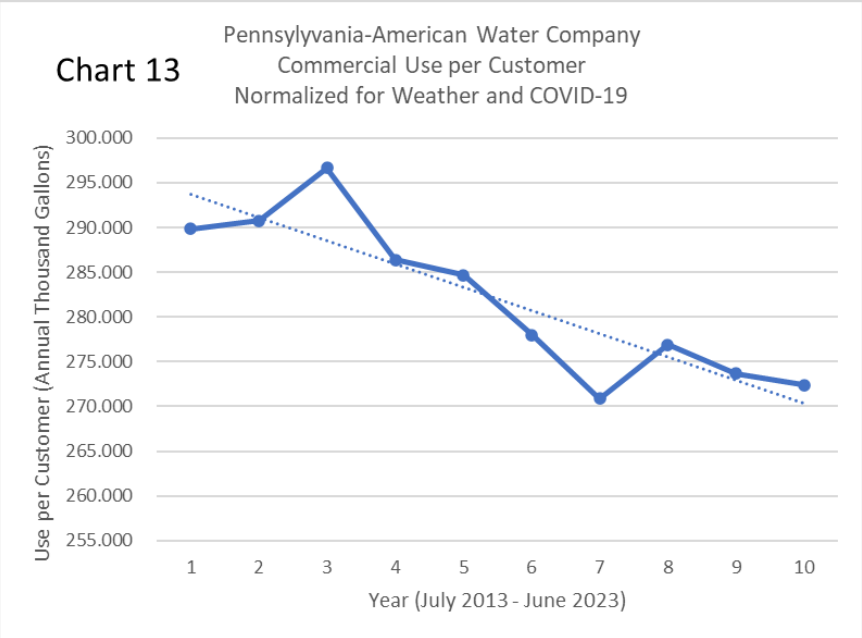
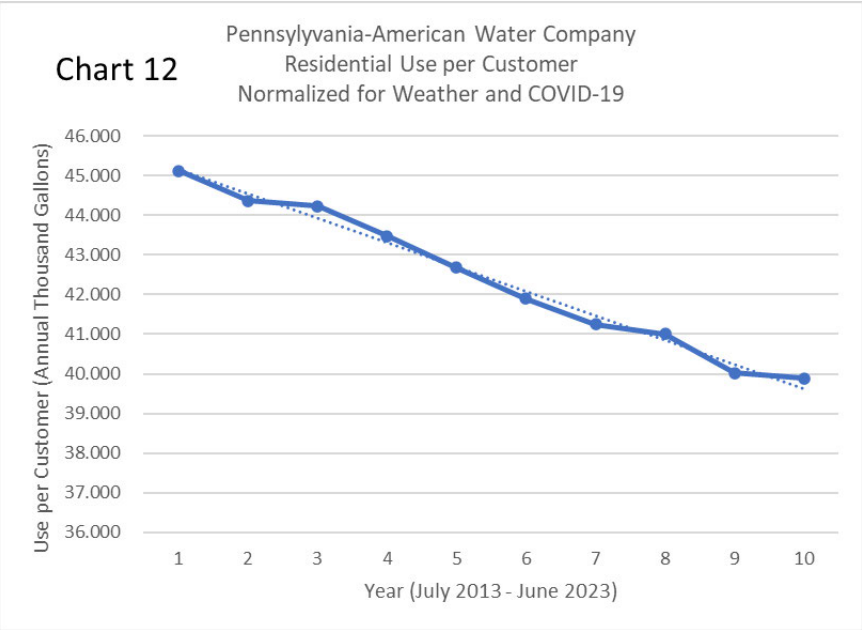
## 9 **Conclusions**

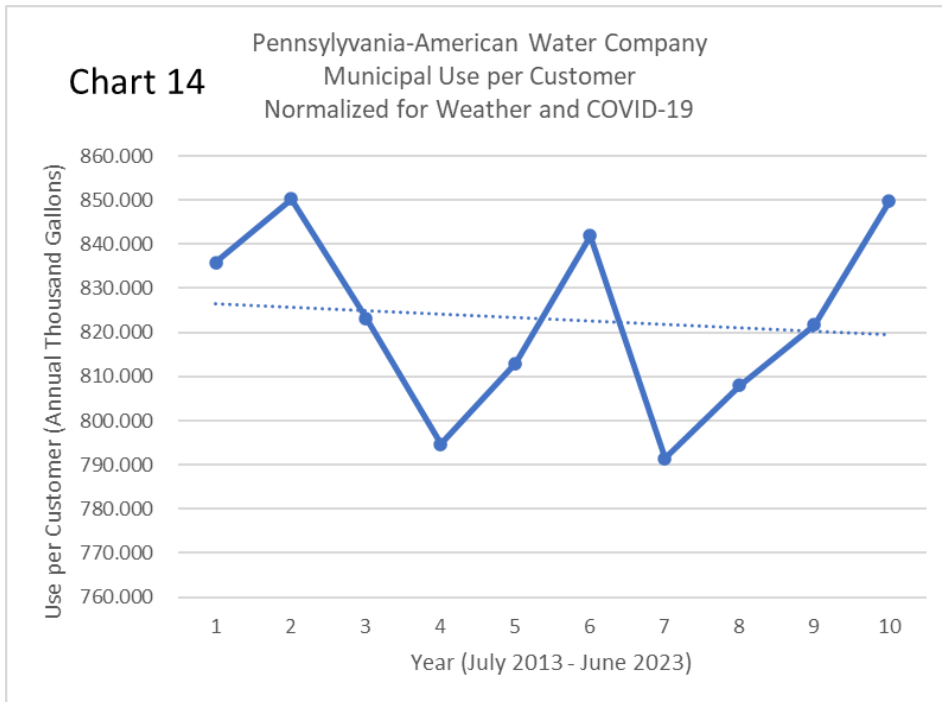
10 **Q. Normalizing historical usage for weather and the COVID-19 emergency, what has the**  
11 **overall trend been for use per customer for the residential, commercial, and**  
12 **municipal classes?**

13 A. The statistical analysis of usage for the residential, commercial, and municipal classes  
14 shows that once weather effects and the one-time effects of COVID-19 have been  
15 accounted for, there is a significant downward trend in usage for these customer classes.  
16 The charts below show use per customer for each class for the 10 years ending June 2023,  
17 adjusted for the weather impacts and COVID-19 impacts that I previously described in my  
18 testimony.

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6 DeOreo, W. and Mayer, P., American Water Works Association Journal, vol. 104, issue 6 (June 2012),  
[http://apps.awwa.org/WaterLibrary/showabstract.aspx?an=JAW\\_0076117](http://apps.awwa.org/WaterLibrary/showabstract.aspx?an=JAW_0076117).





1 **Q. What conclusions do you draw from this chart and your supporting analysis?**

2 A. The charts and the supporting analysis demonstrate that there has been a significant and  
 3 pervasive decline in normalized use per customer for the residential, commercial and  
 4 municipal customers in the PAWC service territory. The Company’s modeling normalizes  
 5 for weather and COVID-19 and shows that there has been a pervasive decline in usage for  
 6 these classes over the past 10 years. The historical trends in adjusted monthly use per  
 7 customer for the residential, commercial and municipal classes will continue through the  
 8 relevant periods going forward.

9 **REVENUE CALCULATIONS**

10 **General Calculations**

11 **Q. Please explain the development of pro forma revenues as set forth in Exhibit No. 3-A**  
 12 **for Water Operations.**

1 A. The process of developing the Company’s revenue claim begins with revenues recorded  
2 on the Company’s books of account at June 30, 2023, to which various adjustments were  
3 made. Exhibit No. 3-A shows a summary of the development of pro forma revenues for  
4 Water Operations under present and proposed rates for the HTY, FTY, and FPFTY periods.

5 Additionally, for each of the test years, Exhibit No. 3-A includes a schedule  
6 showing operating revenues by customer classification, as well as a schedule showing a  
7 summary of the various adjustments made to book operating revenues to arrive at pro forma  
8 operating revenues under present rates.

9 **Q. Does Exhibit No. 3-A show a similar development of pro forma revenues for revenue**  
10 **requirements other than for water operations?**

11 A. Yes. The revenue schedules described above are also provided for the five wastewater  
12 revenue requirements:

- 13 • SSS Systems
- 14 • CSS Systems
- 15 • Brentford Acquisition
- 16 • BASA Acquisition

17 **Q. Please explain the various adjustments to the Company’s book revenues that were**  
18 **made to develop pro forma sales and revenues under present and proposed rates for**  
19 **the Company’s water and wastewater operations.**

20 A. The following adjustments were made to per book revenues by class:

- 21 • Adjustment 2a: TCJA and EADIT Surcharge Adjustment
- 22 • Adjustment 2b: Unbilled Revenue Adjustment
- 23 • Adjustment 2c: DSIC Annualization Adjustment

- 1           • Adjustment 2d:        AMP Deferred Revenue Adjustment
- 2           • Adjustment 2e:        Annualization of Base Year Rate Changes
- 3           • Adjustment 2f:        Private Fire Adjustment
- 4           • Adjustment 2g:        Public Fire Adjustment
- 5           • Adjustment 2h:        Changes in Customers
- 6           • Adjustment 2i:        Usage Trend Adjustment
- 7           • Adjustment 2j:        Annualization Adjustment for Valley Water
- 8           • Adjustment 2k:        Annualization Adjustment for Valley Wastewater
- 9           • Adjustment 2l:        Shale Gas Commercial Usage Adjustment
- 10          • Adjustment 2m:        Acquisition Adjustment for Creekside Water
- 11          • Adjustment 2n:        Annualization Adjustment for Foster Wastewater
- 12          • Adjustment 2o:        Annualization Adjustment for York Wastewater
- 13          • Adjustment 2p:        Annualization Adjustment for Upper Pottsgrove Wastewater
- 14          • Adjustment 2q:        IPP Adjustment
- 15          • Adjustment 2r:        Rental Income Adjustment
- 16          • Adjustment 2s:        Intercompany Rental Adjustment
- 17          • Adjustment 2t:        Usage Data Revenue Adjustment
- 18          • Adjustment 2u:        Specific Customer Adjustments
- 19          • Adjustment 2v:        Adjustment for Strattanville Borough
- 20          • Adjustment 2w:        Annualization Adjustment for Findlay Township
- 21          • Adjustment 2x:        Acquisition Adjustment for Audubon Water
- 22          • Adjustment 2y:        Acquisition Adjustment for Farmington Water

- 1           • Adjustment 2z:           Acquisition Adjustment for Farmington Wastewater
- 2           • Adjustment 2za:           Acquisition Adjustment for Sadsbury Wastewater
- 3           • Adjustment 2zb:           Acquisition Adjustment for BASA Wastewater
- 4           • Adjustment 2zc:           Acquisition Adjustment for Brentwood Wastewater
- 5           • Adjustment 2zd:           Late Payment Fees

6    **Description of Adjustments**

7    **Q.    Please describe the TCJA and EADIT Surcharge Adjustment in Schedule 2a.**

8    A.    The TCJA and EADIT Surcharge adjustment is made to eliminate booked revenues for the  
9       HTY period associated with the TCJA tax credit and EADIT surcharge revenues. The  
10       amount of the adjustments for water operations is \$6,908,979. The amount of the  
11       adjustment for SSS wastewater operations is \$48,442. The amount of the adjustment for  
12       CSS wastewater operations is \$36,990.

13   **Q.    Please describe the Unbilled Revenue Adjustment in Schedule 2b.**

14   A.    The Unbilled Revenue adjustment is made to eliminate unbilled revenues that were accrued  
15       for the HTY period. The amount of the adjustment for water operations is -\$9,429,136.  
16       The amount of the adjustment for SSS wastewater operations is -\$2,746,186. The amount  
17       of the adjustment for CSS wastewater operations is -\$1,981,963.

18   **Q.    Please describe the DSIC Annualization Adjustment in Schedule 2c.**

19   A.    The DSIC Annualization adjustment is made to eliminate the DSIC revenues per book for  
20       the HTY period, in order to reset the DSIC to zero. The FPFTY pro forma revenue  
21       adjustment is to annualize the DSIC revenues for the FPFTY period based on the  
22       Company's pro forma level rate of 2.30% for water and 1.08% for wastewater. The  
23       adjustments by year and by system are as follows.

**TABLE 9**

<b>DSIC Adjustments</b>	<b>HTY</b>	<b>FPFTY</b>
Water Operations	-\$8,436,657	\$17,839,208
SSS Wastewater Operations	-\$322,710	\$977,043
CSS Wastewater Operations	-\$572,047	\$833,002
<b>Total</b>	<b>-\$9,331,414</b>	<b>\$19,649,253</b>

1 **Q. Please describe the AMP Deferred Revenue Adjustment in Schedule 2d.**

2 A. The AMP Deferred Revenue adjustment is made to remove Arrearage Management  
3 Program (“AMP”) revenue credits booked in residential revenue accounts for the HTY  
4 period. The amount of the adjustments for water operations is \$721,875. The amount of  
5 the adjustment for CSS wastewater operations is \$81,270 and for SSS wastewater  
6 operations is \$106,230.

7 **Q. Please describe the Base Year Rate Annualization Adjustment in Schedule 2e.**

8 A. This revenue adjustment is made to revenues for the HTY period to reflect the  
9 annualization of new base rates for water and wastewater service that took effect on January  
10 28, 2023. The adjustments by customer class and system are as follows:

11

**TABLE 10**

<b>Class Adjustments</b>	<b>Water</b>	<b>SSS Wastewater</b>	<b>CSS Wastewater</b>
Residential	\$48,328,510	\$9,235,949	\$12,211,803
Commercial	\$17,651,547	\$2,343,500	\$4,740,927
Industrial	\$3,118,375	\$399,757	\$365,045
Municipal	\$764,920	\$200,475	\$220,091
Sales for Resale	\$21,538		
Unmetered Sales	\$3,016		
Bulk		\$473,272	\$2,687,597
<b>Total</b>	<b>\$69,887,906</b>	<b>\$12,652,954</b>	<b>\$20,225,463</b>

1 **Q. Please describe Private Fire Adjustment in Schedule 2f.**

2 A. This adjustment is being made to reflect the annualization of private fire revenues for the  
3 HTY, FTY, and FPFTY periods. This revenue adjustment is being made to reflect the  
4 annualization of new rates for private fire service that took effect in January of 2023 based  
5 upon the number of customers receiving such service as of June 30, 2023. The revenue  
6 adjustment for the FTY period includes additional growth in private fire services. The total  
7 adjustment is \$290,447 for the HTY period and \$152,747 for the FTY period.

8 **Q. Please describe the Public Fire Adjustment in Schedule 2g.**

9 A. This adjustment is being made to reflect the annualization of new rates that took effect in  
10 January of 2023 for public fire service based on the number of customers and hydrants as  
11 of June 30, 2023. The revenue adjustment for the FTY period is from the additional  
12 annualized revenues coming from Valley District. The revenue adjustments for the HTY  
13 period is \$368,867 and the adjustment for the FTY period is \$26,309.

14 **Q. Please describe the Customer Change Adjustment in Schedule 2h.**

15 A. This adjustment is being made to reflect expected increases in the number of residential  
16 and commercial customers for water and wastewater service exclusive of acquisitions. The  
17 historic revenue adjustment reflects the change in revenue associated with the average  
18 number of customers for the HTY period. The future and fully forecasted revenue  
19 adjustments reflect customer growth in the residential and commercial classes from the  
20 HTY period and is estimated based on a two-year historical growth pattern in these  
21 customer classes. The revenue adjustments themselves were calculated by applying the  
22 average annual consumption per residential and commercial customer to projected



1 increases in customers for the FTY and FPFTY periods. The total adjustments by class are  
 2 as follows:

**TABLE 11  
 Customer Growth Adjustment  
 Water Service**

	<b>HTY</b>	<b>FTY</b>	<b>FPFTY</b>
Residential	\$1,099,437	\$932,988	\$1,865,976
Commercial	\$1,554,148	\$698,551	\$1,397,102
<b>Total</b>	<b>\$2,653,585</b>	<b>\$1,631,539</b>	<b>\$3,263,078</b>

**TABLE 12  
 Customer Growth Adjustment  
 SSS Wastewater Service**

	<b>HTY</b>	<b>FTY</b>	<b>FPFTY</b>
Residential	\$131,053	\$109,906	\$219,811
Commercial	\$33,724	\$30,352	\$60,704
<b>Total</b>	<b>\$164,777</b>	<b>\$140,258</b>	<b>\$280,515</b>

**TABLE 13  
 Customer Growth Adjustment  
 CSS Wastewater Service**

	<b>HTY</b>	<b>FTY</b>	<b>FPFTY</b>
Residential	\$63,868	\$7,407	\$14,813
Commercial	\$103,860	\$81,867	\$163,736
<b>Total</b>	<b>\$167,528</b>	<b>\$89,274</b>	<b>\$178,549</b>

3 **Q. Please describe the Usage Trend Adjustment in Schedule 2i.**

4 A. This adjustment is being made to reflect changes in usage for residential, commercial, and  
 5 municipal customers that I have described previously in testimony. These changes  
 6 incorporate weather normalization, COVID-19 normalization, and adjustments for trends  
 7 in declining use that I have previously described. The adjustments apply to both water and  
 8 wastewater operations. The revenue adjustments are made by multiplying usage  
 9 adjustments by expected customer counts, breaking out the resulting total adjustments in  
 10 usage for these classes by rate step, and applying rates to the resulting adjustments in order

1 to determine the revenue adjustments for the HTY, FTY, and FPFTY periods. The total  
 2 adjustments by class are as follows:

**TABLE 14**  
**Usage Trend Adjustment**  
**Water Service**

	<b>HTY</b>	<b>FTY</b>	<b>FPFTY</b>
Residential	-\$13,769,762	-\$7,716,775	-\$6,236,951
Commercial	\$2,147,538	-\$1,646,203	-\$1,156,531
Municipal	\$1,520,971	-\$651,058	-\$66,790
<b>Total</b>	<b>-\$10,101,253</b>	<b>-\$10,014,037</b>	<b>-\$7,460,272</b>

**TABLE 15**  
**Usage Trend Adjustment**  
**SSS Wastewater Service**

	<b>HTY</b>	<b>FTY</b>	<b>FPFTY</b>
Residential		-\$977,293	-\$787,209
Municipal		-\$232,359	-\$162,064
Commercial		-\$42,995	-\$4,411
<b>Total</b>		<b>-\$1,252,647</b>	<b>-\$953,684</b>

**TABLE 16**  
**Usage Trend Adjustment**  
**CSS Wastewater Service**

	<b>HTY</b>	<b>FTY</b>	<b>FPFTY</b>
Residential		-\$799,671	-\$644,138
Municipal		-\$275,378	-\$192,068
Commercial		-\$32,847	-\$3,370
<b>Total</b>		<b>-\$1,107,896</b>	<b>-\$839,576</b>

3 **Q. Please describe the Annualization Adjustment for Valley Water in Schedule 2j.**

4 A. This adjustment is to annualize the water revenues for the Valley Water operating district  
 5 to reflect the changes in rates that will become effective for Valley Water on November  
 6 19, 2023. The total water adjustment for Valley Water for the FTY period is \$413,150.

1 **Q. Please describe the Annualization Adjustment for Valley Wastewater in Schedule 2k.**

2 A. This adjustment is to annualize the wastewater revenues for the Valley Wastewater  
3 operating district to reflect the changes in rates that will become effective for Valley  
4 Wastewater on November 19, 2023. The total water adjustment for Valley Wastewater for  
5 the FTY period is \$1,426,222.

6 **Q. Please describe the Commercial Shale Gas Adjustment in Schedule 2l.**

7 A. In 2009, the Company began selling water to gas drillers for use in their drilling and  
8 hydraulic fracturing operations. The annual usage for this type of operation can fluctuate  
9 significantly from year to year, and sales for the HTY period for this service were relatively  
10 low compared to previous years. This adjustment normalizes sales for this service  
11 assuming a three-year average of sales from the 12-month periods ended June 2021, June  
12 2022, and June 2023. The total amount of the revenue adjustment for the FTY period is  
13 \$251,438.

14 **Q. Please describe the Acquisition Adjustment for Creekside Water in Schedule 2m.**

15 A. On June 22, 2023, the Company closed on the acquisition of the water utility property of  
16 the Creekside Homeowner's Association and began providing direct service to that entity's  
17 customers. This adjustment annualizes the water revenues associated with this acquisition.  
18 The annualization is based on customer counts and meter counts by customer class as of  
19 June 2023. The total water adjustment includes a residential revenue adjustment and a  
20 private fire protection revenue adjustment. The revenue adjustments for the HTY period  
21 is \$74,094. An additional 40 residential customers are expected to be added during the  
22 FPFTY period. The annualized revenue expected for the FPFTY period is \$33,147.

1 **Q. Please describe the Annualization Adjustment for Foster Wastewater in Schedule 2n.**

2 A. In October 2022, the Company began providing wastewater service to Foster Township  
3 customers. The revenue adjustment for the HTY period annualizes revenues to reflect a  
4 full 12 months of billing. The revenue adjustment for the FTY period reflects the approved  
5 rates in Docket No. R-2022-3013673, which took effect in January of 2023. The revenue  
6 adjustment for the HTY period is \$364,529. The revenue adjustment for the FTY period  
7 is \$232,268.

8 **Q. Please describe the Annualization Adjustment for York Wastewater in Schedule 2o.**

9 A. In May 2022, the Company began providing wastewater service to the City of York. The  
10 revenue adjustment for the FTY period is to recognize the revenue associated with  
11 authorized rates that will take effect after the current rate freeze for York ends on May 27,  
12 2025. The revenue adjustment for the FTY period is \$10,507,182.

13 **Q. Please describe the Annualization Adjustment for Upper Pottsgrove Wastewater in  
14 Schedule 2p.**

15 A. In July 2022, the Company began providing wastewater service to Upper Pottsgrove. The  
16 revenue adjustment for the HTY period annualizes revenues to reflect a full 12 months of  
17 billing. The revenue adjustment for the FTY period is \$172,272.

18 **Q. Please describe the IPP Adjustment in Schedule 2q.**

19 A. The IPP Surcharge wastewater revenue adjustment is made to account for the change in  
20 the Company's IPP surcharge and to reflect all IPP revenues in the Other WW Revenue  
21 account. The revenue adjustments by customer class for the HTY period are as follows.

<b>TABLE 17 IPP Adjustments</b>	<b>SSS Wastewater</b>	<b>CSS Wastewater</b>
Residential	\$133	\$747
Commercial	-\$196,322	-\$72,555
Industrial	-\$337,932	-\$119,925
Municipal	-\$368	\$0
Miscellaneous / Bulk	-\$509,478	\$0
Other WW Revenue	\$1,776,143	\$189,674
<b>Total</b>	<b>\$732,176</b>	<b>-\$2,060</b>

1 **Q. Please describe the Rental Income Adjustment in Schedule 2r.**

2 A. The Company receives money from cellular phone providers for the lease of space on top  
3 of its water towers for the placement of antennas. An adjustment is being made, which  
4 represents the difference between revenues that were recorded for the HTY period for cell  
5 tower rental income and revenues expected to be recorded as cell tower rental income for  
6 the FTY and FPFTY periods. These adjustments are -\$71,977 and \$7,148, respectively.  
7 Additionally, the Company receives money for the rights to land that it owns for tree  
8 harvesting. This revenue income is expected to end in 2023. This income adjustment  
9 related to timber rights income is -\$325,393. The total combined adjustments for the FTY  
10 and FPFTY periods are -\$397,369 and \$7,148, respectively. These adjustments are made  
11 only to revenue for water operations.

12 **Q. Please describe the Intercompany Rental Adjustment in Schedule 2s.**

13 A. PAWC charges the AWWSC for Service Company employees that work in PAWC's  
14 Stafford Avenue and Mechanicsburg offices. An adjustment is being made, which  
15 represents the difference between revenues that were recorded for the HTY period and the  
16 revenue that is expected to be recorded as intercompany office rental income in 2024 and

1 2025 from this agreement. The reduction in revenue is expected to be \$228,104. This  
2 adjustment is made only to revenue for water operations.

3 **Q. Please describe the Usage Data Revenue Adjustment in Schedule 2t.**

4 A. The Company supplies water usage data to certain municipalities so that these  
5 municipalities can bill their residents for sewer service. The Company made an adjustment  
6 to 2023 book revenues for the provision of usage data to eliminate revenues from localities  
7 no longer using the service. This adjustment for 2023 was to reduce usage data revenue  
8 by \$4,439. The Company increases these fees annually based on changes in the Consumer  
9 Price Index (“CPI”). An adjustment is being made for 2024 and 2025 revenues to reflect  
10 a CPI change of 3.81% in those years, which is based on a historical average change in the  
11 CPI from June 2017 through June 2023. The adjustment amount for the FTY period is to  
12 increase usage data revenue by \$16,325. The adjustment amount for the FPFTY period is  
13 to increase usage data revenue by \$16,947. This adjustment is made only to revenue for  
14 water operations.

15 **Q. Please describe the Customer Adjustments in Schedule 2u.**

16 A. The adjustments to revenues in Schedule 2u are for specific and individual Industrial  
17 Standby and Resale Standby water customers to account for changes in rates and terms per  
18 specific contract agreements and to reflect a full 12 months of billing data of one of the  
19 resale contract customers. The total adjustments for the HTY, FTY, and FPFTY periods  
20 for water customers are \$176,541, \$205,121, and \$269,192, respectively. The SSS  
21 wastewater adjustment for the HTY period is \$33,245.

1 **Q. Please describe the Adjustment for Strattanville Borough in Schedule 2v.**

2 A. During the HTY period, the Strattanville Borough customer only received 11 bills. This  
3 adjustment is to account for the missing bill, which was billed and posted outside of the  
4 HTY period. The total revenue adjustment is \$6,200.

5 **Q. Please describe the Annualization Adjustment for Findlay Township in Schedule 2w.**

6 A. Beginning in August 2023, the Company began Sales for Resale service to Findlay  
7 Township. The revenue adjustment for the FTY period is to annualize sales from Findlay  
8 Township. The adjustment for the FPFTY period is to annualize revenue from the expected  
9 rate change that will take place in August 2024 and to also consider the impact of the  
10 change in minimum take or pay requirements from a 366-day leap year to a normal 365-  
11 day year. The total adjustments for the HTY, FTY, and FPFTY periods are \$535,275 and  
12 \$19,113, respectively.

13 **Q. Please describe the Acquisition Adjustment for Audubon Water in Schedule 2x.**

14 A. In April 2024, the Company anticipates it will close on the acquisition of the water utility  
15 property of the Audubon Water System and begin providing service to these customers.  
16 This adjustment is based on the Company's estimate of the annualized revenues that will  
17 be produced following the closing of this acquisition. Since the Company will be serving  
18 Audubon premises directly, no revenue associated with Sales for Resale revenues will be  
19 expected from Audubon Water Company. The net adjustment for revenues for the FTY  
20 period is \$2,965,024.

21 **Q. Please describe the Acquisition Adjustment for Farmington Water in Schedule 2y.**

22 A. In April 2024, the Company anticipates it will close on the acquisition of the water utility  
23 property of the Farmington Township Water System and will begin providing service to

1 these customers. This adjustment is based on the Company's estimate of the annualized  
2 revenues that will be produced following the closing of this acquisition. Since the  
3 Company will be serving Farmington Township premises directly, no revenue associated  
4 with Sales for Resale revenues will be expected from the Farmington Township Water  
5 Company. The net adjustment for revenues for the FTY period is \$266,371.

6 **Q. Please describe the Acquisition Adjustment for Farmington Wastewater in Schedule**  
7 **2z.**

8 A. In April 2024, the Company anticipates it will close on the acquisition of the wastewater  
9 utility property of the Farmington Township Wastewater System and begin providing  
10 service to these customers. This adjustment is based on the Company's estimate of the  
11 annualized revenues that will be produced following the closing of this acquisition. The  
12 adjustment for revenues for the FTY period is \$322,926.

13 **Q. Please describe the Acquisition Adjustment for Sadsbury Wastewater in Schedule**  
14 **2za.**

15 A. In April 2024, the Company anticipates it will close on the acquisition of the wastewater  
16 utility property of the Sadsbury Municipal Township Wastewater System and begin  
17 providing service to these customers. This adjustment is based on the Company's estimate  
18 of the annualized revenues that will be produced following the closing of this acquisition.  
19 The adjustment for revenues for the FTY period is \$471,228.

20 **Q. Please describe the Acquisition Adjustment for BASA Wastewater in Schedule 2zb.**

21 A. In December 2023, the Company anticipates it will close on the acquisition of the  
22 wastewater utility property of the Butler Area Sewer Authority System and begin providing  
23 service to these customers. This adjustment is based on the Company's estimate of the



1 annualized revenues that will be produced following the closing of this acquisition and  
2 annualized DSIC revenues. The adjustment for revenues for the FTY period is  
3 \$11,720,905. The adjustment for revenues for the FPFTY period is \$125,861.

4 **Q. Please describe the Acquisition Adjustment for Brentwood Wastewater in Schedule**  
5 **2zc.**

6 A. In April 2024, the Company anticipates it will close on the acquisition of the wastewater  
7 utility property of the Brentwood Wastewater System and begin providing service to these  
8 customers. This adjustment is based on the Company's estimate of the annualized revenues  
9 that will be produced following the closing of this acquisition. The adjustment for revenues  
10 for the FTY period is \$1,824,191.

## 11 **REVENUE DECOUPLING MECHANISM**

### 12 **Introduction**

13 **Q. Is the Company offering a proposal for a revenue decoupling mechanism in this case?**

14 A. Yes. The Company is proposing an RDM for both water and wastewater service.

15 **Q. What is the purpose of the RDM?**

16 A. The RDM is an alternative rate design mechanism whose purpose is to more reliably  
17 recover the revenue requirement and associated fixed costs approved by the Commission  
18 in this case.

19 **Q. Is recovery of fixed costs a concern for the Company?**

20 A. Yes. Approximately 81% of the Company's water and wastewater service revenues will  
21 be collected under volumetric rates under the Company's proposed rate structure in this  
22 case, which means that revenues will vary up or down depending on how much water our  
23 customers use. At the same time, over 95% of the Company's costs are fixed costs, which

1 do not vary depending on how much water our customers use. If water sales are less than  
2 the levels used to set the Company's water service rates in this proceeding, the Company's  
3 revenues will be less than the authorized level in this proceeding and, as a result, the  
4 Company's ability to recover the costs that the Commission determines to be prudent will  
5 be diminished. Likewise, if revenues exceed the authorized level in this proceeding due to  
6 higher than anticipated water sales, the Company will recover more than the authorized  
7 level in this proceeding. Given the nature of the Company's fixed costs, the RDM will  
8 provide the Company with a better opportunity to recover the revenue requirement and  
9 fixed cost authorized in this case as the difference between those amounts and actual  
10 revenues will be charged or credited back to customers in the subsequent year.

11 **Q. What are some of the factors that jeopardize the Company's ability to recover its**  
12 **fixed costs of providing service?**

13 A. There are two primary factors that cause revenue volatility and the associated risk in  
14 recovering fixed costs from year to year – seasonal weather conditions and the ongoing  
15 trend of declining use for residential, commercial, and municipal customers.

16 Seasonal weather conditions can cause water sales to either increase or decrease  
17 from expected going-forward levels, which, in turn, causes revenues to increase or decrease  
18 from expected going-forward levels. Cold winters and hot, dry summers tend to increase  
19 water sales, and warmer winters and cooler, wetter summers tend to decrease water sales.  
20 Weather volatility in either direction causes volatility in revenues.

21 Continuing trends in declining use per customer in the residential, commercial, and  
22 municipal classes also cause volatility in revenues. I have previously testified to both the  
23 impact of weather conditions on annual water sales and on the continuing trends in

1 declining use and the associated impact of declining use on water sales. The Company  
2 expects that water consumption per customer will continue to decline over the next several  
3 years. Both of these conditions cause declines in revenues and both total consumption on  
4 a per customer basis and revenue on a per customer basis are expected to continue to  
5 decline well beyond the period of time for which rates are set in this case.

6 **Q. Does the Company have any control over either seasonal weather conditions or the**  
7 **drivers that are causing declining usage?**

8 A. No, it does not.

9 **Q. Are there other factors that can cause the Company's revenue to deviate from**  
10 **expected levels?**

11 A. Yes. The recent COVID-19 pandemic situation is a prime example of an external event  
12 that can cause the Company's revenues to vary from expected or approved levels. During  
13 the pandemic, the Company saw increased sales volumes for residential customers beyond  
14 expected levels due to the COVID-19 pandemic as more people were staying home from  
15 work and schools. Over the same period, the Company saw decreases in sales volumes  
16 from expected levels in the commercial and municipal classes. These changes in volumes,  
17 whether temporary or permanent, cause changes in revenues from expected or authorized  
18 levels and increase the Company's revenue volatility. Implementation of a well-structured  
19 RDM can stabilize customer bills over time and help avoid over-recovery or under-  
20 recovery of fixed costs because of revenue volatility resulting from uncontrollable  
21 circumstances.

22 **Q. Does the Company have the ability to significantly change its cost structure in order**  
23 **to compensate for changes in revenues?**

1 A. To some extent, the Company experiences a reduction in variable costs associated with the  
2 reduced cost of treating and pumping less water and wastewater. For the most part,  
3 however, the Company’s ability to reduce its fixed costs during periods when water sales  
4 are lower is limited, and it is generally not in the long-term best interests of our customers  
5 for the Company to do so. One simple example of this is the number of Company  
6 employees. The Company can hardly hire and fire its well-trained workforce based on  
7 short-term trends in weather or economic conditions simply to keep expenses in line with  
8 revenues. Similarly, although some maintenance may be deferred when revenues are  
9 lower, such deferrals merely forestall necessary repairs and could degrade the quality of  
10 service provided to PAWC’s customers, as well as increase the cost of service over time.

11 **Q. How is a volatile and degrading long-term revenue stream not in the long-term best**  
12 **interests of the Company’s customers?**

13 A. The Company is committed to helping customers use water efficiently and providing  
14 quality water and wastewater service that is affordable. As I explain below, the Company’s  
15 ability to reliably recover its revenue requirement and recover its fixed cost of providing  
16 service over the long term through rates is an important part of the Company’s ability to  
17 continue to properly operate, maintain, and invest in its water and wastewater system at a  
18 reasonable cost. This ability to prudently manage the PAWC system at a reasonable cost  
19 is in the long-term best interests of our customers.

20 **Description of Proposal**

21 **Q. Please describe the Company’s proposed Revenue Decoupling Mechanism.**

22 A. The Company’s proposed RDM is an alternative rate design mechanism that couples  
23 traditional rate design with elements of Straight Fixed Variable (“SFV”) Pricing. This

1 mechanism couples the benefits of traditional rate design that I have previously described  
2 in my Direct Testimony (including cost causation, affordability, gradualism, and efficiency  
3 of use) with the increased revenue stability available to the Company through an SFV rate  
4 design. This mechanism compares the revenues collected under the actual Commission-  
5 approved rates customers pay with the revenues that would have been collected through an  
6 SFV rate design on a forward-looking basis and accrues the differences, which are either  
7 credited to customers or collected from customers at a later time. The proposed RDM  
8 identifies three cost components as the basis for revenues that would be collected through  
9 the SFV rate design that form the basis of the revenue comparisons going forward. These  
10 three cost components are:

- 11 • **Volumetric Charge (VC)**: A charge in dollars per hundred gallons that applies to  
12 all water volumes sold to customers.
- 13 • **Residential Fixed Charge (RC)**: A flat dollar charge per month that applies to all  
14 residential customers.
- 15 • **Non-Residential Fixed Charge (NC)**: A flat dollar amount that applies to all non-  
16 residential customers.

17 **Q. What is SFV Pricing?**

18 A. Generally, SFV pricing is a rate design that collects a utility's fixed costs through fixed  
19 charges and a utility's variable costs through volumetric charges. For utilities where nearly  
20 all of the revenue requirement is fixed cost, SFV pricing can result in monthly charges to  
21 customers that are relatively high and volumetric rates that are relatively low. SFV pricing  
22 aligns cost recovery with the nature of the costs being recovered, provides a stable and  
23 reliable revenue stream for the utility, and satisfies the revenue stability principle of rate

1 design. On the other hand, SFV pricing is arguably not consistent with generally accepted  
2 cost-causation principles at a customer class level because fixed costs between classes vary  
3 more than may be reflected in SFV rate components. On its own, SFV pricing also has the  
4 potential to reduce incentives to use utility service efficiently and can disadvantage lower-  
5 income customers from an affordability perspective if fixed charges are set too high.

6 **Q. How is the Company proposing to determine the cost components of its proposed**  
7 **RDM?**

8 A. The three different cost components are calculated based on the allocated revenue  
9 requirements to customer class, the level of production costs identified in the class cost of  
10 service studies sponsored by Ms. Heppenstall, and the total volumes of water and  
11 wastewater approved in this proceeding that form the basis of the billing determinants for  
12 water and wastewater service. The calculation for the different cost components is as  
13 follows:

- 14 • **Volumetric Charge (VC):** Total Production Costs allocated to eligible customers  
15 divided by total volumetric sales associated with eligible customers.
- 16 • **Residential Fixed Charge (RC):** Total revenue requirement allocated to  
17 residential customers for rate design purposes less the Volumetric Charge  
18 multiplied by total volumetric sales associated with residential customers divided  
19 by the total number of residential customers in the case.
- 20 • **Non-Residential Fixed Charge (NC):** Total revenue requirement allocated to  
21 eligible non-residential customers for rate design purposes less the Volumetric  
22 Charge multiplied by total volumetric sales associated with eligible non-residential

1 eligible customers divided by the total number of non-residential customers in the  
2 case.

3 **Q. Do you have an exhibit that shows the calculation of these cost components?**

4 A. Yes. Exhibit CBR-8 provides a calculation of the three RDM cost components based on  
5 the cost of service studies supported by Company witness Heppenstall.

**TABLE 18**

**Water Service**

<b>RDM Cost Components</b>	<b>Amount</b>	<b>Description</b>
Residential Fixed Charge	\$83.18	\$ per residential customer per month
Nonresidential Fixed Charge	\$515.94	\$ per nonresidential customer per month
Volumetric Charge	\$0.1033	\$ per hundred gallons sold

**TABLE 19**

**Wastewater Service**

<b>RDM Cost Components</b>	<b>Amount</b>	<b>Description</b>
Residential Fixed Charge	\$87.87	\$ per residential customer per month
Nonresidential Fixed Charge	\$504.66	\$ per nonresidential customer per month
Volumetric Charge	\$0.1548	\$ per hundred gallons sold

6 **Q. Can you provide an example of how the RDM would work on a forward-looking**  
7 **basis?**

8 A. The proposed RDM works by comparing actual revenues recovered from eligible  
9 customers in a given month or year to the revenues that would result from applying the  
10 RDM cost-components that I described above. If actual revenues are higher than would  
11 have been collected under the RDM formula, the difference is credited to customers in the  
12 following year. If actual revenues are lower than would have been collected under the  
13 RDM formula, the difference is collected from customers in the following year. As I have  
14 previously described, the RDM cost components are developed based on Commission-

1 approved customer counts, sales, production costs, and total revenue requirements. On a  
2 monthly basis, the RDM is calculated as follows:

$$3 \quad \text{RES Acc} = \text{RESREV} - (\text{VC} * \text{RESUSE}) - (\text{RC} * \text{RESCUST})$$

4 Where: RES Acc = amount of residential revenue to be accrued

5 RESREV = Total revenue in the month from residential customers,  
6 excluding revenues from adjustments

7 VC = Volumetric Charge

8 RESUSE = Number of 100-gallon units sold to residential customers

9 RC = Residential Fixed Charge

10 RESCUST = Average number of residential customers for the month

$$11 \quad \text{NON Acc} = \text{NONREV} - (\text{VC} * \text{NONUSE}) - (\text{NC} * \text{NRCUST})$$

12 Where: NON Acc = amount of non-residential revenue to be accrued

13 NONREV = Total revenue in the month from non-residential  
14 customers, excluding revenues from adjustments

15 VC = Volumetric Charge

16 NONUSE = Number of 100-gallon units sold to non-residential  
17 customers

18 NC = Non-Residential Fixed Charge

19 NRCUST = Average number of non-residential customers for the  
20 month

21 **Q. Please describe how the Company proposes to implement the RDM.**

22 A. The Company's proposed RDM will apply to both water and wastewater service, with  
23 separate tariffs and separate recovery/credit mechanisms for each service. The



1 recovery/credit mechanisms are proposed to be volumetric and apply separately for each  
2 customer class. Amounts accrued over the course of the year that will be credited to or  
3 collected from customers will be applied in the following year to forecasted sales volumes  
4 and a volumetric credit or surcharge, as applicable, will be calculated on a dollars per  
5 hundred gallons basis.

6 **Q. Are the cost components of the RDM calculation themselves fixed or do they change**  
7 **over time depending on changes in revenue requirements?**

8 A. The cost components of the RDM shown above in Tables 18 and 19 are fixed and will not  
9 change until a future rate case with a different set of revenue requirements and calculations  
10 for cost components.

11 **Q. What customer classes are included in the Company's proposed RDM?**

12 A. The RDM will apply to all customers in the residential, commercial, industrial, municipal,  
13 and sales for resale classes except for those customers taking service under contract rates.

14 **Q. Please describe the specific accounting treatment to be used for the RDM.**

15 A. Each month the Company will compare the actual metered revenues for the applicable  
16 customer classes to the calculated authorized revenues under the RDM cost component  
17 structure. If actual revenues fall short of the RDM calculation, the difference in revenue  
18 will be temporarily deferred to a regulatory asset account. If actual revenues are greater  
19 than the RDM calculation, the difference would be temporarily deferred to a regulatory  
20 liability account.

1 **Q. Please describe the Company’s proposed method for RDM reporting and**  
2 **reconciliation filings with the Commission**

3 A. The Company proposes to make a filing with the Commission on or before January 31 of  
4 each year that includes the RDM calculation and support for any annual adjustments to be  
5 effective under the RDM tariff. The Commission Staff and other interested parties would  
6 have 60 days to review the Company’s filing. If either a charge or a credit is in order, the  
7 reconciliation amount would be charged from April 1 through December 31 for that  
8 calendar year.

9 **Q. How does the Company propose to treat customer growth through acquisitions in the**  
10 **RDM process?**

11 A. Any acquisitions that are completed by the Company that are not already included in this  
12 proceeding will not be included in the proposed RDM until such time that they are included  
13 in rate base and revenue requirement calculations in a future rate proceeding. For any  
14 acquisitions that may occur that are not already included in this case, sales and revenues  
15 will be tracked separately and excluded from the calculations used to support charges or  
16 credits under the Company’s proposed RDM.

17 **Q. How does the Company’s RDM design address the concerns you identified earlier**  
18 **regarding cost causation, efficiency, and possible effects on affordability?**

19 A. The RDM, as a modified version of SFV pricing that preserves the traditional elements of  
20 rate design that I describe above, lessens the concerns regarding cost causation, efficiency,  
21 and affordability that are typically present when applying pure SFV pricing. The RDM  
22 cost components continue to reflect cost of service allocation as determined by Company  
23 witness Heppenstall, and as discussed below, customers will continue to be incentivized to

1 reduce usage and increase efficiency, and service will remain affordable with the added  
2 benefit of greater stability.

3 **Q. Does the Company's proposed RDM address the same uncertainty regarding**  
4 **volatility production expense cost as the Company's production expense deferral**  
5 **mechanism described by Company witness J. Cas Swiz?**

6 A. No. The RDM and the production expense deferral mechanism solve for different and  
7 distinct problems. As described by Mr. Swiz in PAWC Statement No. 8, there is significant  
8 volatility in the per unit cost of the Company's production expenses. The Company  
9 responsibly manages and mitigates the volatility of these expenses to the extent possible  
10 but, ultimately, the per unit costs of the Company's production expenses are subject to  
11 market forces beyond the Company's control. Separately, as I describe in my testimony,  
12 the Company's ability to fully recover the revenue requirement approved by the  
13 Commission will be diminished if water sales are less than the levels used to set the  
14 Company's water service rates in this proceeding. Conversely, the Company could  
15 potentially recover more than the revenue requirement approved by the Commission if  
16 water sales are greater than the levels used to set the Company's water services rates in this  
17 proceeding. The production expense deferral mechanism addresses the volatility  
18 associated in the per unit cost of production expenses. The RDM addresses the risk, to  
19 both the Company and customers, associated with volatility in water sales.

20 The Company's proposed RDM accounts for changes in the cost of production  
21 expenses (i.e., the Total Production Cost) resulting from changes in volumes sold, but does  
22 not account for changes in production cost resulting from higher or lower cost of materials  
23 on a per unit basis. Therefore, as volumes sold increase or decrease, the RDM will address

1 changes in Total Production Cost associated with unanticipated volatility in customer  
2 usage, but not volatility in the per unit cost of production expenses.

3 In contrast, the production expense deferral mechanism will consider changes in  
4 production cost on a per unit basis but not changes in volumes sold. As Mr. Swiz explains  
5 in his Direct Testimony, unitized production costs going forward will be compared to the  
6 production cost per unit approved by the Commission in this case and any differences in  
7 unitized production cost multiplied by volumes sold are recorded in the deferral accounts.  
8 If volumes sold change but the production cost on a per unit basis does not change, nothing  
9 will be recorded in the production expense deferral account described by Mr. Swiz. If  
10 production costs do change on a per unit basis, those changes will be accounted for in the  
11 production expense deferral accounting.

### 12 **Comparisons to Revenue Stabilization Mechanisms**

13 **Q. Did the Company propose a decoupling mechanism in its last base rate case (Docket**  
14 **No. R-2022-3031672)?**

15 A. Yes. The Company filed a proposal for a revenue stabilization mechanism (“RSM”) that  
16 was not included in the settlement agreement between the parties that was approved by the  
17 Commission in that case. I sponsored the proposed RSM in that proceeding.

18 **Q. Are there significant differences between the Company’s proposed RDM in this case**  
19 **and the RSM?**

20 A. There are two significant differences between the proposed RDM in this case and the RSM.  
21 These differences are listed below:

- 22 • The proposed RSM was primarily an accounting tool designed to align the  
23 Company’s revenues going forward (i.e., beyond the conclusion of that proceeding)

1 with the level of authorized revenue ultimately approved by the Commission in that  
2 proceeding. The RDM is more of a rate design tool than an accounting tool,  
3 coupling traditional rate design principles with the revenue stability afforded  
4 through SFV pricing. The reliance on rate components in the Company's proposed  
5 RDM sets it apart from the RSM.

- 6 • The proposed RSM was based on a static revenue requirement to be approved in  
7 that case. Under the RSM, revenues would have been compared going forward to  
8 that approved static revenue requirement. The proposed RDM in this case is not  
9 based on a static revenue requirement. If volumes sold going forward fluctuate up  
10 or down, the revenue calculations under the RDM will go up or down accordingly,  
11 but only to the extent that changes in volumes sold cause changes in short-term  
12 variable costs. Similarly, if there is customer growth or a reduction in customers  
13 (exclusive of acquisitions), the revenue calculations under the RDM will increase  
14 or decrease accordingly based on the approved level of fixed cost per customer.

### 15 **Customer Impacts**

16 **Q. Do you have an exhibit that shows expected future trends in total water usage and**  
17 **revenues by customer class?**

18 A. Yes. Exhibit CBR-9 shows an analysis of future trends in water revenues at the Company's  
19 proposed rates if current trends in declining usage continue. This analysis shows that at  
20 proposed rates, water service revenues will be expected to decline by approximately \$5.8  
21 million per year assuming no changes in base rates given the current trends in declining  
22 usage and customer counts for the residential, commercial, municipal, and industrial  
23 classes.

1 **Q. What variability do you expect to see in annual water revenues in the future?**

2 A. An analysis of the historical data shows that in any given year water revenues at the  
3 Company's proposed rates in this proceeding can swing from the projected amount by as  
4 much as plus or minus approximately \$11.1 million. A statistical analysis of the data shows  
5 that an 80% confidence upper and lower bound around projected annual water revenues is  
6 plus or minus \$14.3 million. This means that 80% of the time revenues are expected to be  
7 within plus or minus \$14.3 million of the forecast, but there is a 10% chance that revenues  
8 will be more than \$14.3 million above the forecast and a 10% chance that revenues will be  
9 less than \$14.3 million below the forecast.

10 **Q. Based on this, what do you expect the impact to be of the Company's proposed RDM**  
11 **on customers?**

12 A. If current trends in customer counts and usage continues, the Company expects there to be  
13 a gap for residential water service customers of approximately \$6.5 million per year  
14 between revenues generated under proposed rates and revenues calculated through the  
15 RDM calculation and a gap of approximately \$3.3 million per year for nonresidential  
16 customers. This translates to an expected recovery factor for residential customers of  
17 \$0.0266 per hundred gallons, or approximately \$1.06 per month for 4,000 gallons of usage,  
18 and an expected recovery factor of \$0.0181 per hundred gallons for commercial customers.

19 **Q. If a customer takes actions to use less water in an attempt to reduce their bill, will the**  
20 **RDM simply take those savings away from customers?**

21 A. No. A customer who takes specific actions to reduce their water consumption will still  
22 enjoy the benefits of a lower bill even with implementation of the RDM. If a customer  
23 takes actions to reduce their water consumption by 5% per month (4,000 gallons to 3,800

1 gallons for example), the resulting bill savings for an average use customer without the  
2 RDM would be \$4.16 per month, well above the amount that the Company estimates an  
3 average use customer bill would increase due to implementation of the RDM.

#### 4 **Public Interest**

5 **Q. Does Pennsylvania law allow for consideration of alternative ratemaking mechanisms**  
6 **like the RDM?**

7 A. Yes. Section 1330 of the Public Utility Code allows the Commission to approve an  
8 application by PAWC to establish various forms of alternative ratemaking mechanisms.  
9 One such form of alternative ratemaking, as identified in section 1330(b)(i), is a decoupling  
10 mechanism. Section 1330(f) specifically defines a Decoupling Mechanism as follows: “In  
11 the case of water and wastewater, a rate mechanism that adjusts or reconciles authorized  
12 rates or revenues for differences between sales used to set rates and actual sales, which  
13 may include, but not be limited to, adjustments resulting from fluctuations in the number  
14 of customers served and other adjustments deemed appropriate by the commission.”<sup>7</sup>

15 **Q. Is the Company’s proposed RDM consistent with Pennsylvania law?**

16 A. Yes. The Company’s proposed RDM is an alternative ratemaking mechanism under  
17 Section 1330(b)(i) and specifically considers and addresses differences between sales used  
18 to set rates and actual realized sales in the future, and also specifically considers and  
19 addresses fluctuations in the numbers of customers served.

20 **Q. What public policy objectives did the Legislature identify when authorizing the**  
21 **Commission to approve the adoption of alternative ratemaking proposals such as the**  
22 **RDM?**

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<sup>7</sup> 66 Pa.C.S. § 1330(f).

1 A. The Legislature stated that “It is the policy of the Commonwealth that utility ratemaking  
2 should encourage and sustain investment through appropriate cost-recovery mechanisms  
3 to enhance the safety, security, reliability or availability of utility infrastructure and be  
4 consistent with the efficient consumption of utility service.”<sup>8</sup>

5 **Q. In Docket No. M-2015-2518883, the Commission developed a Policy Statement on**  
6 **alternative ratemaking mechanisms that lists a number of factors that may be**  
7 **considered when evaluating an alternative ratemaking mechanism such as an RDM.**  
8 **Do you have an exhibit that contains an analysis of how the specific factors laid out**  
9 **by the Commission at Docket No. M-2015-2518883 apply to the Company’s proposed**  
10 **RDM?**

11 A. Yes. To assist the Commission in its review of the RDM, Exhibit CBR-10 contains the  
12 Company’s detailed analysis of how the specific factors laid out by the Commission at  
13 Docket No. M-2015-2518883 apply to the Company’s proposed RDM.

14 **Q. How does a properly structured RDM meet these policy objectives and benefit**  
15 **PAWC’s customers?**

16 A. It is in the long-term best interests of customers for the Company to be able to reliably  
17 recover its fixed costs on an ongoing basis. The authorized water and wastewater revenue  
18 requirements approved by the Commission in this case represent the amount of revenue  
19 the Commission determines that the Company needs to operate, maintain, and invest in its  
20 water and wastewater system in a prudent and efficient manner, the vast majority of which  
21 are fixed in the short term. The ability to reliably recover the Company’s fixed cost of  
22 providing service to customers improves the Company’s ability to plan, manage, maintain,

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<sup>8</sup> *Id.* § 1330(a)(2).



1 and invest in the facilities to continue providing safe, reliable, and high-quality water and  
2 wastewater service at a reasonable cost to customers, and a properly structured RDM does  
3 just that.

4 **Q. What percentage of the Company's proposed revenue requirement in this case**  
5 **represents fixed costs?**

6 A. As I stated previously, over 95% of the Company's costs are fixed costs, which do not vary  
7 depending on how much water our customers use, while approximately 81% of the  
8 Company's water and wastewater service revenues will be collected under volumetric rates  
9 under the Company's proposed rate structure in this case, which means that revenues will  
10 vary up or down depending on how much water our customers use. This means that well  
11 over half of the Company's fixed costs will be recovered through volume-based revenues  
12 which subjects the Company to significant levels of risk related to recovery of fixed costs.

13 **Q. Are there other benefits to customers from the approval of the RDM?**

14 A. Yes. The RDM will reduce the throughput incentive – the Company's financial incentive  
15 to sell more water. Under the current rate structure (without an RDM), the more water  
16 customers use, the more water the Company sells, the more revenue the Company collects,  
17 and the better the Company's financial performance. Currently, from a public policy  
18 perspective, any actions taken by the Company or the government (local, state, or Federal)  
19 to encourage conservation, no matter how beneficial to society, creates a disconnect  
20 between the public policy goal of more efficient use of water resources and the Company's  
21 legitimate financial objectives.

22 This, in turn, allows for a much higher degree of freedom to consider alternative  
23 rate designs that can improve affordability and efficiency of use for customers. Freedom

1 to implement rate designs that can improve affordability and improve price signals to  
2 different types of customers can come in the form of lower monthly service charges and  
3 higher volumetric rates, which can help lower-income customers and provide a more  
4 significant volumetric incentive to use resources more economically. Rate designs that  
5 price Basic Water Service differently from seasonal usage can be implemented that can  
6 improve affordability across the board for lower-income customers and provide price  
7 signals that better reflect cost-causation principles for customers that use more water for  
8 seasonal discretionary purposes. Implementing these beneficial alternative rate designs  
9 normally could have significant short-term and longer-term impacts on usage and revenues  
10 that may be detrimental to the Company's legitimate financial objectives without an RDM  
11 mechanism, but the associated financial risk to both the Company and its customers is  
12 reduced under the Company's proposed RDM.

13 **Q. Are there other policy concerns among public utility regulators that the RDM**  
14 **addresses?**

15 A. Yes. The National Association of Regulatory Utility Commissioners ("NARUC") has been  
16 at the forefront of this issue. At its November 2013 annual meeting, NARUC adopted a  
17 resolution that supports consideration of alternative recovery mechanisms for water and  
18 wastewater utilities, attached hereto as Exhibit CBR-11. The NARUC resolution  
19 recognizes declining use per customer, a shift to non-revenue-producing infrastructure  
20 replacement, and that the traditional cost of service model is not well adapted to this new  
21 environment. It states, in part:

22 WHEREAS, Traditional cost of service ratemaking, which has worked  
23 reasonably well in the past for water and wastewater utilities, no longer  
24 adequately addresses the challenges of today and tomorrow. Revenue,  
25 driven by declining use per customer, is flat to decreasing, while the nature

1 of investment (rate base) has shifted largely from plant needed for serving  
2 new customers to non-revenue producing infrastructure replacement and  
3 compliance with new drinking water standards; and

4 WHEREAS, The traditional cost of service model is not well adapted to a  
5 no/low growth, high investment utility environment and is unlikely to  
6 encourage the necessary future investment in infrastructure replacement;  
7 and

8 WHEREAS, Compared to the water and wastewater industry, the electric  
9 and natural gas delivery industries have in place a larger number and a  
10 greater variety of alternative regulation policies, such as multiyear rate  
11 plans and rate stabilization programs, and those set forth in the 2005  
12 Resolution; and

13 WHEREAS, The U.S. water industry is the most capital intensive sector of  
14 regulated utilities and faces critical investment needs that are expected to  
15 total \$335 billion to \$1 trillion over the next quarter century, as noted in the  
16 American Society of Civil Engineers 2013 Report Card for America's  
17 Infrastructure... .

18 The NARUC resolution goes on to recommend the adoption of alternative recovery  
19 mechanisms, such as the RDM. It states that:

20 Alternative regulatory mechanisms can enhance the efficiency and  
21 effectiveness of water and wastewater utility regulation by reducing  
22 regulatory costs, increasing rates for customers, when necessary, on a more  
23 gradual basis; and providing the predictability and regulatory certainty that  
24 supports the attraction of debt and equity capital at reasonable costs and  
25 maintains that access at all times.

26 **Q. Are alternative regulatory mechanisms such as the RDM recognized in the regulatory**  
27 **community as an effective means of addressing these policy concerns?**

28 A. Yes. Revenue decoupling mechanisms have been adopted in many states as a way to  
29 eliminate the throughput incentive, to support energy efficiency initiatives and investment,  
30 and to align actual revenue collection with authorized revenue. Clauses similar to the  
31 Company's proposal here have been successfully used for some time for water utilities in  
32 New York and California and have been more recently adopted for water utilities in

1 Connecticut, Nevada, Maine and Illinois. In addition, similar revenue stabilizing  
2 mechanisms have been approved for gas utilities in 23 states and an additional two states  
3 plus the District of Columbia have mechanisms pending, according to the December 2016  
4 report from the American Gas Association entitled “Innovative Rates, Non-Volumetric  
5 Rates, and Tracking Mechanisms: Current List.”<sup>9</sup> This report also states that Weather  
6 Normalization Adjustments are allowed in 22 states. A December 2017 report by the  
7 Institute for Electric Innovation lists 32 states and the District of Columbia that have an  
8 approved fixed cost recovery mechanism for electric utilities with an additional state  
9 pending approval.

10 **Q. Please summarize why adoption of the RDM for the Company and its customers is**  
11 **appropriate.**

12 A. Adoption of the Company’s proposed RDM is in the long-term best interest of the  
13 Company and its customers. Rate designs that tie a utility’s revenue recovery directly to  
14 sales volume have prompted concerns in modern utility regulation that because of seasonal  
15 variability and declining use per customer, volumetric rates that collect the majority of a  
16 Company’s fixed cost do not give water utilities a reasonable opportunity to recover the  
17 fixed costs associated with providing service to customers. An alternative rate design  
18 mechanism that couples elements of SFV pricing with traditional rate designs brings the  
19 best of both worlds to both the Company and its customers. Implementing this alternative  
20 rate design solution: 1) makes the Company indifferent to selling less water, 2) promotes

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<sup>9</sup> An earlier 2013 study by the Brattle Group entitled “Alternative Regulation and Ratemaking Approaches for Water Companies: Supporting the Capital Investment Needs of the 21st Century,” prepared for the National Association of Water Companies, (September 30, 2013) found that 27 states for electricity, 30 states for natural gas delivery, and five states for water have these types of mechanisms.

1 water efficiency and conservation, 3) reduces the adverse impact of weather variability for  
2 both the utility and its customers, and 4) reasonably ensures that sufficient revenues for  
3 continued investments in the system are available. The result is a better alignment of all  
4 stakeholder interests, and the Company respectfully urges the Commission to authorize its  
5 proposed RDM.

6 **CONCLUSION**

7 **Q. Does this conclude your direct testimony at this time?**

8 A. Yes, it does.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY  
COMMISSION**

**v.**

**PENNSYLVANIA-AMERICAN WATER  
COMPANY**

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**DOCKET NOS. R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**VERIFICATION**

I, **Charles Rea**, hereby state that the facts set forth in the pre-marked Statement No. 10 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023



\_\_\_\_\_  
Charles Rea

Pennsylvania-American Water Company  
Case No. R-2023-3043189  
Water Affordability Summary - Bills for Basic Water Service  
Customer Counts as of December 31, 2022

Affordability Target: 2.0%

Income Level	Size	Water Service	Average Income	Customers	Proposed Base Bill	--- Customers by FPL ---											--- Customers by FPL ---						
						0-50%	51%-100%	101%-150%	151%-200%	201%-250%	251%-300%	301%-350%	351%-400%	401%-450%	451%-500%	Over 500%	0-150%	151-300%	301-500%	Over 500%			
\$0-\$5k	1	1,200	\$ 3,000	6,834	\$ 45.53	6,834	-	-	-	-	-	-	-	-	-	-	-	-	6,834	-	-	-	
\$0-\$5k	2	2,400	\$ 3,000	3,394	\$ 71.09	3,394	-	-	-	-	-	-	-	-	-	-	-	-	3,394	-	-	-	
\$0-\$5k	3	3,600	\$ 3,000	1,179	\$ 96.62	1,179	-	-	-	-	-	-	-	-	-	-	-	-	1,179	-	-	-	
\$0-\$5k	4	4,800	\$ 3,000	722	\$ 122.19	722	-	-	-	-	-	-	-	-	-	-	-	-	722	-	-	-	
\$0-\$5k	5	6,000	\$ 3,000	341	\$ 147.73	341	-	-	-	-	-	-	-	-	-	-	-	-	341	-	-	-	
\$0-\$5k	6	7,200	\$ 3,000	131	\$ 173.50	131	-	-	-	-	-	-	-	-	-	-	-	-	131	-	-	-	
\$0-\$5k	7	8,400	\$ 3,000	84	\$ 199.08	84	-	-	-	-	-	-	-	-	-	-	-	-	84	-	-	-	
\$5-\$10k	1	1,200	\$ 7,500	6,096	\$ 45.54	3,014	3,082	-	-	-	-	-	-	-	-	-	-	-	6,096	-	-	-	
\$5-\$10k	2	2,400	\$ 7,500	2,213	\$ 71.10	2,213	-	-	-	-	-	-	-	-	-	-	-	-	2,213	-	-	-	
\$5-\$10k	3	3,600	\$ 7,500	778	\$ 96.65	778	-	-	-	-	-	-	-	-	-	-	-	-	778	-	-	-	
\$5-\$10k	4	4,800	\$ 7,500	498	\$ 122.23	498	-	-	-	-	-	-	-	-	-	-	-	-	498	-	-	-	
\$5-\$10k	5	6,000	\$ 7,500	230	\$ 147.91	230	-	-	-	-	-	-	-	-	-	-	-	-	230	-	-	-	
\$5-\$10k	6	7,200	\$ 7,500	70	\$ 173.50	70	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	
\$5-\$10k	7	8,400	\$ 7,500	45	\$ 199.08	45	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-	
\$10-\$15k	1	1,200	\$ 12,500	13,579	\$ 45.51	-	12,230	1,349	-	-	-	-	-	-	-	-	-	-	13,579	-	-	-	
\$10-\$15k	2	2,400	\$ 12,500	3,462	\$ 71.07	-	3,462	-	-	-	-	-	-	-	-	-	-	-	3,462	-	-	-	
\$10-\$15k	3	3,600	\$ 12,500	1,152	\$ 96.58	530	622	-	-	-	-	-	-	-	-	-	-	-	1,152	-	-	-	
\$10-\$15k	4	4,800	\$ 12,500	794	\$ 122.14	794	-	-	-	-	-	-	-	-	-	-	-	-	794	-	-	-	
\$10-\$15k	5	6,000	\$ 12,500	282	\$ 147.69	282	-	-	-	-	-	-	-	-	-	-	-	-	282	-	-	-	
\$10-\$15k	6	7,200	\$ 12,500	96	\$ 173.50	96	-	-	-	-	-	-	-	-	-	-	-	-	96	-	-	-	
\$10-\$15k	7	8,400	\$ 12,500	59	\$ 199.08	59	-	-	-	-	-	-	-	-	-	-	-	-	59	-	-	-	
\$15-\$20k	1	1,200	\$ 17,500	13,296	\$ 45.49	-	-	13,296	-	-	-	-	-	-	-	-	-	-	13,296	-	-	-	
\$15-\$20k	2	2,400	\$ 17,500	4,419	\$ 71.01	-	4,015	404	-	-	-	-	-	-	-	-	-	-	4,419	-	-	-	
\$15-\$20k	3	3,600	\$ 17,500	1,524	\$ 96.52	-	1,524	-	-	-	-	-	-	-	-	-	-	-	1,524	-	-	-	
\$15-\$20k	4	4,800	\$ 17,500	992	\$ 122.07	-	992	-	-	-	-	-	-	-	-	-	-	-	992	-	-	-	
\$15-\$20k	5	6,000	\$ 17,500	449	\$ 147.49	270	179	-	-	-	-	-	-	-	-	-	-	-	449	-	-	-	
\$15-\$20k	6	7,200	\$ 17,500	147	\$ 172.99	147	-	-	-	-	-	-	-	-	-	-	-	-	147	-	-	-	
\$15-\$20k	7	8,400	\$ 17,500	91	\$ 199.08	91	-	-	-	-	-	-	-	-	-	-	-	-	91	-	-	-	
\$20-\$25k	1	1,200	\$ 22,500	12,523	\$ 45.51	-	-	4,988	7,535	-	-	-	-	-	-	-	-	-	4,988	7,535	-	-	
\$20-\$25k	2	2,400	\$ 22,500	5,583	\$ 71.06	-	-	5,583	-	-	-	-	-	-	-	-	-	-	5,583	-	-	-	
\$20-\$25k	3	3,600	\$ 22,500	1,972	\$ 96.59	-	1,972	-	-	-	-	-	-	-	-	-	-	-	1,972	-	-	-	
\$20-\$25k	4	4,800	\$ 22,500	1,272	\$ 122.13	-	1,272	-	-	-	-	-	-	-	-	-	-	-	1,272	-	-	-	
\$20-\$25k	5	6,000	\$ 22,500	581	\$ 147.69	-	581	-	-	-	-	-	-	-	-	-	-	-	581	-	-	-	
\$20-\$25k	6	7,200	\$ 22,500	228	\$ 173.17	-	228	-	-	-	-	-	-	-	-	-	-	-	228	-	-	-	
\$20-\$25k	7	8,400	\$ 22,500	148	\$ 199.08	104	44	-	-	-	-	-	-	-	-	-	-	-	148	-	-	-	
\$25-\$35k	1	1,200	\$ 22,500	22,998	\$ 45.53	-	-	-	9,198	13,800	-	-	-	-	-	-	-	-	-	22,998	-	-	-
\$25-\$35k	2	2,400	\$ 30,000	14,262	\$ 71.10	-	-	7,105	7,157	-	-	-	-	-	-	-	-	-	7,105	7,157	-	-	
\$25-\$35k	3	3,600	\$ 30,000	4,939	\$ 96.65	-	-	4,939	-	-	-	-	-	-	-	-	-	-	4,939	-	-	-	
\$25-\$35k	4	4,800	\$ 30,000	3,064	\$ 122.18	-	1,488	1,576	-	-	-	-	-	-	-	-	-	-	3,064	-	-	-	
\$25-\$35k	5	6,000	\$ 30,000	1,445	\$ 147.74	-	1,445	-	-	-	-	-	-	-	-	-	-	-	1,445	-	-	-	
\$25-\$35k	6	7,200	\$ 30,000	642	\$ 173.38	-	642	-	-	-	-	-	-	-	-	-	-	-	642	-	-	-	
\$25-\$35k	7	8,400	\$ 30,000	395	\$ 198.86	-	395	-	-	-	-	-	-	-	-	-	-	-	395	-	-	-	
\$35-\$50k	1	1,200	\$ 37,500	25,805	\$ 45.51	-	-	-	-	2,570	12,914	10,322	-	-	-	-	-	-	-	15,483	10,322	-	-
\$35-\$50k	2	2,400	\$ 37,500	24,418	\$ 71.06	-	-	-	7,320	17,098	-	-	-	-	-	-	-	-	-	24,418	-	-	-
\$35-\$50k	3	3,600	\$ 37,500	8,668	\$ 96.59	-	-	1,704	6,964	-	-	-	-	-	-	-	-	-	1,704	6,964	-	-	
\$35-\$50k	4	4,800	\$ 37,500	5,588	\$ 122.13	-	-	3,898	1,690	-	-	-	-	-	-	-	-	-	3,898	1,690	-	-	
\$35-\$50k	5	6,000	\$ 37,500	2,976	\$ 147.68	-	-	2,976	-	-	-	-	-	-	-	-	-	-	2,976	-	-	-	
\$35-\$50k	6	7,200	\$ 37,500	1,260	\$ 173.20	-	453	807	-	-	-	-	-	-	-	-	-	-	1,260	-	-	-	
\$35-\$50k	7	8,400	\$ 37,500	650	\$ 198.68	-	455	195	-	-	-	-	-	-	-	-	-	-	650	-	-	-	
\$50-\$75k	1	1,200	\$ 62,500	30,501	\$ 45.49	-	-	-	-	-	-	-	9,154	9,156	9,152	3,040	-	-	-	27,461	3,040	-	-
\$50-\$75k	2	2,400	\$ 62,500	40,174	\$ 71.03	-	-	-	-	-	-	16,055	16,084	8,035	-	-	-	-	-	16,055	24,119	-	-
\$50-\$75k	3	3,600	\$ 62,500	15,860	\$ 96.56	-	-	-	-	7,898	7,962	-	-	-	-	-	-	-	-	15,860	-	-	-
\$50-\$75k	4	4,800	\$ 62,500	11,123	\$ 122.08	-	-	-	4,446	6,677	-	-	-	-	-	-	-	-	-	11,123	-	-	-

Pennsylvania-American Water Company  
Case No. R-2023-3043189  
Water Affordability Summary - Bills for Basic Water Service  
Customer Counts as of December 31, 2022

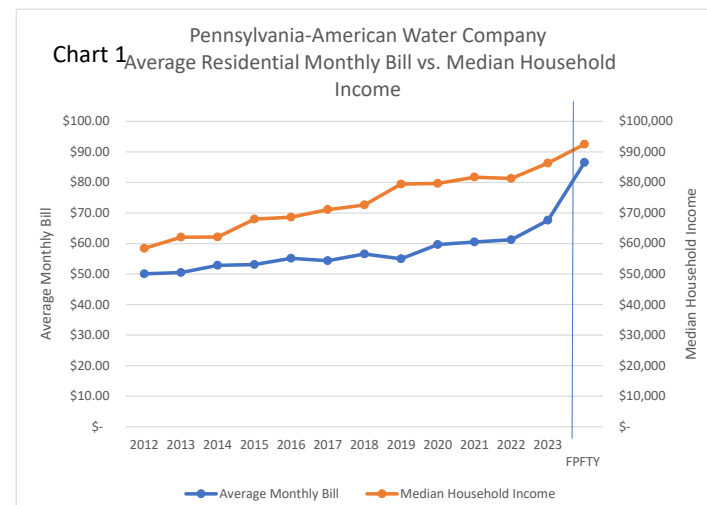
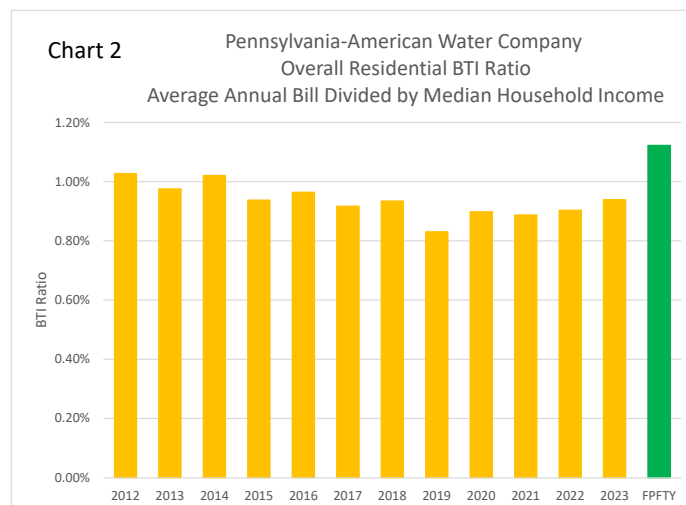
Affordability Target: 2.0%

Income Level	Size	Water Service	Average Income	Customers	Proposed Base Bill	--- Customers by FPL ---											--- Customers by FPL ---				
						0-50%	51%-100%	101%-150%	151%-200%	201%-250%	251%-300%	301%-350%	351%-400%	401%-450%	451%-500%	Over 500%	0-150%	151-300%	301-500%	Over 500%	
\$50-\$75k	5	6,000	\$ 62,500	5,692	\$ 147.60	-	-	562	4,004	1,126	-	-	-	-	-	-	-	562	5,130	-	-
\$50-\$75k	6	7,200	\$ 62,500	2,288	\$ 173.14	-	-	905	1,383	-	-	-	-	-	-	-	-	905	1,383	-	-
\$50-\$75k	7	8,400	\$ 62,500	1,239	\$ 198.66	-	-	889	350	-	-	-	-	-	-	-	-	889	350	-	-
\$75-\$100k	1	1,200	\$ 87,500	18,326	\$ 45.49	-	-	-	-	-	-	-	-	-	-	-	18,326	-	-	-	18,326
\$75-\$100k	2	2,400	\$ 87,500	34,762	\$ 71.02	-	-	-	-	-	-	6,934	10,469	13,908	3,452	-	-	-	-	31,311	3,452
\$75-\$100k	3	3,600	\$ 87,500	15,274	\$ 96.55	-	-	-	-	-	7,609	7,664	-	-	-	-	-	-	-	15,274	-
\$75-\$100k	4	4,800	\$ 87,500	11,986	\$ 122.08	-	-	-	-	7,195	4,791	-	-	-	-	-	-	-	7,195	4,791	-
\$75-\$100k	5	6,000	\$ 87,500	5,502	\$ 147.59	-	-	-	-	2,788	2,714	-	-	-	-	-	-	-	5,502	-	-
\$75-\$100k	6	7,200	\$ 87,500	2,226	\$ 173.13	-	-	-	440	1,786	-	-	-	-	-	-	-	-	2,226	-	-
\$75-\$100k	7	8,400	\$ 87,500	1,200	\$ 198.65	-	-	-	764	436	-	-	-	-	-	-	-	-	1,200	-	-
\$100-\$150k	1	1,200	\$ 125,000	16,150	\$ 45.48	-	-	-	-	-	-	-	-	-	-	16,150	-	-	-	-	16,150
\$100-\$150k	2	2,400	\$ 125,000	44,509	\$ 71.01	-	-	-	-	-	-	-	-	-	44,509	-	-	-	-	-	44,509
\$100-\$150k	3	3,600	\$ 125,000	21,600	\$ 96.53	-	-	-	-	-	-	-	4,320	6,451	10,829	-	-	-	-	10,772	10,829
\$100-\$150k	4	4,800	\$ 125,000	19,508	\$ 122.06	-	-	-	-	-	1,941	5,855	5,862	5,852	-	-	-	-	-	19,508	-
\$100-\$150k	5	6,000	\$ 125,000	8,337	\$ 147.59	-	-	-	-	830	3,305	2,545	1,657	-	-	-	-	-	830	7,507	-
\$100-\$150k	6	7,200	\$ 125,000	3,262	\$ 173.09	-	-	-	-	-	1,300	1,321	640	-	-	-	-	-	1,300	1,962	-
\$100-\$150k	7	8,400	\$ 125,000	1,784	\$ 198.60	-	-	-	-	517	751	517	-	-	-	-	-	-	1,268	517	-
Over \$150k	1	1,200	\$ 200,000	9,851	\$ 45.45	-	-	-	-	-	-	-	-	-	9,851	-	-	-	-	-	9,851
Over \$150k	2	2,400	\$ 200,000	39,474	\$ 70.98	-	-	-	-	-	-	-	-	-	39,474	-	-	-	-	-	39,474
Over \$150k	3	3,600	\$ 200,000	21,874	\$ 96.50	-	-	-	-	-	-	-	-	-	21,874	-	-	-	-	-	21,874
Over \$150k	4	4,800	\$ 200,000	23,133	\$ 122.04	-	-	-	-	-	-	-	-	-	23,133	-	-	-	-	-	23,133
Over \$150k	5	6,000	\$ 200,000	9,689	\$ 147.55	-	-	-	-	-	-	-	-	950	1,949	6,791	-	-	2,898	6,791	-
Over \$150k	6	7,200	\$ 200,000	3,418	\$ 173.04	-	-	-	-	-	-	-	339	694	715	1,671	-	-	1,748	1,671	-
Over \$150k	7	8,400	\$ 200,000	1,967	\$ 198.60	-	-	-	-	-	-	180	412	431	548	395	-	-	1,572	395	-
<b>Total:</b>				<b>623,083</b>		<b>21,906</b>	<b>35,081</b>	<b>51,176</b>	<b>51,252</b>	<b>54,694</b>	<b>49,721</b>	<b>46,070</b>	<b>41,578</b>	<b>33,538</b>	<b>38,574</b>	<b>199,494</b>	<b>108,163</b>	<b>155,668</b>	<b>159,759</b>	<b>199,494</b>	



Pennsylvania-American Water Company  
Water Affordability Analysis

Residential Statistics	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	FPFTY
PA Revenue	\$ 325,273,489	\$ 329,828,076	\$ 354,169,945	\$ 359,423,318	\$ 378,710,296	\$ 381,550,172	\$ 398,076,489	\$ 394,629,629	\$ 412,096,481	\$ 402,858,625	\$ 441,820,109	\$ 451,468,780	\$ 459,547,021	\$ 513,288,585	\$ 657,085,231
PA Sales	29,239,212	28,406,724	27,068,544	27,122,889	26,905,414	26,755,046	26,278,710	25,992,477	25,704,331	25,430,774	27,131,981	26,152,319	25,842,896	25,174,831	24,472,073
PA Customers	587,949	588,215	589,738	593,135	597,129	598,469	601,431	604,772	607,073	610,361	617,040	621,942	625,407	632,818	632,818
PA Statewide Median Income	\$ 48,314	\$ 49,910	\$ 51,904	\$ 55,156	\$ 55,173	\$ 60,389	\$ 60,979	\$ 63,173	\$ 64,524	\$ 70,582	\$ 70,789	\$ 72,627	\$ 72,210	\$ 76,680	\$ 82,181
PA Customer Median Income	\$ 54,380	\$ 56,176	\$ 58,421	\$ 62,081	\$ 62,100	\$ 67,971	\$ 68,635	\$ 71,105	\$ 72,625	\$ 79,444	\$ 79,677	\$ 81,746	\$ 81,276	\$ 86,308	\$ 92,500
PA Average Price	\$ 11.12	\$ 11.61	\$ 13.08	\$ 13.25	\$ 14.08	\$ 14.26	\$ 15.15	\$ 15.18	\$ 16.03	\$ 15.84	\$ 16.28	\$ 17.26	\$ 17.78	\$ 20.39	\$ 26.85
PA Average Monthly Bill	\$ 46.10	\$ 46.73	\$ 50.05	\$ 50.50	\$ 52.85	\$ 53.13	\$ 55.16	\$ 54.38	\$ 56.57	\$ 55.00	\$ 59.67	\$ 60.49	\$ 61.23	\$ 67.59	\$ 86.53
PA Average Monthly Use	4.14	4.02	3.82	3.81	3.75	3.73	3.64	3.58	3.53	3.47	3.66	3.50	3.44	3.32	3.22
PA BTI Ratio	1.02%	1.00%	1.03%	0.98%	1.02%	0.94%	0.96%	0.92%	0.93%	0.83%	0.90%	0.89%	0.90%	0.94%	1.12%



TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter
Atlasburg	PA	15004	PA-McMurray	126	1	126	1	1	0	1	\$ 52,059	\$ 52,059	-	100.0%	0.0%	\$ 52,059	126	-
Beaver Falls	PA	15010	PA-NewCastle/Ellwood	1	1	1	1	1	1	1	\$ 63,856	\$ 80,731	\$ 31,692	84.7%	15.3%	\$ 73,222	1	0
Bridgeville	PA	15017	PA-Pittsburgh	2,985	1	2,985	1	1	1	1	\$ 79,129	\$ 94,207	\$ 44,384	92.1%	7.9%	\$ 90,273	2,749	236
Bridgeville	PA	15017	PA-McMurray	3,518	1	3,518	1	1	1	1	\$ 79,129	\$ 94,207	\$ 44,384	92.1%	7.9%	\$ 90,273	3,240	278
Buena Vista	PA	15018	PA-Elizabeth	301	1	301	1	1	0	1	\$ 27,358	\$ 27,386	-	86.7%	13.3%	\$ 23,739	261	40
Bulger	PA	15019	PA-McMurray	329	1	329	1	1	1	1	\$ 45,481	\$ 54,018	\$ 43,077	85.9%	14.1%	\$ 52,477	283	46
Burgettstown	PA	15021	PA-McMurray	2,275	1	2,275	1	1	1	1	\$ 67,703	\$ 79,940	\$ 37,188	85.6%	14.4%	\$ 73,771	1,947	328
Charleroi	PA	15022	PA-Elizabeth	129	1	129	1	1	1	1	\$ 52,905	\$ 64,453	\$ 26,444	87.9%	12.1%	\$ 59,836	113	16
Clairton	PA	15025	PA-Elizabeth	3,902	1	3,902	1	1	1	1	\$ 66,221	\$ 86,754	\$ 32,525	84.0%	16.0%	\$ 78,064	3,277	625
Clairton	PA	15025	PA-Pittsburgh	2,344	1	2,344	1	1	1	1	\$ 66,221	\$ 86,754	\$ 32,525	84.0%	16.0%	\$ 78,064	1,968	376
Clinton	PA	15026	PA-McMurray	65	1	65	1	1	1	1	\$ 89,085	\$ 97,250	\$ 88,545	86.0%	14.0%	\$ 96,027	56	9
Cuddy	PA	15031	PA-McMurray	2	1	2	1	1	0	1	\$ 31,500	\$ 80,268	-	79.9%	20.1%	\$ 64,099	2	0
Cuddy	PA	15031	PA-Pittsburgh	215	1	215	1	1	0	1	\$ 31,500	\$ 80,268	-	79.9%	20.1%	\$ 64,099	172	43
Donora	PA	15033	PA-Elizabeth	66	1	66	1	1	1	1	\$ 39,571	\$ 60,781	\$ 21,757	54.9%	45.1%	\$ 43,176	36	30
Dravosburg	PA	15034	PA-Elizabeth	367	1	367	1	1	1	1	\$ 35,417	\$ 51,875	\$ 23,626	68.3%	31.7%	\$ 42,918	251	116
Dravosburg	PA	15034	PA-Pittsburgh	225	1	225	1	1	1	1	\$ 35,417	\$ 51,875	\$ 23,626	68.3%	31.7%	\$ 42,918	154	71
Elizabeth	PA	15037	PA-Elizabeth	4,079	1	4,079	1	1	1	1	\$ 68,201	\$ 72,730	\$ 52,438	91.7%	8.3%	\$ 71,055	3,742	337
Elrama	PA	15038	PA-Elizabeth	166	1	166	1	1	0	1	-	-	-	71.9%	28.1%	\$ -	119	47
Glassport	PA	15045	PA-Elizabeth	1,756	1	1,756	1	1	1	1	\$ 43,458	\$ 48,592	\$ 32,260	77.1%	22.9%	\$ 44,858	1,355	401
Greenock	PA	15047	PA-Elizabeth	136	1	136	1	1	0	1	\$ 38,790	\$ 38,790	-	100.0%	0.0%	\$ 38,790	136	-
Hookstown	PA	15050	PA-McMurray	45	1	45	1	1	1	1	\$ 71,047	\$ 72,432	\$ 42,250	94.4%	5.6%	\$ 70,729	42	3
Joffre	PA	15053	PA-McMurray	96	1	96	1	1	0	1	-	-	-	92.7%	7.3%	\$ -	89	7
Langeloth	PA	15054	PA-McMurray	257	1	257	1	1	0	1	\$ 34,457	-	-	88.6%	11.4%	\$ -	228	29
Lawrence	PA	15055	PA-McMurray	716	1	716	1	1	0	1	\$ 65,372	\$ 65,405	-	92.9%	7.1%	\$ 60,793	666	50
Mc Donald	PA	15057	PA-McMurray	3,207	1	3,207	1	1	1	1	\$ 98,523	\$ 114,583	\$ 30,776	94.4%	5.6%	\$ 109,884	3,027	180
Mc Donald	PA	15057	PA-Pittsburgh	1,787	1	1,787	1	1	1	1	\$ 98,523	\$ 114,583	\$ 30,776	94.4%	5.6%	\$ 109,884	1,687	100
Midland	PA	15059	PA-McMurray	1	1	1	1	1	1	1	\$ 66,111	\$ 70,397	\$ 49,167	75.0%	25.0%	\$ 65,081	1	0
Midway	PA	15060	PA-McMurray	454	1	454	1	1	1	1	\$ 57,857	\$ 61,771	\$ 28,542	98.2%	1.8%	\$ 61,169	446	8
Monongahela	PA	15063	PA-Elizabeth	3,836	1	3,836	1	1	1	1	\$ 64,020	\$ 75,566	\$ 30,972	90.9%	9.1%	\$ 71,488	3,485	351
Morgan	PA	15064	PA-Pittsburgh	193	1	193	1	1	0	1	\$ 71,071	\$ 72,054	-	50.4%	49.6%	\$ 36,320	97	96
New Eagle	PA	15067	PA-Elizabeth	841	1	841	1	1	1	1	\$ 49,397	\$ 55,395	\$ 38,864	88.5%	11.5%	\$ 53,502	745	96
Oakdale	PA	15071	PA-McMurray	28	1	28	1	1	1	1	\$ 86,250	\$ 99,554	\$ 67,156	89.3%	10.7%	\$ 96,083	25	3
Oakdale	PA	15071	PA-Pittsburgh	1,151	1	1,151	1	1	1	1	\$ 86,250	\$ 99,554	\$ 67,156	89.3%	10.7%	\$ 96,083	1,028	123
Slovan	PA	15078	PA-McMurray	233	1	233	1	1	0	1	\$ 68,173	\$ 69,087	-	76.5%	23.5%	\$ 52,877	178	55
Sturgeon	PA	15082	PA-McMurray	142	1	142	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	142	-
Sturgeon	PA	15082	PA-Pittsburgh	1	1	1	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	1	-
Sutersville	PA	15083	PA-Elizabeth	20	1	20	1	1	1	1	\$ 62,019	\$ 62,212	\$ 50,000	92.4%	7.6%	\$ 61,281	18	2
West Elizabeth	PA	15088	PA-Elizabeth	214	1	214	1	1	1	1	\$ 46,705	\$ 56,250	\$ 27,250	84.1%	15.9%	\$ 51,627	180	34
West Newton	PA	15089	PA-Elizabeth	21	1	21	1	1	1	1	\$ 54,033	\$ 63,750	\$ 23,750	88.2%	11.8%	\$ 59,026	19	2
Allison Park	PA	15101	PA-Mechanicsburg	1	1	1	1	1	1	1	\$ 90,743	\$ 115,083	\$ 47,172	94.2%	5.8%	\$ 111,170	1	0
Bethel Park	PA	15102	PA-Hershey/Palmyra	1	1	1	1	1	1	1	\$ 95,479	\$ 105,166	\$ 53,247	93.0%	7.0%	\$ 101,541	1	0
Bethel Park	PA	15102	PA-Pittsburgh	10,897	1	10,897	1	1	1	1	\$ 95,479	\$ 105,166	\$ 53,247	93.0%	7.0%	\$ 101,541	10,136	761
Carnegie	PA	15106	PA-Pittsburgh	7,083	1	7,083	1	1	1	1	\$ 62,658	\$ 78,906	\$ 32,160	86.4%	13.6%	\$ 72,562	6,122	961
Homestead	PA	15120	PA-Pittsburgh	7,021	1	7,021	1	1	1	1	\$ 46,139	\$ 60,625	\$ 27,382	78.3%	21.7%	\$ 53,399	5,495	1,526
West Mifflin	PA	15122	PA-Elizabeth	64	1	64	1	1	1	1	\$ 57,705	\$ 68,445	\$ 34,797	87.8%	12.2%	\$ 64,351	56	8
West Mifflin	PA	15122	PA-Pittsburgh	7,397	1	7,397	1	1	1	1	\$ 57,705	\$ 68,445	\$ 34,797	87.8%	12.2%	\$ 64,351	6,497	900
South Park	PA	15129	PA-Pittsburgh	3,871	1	3,871	1	1	1	1	\$ 82,002	\$ 91,227	\$ 58,654	91.2%	8.8%	\$ 88,370	3,531	340
Mckeesport	PA	15133	PA-Elizabeth	1,160	1	1,160	1	1	1	1	\$ 59,541	\$ 62,804	\$ 54,714	81.1%	18.9%	\$ 61,278	941	219
Mckeesport	PA	15135	PA-Elizabeth	1,828	1	1,828	1	1	1	1	\$ 75,871	\$ 97,452	\$ 39,736	88.2%	11.8%	\$ 90,623	1,612	216
Presto	PA	15142	PA-Pittsburgh	696	1	696	1	1	1	1	\$ 106,786	\$ 233,611	\$ 70,345	93.1%	6.9%	\$ 222,384	648	48
Pittsburgh	PA	15201	PA-McMurray	2	1	2	1	1	1	1	\$ 74,983	\$ 84,429	\$ 65,602	73.8%	26.2%	\$ 79,492	1	1
Pittsburgh	PA	15202	PA-Pittsburgh	1	1	1	1	1	1	1	\$ 57,551	\$ 85,600	\$ 40,120	88.9%	11.1%	\$ 80,550	1	0
Pittsburgh	PA	15204	PA-Pittsburgh	2,475	1	2,475	1	1	1	1	\$ 47,395	\$ 53,542	\$ 34,035	77.4%	22.6%	\$ 49,142	1,917	558
Pittsburgh	PA	15205	PA-Pittsburgh	5,917	1	5,917	1	1	1	1	\$ 66,594	\$ 86,722	\$ 43,750	85.8%	14.2%	\$ 80,606	5,075	842
Pittsburgh	PA	15205	PA-Elizabeth	1	1	1	1	1	1	1	\$ 66,594	\$ 86,722	\$ 43,750	85.8%	14.2%	\$ 80,606	1	0
Pittsburgh	PA	15207	PA-Pittsburgh	1,464	1	1,464	1	1	1	1	\$ 47,709	\$ 62,557	\$ 22,635	73.4%	26.6%	\$ 51,936	1,075	389
Pittsburgh	PA	15210	PA-Pittsburgh	7,733	1	7,733	1	1	1	1	\$ 41,065	\$ 52,335	\$ 29,930	69.3%	30.7%	\$ 45,466	5,362	2,371
Pittsburgh	PA	15212	PA-Pittsburgh	1	1	1	1	1	1	1	\$ 53,882	\$ 76,654	\$ 35,389	76.7%	23.3%	\$ 67,028	1	0
Pittsburgh	PA	15215	PA-Pittsburgh	2	1	2	1	1	1	1	\$ 81,004	\$ 99,271	\$ 38,880	87.6%	12.4%	\$ 91,763	2	0
Pittsburgh	PA	15216	PA-Pittsburgh	8,106	1	8,106	1	1	1	1	\$ 66,770	\$ 87,933	\$ 44,703	84.1%	15.9%	\$ 81,070	6,819	1,287
Pittsburgh	PA	15220	PA-Pittsburgh	4,017	1	4,017	1	1	1	1	\$ 75,363	\$ 80,400	\$ 68,181	85.1%	14.9%	\$ 78,275	3,419	598
Pittsburgh	PA	15221	PA-Pittsburgh	1	1	1	1	1	1	1	\$ 47,025	\$ 76,121	\$ 33,116	71.4%	28.6%	\$ 63,813	1	0
Pittsburgh	PA	15222	PA-Pittsburgh	1	1	1	1	1	1	1	\$ 109,426	\$ 215,804	\$ 100,550	78.8%	21.2%	\$ 191,329	1	0
Pittsburgh	PA	15226	PA-Pittsburgh	5,605	1	5,605	1	1	1	1	\$ 67,629	\$ 73,063	\$ 50,724	81.7%	18.3%	\$ 68,965	4,577	1,028

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter
Pittsburgh	PA	15227	PA-Pittsburgh	10,899	1	10,899	1	1	1	1	\$ 64,827	\$ 81,538	\$ 32,355	89.4%	10.6%	\$ 76,327	9,744	1,155
Pittsburgh	PA	15228	PA-Pittsburgh	5,657	1	5,657	1	1	1	1	\$ 116,278	\$ 146,049	\$ 52,857	90.2%	9.8%	\$ 136,896	5,101	556
Pittsburgh	PA	15234	PA-Pittsburgh	5,302	1	5,302	1	1	1	1	\$ 69,139	\$ 80,918	\$ 54,951	93.8%	6.2%	\$ 79,296	4,971	331
Pittsburgh	PA	15236	PA-Pittsburgh	11,090	1	11,090	1	1	1	1	\$ 72,395	\$ 89,067	\$ 40,625	94.9%	5.1%	\$ 86,585	10,522	568
Pittsburgh	PA	15239	PA-Pittsburgh	1	1	1	1	1	1	1	\$ 86,281	\$ 95,945	\$ 55,082	90.2%	9.8%	\$ 91,957	1	0
Pittsburgh	PA	15241	PA-McMurray	677	1	677	1	1	1	1	\$ 131,809	\$ 144,795	\$ 47,951	96.8%	3.2%	\$ 141,661	655	22
Pittsburgh	PA	15241	PA-Pittsburgh	6,564	1	6,564	1	1	1	1	\$ 131,809	\$ 144,795	\$ 47,951	96.8%	3.2%	\$ 141,661	6,352	212
Pittsburgh	PA	15243	PA-Pittsburgh	4,890	1	4,890	1	1	1	1	\$ 98,260	\$ 107,313	\$ 39,141	96.8%	3.2%	\$ 105,105	4,732	158
Washington	PA	15301	PA-McMurray	15,390	1	15,390	1	1	1	1	\$ 62,902	\$ 75,000	\$ 40,520	84.8%	15.2%	\$ 69,747	13,045	2,345
Amity	PA	15311	PA-McMurray	1	1	1	1	1	0	1	\$ 82,778	\$ 87,614	-	98.8%	1.2%	\$ 86,521	1	0
Avella	PA	15312	PA-McMurray	670	1	670	1	1	1	1	\$ 67,222	\$ 78,542	\$ 38,482	84.2%	15.8%	\$ 72,210	564	106
Bentleyville	PA	15314	PA-Elizabeth	9	1	9	1	1	1	1	\$ 54,519	\$ 71,591	\$ 19,146	87.0%	13.0%	\$ 64,750	8	1
Bentleyville	PA	15314	PA-McMurray	102	1	102	1	1	1	1	\$ 54,519	\$ 71,591	\$ 19,146	87.0%	13.0%	\$ 64,750	89	13
Canonsburg	PA	15317	PA-McMurray	15,783	1	15,783	1	1	1	1	\$ 97,865	\$ 108,946	\$ 57,200	91.6%	8.4%	\$ 104,580	14,451	1,332
Canonsburg	PA	15317	PA-Pittsburgh	4	1	4	1	1	1	1	\$ 97,865	\$ 108,946	\$ 57,200	91.6%	8.4%	\$ 104,580	4	0
Cecil	PA	15321	PA-McMurray	744	1	744	1	1	1	1	\$ 105,552	\$ 77,500	\$ 125,889	78.7%	21.3%	\$ 87,803	586	158
Cecil	PA	15321	PA-Pittsburgh	7	1	7	1	1	1	1	\$ 105,552	\$ 77,500	\$ 125,889	78.7%	21.3%	\$ 87,803	6	1
Claysville	PA	15323	PA-McMurray	634	1	634	1	1	1	1	\$ 67,200	\$ 75,417	\$ 39,821	87.0%	13.0%	\$ 70,779	551	83
Prosperity	PA	15329	PA-McMurray	86	1	86	1	1	1	1	\$ 69,750	\$ 78,250	\$ 52,813	89.0%	11.0%	\$ 75,444	77	9
Eighty Four	PA	15330	PA-McMurray	1,507	1	1,507	1	1	1	1	\$ 92,768	\$ 96,788	\$ 57,766	92.9%	7.1%	\$ 94,034	1,401	106
Finleyville	PA	15332	PA-Elizabeth	1,375	1	1,375	1	1	1	1	\$ 63,620	\$ 70,191	\$ 38,333	93.8%	6.2%	\$ 68,203	1,289	86
Finleyville	PA	15332	PA-McMurray	221	1	221	1	1	1	1	\$ 63,620	\$ 70,191	\$ 38,333	93.8%	6.2%	\$ 68,203	207	14
Finleyville	PA	15332	PA-Pittsburgh	1,599	1	1,599	1	1	1	1	\$ 63,620	\$ 70,191	\$ 38,333	93.8%	6.2%	\$ 68,203	1,499	100
Hickory	PA	15340	PA-McMurray	355	1	355	1	1	1	1	\$ 72,500	\$ 82,981	\$ 24,250	91.5%	8.5%	\$ 77,963	325	30
Houston	PA	15342	PA-McMurray	2,161	1	2,161	1	1	1	1	\$ 79,208	\$ 90,521	\$ 21,936	94.3%	5.7%	\$ 86,617	2,038	123
Jefferson	PA	15344	PA-Pittsburgh	1	1	1	1	1	1	1	\$ 63,333	\$ 62,738	\$ 103,036	92.4%	7.6%	\$ 65,806	1	0
Muse	PA	15350	PA-McMurray	305	1	305	1	1	0	1	\$ 59,286	\$ 83,077	-	55.6%	44.4%	\$ 46,154	169	136
Southview	PA	15361	PA-McMurray	69	1	69	1	1	0	1	-	\$ 92,250	-	72.5%	27.5%	\$ 66,907	50	19
Strabane	PA	15363	PA-McMurray	361	1	361	1	1	1	1	\$ 66,875	\$ 85,745	\$ 49,118	94.7%	5.3%	\$ 83,807	342	19
Venetia	PA	15367	PA-McMurray	2,581	1	2,581	1	1	1	1	\$ 157,974	\$ 165,588	\$ 66,437	96.0%	4.0%	\$ 161,599	2,477	104
Venetia	PA	15367	PA-Pittsburgh	790	1	790	1	1	1	1	\$ 157,974	\$ 165,588	\$ 66,437	96.0%	4.0%	\$ 161,599	758	32
Westland	PA	15378	PA-McMurray	70	1	70	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	70	-
West Middletown	PA	15379	PA-McMurray	53	1	53	1	1	0	1	\$ 68,409	\$ 68,889	-	80.0%	20.0%	\$ 55,111	42	11
Uniontown	PA	15401	PA-Uniontown/Connell	6,345	1	6,345	1	1	1	1	\$ 45,269	\$ 64,063	\$ 23,498	85.9%	14.1%	\$ 58,338	5,450	895
Uniontown	PA	15401	PA-Uniontown/Connell	231	1	231	1	1	1	1	\$ 45,269	\$ 64,063	\$ 23,498	85.9%	14.1%	\$ 58,338	198	33
Allison	PA	15413	PA-Brownsville	246	1	246	1	1	0	1	-	-	-	66.9%	33.1%	\$ -	164	82
Brownsville	PA	15417	PA-Brownsville	2,158	1	2,158	1	1	1	1	\$ 52,446	\$ 69,032	\$ 21,379	80.9%	19.1%	\$ 59,951	1,747	411
California	PA	15419	PA-Brownsville	1,026	1	1,026	1	1	1	1	\$ 38,706	\$ 76,118	\$ 30,625	68.6%	31.4%	\$ 61,844	704	322
Coal Center	PA	15423	PA-Brownsville	104	1	104	1	1	1	1	\$ 51,711	\$ 68,529	\$ 33,793	80.4%	19.6%	\$ 61,711	84	20
Connellsville	PA	15425	PA-Uniontown/Connell	4,193	1	4,193	1	1	1	1	\$ 48,397	\$ 63,234	\$ 20,911	83.9%	16.1%	\$ 56,412	3,517	676
Daisytown	PA	15427	PA-Brownsville	247	1	247	1	1	1	1	\$ 42,344	\$ 64,375	\$ 27,569	73.1%	26.9%	\$ 54,480	181	66
Dunbar	PA	15431	PA-Uniontown/Connell	94	1	94	1	1	1	1	\$ 55,701	\$ 57,188	\$ 39,967	91.2%	8.8%	\$ 55,673	86	8
East Millsboro	PA	15433	PA-Brownsville	2	1	2	1	1	1	1	\$ 38,550	\$ 40,222	-	100.0%	0.0%	\$ 40,222	2	-
Farmington	PA	15437	PA-Farmington	430	1	430	1	1	0	1	\$ 68,478	\$ 70,188	\$ 67,731	84.2%	15.8%	\$ 69,800	362	68
Grindstone	PA	15442	PA-Brownsville	302	1	302	1	1	0	1	\$ 46,696	\$ 48,203	-	79.9%	20.1%	\$ 38,518	241	61
Hiller	PA	15444	PA-Brownsville	220	1	220	1	1	0	1	-	-	-	81.3%	18.7%	\$ -	179	41
Hopwood	PA	15445	PA-Uniontown/Connell	919	1	919	1	1	1	1	\$ 52,143	\$ 58,542	\$ 39,871	88.5%	11.5%	\$ 56,401	814	105
Lemont Furnace	PA	15456	PA-Uniontown/Connell	129	1	129	1	1	1	1	\$ 47,262	\$ 46,250	\$ 50,417	94.8%	5.2%	\$ 46,468	122	7
Mc Clellandtown	PA	15458	PA-Uniontown/Connell	22	1	22	1	1	1	1	\$ 66,477	\$ 82,250	\$ 66,243	72.0%	28.0%	\$ 77,771	16	6
New Salem	PA	15468	PA-Brownsville	71	1	71	1	1	1	1	\$ 67,555	\$ 68,593	\$ 27,889	91.0%	9.0%	\$ 64,947	65	6
Oliver	PA	15472	PA-Uniontown/Connell	95	1	95	1	1	0	1	\$ 45,897	-	-	17.4%	82.6%	\$ -	17	78
Uledi	PA	15484	PA-Uniontown/Connell	99	1	99	1	1	0	1	\$ 86,178	\$ 86,178	-	100.0%	0.0%	\$ 86,178	99	-
Greensburg	PA	15601	PA-Uniontown/Connell	3	1	3	1	1	1	1	\$ 64,278	\$ 80,935	\$ 31,279	88.7%	11.3%	\$ 75,315	3	0
Indiana	PA	15701	PA-Indiana	6,519	1	6,519	1	1	1	1	\$ 51,430	\$ 74,541	\$ 25,662	79.3%	20.7%	\$ 64,443	5,172	1,347
Anita	PA	15711	PA-Punxsatawney	143	1	143	1	1	1	1	\$ 43,750	\$ 47,083	\$ 39,479	78.9%	21.1%	\$ 45,482	113	30
Big Run	PA	15715	PA-Punxsatawney	258	1	258	1	1	1	1	\$ 43,750	\$ 37,250	\$ 46,500	85.6%	14.4%	\$ 38,585	221	37
Punxsatawney	PA	15767	PA-Punxsatawney	2,699	1	2,699	1	1	1	1	\$ 46,563	\$ 55,534	\$ 30,466	84.3%	15.7%	\$ 51,599	2,275	424
Walston	PA	15781	PA-Punxsatawney	67	1	67	1	1	0	1	\$ 45,938	\$ 46,094	-	97.8%	2.2%	\$ 45,092	66	1
Worthville	PA	15784	PA-Punxsatawney	1	1	1	1	1	0	1	\$ 70,000	\$ 73,750	-	90.6%	9.4%	\$ 66,836	1	0
Brookville	PA	15825	PA-Punxsatawney	1	1	1	1	1	1	1	\$ 58,534	\$ 68,233	\$ 35,357	87.5%	12.5%	\$ 64,129	1	0
Corsica	PA	15829	PA-Clarion	101	1	101	1	1	0	1	\$ 64,896	\$ 65,909	-	96.4%	3.6%	\$ 63,504	97	4
Butler	PA	16001	PA-Butler	13,143	1	13,143	1	1	1	1	\$ 57,500	\$ 76,719	\$ 29,040	86.9%	13.1%	\$ 70,462	11,418	1,725
Butler	PA	16002	PA-Butler	1,184	1	1,184	1	1	1	1	\$ 69,714	\$ 79,015	\$ 27,500	95.4%	4.6%	\$ 76,637	1,129	55
Cabot	PA	16023	PA-Butler	41	1	41	1	1	1	1	\$ 58,155	\$ 77,727	\$ 28,064	93.8%	6.2%	\$ 74,623	38	3

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Residential	Analyzer	Analized	Rate	PWS	Income	Household	Median	Median	Median	Percent	Percent	Customer	Residential	Residential
				Customers	Flag	Customers	Zone	Zone			Income	Income	Income		Renter	Median	Customers	Customers
									Flag	Flag	Total	Owned	Rented	Owned	S.F.	Income	Owner	Renter
Connoquenessing	PA	16027	PA-Butler	194	1	194	1	1	0	1	\$ 54,250	\$ 73,295	-	72.8%	27.2%	\$ 53,354	141	53
East Butler	PA	16029	PA-Butler	230	1	230	1	1	1	1	\$ 49,405	\$ 53,750	\$ 36,250	88.9%	11.1%	\$ 51,806	204	26
Evans City	PA	16033	PA-Butler	378	1	378	1	1	1	1	\$ 83,861	\$ 93,957	\$ 50,750	89.2%	10.8%	\$ 89,294	337	41
Harmony	PA	16037	PA-NewCastle/Ellwood	503	1	503	1	1	1	1	\$ 83,611	\$ 89,348	\$ 53,472	90.6%	9.4%	\$ 85,960	456	47
Harmony	PA	16037	PA-Butler	152	1	152	1	1	1	1	\$ 83,611	\$ 89,348	\$ 53,472	90.6%	9.4%	\$ 85,960	138	14
Lyndora	PA	16045	PA-Butler	478	1	478	1	1	0	1	\$ 70,294	\$ 72,596	-	68.6%	31.4%	\$ 49,785	328	150
Prospect	PA	16052	PA-Butler	6	1	6	1	1	1	1	\$ 74,583	\$ 79,118	\$ 51,797	93.7%	6.3%	\$ 77,390	6	0
Renfrew	PA	16053	PA-Butler	939	1	939	1	1	1	1	\$ 76,213	\$ 76,866	\$ 56,319	89.4%	10.6%	\$ 74,685	839	100
Saxonburg	PA	16056	PA-Saxonburg	661	1	661	1	1	1	1	\$ 64,946	\$ 78,603	\$ 33,929	88.5%	11.5%	\$ 73,445	585	76
Saxonburg	PA	16056	PA-Butler	523	1	523	1	1	1	1	\$ 64,946	\$ 78,603	\$ 33,929	88.5%	11.5%	\$ 73,445	463	60
Zelienople	PA	16063	PA-NewCastle/Ellwood	769	1	769	1	1	1	1	\$ 68,807	\$ 92,188	\$ 46,827	82.4%	17.6%	\$ 84,220	634	135
New Castle	PA	16101	PA-NewCastle/Ellwood	9,449	1	9,449	1	1	1	1	\$ 42,908	\$ 55,053	\$ 21,514	83.6%	16.4%	\$ 49,538	7,895	1,554
New Castle	PA	16102	PA-NewCastle/Ellwood	1,154	1	1,154	1	1	1	1	\$ 47,566	\$ 61,756	\$ 24,004	78.9%	21.1%	\$ 53,780	910	244
New Castle	PA	16105	PA-NewCastle/Ellwood	5,445	1	5,445	1	1	1	1	\$ 68,573	\$ 81,042	\$ 31,156	85.7%	14.3%	\$ 73,908	4,666	779
Edinburg	PA	16116	PA-NewCastle/Ellwood	157	1	157	1	1	1	1	\$ 58,920	\$ 60,645	\$ 48,824	89.3%	10.7%	\$ 59,386	140	17
Ellwood City	PA	16117	PA-NewCastle/Ellwood	5,698	1	5,698	1	1	1	1	\$ 61,669	\$ 69,342	\$ 30,526	88.4%	11.6%	\$ 64,837	5,037	661
Fombell	PA	16123	PA-NewCastle/Ellwood	389	1	389	1	1	1	1	\$ 91,964	\$ 92,321	\$ 65,625	92.7%	7.3%	\$ 90,378	361	28
Koppel	PA	16136	PA-NewCastle/Ellwood	360	1	360	1	1	1	1	\$ 56,786	\$ 62,500	\$ 30,833	78.8%	21.2%	\$ 55,783	284	76
Wampum	PA	16157	PA-NewCastle/Ellwood	199	1	199	1	1	1	1	\$ 52,600	\$ 66,688	\$ 17,464	88.7%	11.3%	\$ 61,108	176	23
West Pittsburg	PA	16160	PA-NewCastle/Ellwood	362	1	362	1	1	1	1	\$ 36,605	\$ 36,957	\$ 36,446	67.8%	32.2%	\$ 36,793	246	116
Kittanning	PA	16201	PA-Kittanning	1,707	1	1,707	1	1	1	1	\$ 60,375	\$ 74,069	\$ 31,767	88.3%	11.7%	\$ 69,099	1,506	201
Clarion	PA	16214	PA-Clarion	2,159	1	2,159	1	1	1	1	\$ 47,321	\$ 79,957	\$ 22,761	77.9%	22.1%	\$ 67,338	1,683	476
Knox	PA	16232	PA-Clarion	45	1	45	1	1	1	1	\$ 48,558	\$ 58,188	\$ 36,167	86.6%	13.4%	\$ 55,230	39	6
Lucinda	PA	16235	PA-Clarion	123	1	123	1	1	1	1	\$ 70,250	\$ 71,932	\$ 28,750	91.1%	8.9%	\$ 68,075	112	11
Lucinda	PA	16235	PA-Coatesville	1	1	1	1	1	1	1	\$ 70,250	\$ 71,932	\$ 28,750	91.1%	8.9%	\$ 68,075	1	0
Shippenville	PA	16254	PA-Clarion	337	1	337	1	1	1	1	\$ 52,917	\$ 57,679	\$ 45,833	88.1%	11.9%	\$ 56,272	297	40
Sligo	PA	16255	PA-Clarion	341	1	341	1	1	1	1	\$ 53,125	\$ 73,242	\$ 18,974	86.2%	13.8%	\$ 65,778	294	47
Strattanville	PA	16258	PA-Clarion	476	1	476	1	1	1	1	\$ 47,891	\$ 62,500	\$ 39,063	82.6%	17.4%	\$ 58,417	393	83
Clarendon	PA	16313	PA-Warren	87	1	87	1	1	1	1	\$ 50,132	\$ 52,981	\$ 29,653	87.9%	12.1%	\$ 50,162	76	11
Marble	PA	16334	PA-Clarion	28	1	28	1	1	1	1	\$ 58,393	\$ 73,125	\$ 14,153	94.0%	6.0%	\$ 69,615	26	2
Warren	PA	16365	PA-Warren	4,827	1	4,827	1	1	1	1	\$ 54,740	\$ 66,048	\$ 32,830	86.9%	13.1%	\$ 61,681	4,192	635
Osceola Mills	PA	16666	PA-Philipsburg	1,044	1	1,044	1	1	1	1	\$ 42,486	\$ 42,428	\$ 43,214	93.1%	6.9%	\$ 42,482	972	72
Sandy Ridge	PA	16677	PA-Philipsburg	185	1	185	1	1	0	1	-	-	-	78.6%	21.4%	-	145	40
Kane	PA	16735	PA-Kane	1,883	1	1,883	1	1	1	1	\$ 47,383	\$ 52,930	\$ 31,176	86.9%	13.1%	\$ 50,074	1,636	247
Allport	PA	16821	PA-Philipsburg	145	1	145	1	1	0	1	\$ 57,368	\$ 57,368	-	100.0%	0.0%	\$ 57,368	145	-
Bellefonte	PA	16823	PA-BOGGS	2	1	2	1	1	1	1	\$ 68,527	\$ 84,930	\$ 38,835	88.8%	11.2%	\$ 79,788	2	0
Bigler	PA	16825	PA-Philipsburg	59	1	59	1	1	0	1	\$ 62,721	\$ 62,978	-	88.7%	11.3%	\$ 55,868	52	7
Clearfield	PA	16830	PA-Philipsburg	66	1	66	1	1	1	1	\$ 49,623	\$ 64,495	\$ 27,382	87.5%	12.5%	\$ 59,856	58	8
Hawk Run	PA	16840	PA-Philipsburg	129	1	129	1	1	0	1	\$ 74,732	\$ 83,083	-	100.0%	0.0%	\$ 83,083	129	-
Howard	PA	16841	PA-BOGGS	4	1	4	1	1	1	1	\$ 62,300	\$ 64,884	\$ 35,000	91.1%	8.9%	\$ 62,210	4	0
Howard	PA	16841	PA-Nittany	20	1	20	1	1	1	1	\$ 62,300	\$ 64,884	\$ 35,000	91.1%	8.9%	\$ 62,210	18	2
Howard	PA	16841	PA-Nittany	280	1	280	1	1	1	1	\$ 62,300	\$ 64,884	\$ 35,000	91.1%	8.9%	\$ 62,210	255	25
Lamar	PA	16848	PA-Nittany	1	1	1	1	1	1	1	\$ 47,917	\$ 53,500	\$ 34,500	88.1%	11.9%	\$ 51,238	1	0
Lamar	PA	16848	PA-Nittany	14	1	14	1	1	1	1	\$ 47,917	\$ 53,500	\$ 34,500	88.1%	11.9%	\$ 51,238	12	2
Morrisdale	PA	16858	PA-Philipsburg	1,218	1	1,218	1	1	1	1	\$ 57,946	\$ 66,301	\$ 30,494	93.6%	6.4%	\$ 64,025	1,141	77
Munson	PA	16860	PA-Philipsburg	2	1	2	1	1	0	1	\$ 65,673	\$ 65,673	-	100.0%	0.0%	\$ 65,673	2	-
Philipsburg	PA	16866	PA-Philipsburg	2,799	1	2,799	1	1	1	1	\$ 45,993	\$ 63,668	\$ 19,484	92.0%	8.0%	\$ 60,113	2,574	225
Wallaceton	PA	16876	PA-Philipsburg	120	1	120	1	1	1	1	\$ 43,125	\$ 47,625	\$ 34,375	88.3%	11.7%	\$ 46,074	106	14
West Decatur	PA	16878	PA-Philipsburg	643	1	643	1	1	0	1	\$ 65,948	\$ 70,739	-	89.8%	10.2%	\$ 63,527	577	66
Woodland	PA	16881	PA-Philipsburg	825	1	825	1	1	0	1	\$ 42,721	\$ 41,739	-	91.9%	8.1%	\$ 38,369	758	67
Annaville	PA	17003	PA-Hershey/Palmyra	1,891	1	1,891	1	1	1	1	\$ 78,316	\$ 88,908	\$ 48,688	90.5%	9.5%	\$ 85,087	1,711	180
Campbelltown	PA	17010	PA-Hershey/Palmyra	271	1	271	1	1	0	1	\$ 60,771	-	-	32.7%	67.3%	-	89	182
Camp Hill	PA	17011	PA-Mechanicsburg	11,182	1	11,182	1	1	1	1	\$ 84,471	\$ 101,845	\$ 55,131	86.2%	13.8%	\$ 95,379	9,634	1,548
Carlisle	PA	17013	PA-Hershey/Palmyra	1	1	1	1	1	1	1	\$ 62,112	\$ 82,432	\$ 41,397	81.0%	19.0%	\$ 74,647	1	0
Elizabethtown	PA	17022	PA-Hershey/Palmyra	82	1	82	1	1	1	1	\$ 73,528	\$ 97,624	\$ 48,630	88.9%	11.1%	\$ 92,205	73	9
Enola	PA	17025	PA-Mechanicsburg	5,627	1	5,627	1	1	1	1	\$ 78,552	\$ 89,766	\$ 53,393	86.9%	13.1%	\$ 85,017	4,892	735
Enola	PA	17025	PA-Norristown	1	1	1	1	1	1	1	\$ 78,552	\$ 89,766	\$ 53,393	86.9%	13.1%	\$ 85,017	1	0
Hershey	PA	17033	PA-Hershey/Palmyra	3,768	1	3,768	1	1	1	1	\$ 66,377	\$ 99,229	\$ 49,097	76.4%	23.6%	\$ 87,410	2,880	888
Hummelstown	PA	17036	PA-Hershey/Palmyra	3,815	1	3,815	1	1	1	1	\$ 91,635	\$ 113,338	\$ 57,122	87.2%	12.8%	\$ 106,131	3,326	489
Lebanon	PA	17042	PA-Hershey/Palmyra	100	1	100	1	1	1	1	\$ 65,067	\$ 79,210	\$ 43,870	81.7%	18.3%	\$ 72,746	82	18
Lemoyne	PA	17043	PA-Mechanicsburg	1,931	1	1,931	1	1	1	1	\$ 64,250	\$ 87,672	\$ 38,659	88.1%	11.9%	\$ 81,820	1,700	231
Mechanicsburg	PA	17050	PA-Mechanicsburg	10,407	1	10,407	1	1	1	1	\$ 100,364	\$ 116,193	\$ 70,984	87.4%	12.6%	\$ 110,487	9,093	1,314
Mechanicsburg	PA	17055	PA-Mechanicsburg	1,988	1	1,988	1	1	1	1	\$ 81,525	\$ 98,874	\$ 51,026	87.8%	12.2%	\$ 93,048	1,746	242
Middletown	PA	17057	PA-Hershey/Palmyra	2	1	2	1	1	1	1	\$ 69,571	\$ 79,041	\$ 41,918	85.7%	14.3%	\$ 73,734	2	0

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter
Myerstown	PA	17067	PA-Mechanicsburg	1	1	1	1	1	1	1	\$ 70,631	\$ 78,104	\$ 39,853	89.4%	10.6%	\$ 74,067	1	0
New Cumberland	PA	17070	PA-Mechanicsburg	5,533	1	5,533	1	1	1	1	\$ 79,082	\$ 91,358	\$ 38,446	87.9%	12.1%	\$ 84,970	4,865	668
Newport	PA	17074	PA-Mechanicsburg	6	1	6	1	1	1	1	\$ 72,235	\$ 80,027	\$ 39,655	87.6%	12.4%	\$ 75,037	5	1
Palmyra	PA	17078	PA-Hershey/Palmyra	6,370	1	6,370	1	1	1	1	\$ 71,163	\$ 95,752	\$ 45,613	82.3%	17.7%	\$ 86,871	5,242	1,128
Summerdale	PA	17093	PA-Mechanicsburg	260	1	260	1	1	0	1	\$ 66,875	\$ 67,011	-	89.9%	10.1%	\$ 60,258	234	26
Harrisburg	PA	17101	PA-Steelton W	1	1	1	1	1	0	1	\$ 49,524	-	\$ 53,627	66.2%	33.8%	\$ 18,139	1	0
Harrisburg	PA	17109	PA-Hershey/Palmyra	20	1	20	1	1	1	1	\$ 59,454	\$ 81,756	\$ 40,441	90.6%	9.4%	\$ 77,867	18	2
Harrisburg	PA	17111	PA-Hershey/Palmyra	9	1	9	1	1	1	1	\$ 76,781	\$ 91,645	\$ 50,909	88.1%	11.9%	\$ 86,779	8	1
Harrisburg	PA	17112	PA-Hershey/Palmyra	2,089	1	2,089	1	1	1	1	\$ 89,022	\$ 99,717	\$ 57,143	92.9%	7.1%	\$ 96,698	1,941	148
Harrisburg	PA	17113	PA-Steelton W	2,183	1	2,183	1	1	1	1	\$ 51,793	\$ 56,238	\$ 41,997	74.3%	25.7%	\$ 52,580	1,622	561
Etters	PA	17319	PA-Mechanicsburg	576	1	576	1	1	1	1	\$ 84,416	\$ 89,295	\$ 45,422	92.6%	7.4%	\$ 86,035	533	43
Gettysburg	PA	17325	PA-Lake Heritage	855	1	855	1	1	1	1	\$ 72,137	\$ 89,077	\$ 42,126	85.6%	14.4%	\$ 82,321	732	123
Lewisberry	PA	17339	PA-Mechanicsburg	383	1	383	1	1	1	1	\$ 90,625	\$ 94,951	\$ 63,298	94.6%	5.4%	\$ 93,248	362	21
York Haven	PA	17370	PA-Mechanicsburg	41	1	41	1	1	1	1	\$ 77,157	\$ 79,959	\$ 37,574	93.4%	6.6%	\$ 77,181	38	3
York Haven	PA	17370	PA-Hershey/Palmyra	1	1	1	1	1	1	1	\$ 77,157	\$ 79,959	\$ 37,574	93.4%	6.6%	\$ 77,181	1	0
Christiana	PA	17509	PA-Coatesville	4	1	4	1	1	1	1	\$ 73,047	\$ 94,107	\$ 53,009	76.5%	23.5%	\$ 84,437	3	1
Kirkwood	PA	17536	PA-Coatesville	1	1	1	1	1	1	1	\$ 70,208	\$ 77,000	\$ 43,056	88.2%	11.8%	\$ 73,010	1	0
Quarryville	PA	17566	PA-Coatesville	9	1	9	1	1	1	1	\$ 66,904	\$ 78,971	\$ 52,674	82.2%	17.8%	\$ 74,289	7	2
Mc Ewensville	PA	17749	PA-McEwensville W	100	1	100	1	1	1	1	\$ 50,455	\$ 65,833	\$ 40,179	78.3%	21.7%	\$ 60,256	78	22
Mill Hall	PA	17751	PA-Nittany	16	1	16	1	1	1	1	\$ 62,159	\$ 65,860	\$ 40,000	89.7%	10.3%	\$ 63,185	14	2
Mill Hall	PA	17751	PA-Nittany	193	1	193	1	1	1	1	\$ 62,159	\$ 65,860	\$ 40,000	89.7%	10.3%	\$ 63,185	173	20
Turbotville	PA	17772	PA-Turbotville W	266	1	266	1	1	1	1	\$ 75,568	\$ 83,281	\$ 29,375	93.0%	7.0%	\$ 79,486	247	19
Watsonstown	PA	17777	PA-McEwensville W	20	1	20	1	1	1	1	\$ 53,092	\$ 64,229	\$ 31,250	88.9%	11.1%	\$ 60,560	18	2
Watsonstown	PA	17777	PA-Milton	1,335	1	1,335	1	1	1	1	\$ 53,092	\$ 64,229	\$ 31,250	88.9%	11.1%	\$ 60,560	1,186	149
Sunbury	PA	17801	PA-Milton	105	1	105	1	1	1	1	\$ 48,230	\$ 66,837	\$ 26,438	81.3%	18.7%	\$ 59,291	85	20
Allenwood	PA	17810	PA-Milton	147	1	147	1	1	1	1	\$ 62,788	\$ 63,438	\$ 57,500	85.3%	14.7%	\$ 62,568	125	22
Herndon	PA	17830	PA-Milton	1	1	1	1	1	1	1	\$ 59,167	\$ 67,500	\$ 41,500	89.5%	10.5%	\$ 64,779	1	0
Lewisburg	PA	17837	PA-Milton	3,633	1	3,633	1	1	1	1	\$ 61,791	\$ 83,882	\$ 30,637	85.2%	14.8%	\$ 75,989	3,094	539
Milton	PA	17847	PA-Milton	2,902	1	2,902	1	1	1	1	\$ 52,481	\$ 69,814	\$ 31,646	84.8%	15.2%	\$ 63,997	2,460	442
Montandon	PA	17850	PA-Milton	143	1	143	1	1	1	1	\$ 44,297	\$ 37,981	\$ 62,941	84.1%	15.9%	\$ 41,955	120	23
New Columbia	PA	17856	PA-Milton	332	1	332	1	1	1	1	\$ 67,961	\$ 73,472	\$ 35,665	94.7%	5.3%	\$ 71,455	314	18
Northumberland	PA	17857	PA-Milton	2,310	1	2,310	1	1	1	1	\$ 61,752	\$ 74,543	\$ 31,818	85.9%	14.1%	\$ 68,504	1,984	326
West Milton	PA	17886	PA-Milton	266	1	266	1	1	1	1	\$ 24,635	\$ 63,571	\$ 23,942	58.8%	41.2%	\$ 47,238	156	110
White Deer	PA	17887	PA-Milton	170	1	170	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	170	-
Frackville	PA	17931	PA-Frackville	2,121	1	2,121	1	1	1	1	\$ 69,226	\$ 74,738	\$ 32,500	88.0%	12.0%	\$ 69,678	1,867	254
Bangor	PA	18013	PA-Bangor	3,030	1	3,030	1	1	1	1	\$ 68,023	\$ 80,216	\$ 42,903	86.3%	13.7%	\$ 75,121	2,616	414
Bangor	PA	18013	PA-Bangor	28	1	28	1	1	1	1	\$ 68,023	\$ 80,216	\$ 42,903	86.3%	13.7%	\$ 75,121	24	4
Bethlehem	PA	18018	PA-Elizabeth	1	1	1	1	1	1	1	\$ 61,323	\$ 87,987	\$ 38,845	83.1%	16.9%	\$ 79,680	1	0
Easton	PA	18040	PA-Nazareth	59	1	59	1	1	1	1	\$ 105,659	\$ 111,551	\$ 53,440	95.2%	4.8%	\$ 108,777	56	3
Easton	PA	18042	PA-Nazareth	1	1	1	1	1	1	1	\$ 66,997	\$ 85,072	\$ 43,048	76.5%	23.5%	\$ 75,202	1	0
Easton	PA	18045	PA-Nazareth	1,275	1	1,275	1	1	1	1	\$ 101,747	\$ 108,062	\$ 71,067	93.1%	6.9%	\$ 105,521	1,187	88
Nazareth	PA	18064	PA-Nazareth	4,351	1	4,351	1	1	1	1	\$ 92,143	\$ 106,357	\$ 42,782	91.0%	9.0%	\$ 100,613	3,958	393
Pen Argyl	PA	18072	PA-Bangor	290	1	290	1	1	1	1	\$ 66,548	\$ 84,327	\$ 37,317	82.4%	17.6%	\$ 76,075	239	51
Pen Argyl	PA	18072	PA-Nazareth	1,488	1	1,488	1	1	1	1	\$ 66,548	\$ 84,327	\$ 37,317	82.4%	17.6%	\$ 76,075	1,227	261
Stockertown	PA	18083	PA-Nazareth	276	1	276	1	1	1	1	\$ 104,107	\$ 104,167	\$ 104,063	92.7%	7.3%	\$ 104,159	256	20
Tatamy	PA	18085	PA-Nazareth	417	1	417	1	1	1	1	\$ 62,813	\$ 70,375	\$ 51,442	90.4%	9.6%	\$ 68,559	377	40
Wind Gap	PA	18091	PA-Nazareth	1,227	1	1,227	1	1	1	1	\$ 63,770	\$ 75,417	\$ 49,268	79.5%	20.5%	\$ 70,052	975	252
Tamaqua	PA	18252	PA-Frackville	2	1	2	1	1	1	1	\$ 59,788	\$ 71,654	\$ 28,625	85.7%	14.3%	\$ 65,481	2	0
Tamaqua	PA	18252	PA-Frackville	25	1	25	1	1	1	1	\$ 59,788	\$ 71,654	\$ 28,625	85.7%	14.3%	\$ 65,481	21	4
East Stroudsburg	PA	18301	PA-Lehman Pike	957	1	957	1	1	1	1	\$ 79,645	\$ 101,809	\$ 44,375	81.0%	19.0%	\$ 90,909	775	182
East Stroudsburg	PA	18302	PA-Lehman Pike	529	1	529	1	1	1	1	\$ 70,669	\$ 77,500	\$ 49,429	88.3%	11.7%	\$ 74,230	467	62
Bushkill	PA	18324	PA-Lehman Pike	3,973	1	3,973	1	1	1	1	\$ 64,042	\$ 80,708	\$ 35,404	85.9%	14.1%	\$ 74,300	3,411	562
Dingmans Ferry	PA	18328	PA-Lehman Pike	1,606	1	1,606	1	1	1	1	\$ 69,978	\$ 74,932	\$ 22,168	90.4%	9.6%	\$ 69,877	1,452	154
Dingmans Ferry	PA	18328	PA-Lehman Pike	44	1	44	1	1	1	1	\$ 69,978	\$ 74,932	\$ 22,168	90.4%	9.6%	\$ 69,877	40	4
Dingmans Ferry	PA	18328	PA-Lehman Pike	76	1	76	1	1	1	1	\$ 69,978	\$ 74,932	\$ 22,168	90.4%	9.6%	\$ 69,877	69	7
Marshalls Creek	PA	18335	PA-Lehman Pike	263	1	263	1	1	0	1	\$ 102,319	\$ 102,444	-	94.3%	5.7%	\$ 96,590	248	15
Matamoras	PA	18336	PA-Lehman Pike	7	1	7	1	1	1	1	\$ 68,864	\$ 81,289	\$ 42,950	84.3%	15.7%	\$ 75,280	6	1
Milford	PA	18337	PA-Lehman Pike	162	1	162	1	1	1	1	\$ 84,144	\$ 94,167	\$ 41,776	90.4%	9.6%	\$ 89,156	147	15
Mountainhome	PA	18342	PA-Lehman Pike	372	1	372	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	372	-
Mount Pocono	PA	18344	PA-Pocono	1,092	1	1,092	1	1	1	1	\$ 55,547	\$ 96,500	\$ 22,465	84.0%	16.0%	\$ 84,626	917	175
Pocono Summit	PA	18346	PA-Pocono	135	1	135	1	1	0	1	\$ 59,500	\$ 66,471	-	93.1%	6.9%	\$ 61,906	126	9
Pocono Lake	PA	18347	PA-Lehman Pike	4	1	4	1	1	0	1	\$ 71,931	\$ 71,120	-	85.6%	14.4%	\$ 60,854	3	1
Portland	PA	18351	PA-Lehman Pike	1	1	1	1	1	1	1	\$ 58,068	\$ 49,688	\$ 78,958	61.5%	38.5%	\$ 60,946	1	0
Saylorsburg	PA	18353	PA-Nazareth	3	1	3	1	1	1	1	\$ 78,888	\$ 88,299	\$ 60,139	92.9%	7.1%	\$ 86,300	3	0

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter
Archbald	PA	18403	PA-WB/Scranton	2,859	1	2,859	1	1	1	1	\$ 64,402	\$ 82,624	\$ 29,147	82.1%	17.9%	\$ 73,040	2,347	512
Carbondale	PA	18407	PA-WB/Scranton	4,014	1	4,014	1	1	1	1	\$ 52,511	\$ 62,267	\$ 28,318	85.4%	14.6%	\$ 57,314	3,428	586
Clarks Summit	PA	18411	PA-Abington	5,057	1	5,057	1	1	1	1	\$ 85,669	\$ 98,240	\$ 61,065	91.0%	9.0%	\$ 94,889	4,601	456
Clarks Summit	PA	18411	PA-WB/Scranton	195	1	195	1	1	1	1	\$ 85,669	\$ 98,240	\$ 61,065	91.0%	9.0%	\$ 94,889	177	18
Dalton	PA	18414	PA-Abington	1	1	1	1	1	1	1	\$ 73,207	\$ 80,017	\$ 53,370	91.1%	8.9%	\$ 77,657	1	0
Dalton	PA	18414	PA-Abington	634	1	634	1	1	1	1	\$ 73,207	\$ 80,017	\$ 53,370	91.1%	8.9%	\$ 77,657	578	56
Dalton	PA	18414	PA-WB/Scranton	18	1	18	1	1	1	1	\$ 73,207	\$ 80,017	\$ 53,370	91.1%	8.9%	\$ 77,657	16	2
Factoryville	PA	18419	PA-Abington	23	1	23	1	1	1	1	\$ 51,140	\$ 59,125	\$ 37,171	87.7%	12.3%	\$ 56,430	20	3
Forest City	PA	18421	PA-WB/Scranton	1,266	1	1,266	1	1	1	1	\$ 59,158	\$ 69,279	\$ 42,900	87.7%	12.3%	\$ 66,034	1,110	156
Jermyn	PA	18433	PA-WB/Scranton	1,712	1	1,712	1	1	1	1	\$ 69,905	\$ 86,964	\$ 50,265	89.6%	10.4%	\$ 83,138	1,534	178
Jessup	PA	18434	PA-WB/Scranton	1,716	1	1,716	1	1	1	1	\$ 52,643	\$ 68,929	\$ 23,229	84.6%	15.4%	\$ 61,901	1,452	264
Lake Ariel	PA	18436	PA-Pocono	606	1	606	1	1	1	1	\$ 69,528	\$ 71,852	\$ 40,597	88.4%	11.6%	\$ 68,223	536	70
Moscow	PA	18444	PA-WB/Scranton	177	1	177	1	1	1	1	\$ 78,467	\$ 86,239	\$ 32,955	89.4%	10.6%	\$ 80,591	158	19
Olyphant	PA	18447	PA-WB/Scranton	2,783	1	2,783	1	1	1	1	\$ 58,128	\$ 68,342	\$ 36,541	87.2%	12.8%	\$ 64,257	2,426	357
Olyphant	PA	18447	PA-Abington	63	1	63	1	1	1	1	\$ 58,128	\$ 68,342	\$ 36,541	87.2%	12.8%	\$ 64,257	55	8
Peckville	PA	18452	PA-WB/Scranton	1,894	1	1,894	1	1	1	1	\$ 51,964	\$ 56,199	\$ 33,639	95.8%	4.2%	\$ 55,255	1,815	79
Thompson	PA	18465	PA-Susquehanna	88	1	88	1	1	1	1	\$ 53,750	\$ 57,250	\$ 43,750	85.3%	14.7%	\$ 55,264	75	13
Tobyhanna	PA	18466	PA-Pocono	6,486	1	6,486	1	1	1	1	\$ 66,603	\$ 74,271	\$ 41,553	78.5%	21.5%	\$ 67,236	5,091	1,395
Waverly	PA	18471	PA-Abington	208	1	208	1	1	0	1	\$ 109,519	\$ 109,135	-	98.1%	1.9%	\$ 107,026	204	4
Scranton	PA	18503	PA-WB/Scranton	57	1	57	1	1	1	1	\$ 35,699	\$ 43,571	\$ 35,478	63.2%	36.8%	\$ 40,589	36	21
Scranton	PA	18504	PA-WB/Scranton	7,628	1	7,628	1	1	1	1	\$ 50,531	\$ 68,095	\$ 35,984	76.2%	23.8%	\$ 60,462	5,815	1,813
Scranton	PA	18505	PA-WB/Scranton	6,194	1	6,194	1	1	1	1	\$ 45,030	\$ 67,585	\$ 30,521	74.9%	25.1%	\$ 58,268	4,637	1,557
Moosic	PA	18507	PA-WB/Scranton	2,063	1	2,063	1	1	1	1	\$ 65,956	\$ 98,393	\$ 36,136	82.6%	17.4%	\$ 87,543	1,703	360
Moosic	PA	18507	PA-Nazareth	1	1	1	1	1	1	1	\$ 65,956	\$ 98,393	\$ 36,136	82.6%	17.4%	\$ 87,543	1	0
Scranton	PA	18508	PA-WB/Scranton	3,477	1	3,477	1	1	1	1	\$ 41,461	\$ 56,191	\$ 31,419	71.1%	28.9%	\$ 49,023	2,471	1,006
Scranton	PA	18509	PA-WB/Scranton	3,923	1	3,923	1	1	1	1	\$ 47,531	\$ 83,664	\$ 29,163	77.0%	23.0%	\$ 71,139	3,021	902
Scranton	PA	18510	PA-WB/Scranton	3,061	1	3,061	1	1	1	1	\$ 43,019	\$ 65,820	\$ 29,453	74.9%	25.1%	\$ 56,700	2,293	768
Scranton	PA	18512	PA-WB/Scranton	4,908	1	4,908	1	1	1	1	\$ 56,571	\$ 74,601	\$ 37,124	84.9%	15.1%	\$ 68,953	4,168	740
Taylor	PA	18517	PA-WB/Scranton	1,673	1	1,673	1	1	1	1	\$ 63,408	\$ 76,151	\$ 44,135	90.0%	10.0%	\$ 72,965	1,507	166
Old Forge	PA	18518	PA-WB/Scranton	3,516	1	3,516	1	1	1	1	\$ 62,615	\$ 80,286	\$ 39,004	83.8%	16.2%	\$ 73,578	2,945	571
Scranton	PA	18519	PA-WB/Scranton	2,238	1	2,238	1	1	1	1	\$ 60,328	\$ 85,406	\$ 32,743	78.7%	21.3%	\$ 74,179	1,761	477
Berwick	PA	18603	PA-Berwick	5,130	1	5,130	1	1	1	1	\$ 53,900	\$ 64,586	\$ 28,604	87.8%	12.2%	\$ 60,198	4,504	626
Berwick	PA	18603	PA-Phillipsburg	46	1	46	1	1	1	1	\$ 53,900	\$ 64,586	\$ 28,604	87.8%	12.2%	\$ 60,198	40	6
Dallas	PA	18612	PA-WB/Scranton	24	1	24	1	1	1	1	\$ 91,410	\$ 108,023	\$ 43,227	92.5%	7.5%	\$ 103,173	22	2
Glen Lyon	PA	18617	PA-WB/Scranton	650	1	650	1	1	1	1	\$ 30,698	\$ 40,455	\$ 24,091	73.4%	26.6%	\$ 36,103	477	173
Hunlock Creek	PA	18621	PA-WB/Scranton	10	1	10	1	1	1	1	\$ 65,297	\$ 65,966	\$ 62,917	93.9%	6.1%	\$ 65,780	9	1
Lake Winola	PA	18625	PA-Abington	2	1	2	1	1	0	1	\$ 62,083	\$ 70,250	-	95.7%	4.3%	\$ 67,261	2	0
Nanticoke	PA	18634	PA-WB/Scranton	5,235	1	5,235	1	1	1	1	\$ 50,474	\$ 59,201	\$ 36,210	78.0%	22.0%	\$ 54,154	4,086	1,149
Nanticoke	PA	18634	PA-WB/Scranton	1	1	1	1	1	1	1	\$ 50,474	\$ 59,201	\$ 36,210	78.0%	22.0%	\$ 54,154	1	0
Nescopeck	PA	18635	PA-Berwick	551	1	551	1	1	1	1	\$ 68,750	\$ 77,188	\$ 47,344	93.1%	6.9%	\$ 75,131	513	38
Pittston	PA	18640	PA-WB/Scranton	5,873	1	5,873	1	1	1	1	\$ 47,593	\$ 70,436	\$ 32,901	76.9%	23.1%	\$ 61,758	4,515	1,358
Pittston	PA	18641	PA-WB/Scranton	2,604	1	2,604	1	1	1	1	\$ 56,155	\$ 69,441	\$ 35,665	84.6%	15.4%	\$ 64,226	2,202	402
Duryea	PA	18642	PA-WB/Scranton	1,804	1	1,804	1	1	1	1	\$ 71,939	\$ 77,093	\$ 29,696	88.3%	11.7%	\$ 71,535	1,592	212
Pittston	PA	18643	PA-WB/Scranton	3,915	1	3,915	1	1	1	1	\$ 64,947	\$ 73,316	\$ 45,789	83.0%	17.0%	\$ 68,646	3,251	664
Wyoming	PA	18644	PA-WB/Scranton	2,391	1	2,391	1	1	1	1	\$ 64,803	\$ 81,051	\$ 29,949	82.6%	17.4%	\$ 72,161	1,975	416
Plymouth	PA	18651	PA-WB/Scranton	3,294	1	3,294	1	1	1	1	\$ 42,623	\$ 55,239	\$ 32,151	70.8%	29.2%	\$ 48,499	2,332	962
Plymouth	PA	18651	PA-Norristown	1	1	1	1	1	1	1	\$ 42,623	\$ 55,239	\$ 32,151	70.8%	29.2%	\$ 48,499	1	0
Shickshinny	PA	18655	PA-WB/Scranton	446	1	446	1	1	1	1	\$ 62,532	\$ 65,719	\$ 45,156	90.3%	9.7%	\$ 63,726	403	43
Wilkes Barre	PA	18701	PA-WB/Scranton	278	1	278	1	1	1	1	\$ 30,840	\$ 43,553	\$ 29,238	58.7%	41.3%	\$ 37,636	163	115

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter
Wilkes Barre	PA	18702	PA-WB/Scranton	12,212	1	12,212	1	1	1	1	\$ 48,213	\$ 69,087	\$ 29,680	76.7%	23.3%	\$ 59,917	9,370	2,842
Kingston	PA	18704	PA-WB/Scranton	11,600	1	11,600	1	1	1	1	\$ 55,843	\$ 76,972	\$ 34,320	80.7%	19.3%	\$ 68,748	9,363	2,237
Wilkes Barre	PA	18705	PA-WB/Scranton	6,095	1	6,095	1	1	1	1	\$ 54,891	\$ 61,369	\$ 46,446	74.4%	25.6%	\$ 57,548	4,534	1,561
Wilkes Barre	PA	18706	PA-WB/Scranton	5,792	1	5,792	1	1	1	1	\$ 56,024	\$ 63,474	\$ 39,951	83.9%	16.1%	\$ 59,686	4,859	933
Wilkes Barre	PA	18706	PA-Mechanicsburg	1	1	1	1	1	1	1	\$ 56,024	\$ 63,474	\$ 39,951	83.9%	16.1%	\$ 59,686	1	0
Mountain Top	PA	18707	PA-WB/Scranton	3,901	1	3,901	1	1	1	1	\$ 91,806	\$ 96,940	\$ 35,629	94.1%	5.9%	\$ 93,324	3,671	230
Shavertown	PA	18708	PA-WB/Scranton	516	1	516	1	1	1	1	\$ 82,261	\$ 93,850	\$ 40,459	91.5%	8.5%	\$ 89,288	472	44
Shavertown	PA	18708	PA-WB/Scranton	77	1	77	1	1	1	1	\$ 82,261	\$ 93,850	\$ 40,459	91.5%	8.5%	\$ 89,288	70	7
Luzerne	PA	18709	PA-WB/Scranton	1,136	1	1,136	1	1	1	1	\$ 40,641	\$ 45,330	\$ 27,058	79.9%	20.1%	\$ 41,656	908	228
Montrose	PA	18801	PA-Susquehanna	624	1	624	1	1	1	1	\$ 62,679	\$ 73,402	\$ 35,114	85.0%	15.0%	\$ 67,674	531	93
Great Bend	PA	18821	PA-Susquehanna	258	1	258	1	1	1	1	\$ 54,671	\$ 62,167	\$ 35,208	88.5%	11.5%	\$ 59,073	228	30
Hallstead	PA	18822	PA-Susquehanna	609	1	609	1	1	1	1	\$ 52,228	\$ 63,203	\$ 25,647	93.8%	6.2%	\$ 60,886	571	38
Susquehanna	PA	18847	PA-Susquehanna	571	1	571	1	1	1	1	\$ 49,891	\$ 55,543	\$ 27,500	86.5%	13.5%	\$ 51,763	494	77
Newtown	PA	18940	PA-Yardley	523	1	523	1	1	1	1	\$ 145,141	\$ 163,984	\$ 67,591	91.3%	8.7%	\$ 155,640	478	45
Washington Crossing	PA	18977	PA-Yardley	32	1	32	1	1	1	1	\$ 194,477	\$ 199,435	\$ 98,281	90.6%	9.4%	\$ 189,941	29	3
Clifton Heights	PA	19018	PA-Lehman Pike	1	1	1	1	1	1	1	\$ 63,442	\$ 80,099	\$ 51,126	89.8%	10.2%	\$ 77,130	1	0
Media	PA	19063	PA-Royersford	1	1	1	1	1	1	1	\$ 107,030	\$ 137,951	\$ 63,594	90.6%	9.4%	\$ 130,950	1	0
Morrisville	PA	19067	PA-Yardley	11,552	1	11,552	1	1	1	1	\$ 118,427	\$ 136,365	\$ 62,871	93.7%	6.3%	\$ 131,743	10,826	726
Coatesville	PA	19320	PA-Coatesville	7,752	1	7,752	1	1	1	1	\$ 82,158	\$ 100,677	\$ 44,508	83.0%	17.0%	\$ 91,132	6,435	1,317
Downingtown	PA	19335	PA-Coatesville	1,660	1	1,660	1	1	1	1	\$ 121,146	\$ 142,969	\$ 54,379	95.1%	4.9%	\$ 138,619	1,578	82
Honey Brook	PA	19344	PA-Coatesville	83	1	83	1	1	1	1	\$ 73,064	\$ 89,058	\$ 47,297	86.1%	13.9%	\$ 83,244	71	12
Parkeburg	PA	19365	PA-Coatesville	1,350	1	1,350	1	1	1	1	\$ 93,134	\$ 106,313	\$ 58,542	88.0%	12.0%	\$ 100,589	1,188	162
Pomeroy	PA	19367	PA-Coatesville	105	1	105	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	105	-
Sadsburyville	PA	19369	PA-Coatesville	46	1	46	1	1	0	1	-	-	-	13.5%	86.5%	\$ -	6	40
Thorndale	PA	19372	PA-Coatesville	806	1	806	1	1	1	1	\$ 77,798	\$ 75,069	\$ 94,375	82.0%	18.0%	\$ 78,537	661	145
Norristown	PA	19401	PA-Norristown	10,990	1	10,990	1	1	1	1	\$ 60,334	\$ 87,773	\$ 39,485	72.5%	27.5%	\$ 74,483	7,965	3,025
Norristown	PA	19403	PA-Norristown	10,835	1	10,835	1	1	1	1	\$ 89,224	\$ 100,795	\$ 65,451	92.4%	7.6%	\$ 98,118	10,014	821
Bridgeport	PA	19405	PA-Norristown	1,799	1	1,799	1	1	1	1	\$ 73,409	\$ 102,880	\$ 53,869	67.3%	32.7%	\$ 86,856	1,211	588
King Of Prussia	PA	19406	PA-Norristown	815	1	815	1	1	1	1	\$ 97,805	\$ 111,979	\$ 85,006	88.9%	11.1%	\$ 108,998	725	90
Blue Bell	PA	19422	PA-Norristown	3,472	1	3,472	1	1	1	1	\$ 133,722	\$ 156,509	\$ 86,746	88.9%	11.1%	\$ 148,783	3,087	385
Collegeville	PA	19426	PA-Norristown	1,316	1	1,316	1	1	1	1	\$ 135,239	\$ 146,396	\$ 76,352	95.1%	4.9%	\$ 142,993	1,252	64
Collegeville	PA	19426	PA-Royersford	2,844	1	2,844	1	1	1	1	\$ 135,239	\$ 146,396	\$ 76,352	95.1%	4.9%	\$ 142,993	2,706	138
Lansdale	PA	19446	PA-Norristown	9	1	9	1	1	1	1	\$ 92,541	\$ 119,066	\$ 59,803	90.6%	9.4%	\$ 113,469	8	1
Mont Clare	PA	19453	PA-Royersford	20	1	20	1	1	1	1	\$ 69,423	\$ 72,396	\$ 53,808	73.5%	26.5%	\$ 67,479	15	5
North Wales	PA	19454	PA-Norristown	1	1	1	1	1	1	1	\$ 101,117	\$ 110,954	\$ 76,590	94.4%	5.6%	\$ 109,042	1	0
Oaks	PA	19456	PA-Royersford	83	1	83	1	1	0	1	\$ 129,563	\$ 129,563	-	100.0%	0.0%	\$ 129,563	83	-
Parker Ford	PA	19457	PA-Royersford	9	1	9	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	9	-
Phoenixville	PA	19460	PA-Royersford	3,022	1	3,022	1	1	1	1	\$ 107,031	\$ 131,070	\$ 70,498	87.1%	12.9%	\$ 123,285	2,634	388
Norristown	PA	19403	PA-Audubon	2,615	1	2,615	1	1	1	1	\$ 89,224	\$ 100,795	\$ 65,451	92.4%	7.6%	\$ 98,118	2,417	198
Plymouth Meeting	PA	19462	PA-Norristown	418	1	418	1	1	1	1	\$ 117,587	\$ 133,904	\$ 70,795	97.0%	3.0%	\$ 132,041	406	12
Pottstown	PA	19464	PA-Royersford	257	1	257	1	1	1	1	\$ 67,891	\$ 89,364	\$ 39,153	79.7%	20.3%	\$ 79,155	205	52
Pottstown	PA	19465	PA-Royersford	847	1	847	1	1	1	1	\$ 94,949	\$ 111,231	\$ 51,058	93.5%	6.5%	\$ 107,292	792	55
Royersford	PA	19468	PA-Royersford	7,428	1	7,428	1	1	1	1	\$ 89,661	\$ 106,250	\$ 54,512	92.9%	7.1%	\$ 102,592	6,903	525
Schwenksville	PA	19473	PA-Royersford	391	1	391	1	1	1	1	\$ 120,768	\$ 125,656	\$ 47,344	91.7%	8.3%	\$ 119,171	359	32
Schwenksville	PA	19473	PA-Norristown	514	1	514	1	1	1	1	\$ 120,768	\$ 125,656	\$ 47,344	91.7%	8.3%	\$ 119,171	471	43
Spring City	PA	19475	PA-Royersford	1,773	1	1,773	1	1	1	1	\$ 82,438	\$ 120,583	\$ 42,380	92.6%	7.4%	\$ 114,762	1,641	132
Worcester	PA	19490	PA-Norristown	79	1	79	1	1	0	1	-	-	-	100.0%	0.0%	\$ -	79	-
Birdsboro	PA	19508	PA-Glen	650	1	650	1	1	1	1	\$ 73,488	\$ 83,550	\$ 34,496	92.7%	7.3%	\$ 79,974	603	47
Douglassville	PA	19518	PA-Glen	2,770	1	2,770	1	1	1	1	\$ 103,289	\$ 114,427	\$ 44,615	92.1%	7.9%	\$ 108,883	2,550	220
Fleetwood	PA	19522	PA-Glen	54	1	54	1	1	1	1	\$ 85,976	\$ 92,963	\$ 57,421	92.5%	7.5%	\$ 90,305	50	4
Reading	PA	19606	PA-Glen	5,583	1	5,583	1	1	1	1	\$ 74,654	\$ 86,914	\$ 44,879	87.8%	12.2%	\$ 81,772	4,900	683
Reading	PA	19606	PA-Penn/Wyomissing	1	1	1	1	1	1	1	\$ 74,654	\$ 86,914	\$ 44,879	87.8%	12.2%	\$ 81,772	1	0
Reading	PA	19607	PA-Glen	17	1	17	1	1	1	1	\$ 71,606	\$ 86,651	\$ 53,130	83.5%	16.5%	\$ 81,124	14	3
Reading	PA	19608	PA-Penn/Wyomissing	6,027	1	6,027	1	1	1	1	\$ 98,750	\$ 120,034	\$ 47,371	87.3%	12.7%	\$ 110,839	5,264	763
Reading	PA	19608	PA-Glen	26	1	26	1	1	1	1	\$ 98,750	\$ 120,034	\$ 47,371	87.3%	12.7%	\$ 110,839	23	3
Reading	PA	19609	PA-Penn/Wyomissing	3,256	1	3,256	1	1	1	1	\$ 76,938	\$ 84,236	\$ 41,362	91.4%	8.6%	\$ 80,532	2,975	281
Reading	PA	19610	PA-Penn/Wyomissing	2,336	1	2,336	1	1	1	1	\$ 83,628	\$ 106,307	\$ 57,000	91.5%	8.5%	\$ 102,113	2,137	199
TOTAL CUSTOMERS				623,758		623,758										calculated median customer income analyzed customers	\$ 80,591	\$ 614,875
																statewide calculated median household income ratio	\$ 71,602 PA	1.1256

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Total	Owned	Rented	Total Population	Population	Population	Population	Population	Population	Population	Total Housing Units	Owned	Rented	
				Persons per Household	Persons per Household	Persons per Household		Below .50 FPL	0.50 - 1.00 FPL	1.00 - 1.25 FPL	1.25 - 1.50 FPL	1.50 - 1.85 FPL	1.85 - 2.00 FPL		Over 2.00 FPL	Housing Units	Housing Units
Atlasburg	PA	15004	PA-McMurray	2.65	2.65	-	377	27	8	-	38	-	304	142	142	-	
Beaver Falls	PA	15010	PA-NewCastle/Ellwood	2.35	2.47	2.08	27,690	2,131	1,427	1,128	675	1,645	884	19,800	11,743	8,263	3,480
Bridgeville	PA	15017	PA-Pittsburgh	2.19	2.37	1.68	16,192	480	461	118	253	577	284	14,019	7,372	5,471	1,901
Bridgeville	PA	15017	PA-McMurray	2.19	2.37	1.68	16,192	480	461	118	253	577	284	14,019	7,372	5,471	1,901
Buena Vista	PA	15018	PA-Elizabeth	2.35	2.40	2.04	1,092	42	92	11	31	59	-	857	465	397	68
Bulger	PA	15019	PA-McMurray	2.16	2.11	2.35	1,429	58	111	31	113	87	23	1,006	679	555	124
Burgettstown	PA	15021	PA-McMurray	2.40	2.49	2.06	6,453	259	210	323	290	279	270	4,822	2,695	2,123	572
Charleroi	PA	15022	PA-Elizabeth	2.40	2.52	2.04	10,299	670	1,235	541	374	474	352	6,653	4,257	3,211	1,046
Clairton	PA	15025	PA-Elizabeth	2.32	2.44	1.99	16,267	778	724	753	696	602	360	12,354	7,017	5,193	1,824
Clairton	PA	15025	PA-Pittsburgh	2.32	2.44	1.99	16,267	778	724	753	696	602	360	12,354	7,017	5,193	1,824
Clinton	PA	15026	PA-McMurray	2.52	2.62	2.23	3,870	103	101	15	122	50	11	3,468	1,553	1,169	384
Cuddy	PA	15031	PA-McMurray	2.14	2.49	1.82	492	65	105	71	32	-	-	219	230	111	119
Cuddy	PA	15031	PA-Pittsburgh	2.14	2.49	1.82	492	65	105	71	32	-	-	219	230	111	119
Donora	PA	15033	PA-Elizabeth	2.00	2.02	1.99	4,494	433	851	354	132	114	52	2,558	2,248	1,011	1,237
Dravosburg	PA	15034	PA-Elizabeth	1.87	2.10	1.65	1,592	41	223	58	165	50	137	918	850	420	430
Dravosburg	PA	15034	PA-Pittsburgh	1.87	2.10	1.65	1,592	41	223	58	165	50	137	918	850	420	430
Elizabeth	PA	15037	PA-Elizabeth	2.37	2.44	1.88	10,195	284	366	237	564	568	189	7,987	4,279	3,756	523
Elrama	PA	15038	PA-Elizabeth	2.69	2.97	2.00	326	-	-	-	-	-	73	253	121	87	34
Glassport	PA	15045	PA-Elizabeth	2.33	2.28	2.45	4,458	225	519	175	335	282	270	2,652	1,897	1,262	635
Greenock	PA	15047	PA-Elizabeth	1.77	1.77	-	227	-	49	-	-	48	-	130	128	128	-
Hookstown	PA	15050	PA-McMurray	2.69	2.62	3.64	2,423	48	208	7	50	233	41	1,836	897	836	61
Joffre	PA	15053	PA-McMurray	1.83	1.76	2.67	75	-	-	-	9	-	-	66	41	38	3
Langeloth	PA	15054	PA-McMurray	2.36	2.37	2.33	557	113	8	66	55	70	-	245	236	178	58
Lawrence	PA	15055	PA-McMurray	1.79	1.70	2.82	1,131	48	10	9	34	61	48	921	631	580	51
Mc Donald	PA	15057	PA-McMurray	2.79	2.91	1.94	17,613	209	400	391	401	653	150	15,409	6,301	5,573	728
Mc Donald	PA	15057	PA-Pittsburgh	2.79	2.91	1.94	17,613	209	400	391	401	653	150	15,409	6,301	5,573	728
Midland	PA	15059	PA-McMurray	2.59	2.74	2.42	4,324	145	497	62	289	523	120	2,688	1,668	892	776
Midway	PA	15060	PA-McMurray	2.52	2.55	2.29	894	69	49	-	3	95	13	665	366	325	41
Monongahela	PA	15063	PA-Elizabeth	2.36	2.51	1.72	10,817	503	305	295	539	569	163	8,443	4,598	3,706	892
Morgan	PA	15064	PA-Pittsburgh	1.77	1.92	1.64	237	11	-	29	-	53	-	144	134	62	72
New Eagle	PA	15067	PA-Elizabeth	2.34	2.38	2.18	2,522	123	74	127	52	235	210	1,701	1,076	866	210
Oakdale	PA	15071	PA-McMurray	2.38	2.52	1.99	11,895	243	525	120	158	383	174	10,292	5,017	3,642	1,375
Oakdale	PA	15071	PA-Pittsburgh	2.38	2.52	1.99	11,895	243	525	120	158	383	174	10,292	5,017	3,642	1,375
Slovan	PA	15078	PA-McMurray	2.82	3.49	1.35	563	21	-	20	-	13	8	501	200	137	63
Sturgeon	PA	15082	PA-McMurray	2.55	4.22	-	196	-	-	-	-	40	-	156	77	37	40
Sturgeon	PA	15082	PA-Pittsburgh	2.55	4.22	-	196	-	-	-	-	40	-	156	77	37	40
Sutersville	PA	15083	PA-Elizabeth	2.10	2.04	2.70	947	14	31	44	52	59	56	691	452	412	40
West Elizabeth	PA	15088	PA-Elizabeth	2.70	2.59	3.00	417	25	58	39	55	15	-	225	159	116	43
West Newton	PA	15089	PA-Elizabeth	2.21	2.33	1.88	6,556	378	447	223	307	461	185	4,555	2,964	2,173	791
Allison Park	PA	15101	PA-Mechanicsburg	2.41	2.69	1.61	25,931	394	564	381	827	556	239	22,970	10,766	7,982	2,784
Bethel Park	PA	15102	PA-Hershey/Palmyra	2.26	2.40	1.65	30,540	624	626	394	448	1,169	389	26,890	13,470	10,977	2,493
Bethel Park	PA	15102	PA-Pittsburgh	2.26	2.40	1.65	30,540	624	626	394	448	1,169	389	26,890	13,470	10,977	2,493
Carnegie	PA	15106	PA-Pittsburgh	2.04	2.16	1.78	19,212	613	794	1,147	945	769	397	14,547	9,375	6,534	2,841
Homestead	PA	15120	PA-Pittsburgh	2.16	2.23	2.05	18,291	1,137	2,041	899	540	1,637	649	11,388	8,449	5,138	3,311
West Mifflin	PA	15122	PA-Elizabeth	2.33	2.30	2.42	19,144	1,560	1,129	1,137	511	1,727	255	12,825	8,237	6,388	1,849
West Mifflin	PA	15122	PA-Pittsburgh	2.33	2.30	2.42	19,144	1,560	1,129	1,137	511	1,727	255	12,825	8,237	6,388	1,849
South Park	PA	15129	PA-Pittsburgh	2.38	2.45	2.12	10,181	227	102	132	119	430	421	8,750	4,287	3,411	876
Mckeesport	PA	15133	PA-Elizabeth	2.16	2.19	2.06	6,078	177	276	360	350	331	116	4,468	2,812	2,138	674
Mckeesport	PA	15135	PA-Elizabeth	2.37	2.61	1.53	4,968	46	146	137	249	51	70	4,269	2,095	1,632	463
Presto	PA	15142	PA-Pittsburgh	1.77	2.09	1.30	1,394	34	-	-	-	-	-	1,360	786	474	312
Pittsburgh	PA	15201	PA-McMurray	1.95	2.05	1.83	12,985	583	825	326	437	747	303	9,764	6,640	3,657	2,983
Pittsburgh	PA	15202	PA-Pittsburgh	1.98	2.44	1.49	19,727	541	1,172	397	727	1,051	555	15,284	9,959	5,092	4,867
Pittsburgh	PA	15204	PA-Pittsburgh	2.28	2.21	2.40	8,124	981	516	653	265	603	258	4,848	3,564	2,331	1,233
Pittsburgh	PA	15205	PA-Pittsburgh	2.15	2.36	1.87	23,373	1,071	1,779	1,162	651	925	498	17,287	10,827	6,189	4,638
Pittsburgh	PA	15205	PA-Elizabeth	2.15	2.36	1.87	23,373	1,071	1,779	1,162	651	925	498	17,287	10,827	6,189	4,638
Pittsburgh	PA	15207	PA-Pittsburgh	2.06	2.05	2.07	9,751	877	1,276	350	373	639	242	5,994	4,729	3,007	1,722
Pittsburgh	PA	15210	PA-Pittsburgh	2.40	2.36	2.45	26,865	2,692	3,743	1,148	2,168	2,614	859	13,641	11,188	5,953	5,235
Pittsburgh	PA	15212	PA-Pittsburgh	1.98	2.12	1.84	28,214	2,654	2,493	1,548	874	1,921	966	17,758	14,176	6,991	7,185
Pittsburgh	PA	15215	PA-Pittsburgh	2.32	2.44	1.97	12,725	310	538	298	467	557	103	10,452	5,532	4,085	1,447
Pittsburgh	PA	15216	PA-Pittsburgh	2.16	2.36	1.82	22,358	829	1,019	1,021	712	741	410	17,626	10,385	6,433	3,952
Pittsburgh	PA	15220	PA-Pittsburgh	2.03	2.17	1.88	17,974	781	552	592	451	659	232	14,707	8,826	4,759	4,067
Pittsburgh	PA	15221	PA-Pittsburgh	1.91	2.12	1.76	29,140	3,256	2,506	1,238	1,244	1,920	957	18,019	15,214	6,522	8,692
Pittsburgh	PA	15222	PA-Pittsburgh	1.43	1.86	1.35	4,411	276	90	152	77	110	27	3,679	3,018	497	2,521
Pittsburgh	PA	15226	PA-Pittsburgh	2.17	2.19	2.14	13,688	503	924	328	216	479	188	11,050	6,253	4,336	1,917



TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Total	Owned	Rented	Total Population	Population	Population	Population	Population	Population	Population	Total Housing Units	Owned	Rented	
				Persons per Household	Persons per Household	Persons per Household		Below .50 FPL	0.50 - 1.00 FPL	1.00 - 1.25 FPL	1.25 - 1.50 FPL	1.50 - 1.85 FPL	1.85 - 2.00 FPL		Over 2.00 FPL	Housing Units	Housing Units
Pittsburgh	PA	15227	PA-Pittsburgh	2.28	2.37	2.04	29,202	1,787	1,637	959	811	2,080	879	21,049	12,833	9,232	3,601
Pittsburgh	PA	15228	PA-Pittsburgh	2.47	2.70	1.91	18,379	375	605	133	227	377	175	16,487	7,437	5,307	2,130
Pittsburgh	PA	15234	PA-Pittsburgh	2.28	2.45	1.86	13,886	293	614	383	280	974	382	10,960	6,077	4,354	1,723
Pittsburgh	PA	15236	PA-Pittsburgh	2.29	2.38	2.00	30,837	1,059	944	979	897	895	1,028	25,035	13,446	10,277	3,169
Pittsburgh	PA	15239	PA-Pittsburgh	2.55	2.67	1.84	21,147	313	328	143	433	577	629	18,724	8,304	7,036	1,268
Pittsburgh	PA	15241	PA-McMurray	2.66	2.81	1.66	21,598	405	135	229	223	632	84	19,890	8,127	7,056	1,071
Pittsburgh	PA	15241	PA-Pittsburgh	2.66	2.81	1.66	21,598	405	135	229	223	632	84	19,890	8,127	7,056	1,071
Pittsburgh	PA	15243	PA-Pittsburgh	2.31	2.43	1.49	13,418	293	118	214	141	536	152	11,964	5,788	5,078	710
Washington	PA	15301	PA-McMurray	2.25	2.38	1.96	47,286	2,272	2,566	1,682	1,447	2,825	1,558	34,936	20,943	14,478	6,465
Amity	PA	15311	PA-McMurray	2.23	2.26	1.59	1,107	6	10	27	12	40	70	942	492	475	17
Avella	PA	15312	PA-McMurray	2.54	2.49	2.75	3,862	126	348	378	62	237	145	2,566	1,534	1,241	293
Bentleyville	PA	15314	PA-Elizabeth	2.45	2.61	2.03	3,344	325	235	87	84	365	48	2,200	1,360	980	380
Bentleyville	PA	15314	PA-McMurray	2.45	2.61	2.03	3,344	325	235	87	84	365	48	2,200	1,360	980	380
Canonsburg	PA	15317	PA-McMurray	2.46	2.60	1.94	42,023	930	702	655	757	1,429	913	36,637	17,080	13,554	3,526
Canonsburg	PA	15317	PA-Pittsburgh	2.46	2.60	1.94	42,023	930	702	655	757	1,429	913	36,637	17,080	13,554	3,526
Cecil	PA	15321	PA-McMurray	2.67	2.59	2.94	1,854	-	12	23	71	62	-	1,686	695	536	159
Cecil	PA	15321	PA-Pittsburgh	2.67	2.59	2.94	1,854	-	12	23	71	62	-	1,686	695	536	159
Claysville	PA	15323	PA-McMurray	2.45	2.54	2.06	3,895	128	220	121	124	169	72	3,061	1,574	1,295	279
Prosperity	PA	15329	PA-McMurray	2.56	2.61	2.26	1,464	92	17	120	32	22	16	1,165	575	484	91
Eighty Four	PA	15330	PA-McMurray	2.45	2.51	1.86	5,376	128	165	36	137	103	58	4,749	2,197	1,975	222
Finleyville	PA	15332	PA-Elizabeth	2.23	2.31	1.61	8,895	318	253	337	327	279	67	7,314	3,981	3,515	466
Finleyville	PA	15332	PA-McMurray	2.23	2.31	1.61	8,895	318	253	337	327	279	67	7,314	3,981	3,515	466
Finleyville	PA	15332	PA-Pittsburgh	2.23	2.31	1.61	8,895	318	253	337	327	279	67	7,314	3,981	3,515	466
Hickory	PA	15340	PA-McMurray	2.40	2.53	1.19	1,256	58	39	-	139	25	-	995	524	471	53
Houston	PA	15342	PA-McMurray	2.28	2.38	1.70	5,156	185	215	117	88	97	213	4,241	2,267	1,922	345
Jefferson	PA	15344	PA-Pittsburgh	2.35	2.34	2.44	1,398	8	83	6	100	81	42	1,078	596	534	62
Muse	PA	15350	PA-McMurray	2.59	2.71	2.45	571	61	26	22	-	150	18	294	228	120	108
Southview	PA	15361	PA-McMurray	2.42	2.15	3.12	220	-	-	105	-	-	-	115	91	66	25
Strabane	PA	15363	PA-McMurray	2.41	2.42	2.39	754	-	-	11	11	-	30	702	313	179	134
Venetia	PA	15367	PA-McMurray	2.97	3.04	2.04	9,536	68	65	-	44	160	128	9,071	3,212	2,982	230
Venetia	PA	15367	PA-Pittsburgh	2.97	3.04	2.04	9,536	68	65	-	44	160	128	9,071	3,212	2,982	230
Westland	PA	15378	PA-McMurray	2.11	2.11	2.11	38	-	-	-	-	19	-	19	18	9	9
West Middletown	PA	15379	PA-McMurray	2.77	3.17	1.17	83	-	4	24	3	-	-	52	30	24	6
Uniontown	PA	15401	PA-Uniontown/Connell	2.18	2.35	1.79	29,307	2,711	2,658	1,539	1,169	1,879	611	18,740	13,424	9,226	4,198
Uniontown	PA	15401	PA-Uniontown/Connell	2.18	2.35	1.79	29,307	2,711	2,658	1,539	1,169	1,879	611	18,740	13,424	9,226	4,198
Allison	PA	15413	PA-Brownsville	2.27	2.09	2.64	384	-	69	-	-	95	4	216	169	113	56
Brownsville	PA	15417	PA-Brownsville	2.30	2.38	2.11	7,431	959	806	289	364	297	230	4,486	3,246	2,230	1,016
California	PA	15419	PA-Brownsville	1.92	2.43	1.65	2,674	332	335	149	115	227	34	1,482	1,395	479	916
Coal Center	PA	15423	PA-Brownsville	2.78	2.75	2.87	2,137	75	314	185	19	77	106	1,361	768	606	162
Connellsville	PA	15425	PA-Uniontown/Connell	2.26	2.46	1.76	18,335	1,199	1,791	976	980	1,141	614	11,634	8,121	5,750	2,371
Daisytown	PA	15427	PA-Brownsville	2.36	2.34	2.39	938	46	53	95	72	33	28	611	398	291	107
Dunbar	PA	15431	PA-Uniontown/Connell	2.43	2.43	2.40	4,219	160	348	178	158	316	292	2,767	1,791	1,472	319
East Millsboro	PA	15433	PA-Brownsville	1.92	1.92	1.89	700	63	47	-	180	-	-	410	365	328	37
Farmington	PA	15437	PA-Farmington	2.50	2.37	2.74	2,488	644	230	94	52	135	27	1,306	774	496	278
Grindstone	PA	15442	PA-Brownsville	2.09	2.14	1.96	2,008	63	140	85	84	142	86	1,408	966	696	270
Hiller	PA	15444	PA-Brownsville	4.10	4.13	3.97	701	178	-	32	14	-	59	418	171	139	32
Hopwood	PA	15445	PA-Uniontown/Connell	2.23	2.22	2.33	2,768	4	212	151	94	46	71	2,190	1,304	1,127	177
Lemont Furnace	PA	15456	PA-Uniontown/Connell	2.33	2.47	1.67	2,269	83	181	219	314	59	153	1,260	970	798	172
Mc Clellandtown	PA	15458	PA-Uniontown/Connell	2.70	2.85	2.33	2,704	6	57	112	121	257	-	2,151	997	718	279
New Salem	PA	15468	PA-Brownsville	2.43	2.52	2.06	2,628	108	19	159	46	526	20	1,750	1,074	864	210
Oliver	PA	15472	PA-Uniontown/Connell	1.64	2.40	1.48	141	-	21	-	8	-	-	112	86	15	71
Uledi	PA	15484	PA-Uniontown/Connell	3.11	3.11	-	793	-	-	-	-	-	-	793	255	255	-
Greensburg	PA	15601	PA-Uniontown/Connell	2.17	2.33	1.71	53,159	2,224	2,914	1,461	1,866	2,348	980	41,366	24,325	18,116	6,209
Indiana	PA	15701	PA-Indiana	2.23	2.43	1.95	28,331	2,225	2,278	1,366	1,189	1,713	548	19,012	12,702	7,381	5,321
Anita	PA	15711	PA-Punxsatawney	2.32	2.16	2.84	315	18	22	15	14	52	-	194	136	105	31
Big Run	PA	15715	PA-Punxsatawney	2.30	2.30	2.30	485	64	38	27	29	10	22	295	220	166	54
Punxsatawney	PA	15767	PA-Punxsatawney	2.46	2.54	2.26	14,038	1,426	1,186	742	735	1,499	367	8,083	5,716	4,157	1,559
Walston	PA	15781	PA-Punxsatawney	2.04	1.98	5.00	94	-	-	5	-	3	8	78	46	45	1
Worthville	PA	15784	PA-Punxsatawney	1.97	1.83	3.33	63	-	1	9	-	-	3	50	32	29	3
Brookville	PA	15825	PA-Punxsatawney	2.43	2.56	2.04	9,249	566	542	249	504	756	311	6,321	3,811	2,825	986
Corsica	PA	15829	PA-Clarion	2.58	2.58	2.58	1,197	27	73	24	87	140	52	794	465	396	69
Butler	PA	16001	PA-Butler	2.16	2.37	1.72	39,181	1,883	2,566	1,666	1,551	1,899	1,031	28,585	18,074	12,314	5,760
Butler	PA	16002	PA-Butler	2.43	2.47	2.17	15,482	602	566	402	480	1,505	462	11,465	6,348	5,476	872
Cabot	PA	16023	PA-Butler	2.61	3.10	1.45	4,471	136	240	20	345	204	220	3,306	1,700	1,200	500

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Total	Owned	Rented	Total Population	Population Below .50 FPL	Population 0.50 - 1.00 FPL	Population 1.00 - 1.25 FPL	Population 1.25 - 1.50 FPL	Population 1.50 - 1.85 FPL	Population 1.85 - 2.00 FPL	Population Over 2.00 FPL	Total	Owned	Rented
				Persons per Household	Persons per Household	Persons per Household									Housing Units	Housing Units	Housing Units
Connoquenessing	PA	16027	PA-Butler	2.82	2.99	2.52	432	20	110	-	-	15	2	285	153	99	54
East Butler	PA	16029	PA-Butler	2.46	2.64	1.91	910	33	36	147	78	32	22	562	370	280	90
Evans City	PA	16033	PA-Butler	2.30	2.46	1.70	7,056	74	445	102	280	221	166	5,768	3,065	2,430	635
Harmony	PA	16037	PA-NewCastle/Ellwood	2.57	2.66	2.10	4,706	150	51	74	64	158	78	4,131	1,828	1,544	284
Harmony	PA	16037	PA-Butler	2.57	2.66	2.10	4,706	150	51	74	64	158	78	4,131	1,828	1,544	284
Lyndora	PA	16045	PA-Butler	2.66	2.63	2.73	1,126	148	107	42	32	62	42	693	422	275	147
Prospect	PA	16052	PA-Butler	2.58	2.57	2.72	2,360	6	69	49	27	220	110	1,879	915	844	71
Renfrew	PA	16053	PA-Butler	2.33	2.36	2.11	3,721	6	98	27	23	189	30	3,348	1,599	1,406	193
Saxonburg	PA	16056	PA-Saxonburg	2.14	2.35	1.44	4,194	101	127	57	165	154	156	3,434	1,948	1,494	454
Saxonburg	PA	16056	PA-Butler	2.14	2.35	1.44	4,194	101	127	57	165	154	156	3,434	1,948	1,494	454
Zelienople	PA	16063	PA-NewCastle/Ellwood	2.22	2.48	1.75	8,064	186	149	180	168	160	244	6,977	3,623	2,337	1,286
New Castle	PA	16101	PA-NewCastle/Ellwood	2.26	2.37	2.01	30,451	1,951	3,278	1,713	2,375	2,044	716	18,374	13,390	9,389	4,001
New Castle	PA	16102	PA-NewCastle/Ellwood	2.48	2.58	2.24	5,407	417	366	324	365	319	560	3,056	2,192	1,553	639
New Castle	PA	16105	PA-NewCastle/Ellwood	2.32	2.44	1.91	15,678	556	588	739	459	782	388	12,166	6,763	5,244	1,519
Edinburg	PA	16116	PA-NewCastle/Ellwood	2.45	2.45	2.46	2,661	35	60	120	85	165	45	2,151	1,087	931	156
Ellwood City	PA	16117	PA-NewCastle/Ellwood	2.15	2.24	1.84	15,453	608	665	792	546	993	493	11,356	7,221	5,613	1,608
Fombell	PA	16123	PA-NewCastle/Ellwood	2.80	2.79	2.91	2,711	13	12	51	9	127	24	2,475	968	892	76
Koppel	PA	16136	PA-NewCastle/Ellwood	2.37	2.63	1.72	777	13	34	36	61	118	11	504	328	234	94
Wampum	PA	16157	PA-NewCastle/Ellwood	2.22	2.30	1.96	2,845	59	307	151	97	204	33	1,994	1,292	1,009	283
West Pittsburg	PA	16160	PA-NewCastle/Ellwood	1.93	1.87	2.03	876	26	119	29	12	183	-	507	455	274	181
Kittanning	PA	16201	PA-Kittanning	2.38	2.53	1.95	16,316	644	1,473	989	389	883	982	10,956	6,861	5,085	1,776
Clarion	PA	16214	PA-Clarion	2.47	2.66	2.28	7,887	1,279	657	328	562	427	53	4,581	3,194	1,579	1,615
Knox	PA	16232	PA-Clarion	2.60	2.79	2.08	4,307	253	383	257	287	328	146	2,653	1,655	1,205	450
Lucinda	PA	16235	PA-Clarion	2.39	2.45	1.87	1,253	31	31	9	17	104	33	1,028	521	469	52
Lucinda	PA	16235	PA-Coatesville	2.39	2.45	1.87	1,253	31	31	9	17	104	33	1,028	521	469	52
Shippenville	PA	16254	PA-Clarion	2.50	2.45	2.74	3,379	130	240	207	176	235	64	2,327	1,348	1,098	250
Sligo	PA	16255	PA-Clarion	2.47	2.56	2.19	1,786	93	154	167	75	86	54	1,157	695	533	162
Strattanville	PA	16258	PA-Clarion	2.17	2.30	1.95	1,652	73	129	110	47	127	154	1,012	758	474	284
Clarendon	PA	16313	PA-Warren	2.40	2.44	2.23	1,876	107	231	41	102	179	56	1,160	782	633	149
Marble	PA	16334	PA-Clarion	2.07	2.33	1.07	412	6	36	7	27	19	5	312	199	158	41
Warren	PA	16365	PA-Warren	2.21	2.30	2.02	16,999	855	1,062	672	795	1,344	404	11,867	7,676	5,378	2,298
Osceola Mills	PA	16666	PA-Philipsburg	2.26	2.25	2.42	2,937	118	559	186	86	264	174	1,550	1,301	1,195	106
Sandy Ridge	PA	16677	PA-Philipsburg	2.31	2.55	1.43	323	-	56	23	-	34	-	210	140	110	30
Kane	PA	16735	PA-Kane	2.38	2.58	1.80	5,997	215	446	384	312	414	254	3,972	2,531	1,899	632
Allport	PA	16821	PA-Philipsburg	2.48	2.48	-	228	-	-	66	-	-	-	162	92	92	-
Bellefonte	PA	16823	PA-BOGGS	2.22	2.36	1.86	24,654	527	976	1,066	773	1,483	477	19,352	11,127	7,956	3,171
Bigler	PA	16825	PA-Philipsburg	1.81	1.78	2.07	225	-	-	-	-	72	41	112	124	110	14
Clearfield	PA	16830	PA-Philipsburg	2.37	2.37	2.35	13,082	1,119	1,265	902	657	1,504	133	7,502	5,567	3,696	1,871
Hawk Run	PA	16840	PA-Philipsburg	3.00	3.17	-	387	-	-	-	10	-	11	366	129	119	10
Howard	PA	16841	PA-BOGGS	2.73	2.73	2.77	6,703	169	654	215	376	227	238	4,824	2,450	2,076	374
Howard	PA	16841	PA-Nittany	2.73	2.73	2.77	6,703	169	654	215	376	227	238	4,824	2,450	2,076	374
Howard	PA	16841	PA-Nittany	2.73	2.73	2.77	6,703	169	654	215	376	227	238	4,824	2,450	2,076	374
Lamar	PA	16848	PA-Nittany	2.15	2.07	2.42	211	-	7	18	14	14	13	145	98	74	24
Lamar	PA	16848	PA-Nittany	2.15	2.07	2.42	211	-	7	18	14	14	13	145	98	74	24
Morrisdale	PA	16858	PA-Philipsburg	2.43	2.46	2.30	3,773	144	232	206	64	250	18	2,859	1,561	1,267	294
Munson	PA	16860	PA-Philipsburg	1.33	1.33	-	308	-	9	-	-	20	-	279	231	231	-
Philipsburg	PA	16866	PA-Philipsburg	2.20	2.49	1.60	7,887	481	639	368	358	373	136	5,532	3,588	2,423	1,165
Wallacetown	PA	16876	PA-Philipsburg	2.41	2.12	3.68	246	5	33	28	8	8	7	157	102	83	19
West Decatur	PA	16878	PA-Philipsburg	2.48	2.42	2.97	1,805	50	198	13	69	219	33	1,223	732	643	89
Woodland	PA	16881	PA-Philipsburg	2.38	2.31	2.75	2,402	98	319	45	172	285	-	1,483	1,009	854	155
Annaville	PA	17003	PA-Hershey/Palmyra	2.51	2.68	1.91	10,652	319	335	266	271	672	348	8,441	4,231	3,306	925
Campbelltown	PA	17010	PA-Hershey/Palmyra	4.68	3.18	4.99	463	-	62	-	-	321	-	80	99	17	82
Camp Hill	PA	17011	PA-Mechanicsburg	2.45	2.65	2.05	33,584	1,335	1,080	284	1,051	1,231	467	28,136	13,698	9,200	4,498
Carlisle	PA	17013	PA-Hershey/Palmyra	2.28	2.44	2.01	32,159	1,155	2,441	820	971	1,812	1,305	23,655	14,156	8,786	5,370
Elizabethtown	PA	17022	PA-Hershey/Palmyra	2.39	2.67	1.83	28,911	759	1,280	723	307	1,685	269	23,888	12,089	8,049	4,040
Enola	PA	17025	PA-Mechanicsburg	2.31	2.47	1.89	16,614	458	655	136	331	708	531	13,795	7,199	5,194	2,005
Enola	PA	17025	PA-Norristown	2.31	2.47	1.89	16,614	458	655	136	331	708	531	13,795	7,199	5,194	2,005
Hershey	PA	17033	PA-Hershey/Palmyra	2.38	2.58	2.14	17,123	1,036	892	382	287	558	305	13,663	6,314	3,475	2,839
Hummelstown	PA	17036	PA-Hershey/Palmyra	2.41	2.61	1.92	21,531	917	407	174	322	425	140	19,146	9,024	6,481	2,543
Lebanon	PA	17042	PA-Hershey/Palmyra	2.45	2.48	2.40	38,052	2,314	2,336	1,308	1,308	1,933	1,123	27,730	15,485	10,609	4,876
Lemoyne	PA	17043	PA-Mechanicsburg	2.00	2.35	1.54	5,820	178	418	287	254	399	11	4,273	2,904	1,652	1,252
Mechanicsburg	PA	17050	PA-Mechanicsburg	2.56	2.67	2.22	41,564	974	1,152	919	553	2,068	912	34,986	16,241	12,565	3,676
Mechanicsburg	PA	17055	PA-Mechanicsburg	2.22	2.38	1.82	38,355	962	1,227	792	1,473	1,445	997	31,459	17,310	12,348	4,962
Middletown	PA	17057	PA-Hershey/Palmyra	2.35	2.37	2.29	22,787	1,306	1,112	723	1,118	1,130	665	16,733	9,726	6,781	2,945

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Total	Owned	Rented	Total Population	Population Below .50 FPL	Population 0.50 - 1.00 FPL	Population 1.00 - 1.25 FPL	Population 1.25 - 1.50 FPL	Population 1.50 - 1.85 FPL	Population 1.85 - 2.00 FPL	Population Over 2.00 FPL	Total	Owned	Rented
				Persons per Household	Persons per Household	Persons per Household									Housing Units	Housing Units	Housing Units
Myerstown	PA	17067	PA-Mechanicsburg	2.61	2.74	2.19	15,656	430	700	421	516	1,096	305	12,188	6,007	4,687	1,320
New Cumberland	PA	17070	PA-Mechanicsburg	2.28	2.38	1.93	16,842	476	704	596	487	697	416	13,466	7,393	5,681	1,712
Newport	PA	17074	PA-Mechanicsburg	2.50	2.58	2.26	7,216	354	349	262	275	312	194	5,470	2,913	2,205	708
Palmyra	PA	17078	PA-Hershey/Palmyra	2.51	2.58	2.34	22,693	649	1,116	496	641	1,634	1,201	16,956	9,087	6,193	2,894
Summerdale	PA	17093	PA-Mechanicsburg	2.71	2.48	4.33	1,083	69	-	-	-	75	-	939	399	348	51
Harrisburg	PA	17101	PA-Steelton W	1.17	1.37	1.16	1,983	101	404	122	21	28	31	1,276	1,681	90	1,591
Harrisburg	PA	17109	PA-Hershey/Palmyra	2.34	2.41	2.26	25,283	1,152	2,441	762	1,197	1,681	678	17,372	10,797	5,995	4,802
Harrisburg	PA	17111	PA-Hershey/Palmyra	2.46	2.69	1.99	35,666	1,065	1,036	1,047	1,237	1,884	635	28,762	14,471	9,715	4,756
Harrisburg	PA	17112	PA-Hershey/Palmyra	2.40	2.50	1.93	36,870	633	448	537	228	2,006	1,216	31,802	15,384	12,802	2,582
Harrisburg	PA	17113	PA-Steelton W	2.63	2.68	2.55	10,804	866	631	717	553	1,440	491	6,106	4,086	2,639	1,447
Etters	PA	17319	PA-Mechanicsburg	2.70	2.77	2.20	11,238	201	437	98	147	336	452	9,567	4,172	3,687	485
Gettysburg	PA	17325	PA-Lake Heritage	2.33	2.42	2.10	25,221	736	1,262	450	455	1,612	882	19,824	10,826	7,931	2,895
Lewisberry	PA	17339	PA-Mechanicsburg	2.37	2.48	1.83	6,213	100	90	163	21	435	89	5,315	2,627	2,181	446
York Haven	PA	17370	PA-Mechanicsburg	2.59	2.60	2.44	6,113	143	89	180	160	935	178	4,428	2,365	2,096	269
York Haven	PA	17370	PA-Hershey/Palmyra	2.59	2.60	2.44	6,113	143	89	180	160	935	178	4,428	2,365	2,096	269
Christiana	PA	17509	PA-Coatesville	3.53	3.79	2.86	4,807	213	263	171	164	231	131	3,634	1,359	975	384
Kirkwood	PA	17536	PA-Coatesville	3.29	3.20	3.92	3,536	107	380	239	473	461	4	1,872	1,078	946	132
Quarryville	PA	17566	PA-Coatesville	2.86	3.00	2.53	12,174	581	512	186	416	841	416	9,222	4,284	3,042	1,242
Mc Ewensville	PA	17749	PA-McEwensville W	2.52	2.93	1.96	317	22	5	8	36	18	3	225	126	72	54
Mill Hall	PA	17751	PA-Nittany	2.65	2.70	2.39	7,234	221	606	294	349	601	302	4,861	2,727	2,271	456
Mill Hall	PA	17751	PA-Nittany	2.65	2.70	2.39	7,234	221	606	294	349	601	302	4,861	2,727	2,271	456
Turbotville	PA	17772	PA-Turbotville W	2.47	2.53	2.05	2,380	79	134	42	82	126	89	1,828	963	845	118
Watsonstown	PA	17777	PA-McEwensville W	2.54	2.74	1.91	6,747	194	316	241	466	298	212	5,020	2,652	2,021	631
Watsonstown	PA	17777	PA-Milton	2.54	2.74	1.91	6,747	194	316	241	466	298	212	5,020	2,652	2,021	631
Sunbury	PA	17801	PA-Milton	2.41	2.53	2.19	15,842	984	1,142	968	609	1,619	670	9,850	6,588	4,249	2,339
Allenwood	PA	17810	PA-Milton	3.26	3.22	3.45	2,490	556	356	59	41	146	125	1,207	644	530	114
Herndon	PA	17830	PA-Milton	2.51	2.52	2.46	2,009	74	72	62	135	125	56	1,485	800	676	124
Lewisburg	PA	17837	PA-Milton	2.20	2.38	1.84	13,871	502	989	462	398	347	504	10,669	6,299	4,223	2,076
Milton	PA	17847	PA-Milton	2.37	2.52	2.10	11,501	565	708	408	486	891	950	7,493	4,853	3,081	1,772
Montandon	PA	17850	PA-Milton	2.31	1.80	3.20	605	13	43	12	17	192	-	328	267	169	98
New Columbia	PA	17856	PA-Milton	2.18	2.07	2.73	2,689	36	259	12	71	65	138	2,108	1,244	1,047	197
Northumberland	PA	17857	PA-Milton	2.30	2.30	2.30	7,548	285	504	330	264	674	180	5,311	3,273	2,503	770
West Milton	PA	17886	PA-Milton	3.45	2.71	4.14	1,319	280	371	64	-	150	8	446	382	184	198
White Deer	PA	17887	PA-Milton	2.80	2.80	-	622	81	130	-	35	-	-	376	222	222	-
Frackville	PA	17931	PA-Frackville	2.58	2.63	2.37	5,015	316	465	194	257	263	151	3,369	1,951	1,565	386
Bangor	PA	18013	PA-Bangor	2.65	2.64	2.68	17,876	488	973	579	1,395	1,644	401	12,396	6,797	5,078	1,719
Bangor	PA	18013	PA-Bangor	2.65	2.64	2.68	17,876	488	973	579	1,395	1,644	401	12,396	6,797	5,078	1,719
Bethlehem	PA	18018	PA-Elizabeth	2.23	2.42	2.02	29,927	1,979	3,012	1,480	1,481	1,539	696	19,740	13,394	6,971	6,423
Easton	PA	18040	PA-Nazareth	2.65	2.64	2.74	17,022	442	224	271	455	779	123	14,728	6,428	5,804	624
Easton	PA	18042	PA-Nazareth	2.52	2.69	2.30	40,239	1,841	3,216	1,922	1,495	2,425	1,606	27,734	15,971	8,861	7,110
Easton	PA	18045	PA-Nazareth	2.48	2.62	1.87	28,817	368	476	620	359	567	233	26,194	11,617	9,398	2,219
Nazareth	PA	18064	PA-Nazareth	2.60	2.79	1.94	26,064	330	1,302	253	556	813	406	22,404	10,018	7,792	2,226
Pen Argyl	PA	18072	PA-Bangor	2.57	2.69	2.24	6,889	276	317	142	226	306	275	5,347	2,679	1,954	725
Pen Argyl	PA	18072	PA-Nazareth	2.57	2.69	2.24	6,889	276	317	142	226	306	275	5,347	2,679	1,954	725
Stockertown	PA	18083	PA-Nazareth	2.72	2.95	1.70	674	16	-	56	7	26	8	561	248	202	46
Tatamy	PA	18085	PA-Nazareth	2.45	2.52	2.25	822	5	26	40	2	61	13	675	336	245	91
Wind Gap	PA	18091	PA-Nazareth	2.55	2.73	2.16	5,624	377	251	147	129	280	95	4,345	2,203	1,511	692
Tamaqua	PA	18252	PA-Frackville	2.41	2.57	2.04	11,152	406	1,223	543	416	671	457	7,436	4,623	3,254	1,369
Tamaqua	PA	18252	PA-Frackville	2.41	2.57	2.04	11,152	406	1,223	543	416	671	457	7,436	4,623	3,254	1,369
East Stroudsburg	PA	18301	PA-Lehman Pike	2.94	2.96	2.88	28,494	1,130	2,316	1,038	890	1,677	447	20,996	9,701	6,792	2,909
East Stroudsburg	PA	18302	PA-Lehman Pike	2.92	2.84	3.41	17,649	712	1,209	532	721	1,234	771	12,470	6,036	5,172	864
Bushkill	PA	18324	PA-Lehman Pike	2.61	2.58	2.79	9,587	495	796	232	676	750	237	6,401	3,668	3,114	554
Dingmans Ferry	PA	18328	PA-Lehman Pike	2.58	2.48	3.34	7,819	833	288	365	403	317	81	5,532	3,041	2,690	351
Dingmans Ferry	PA	18328	PA-Lehman Pike	2.58	2.48	3.34	7,819	833	288	365	403	317	81	5,532	3,041	2,690	351
Dingmans Ferry	PA	18328	PA-Lehman Pike	2.58	2.48	3.34	7,819	833	288	365	403	317	81	5,532	3,041	2,690	351
Marshalls Creek	PA	18335	PA-Lehman Pike	3.37	3.44	2.66	1,472	34	74	-	-	63	-	1,301	437	396	41
Matamoras	PA	18336	PA-Lehman Pike	2.24	2.40	1.92	3,513	88	90	84	105	212	247	2,687	1,578	1,033	545
Milford	PA	18337	PA-Lehman Pike	2.60	2.65	2.40	15,199	347	563	539	642	902	82	12,124	5,837	4,850	987
Mountainhome	PA	18342	PA-Lehman Pike	2.50	2.01	3.74	543	214	18	-	-	-	-	311	217	155	62
Mount Pocono	PA	18344	PA-Pocono	2.82	3.12	2.12	3,616	117	44	235	398	43	89	2,690	1,271	890	381
Pocono Summit	PA	18346	PA-Pocono	2.43	2.45	2.20	2,605	232	114	40	197	8	144	1,870	1,070	990	80
Pocono Lake	PA	18347	PA-Lehman Pike	1.90	1.92	1.75	2,917	267	62	170	12	221	7	2,178	1,538	1,316	222
Portland	PA	18351	PA-Lehman Pike	2.90	2.01	3.79	507	2	123	39	33	-	2	308	175	88	87
Saylorsburg	PA	18353	PA-Nazareth	2.59	2.71	1.87	11,935	524	649	371	893	290	154	9,054	4,608	3,966	642

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Total	Owned	Rented	Total Population	Population	Population	Population	Population	Population	Population	Total Housing Units	Owned Housing Units	Rented Housing Units	
				Persons per Household	Persons per Household	Persons per Household		Below .50 FPL	0.50 - 1.00 FPL	1.00 - 1.25 FPL	1.25 - 1.50 FPL	1.50 - 1.85 FPL	1.85 - 2.00 FPL				Over 2.00 FPL
Archbald	PA	18403	PA-WB/Scranton	2.44	2.61	1.90	6,825	245	414	310	196	424	258	4,978	2,798	2,125	673
Carbondale	PA	18407	PA-WB/Scranton	2.34	2.34	2.32	14,253	1,389	1,541	450	380	800	463	9,230	6,141	4,098	2,043
Clarks Summit	PA	18411	PA-Abington	2.54	2.69	1.99	22,300	448	1,036	109	518	697	478	19,014	8,762	6,954	1,808
Clarks Summit	PA	18411	PA-WB/Scranton	2.54	2.69	1.99	22,300	448	1,036	109	518	697	478	19,014	8,762	6,954	1,808
Dalton	PA	18414	PA-Abington	2.48	2.48	2.49	5,483	229	165	149	243	276	108	4,313	2,211	1,873	338
Dalton	PA	18414	PA-Abington	2.48	2.48	2.49	5,483	229	165	149	243	276	108	4,313	2,211	1,873	338
Dalton	PA	18414	PA-WB/Scranton	2.48	2.48	2.49	5,483	229	165	149	243	276	108	4,313	2,211	1,873	338
Factoryville	PA	18419	PA-Abington	2.32	2.34	2.22	4,101	187	305	136	269	262	165	2,777	1,770	1,365	405
Forest City	PA	18421	PA-WB/Scranton	2.36	2.32	2.48	4,530	258	310	233	220	321	97	3,091	1,927	1,483	444
Jermyn	PA	18433	PA-WB/Scranton	2.32	2.44	1.80	6,840	198	355	147	137	265	115	5,623	2,940	2,406	534
Jessup	PA	18434	PA-WB/Scranton	2.28	2.29	2.26	3,869	530	170	194	88	194	31	2,662	1,693	1,150	543
Lake Ariel	PA	18436	PA-Pocono	2.69	2.64	3.01	12,690	152	539	667	282	604	432	10,014	4,717	4,134	583
Moscow	PA	18444	PA-WB/Scranton	2.60	2.70	2.17	13,945	716	558	388	549	562	224	10,948	5,364	4,428	936
Olyphant	PA	18447	PA-WB/Scranton	2.36	2.23	2.70	10,299	223	602	655	556	447	181	7,635	4,369	3,155	1,214
Olyphant	PA	18447	PA-Abington	2.36	2.23	2.70	10,299	223	602	655	556	447	181	7,635	4,369	3,155	1,214
Peckville	PA	18452	PA-WB/Scranton	2.12	2.23	1.83	4,860	203	156	94	337	359	148	3,563	2,301	1,694	607
Thompson	PA	18465	PA-Susquehanna	2.45	2.39	2.72	1,199	90	81	79	66	84	29	770	492	400	92
Tobyhanna	PA	18466	PA-Pocono	3.04	3.11	2.85	17,472	1,404	1,390	1,122	352	1,600	401	11,203	5,753	4,206	1,547
Waverly	PA	18471	PA-Abington	2.56	2.56	2.50	529	21	3	22	-	-	-	483	207	203	4
Scranton	PA	18503	PA-WB/Scranton	1.19	1.19	1.19	705	83	100	73	49	50	-	350	577	24	553
Scranton	PA	18504	PA-WB/Scranton	2.41	2.44	2.37	20,430	1,505	1,960	839	887	1,708	711	12,820	8,507	5,134	3,373
Scranton	PA	18505	PA-WB/Scranton	2.54	2.51	2.57	21,214	2,093	2,003	1,848	1,138	1,233	385	12,514	8,360	4,533	3,827
Moosic	PA	18507	PA-WB/Scranton	2.56	2.80	2.03	5,463	132	373	416	154	140	15	4,233	2,132	1,464	668
Moosic	PA	18507	PA-Nazareth	2.56	2.80	2.03	5,463	132	373	416	154	140	15	4,233	2,132	1,464	668
Scranton	PA	18508	PA-WB/Scranton	2.26	2.38	2.16	10,852	950	1,288	739	437	887	570	5,981	4,771	2,225	2,546
Scranton	PA	18509	PA-WB/Scranton	2.31	2.80	1.88	12,519	1,255	1,473	389	536	1,211	618	7,037	5,275	2,460	2,815
Scranton	PA	18510	PA-WB/Scranton	2.26	2.31	2.22	10,849	1,019	1,311	782	562	604	332	6,239	4,822	1,903	2,919
Scranton	PA	18512	PA-WB/Scranton	2.24	2.54	1.63	12,728	490	696	401	493	829	800	9,019	5,678	3,787	1,891
Taylor	PA	18517	PA-WB/Scranton	2.37	2.33	2.46	5,032	424	410	344	-	299	96	3,459	2,139	1,475	664
Old Forge	PA	18518	PA-WB/Scranton	2.30	2.40	2.11	8,433	300	458	204	171	443	150	6,707	3,688	2,443	1,245
Scranton	PA	18519	PA-WB/Scranton	2.29	2.41	2.07	5,226	407	275	150	332	456	51	3,555	2,280	1,443	837
Berwick	PA	18603	PA-Berwick	2.31	2.37	2.16	19,281	1,049	1,827	697	837	1,372	973	12,526	8,364	6,099	2,265
Berwick	PA	18603	PA-Phillipsburg	2.31	2.37	2.16	19,281	1,049	1,827	697	837	1,372	973	12,526	8,364	6,099	2,265
Dallas	PA	18612	PA-WB/Scranton	2.41	2.55	1.90	14,902	1,084	348	166	274	375	252	12,403	6,148	4,858	1,290
Glen Lyon	PA	18617	PA-WB/Scranton	2.10	2.30	1.80	1,431	138	116	46	91	112	66	862	696	414	282
Hunlock Creek	PA	18621	PA-WB/Scranton	2.56	2.47	3.51	4,946	92	121	72	127	658	195	3,681	1,950	1,782	168
Lake Winola	PA	18625	PA-Abington	1.89	1.71	2.58	108	12	-	-	-	10	-	86	57	45	12
Nanticoke	PA	18634	PA-WB/Scranton	2.36	2.42	2.27	12,993	1,164	1,250	935	493	805	221	8,125	5,515	3,509	2,006
Nanticoke	PA	18634	PA-WB/Scranton	2.36	2.42	2.27	12,993	1,164	1,250	935	493	805	221	8,125	5,515	3,509	2,006
Nescopeck	PA	18635	PA-Berwick	2.44	2.52	2.03	3,608	40	101	195	121	209	131	2,811	1,487	1,229	258
Pittston	PA	18640	PA-WB/Scranton	2.32	2.43	2.16	15,822	1,200	1,460	420	769	1,169	1,084	9,720	6,839	4,037	2,802
Pittston	PA	18641	PA-WB/Scranton	2.34	2.56	1.89	6,916	159	450	532	163	399	239	4,974	2,955	1,999	956
Duryea	PA	18642	PA-WB/Scranton	2.16	2.27	1.83	3,814	140	163	98	288	117	136	2,872	1,763	1,340	423
Pittston	PA	18643	PA-WB/Scranton	2.21	2.28	2.05	12,574	815	631	320	325	932	223	9,328	5,696	4,092	1,604
Wyoming	PA	18644	PA-WB/Scranton	2.25	2.55	1.49	7,628	149	420	156	150	404	265	6,084	3,425	2,450	975
Plymouth	PA	18651	PA-WB/Scranton	2.31	2.37	2.22	8,794	641	541	1,003	309	584	277	5,439	3,818	2,229	1,589
Plymouth	PA	18651	PA-Norristown	2.31	2.37	2.22	8,794	641	541	1,003	309	584	277	5,439	3,818	2,229	1,589
Shickshinny	PA	18655	PA-WB/Scranton	2.33	2.34	2.25	5,354	213	191	159	225	340	134	4,092	2,318	1,947	371
Wilkes Barre	PA	18701	PA-WB/Scranton	1.46	2.04	1.38	1,663	194	164	153	167	292	31	662	1,051	132	919

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	Total	Owned	Rented	Total Population	Population	Population	Population	Population	Population	Population	Total	Owned	Rented	
				Persons per Household	Persons per Household	Persons per Household		Below .50 FPL	0.50 - 1.00 FPL	1.00 - 1.25 FPL	1.25 - 1.50 FPL	1.50 - 1.85 FPL	1.85 - 2.00 FPL	Over 2.00 FPL	Housing Units	Housing Units	Housing Units
Wilkes Barre	PA	18702	PA-WB/Scranton	2.39	2.47	2.29	40,921	4,486	3,342	2,008	2,569	3,036	1,162	24,318	17,152	9,609	7,543
Kingston	PA	18704	PA-WB/Scranton	2.26	2.39	2.08	30,372	2,502	2,360	1,290	1,628	2,044	728	19,820	13,420	7,883	5,537
Wilkes Barre	PA	18705	PA-WB/Scranton	2.38	2.41	2.33	15,264	755	979	1,296	1,170	614	315	10,135	6,442	4,163	2,279
Wilkes Barre	PA	18706	PA-WB/Scranton	2.34	2.34	2.34	16,014	1,490	1,627	466	905	842	438	10,246	6,792	4,434	2,358
Wilkes Barre	PA	18706	PA-Mechanicsburg	2.34	2.34	2.34	16,014	1,490	1,627	466	905	842	438	10,246	6,792	4,434	2,358
Mountain Top	PA	18707	PA-WB/Scranton	2.67	2.72	2.15	16,016	309	399	217	247	860	344	13,640	6,010	5,457	553
Shavertown	PA	18708	PA-WB/Scranton	2.28	2.36	1.78	8,452	51	339	65	350	314	340	6,993	3,719	3,190	529
Shavertown	PA	18708	PA-WB/Scranton	2.28	2.36	1.78	8,452	51	339	65	350	314	340	6,993	3,719	3,190	529
Luzerne	PA	18709	PA-WB/Scranton	1.92	1.99	1.82	2,825	164	376	100	116	91	137	1,841	1,471	878	593
Montrose	PA	18801	PA-Susquehanna	2.51	2.56	2.34	7,830	437	348	199	377	560	213	5,696	3,140	2,359	781
Great Bend	PA	18821	PA-Susquehanna	2.49	2.50	2.46	1,157	85	54	70	182	91	36	639	465	324	141
Hallstead	PA	18822	PA-Susquehanna	2.40	2.45	2.24	3,153	282	167	268	124	176	108	2,028	1,317	1,004	313
Susquehanna	PA	18847	PA-Susquehanna	2.57	2.53	2.71	5,181	375	493	322	404	508	114	2,965	2,026	1,534	492
Newtown	PA	18940	PA-Yardley	2.56	2.68	1.88	29,473	369	273	102	246	344	327	27,812	11,527	9,772	1,755
Washington Crossing	PA	18977	PA-Yardley	2.61	2.64	2.35	4,595	-	17	39	126	-	-	4,413	1,758	1,593	165
Clifton Heights	PA	19018	PA-Lehman Pike	2.42	2.69	1.94	23,296	862	1,412	1,641	780	1,123	518	16,960	9,603	6,218	3,385
Media	PA	19063	PA-Royersford	2.37	2.72	1.64	36,176	667	665	394	748	741	207	32,754	15,221	10,314	4,907
Morrisville	PA	19067	PA-Yardley	2.57	2.66	2.18	52,467	1,366	1,372	861	876	1,381	652	45,959	20,503	16,527	3,976
Coatesville	PA	19320	PA-Coatesville	2.69	2.65	2.79	54,235	2,646	2,928	2,088	1,316	2,430	1,976	40,851	19,960	14,605	5,355
Downingtown	PA	19335	PA-Coatesville	2.61	2.79	1.88	50,960	606	1,039	1,043	1,133	1,028	822	45,289	19,489	15,607	3,882
Honey Brook	PA	19344	PA-Coatesville	2.59	2.75	2.14	11,807	149	663	212	461	661	352	9,309	4,576	3,339	1,237
Parkeburg	PA	19365	PA-Coatesville	2.76	2.87	2.44	7,554	211	182	254	87	269	276	6,275	2,729	2,042	687
Pomeroy	PA	19367	PA-Coatesville	3.23	3.23	-	71	30	-	-	-	-	-	41	22	22	-
Sadsburyville	PA	19369	PA-Coatesville	1.54	2.00	1.47	80	44	-	-	-	-	-	36	52	7	45
Thorndale	PA	19372	PA-Coatesville	2.98	3.28	2.56	2,578	22	-	30	-	-	-	2,526	865	507	358
Norristown	PA	19401	PA-Norristown	2.45	2.76	2.19	41,810	2,725	3,711	2,895	1,723	2,748	1,558	26,450	16,862	7,629	9,233
Norristown	PA	19403	PA-Norristown	2.33	2.45	2.03	43,368	1,072	1,607	443	1,320	1,251	649	37,026	18,542	13,447	5,095
Bridgeport	PA	19405	PA-Norristown	2.34	2.37	2.32	4,747	435	460	46	16	299	34	3,457	2,022	984	1,038
King Of Prussia	PA	19406	PA-Norristown	2.30	2.58	1.96	28,201	700	371	182	755	1,071	677	24,445	12,322	6,809	5,513
Blue Bell	PA	19422	PA-Norristown	2.57	2.64	2.25	19,743	402	240	208	62	600	261	17,970	7,698	6,239	1,459
Collegeville	PA	19426	PA-Norristown	2.75	2.84	1.99	35,642	542	723	171	371	350	282	33,203	12,968	11,496	1,472
Collegeville	PA	19426	PA-Royersford	2.75	2.84	1.99	35,642	542	723	171	371	350	282	33,203	12,968	11,496	1,472
Lansdale	PA	19446	PA-Norristown	2.52	2.73	2.12	59,428	1,130	2,152	933	1,422	2,111	1,077	50,603	23,608	15,705	7,903
Mont Clare	PA	19453	PA-Royersford	2.01	2.01	2.00	1,448	31	80	60	16	52	16	1,193	722	431	291
North Wales	PA	19454	PA-Norristown	2.47	2.65	1.80	27,608	465	477	709	212	858	393	24,494	11,178	8,791	2,387
Oaks	PA	19456	PA-Royersford	2.34	2.34	-	166	-	-	-	-	-	-	166	71	71	-
Parker Ford	PA	19457	PA-Royersford	2.02	2.02	-	99	-	-	-	23	-	-	76	49	49	-
Phoenixville	PA	19460	PA-Royersford	2.42	2.61	1.97	41,925	1,532	1,529	703	891	1,073	372	35,825	17,208	12,131	5,077
Norristown	PA	19403	PA-Audubon	2.33	2.45	2.03	43,368	1,072	1,607	443	1,320	1,251	649	37,026	18,542	13,447	5,095
Plymouth Meeting	PA	19462	PA-Norristown	2.47	2.64	1.79	15,671	201	306	169	472	315	78	14,130	6,347	5,129	1,218
Pottstown	PA	19464	PA-Royersford	2.57	2.61	2.50	47,728	2,970	2,411	1,600	1,791	3,557	951	34,448	18,586	11,970	6,616
Pottstown	PA	19465	PA-Royersford	2.56	2.66	2.18	18,546	488	479	391	204	733	220	16,031	7,244	5,754	1,490
Royersford	PA	19468	PA-Royersford	2.49	2.61	2.12	26,271	597	944	491	679	584	491	22,485	10,572	7,952	2,620
Schwenksville	PA	19473	PA-Royersford	2.72	2.73	2.64	17,489	347	765	473	321	322	191	15,070	6,424	5,571	853
Schwenksville	PA	19473	PA-Norristown	2.72	2.73	2.64	17,489	347	765	473	321	322	191	15,070	6,424	5,571	853
Spring City	PA	19475	PA-Royersford	2.35	2.62	1.74	11,322	923	542	190	165	226	62	9,214	4,814	3,345	1,469
Worcester	PA	19490	PA-Norristown	2.37	2.37	-	273	-	-	-	-	-	-	273	115	115	-
Birdsboro	PA	19508	PA-Glen	2.52	2.69	1.74	15,315	365	866	298	530	835	382	12,039	6,084	5,011	1,073
Douglassville	PA	19518	PA-Glen	2.81	2.89	2.40	16,267	375	1,259	430	381	312	116	13,394	5,810	4,938	872
Fleetwood	PA	19522	PA-Glen	2.50	2.56	2.19	13,939	365	401	111	349	311	216	12,186	5,560	4,714	846
Reading	PA	19606	PA-Glen	2.59	2.64	2.44	35,710	1,583	1,321	547	963	1,826	769	28,701	13,771	10,790	2,981
Reading	PA	19606	PA-Penn/Wyomissing	2.59	2.64	2.44	35,710	1,583	1,321	547	963	1,826	769	28,701	13,771	10,790	2,981
Reading	PA	19607	PA-Glen	2.40	2.44	2.33	23,101	955	1,376	298	262	1,880	674	17,656	9,592	6,204	3,388
Reading	PA	19608	PA-Penn/Wyomissing	2.70	2.77	2.44	23,335	837	328	744	622	618	255	19,931	8,662	6,847	1,815
Reading	PA	19608	PA-Glen	2.70	2.77	2.44	23,335	837	328	744	622	618	255	19,931	8,662	6,847	1,815
Reading	PA	19609	PA-Penn/Wyomissing	2.61	2.59	2.71	10,744	329	145	319	575	748	219	8,409	4,114	3,479	635
Reading	PA	19610	PA-Penn/Wyomissing	2.22	2.50	1.56	15,089	326	342	203	393	651	315	12,859	6,783	4,765	2,018
TOTAL CUSTOMERS				2.45	Persons per Customer Household		4,248,433	183,162	220,246	132,466	137,061	211,895	99,345	3,264,258			

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	--- Distribution of Income for Owned Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Atlasburg	PA	15004	PA-McMurray	0.00%	5.63%	0.00%	0.00%	0.00%	5.63%	19.01%	23.94%	26.06%	19.72%	0.00%	100.00%
Beaver Falls	PA	15010	PA-NewCastle/Ellwood	1.68%	1.54%	1.67%	2.36%	3.84%	6.35%	11.16%	17.77%	15.91%	23.24%	14.49%	100.00%
Bridgeville	PA	15017	PA-Pittsburgh	2.19%	0.57%	2.25%	2.25%	2.25%	4.26%	8.88%	16.47%	14.09%	20.76%	26.03%	100.00%
Bridgeville	PA	15017	PA-McMurray	2.19%	0.57%	2.25%	2.25%	2.25%	4.26%	8.88%	16.47%	14.09%	20.76%	26.03%	100.00%
Buena Vista	PA	15018	PA-Elizabeth	2.02%	2.27%	9.82%	10.58%	6.80%	21.66%	18.39%	6.05%	4.03%	9.32%	9.07%	100.00%
Bulger	PA	15019	PA-McMurray	0.00%	2.34%	3.06%	12.07%	4.14%	19.64%	7.21%	10.45%	17.30%	13.51%	10.27%	100.00%
Burgettstown	PA	15021	PA-McMurray	0.85%	2.26%	1.93%	1.84%	3.77%	5.32%	14.51%	16.34%	15.73%	20.30%	17.15%	100.00%
Charleroi	PA	15022	PA-Elizabeth	1.68%	3.05%	5.20%	4.05%	2.18%	9.37%	13.80%	20.09%	9.69%	15.88%	15.01%	100.00%
Clairton	PA	15025	PA-Elizabeth	1.71%	0.85%	2.06%	3.70%	2.37%	8.57%	9.86%	14.44%	11.92%	16.35%	28.17%	100.00%
Clairton	PA	15025	PA-Pittsburgh	1.71%	0.85%	2.06%	3.70%	2.37%	8.57%	9.86%	14.44%	11.92%	16.35%	28.17%	100.00%
Clinton	PA	15026	PA-McMurray	4.19%	2.40%	1.20%	1.88%	0.43%	8.81%	4.70%	16.60%	11.46%	19.85%	28.49%	100.00%
Cuddy	PA	15031	PA-McMurray	14.41%	0.00%	0.00%	0.00%	0.00%	15.32%	0.00%	16.22%	54.05%	0.00%	0.00%	100.00%
Cuddy	PA	15031	PA-Pittsburgh	14.41%	0.00%	0.00%	0.00%	0.00%	15.32%	0.00%	16.22%	54.05%	0.00%	0.00%	100.00%
Donora	PA	15033	PA-Elizabeth	1.19%	1.19%	1.68%	5.84%	2.27%	10.88%	16.62%	24.83%	23.15%	12.17%	0.20%	100.00%
Dravosburg	PA	15034	PA-Elizabeth	4.05%	1.67%	0.00%	4.52%	1.19%	17.62%	14.52%	24.05%	14.52%	7.86%	10.00%	100.00%
Dravosburg	PA	15034	PA-Pittsburgh	4.05%	1.67%	0.00%	4.52%	1.19%	17.62%	14.52%	24.05%	14.52%	7.86%	10.00%	100.00%
Elizabeth	PA	15037	PA-Elizabeth	2.05%	1.68%	3.46%	2.02%	3.94%	6.74%	9.58%	22.90%	13.63%	17.52%	16.48%	100.00%
Elrama	PA	15038	PA-Elizabeth	0.00%	0.00%	0.00%	0.00%	0.00%	24.14%	0.00%	17.24%	12.64%	45.98%	0.00%	100.00%
Glassport	PA	15045	PA-Elizabeth	1.74%	0.48%	3.49%	10.38%	8.24%	11.17%	17.67%	20.21%	10.06%	12.84%	3.72%	100.00%
Greenock	PA	15047	PA-Elizabeth	0.00%	0.00%	0.00%	0.00%	37.50%	0.00%	37.50%	12.50%	12.50%	0.00%	0.00%	100.00%
Hookstown	PA	15050	PA-McMurray	1.08%	0.00%	0.96%	5.38%	3.11%	8.97%	11.84%	20.81%	12.20%	20.93%	14.71%	100.00%
Joffre	PA	15053	PA-McMurray	0.00%	0.00%	0.00%	23.68%	0.00%	0.00%	36.84%	0.00%	0.00%	18.42%	21.05%	100.00%
Langeloth	PA	15054	PA-McMurray	0.00%	4.49%	0.00%	19.66%	27.53%	0.00%	17.98%	0.00%	21.35%	8.99%	0.00%	100.00%
Lawrence	PA	15055	PA-McMurray	0.00%	0.00%	3.28%	5.86%	6.38%	14.48%	7.93%	19.31%	14.66%	22.93%	5.17%	100.00%
Mc Donald	PA	15057	PA-McMurray	0.57%	1.00%	1.58%	2.31%	2.78%	2.91%	6.73%	16.58%	10.30%	22.45%	32.78%	100.00%
Mc Donald	PA	15057	PA-Pittsburgh	0.57%	1.00%	1.58%	2.31%	2.78%	2.91%	6.73%	16.58%	10.30%	22.45%	32.78%	100.00%
Midland	PA	15059	PA-McMurray	0.00%	2.24%	0.00%	2.91%	5.83%	2.80%	9.75%	37.56%	12.33%	14.24%	12.33%	100.00%
Midway	PA	15060	PA-McMurray	0.00%	0.00%	2.15%	5.85%	0.00%	2.15%	23.38%	22.46%	10.46%	28.92%	4.62%	100.00%
Monongahela	PA	15063	PA-Elizabeth	0.86%	0.78%	1.21%	4.64%	3.78%	7.31%	10.60%	20.48%	16.73%	20.21%	13.38%	100.00%
Morgan	PA	15064	PA-Pittsburgh	0.00%	0.00%	0.00%	0.00%	0.00%	12.90%	0.00%	45.16%	14.52%	14.52%	12.90%	100.00%
New Eagle	PA	15067	PA-Elizabeth	2.54%	0.00%	1.62%	1.50%	6.35%	7.39%	25.40%	23.21%	12.01%	11.09%	8.89%	100.00%
Oakdale	PA	15071	PA-McMurray	1.67%	0.60%	4.45%	2.03%	1.78%	2.33%	6.86%	17.52%	12.88%	20.76%	29.10%	100.00%
Oakdale	PA	15071	PA-Pittsburgh	1.67%	0.60%	4.45%	2.03%	1.78%	2.33%	6.86%	17.52%	12.88%	20.76%	29.10%	100.00%
Slovan	PA	15078	PA-McMurray	0.00%	0.00%	0.00%	0.00%	10.22%	5.11%	17.52%	24.09%	37.23%	5.84%	0.00%	100.00%
Sturgeon	PA	15082	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.92%	0.00%	0.00%	81.08%	100.00%
Sturgeon	PA	15082	PA-Pittsburgh	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.92%	0.00%	0.00%	81.08%	100.00%
Sutersville	PA	15083	PA-Elizabeth	0.00%	0.00%	2.67%	5.34%	9.95%	11.41%	8.25%	20.15%	13.59%	20.15%	8.50%	100.00%
West Elizabeth	PA	15088	PA-Elizabeth	4.31%	0.00%	1.72%	1.72%	4.31%	18.10%	15.52%	10.34%	10.34%	31.03%	2.59%	100.00%
West Newton	PA	15089	PA-Elizabeth	1.43%	2.16%	1.06%	5.34%	3.54%	12.24%	10.91%	18.27%	17.30%	20.48%	7.27%	100.00%
Allison Park	PA	15101	PA-Mechanicsburg	0.16%	0.51%	1.69%	0.89%	2.20%	5.15%	5.00%	12.34%	15.10%	20.62%	35.83%	100.00%
Bethel Park	PA	15102	PA-Hershey/Palmrya	2.00%	0.24%	2.31%	2.04%	3.70%	3.73%	9.27%	11.68%	12.30%	27.55%	25.18%	100.00%
Bethel Park	PA	15102	PA-Pittsburgh	2.00%	0.24%	2.31%	2.04%	3.70%	3.73%	9.27%	11.68%	12.30%	27.55%	25.18%	100.00%
Carnegie	PA	15106	PA-Pittsburgh	0.77%	1.01%	2.66%	3.31%	2.62%	6.20%	11.86%	19.02%	17.39%	20.02%	15.15%	100.00%
Homestead	PA	15120	PA-Pittsburgh	1.50%	2.20%	3.95%	3.83%	2.61%	13.08%	12.69%	17.44%	13.49%	17.77%	11.44%	100.00%
West Mifflin	PA	15122	PA-Elizabeth	2.54%	1.22%	2.68%	6.53%	2.97%	9.05%	11.21%	17.44%	17.50%	18.96%	9.91%	100.00%
West Mifflin	PA	15122	PA-Pittsburgh	2.54%	1.22%	2.68%	6.53%	2.97%	9.05%	11.21%	17.44%	17.50%	18.96%	9.91%	100.00%
South Park	PA	15129	PA-Pittsburgh	1.20%	0.00%	0.73%	0.44%	3.02%	5.86%	12.84%	14.25%	13.25%	23.28%	25.12%	100.00%
Mckeesport	PA	15133	PA-Elizabeth	3.13%	0.56%	1.96%	4.82%	5.75%	9.64%	14.03%	22.03%	14.41%	16.70%	6.97%	100.00%
Mckeesport	PA	15135	PA-Elizabeth	0.00%	0.00%	1.10%	8.88%	2.02%	9.25%	6.00%	11.34%	11.46%	28.80%	21.14%	100.00%
Presto	PA	15142	PA-Pittsburgh	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.81%	11.18%	8.44%	65.40%	100.00%
Pittsburgh	PA	15201	PA-McMurray	2.00%	1.89%	3.12%	2.98%	3.91%	7.98%	5.33%	17.31%	16.11%	17.06%	22.31%	100.00%
Pittsburgh	PA	15202	PA-Pittsburgh	1.39%	0.45%	2.24%	2.18%	2.85%	7.11%	8.56%	18.22%	15.69%	20.52%	20.78%	100.00%
Pittsburgh	PA	15204	PA-Pittsburgh	0.39%	1.24%	4.93%	5.66%	6.99%	7.38%	21.28%	18.10%	15.27%	11.28%	7.46%	100.00%
Pittsburgh	PA	15205	PA-Pittsburgh	1.16%	0.71%	1.92%	1.70%	1.97%	7.95%	8.08%	17.94%	17.55%	23.64%	17.39%	100.00%
Pittsburgh	PA	15205	PA-Elizabeth	1.16%	0.71%	1.92%	1.70%	1.97%	7.95%	8.08%	17.94%	17.55%	23.64%	17.39%	100.00%
Pittsburgh	PA	15207	PA-Pittsburgh	1.76%	0.90%	7.02%	3.56%	4.89%	10.81%	14.97%	18.92%	13.97%	15.63%	7.58%	100.00%
Pittsburgh	PA	15210	PA-Pittsburgh	1.44%	2.28%	7.49%	4.72%	5.36%	11.02%	15.66%	19.70%	14.41%	12.88%	5.02%	100.00%
Pittsburgh	PA	15212	PA-Pittsburgh	0.56%	1.34%	5.68%	3.59%	3.22%	6.81%	11.30%	16.59%	16.06%	21.79%	13.06%	100.00%
Pittsburgh	PA	15215	PA-Pittsburgh	1.32%	0.54%	1.74%	2.50%	1.69%	5.12%	9.72%	13.66%	14.15%	20.64%	28.94%	100.00%
Pittsburgh	PA	15216	PA-Pittsburgh	2.81%	1.31%	1.37%	3.20%	1.35%	7.20%	9.40%	15.11%	18.51%	21.70%	18.03%	100.00%
Pittsburgh	PA	15220	PA-Pittsburgh	2.63%	1.09%	2.10%	1.22%	1.77%	7.69%	9.56%	20.28%	15.99%	21.90%	15.78%	100.00%
Pittsburgh	PA	15221	PA-Pittsburgh	2.85%	1.93%	1.99%	4.42%	2.45%	6.41%	9.98%	19.03%	13.60%	19.15%	18.18%	100.00%
Pittsburgh	PA	15222	PA-Pittsburgh	1.41%	0.00%	0.00%	2.41%	0.00%	1.41%	0.00%	6.24%	12.07%	6.24%	70.22%	100.00%
Pittsburgh	PA	15226	PA-Pittsburgh	1.98%	1.04%	2.70%	2.63%	4.36%	5.14%	8.90%	25.95%	15.22%	22.05%	10.03%	100.00%

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	--- Distribution of Income for Owned Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Pittsburgh	PA	15227	PA-Pittsburgh	1.75%	0.74%	1.94%	1.36%	1.87%	7.97%	11.02%	19.37%	18.85%	23.30%	11.83%	100.00%
Pittsburgh	PA	15228	PA-Pittsburgh	0.66%	0.17%	0.34%	1.43%	0.64%	4.35%	5.58%	7.95%	9.91%	20.61%	48.35%	100.00%
Pittsburgh	PA	15234	PA-Pittsburgh	1.17%	1.36%	1.31%	2.43%	1.15%	7.72%	13.32%	16.63%	14.40%	22.26%	18.26%	100.00%
Pittsburgh	PA	15236	PA-Pittsburgh	0.98%	0.74%	2.80%	1.38%	1.95%	6.36%	10.48%	17.02%	16.45%	25.90%	15.93%	100.00%
Pittsburgh	PA	15239	PA-Pittsburgh	0.64%	1.05%	1.90%	2.19%	1.61%	5.17%	7.21%	15.73%	16.02%	28.30%	20.18%	100.00%
Pittsburgh	PA	15241	PA-McMurray	1.79%	0.58%	0.60%	0.79%	1.06%	4.12%	5.10%	10.22%	9.10%	18.58%	48.06%	100.00%
Pittsburgh	PA	15241	PA-Pittsburgh	1.79%	0.58%	0.60%	0.79%	1.06%	4.12%	5.10%	10.22%	9.10%	18.58%	48.06%	100.00%
Pittsburgh	PA	15243	PA-Pittsburgh	1.73%	0.93%	1.16%	0.73%	2.52%	5.30%	9.57%	13.33%	11.89%	20.40%	32.43%	100.00%
Washington	PA	15301	PA-McMurray	2.10%	1.57%	2.55%	3.49%	1.82%	7.00%	11.13%	20.32%	13.39%	20.22%	16.40%	100.00%
Amity	PA	15311	PA-McMurray	0.00%	0.00%	2.32%	6.32%	1.89%	13.05%	5.26%	17.26%	16.84%	25.05%	12.00%	100.00%
Avella	PA	15312	PA-McMurray	1.21%	1.05%	1.45%	3.46%	3.30%	8.62%	11.52%	17.73%	14.34%	20.87%	16.44%	100.00%
Bentleyville	PA	15314	PA-Elizabeth	3.27%	0.41%	1.22%	2.65%	6.53%	9.08%	10.20%	22.35%	12.45%	22.04%	9.80%	100.00%
Bentleyville	PA	15314	PA-McMurray	3.27%	0.41%	1.22%	2.65%	6.53%	9.08%	10.20%	22.35%	12.45%	22.04%	9.80%	100.00%
Canonsburg	PA	15317	PA-McMurray	1.48%	0.89%	0.96%	0.83%	1.73%	4.00%	6.06%	16.17%	13.35%	19.82%	34.68%	100.00%
Canonsburg	PA	15317	PA-Pittsburgh	1.48%	0.89%	0.96%	0.83%	1.73%	4.00%	6.06%	16.17%	13.35%	19.82%	34.68%	100.00%
Cecil	PA	15321	PA-McMurray	0.00%	0.00%	0.00%	3.36%	3.73%	2.24%	17.72%	22.95%	2.43%	25.56%	22.01%	100.00%
Cecil	PA	15321	PA-Pittsburgh	0.00%	0.00%	0.00%	3.36%	3.73%	2.24%	17.72%	22.95%	2.43%	25.56%	22.01%	100.00%
Claysville	PA	15323	PA-McMurray	0.00%	0.31%	3.32%	3.17%	4.02%	11.04%	9.27%	18.53%	14.83%	17.53%	17.99%	100.00%
Prosperity	PA	15329	PA-McMurray	5.99%	5.58%	0.00%	3.10%	0.41%	8.26%	11.57%	13.02%	18.80%	17.77%	15.50%	100.00%
Eighty Four	PA	15330	PA-McMurray	0.30%	2.89%	1.57%	0.71%	1.52%	7.39%	6.63%	19.34%	12.51%	23.09%	24.05%	100.00%
Finleyville	PA	15332	PA-Elizabeth	2.59%	0.00%	0.77%	8.96%	3.67%	3.50%	14.77%	18.01%	14.91%	20.51%	12.32%	100.00%
Finleyville	PA	15332	PA-McMurray	2.59%	0.00%	0.77%	8.96%	3.67%	3.50%	14.77%	18.01%	14.91%	20.51%	12.32%	100.00%
Finleyville	PA	15332	PA-Pittsburgh	2.59%	0.00%	0.77%	8.96%	3.67%	3.50%	14.77%	18.01%	14.91%	20.51%	12.32%	100.00%
Hickory	PA	15340	PA-McMurray	2.97%	1.91%	4.25%	0.00%	0.00%	2.34%	11.68%	21.87%	9.98%	22.93%	22.08%	100.00%
Houston	PA	15342	PA-McMurray	2.76%	0.16%	0.83%	0.62%	2.39%	5.46%	9.94%	13.37%	21.12%	23.20%	20.14%	100.00%
Jefferson	PA	15344	PA-Pittsburgh	0.37%	0.19%	0.75%	1.87%	8.05%	22.47%	7.12%	17.60%	9.36%	25.09%	7.12%	100.00%
Muse	PA	15350	PA-McMurray	0.00%	0.00%	0.00%	0.00%	4.17%	20.00%	0.00%	23.33%	18.33%	34.17%	0.00%	100.00%
Southview	PA	15361	PA-McMurray	0.00%	0.00%	0.00%	21.21%	0.00%	0.00%	0.00%	0.00%	30.30%	33.33%	15.15%	100.00%
Strabane	PA	15363	PA-McMurray	0.00%	0.00%	0.00%	12.29%	0.00%	10.61%	12.85%	5.59%	38.55%	6.15%	13.97%	100.00%
Venetia	PA	15367	PA-McMurray	0.47%	1.58%	0.37%	0.87%	1.61%	4.49%	4.53%	7.41%	7.51%	14.15%	57.01%	100.00%
Venetia	PA	15367	PA-Pittsburgh	0.47%	1.58%	0.37%	0.87%	1.61%	4.49%	4.53%	7.41%	7.51%	14.15%	57.01%	100.00%
Westland	PA	15378	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
West Middletown	PA	15379	PA-McMurray	0.00%	0.00%	12.50%	0.00%	0.00%	4.17%	8.33%	45.83%	4.17%	25.00%	0.00%	100.00%
Uniontown	PA	15401	PA-Uniontown/Connell	1.48%	3.30%	5.02%	4.76%	4.36%	8.92%	12.95%	18.06%	14.17%	17.70%	9.29%	100.00%
Uniontown	PA	15401	PA-Uniontown/Connell	1.48%	3.30%	5.02%	4.76%	4.36%	8.92%	12.95%	18.06%	14.17%	17.70%	9.29%	100.00%
Allison	PA	15413	PA-Brownsville	0.00%	0.00%	0.00%	0.00%	50.44%	20.35%	0.00%	0.00%	13.27%	15.93%	0.00%	100.00%
Brownsville	PA	15417	PA-Brownsville	4.39%	1.26%	7.35%	3.09%	4.04%	5.74%	8.65%	19.78%	18.79%	18.25%	8.65%	100.00%
California	PA	15419	PA-Brownsville	1.25%	0.00%	0.00%	4.59%	3.97%	9.81%	13.78%	14.82%	15.45%	17.12%	19.21%	100.00%
Coal Center	PA	15423	PA-Brownsville	3.30%	0.99%	3.30%	2.97%	2.81%	11.06%	16.34%	16.67%	12.87%	15.68%	14.03%	100.00%
Connellsville	PA	15425	PA-Uniontown/Connell	2.02%	1.63%	4.24%	6.54%	5.43%	7.86%	11.97%	21.18%	13.22%	17.06%	8.85%	100.00%
Daisytown	PA	15427	PA-Brownsville	3.44%	4.12%	4.12%	3.09%	3.44%	15.81%	10.31%	10.65%	19.59%	16.84%	8.59%	100.00%
Dunbar	PA	15431	PA-Uniontown/Connell	1.77%	1.70%	5.03%	5.71%	4.48%	12.98%	11.55%	20.18%	16.92%	13.38%	6.32%	100.00%
East Millsboro	PA	15433	PA-Brownsville	4.57%	4.57%	5.18%	0.00%	16.46%	10.37%	32.32%	13.11%	4.57%	8.84%	0.00%	100.00%
Farmington	PA	15437	PA-Farmington	0.00%	0.00%	6.25%	5.85%	1.61%	14.92%	9.27%	19.56%	15.32%	22.58%	4.64%	100.00%
Grindstone	PA	15442	PA-Brownsville	0.00%	3.74%	6.18%	4.31%	2.44%	9.77%	26.87%	18.53%	15.09%	7.33%	5.75%	100.00%
Hiller	PA	15444	PA-Brownsville	0.00%	0.00%	0.00%	0.00%	33.09%	0.00%	0.00%	10.79%	0.00%	56.12%	0.00%	100.00%
Hopwood	PA	15445	PA-Uniontown/Connell	0.00%	0.00%	7.36%	6.57%	4.08%	9.41%	14.37%	16.77%	12.78%	22.72%	5.94%	100.00%
Lemont Furnace	PA	15456	PA-Uniontown/Connell	1.38%	1.00%	14.79%	4.39%	3.51%	14.79%	12.03%	17.42%	11.78%	15.79%	3.13%	100.00%
Mc Clellandtown	PA	15458	PA-Uniontown/Connell	0.00%	1.39%	5.99%	1.95%	1.95%	9.89%	16.71%	10.86%	15.46%	23.96%	11.84%	100.00%
New Salem	PA	15468	PA-Brownsville	0.00%	0.00%	1.27%	0.00%	2.78%	11.23%	10.19%	44.56%	12.04%	10.19%	7.75%	100.00%
Oliver	PA	15472	PA-Uniontown/Connell	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	0.00%	60.00%	0.00%	100.00%
Uledi	PA	15484	PA-Uniontown/Connell	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.14%	58.04%	12.94%	5.88%	100.00%
Greensburg	PA	15601	PA-Uniontown/Connell	1.89%	1.44%	1.87%	2.42%	2.01%	7.67%	9.40%	19.00%	16.92%	21.11%	16.26%	100.00%
Indiana	PA	15701	PA-Indiana	1.14%	1.64%	1.79%	2.21%	2.55%	7.29%	12.46%	21.56%	12.04%	22.33%	15.00%	100.00%
Anita	PA	15711	PA-Punxsatawney	0.00%	1.90%	11.43%	13.33%	9.52%	8.57%	5.71%	20.00%	19.05%	10.48%	0.00%	100.00%
Big Run	PA	15715	PA-Punxsatawney	1.20%	6.63%	0.00%	10.24%	17.47%	9.04%	13.25%	13.25%	18.67%	9.04%	1.20%	100.00%
Punxsatawney	PA	15767	PA-Punxsatawney	3.08%	1.56%	6.23%	2.74%	3.92%	11.14%	16.41%	21.24%	14.02%	11.96%	7.70%	100.00%
Walston	PA	15781	PA-Punxsatawney	0.00%	0.00%	0.00%	0.00%	6.67%	35.56%	17.78%	24.44%	8.89%	6.67%	0.00%	100.00%
Worthville	PA	15784	PA-Punxsatawney	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	24.14%	27.59%	20.69%	24.14%	3.45%	100.00%
Brookville	PA	15825	PA-Punxsatawney	1.81%	1.81%	2.55%	3.58%	2.87%	6.83%	14.55%	20.78%	17.20%	17.24%	10.80%	100.00%
Corsica	PA	15829	PA-Clarion	0.00%	0.00%	4.55%	1.01%	2.53%	8.33%	16.41%	22.98%	15.66%	23.74%	4.80%	100.00%
Butler	PA	16001	PA-Butler	1.61%	0.98%	2.35%	3.13%	3.70%	8.37%	11.47%	17.32%	13.75%	22.80%	14.53%	100.00%
Butler	PA	16002	PA-Butler	3.32%	2.34%	2.83%	1.77%	4.40%	7.03%	6.98%	18.37%	16.65%	19.61%	16.69%	100.00%
Cabot	PA	16023	PA-Butler	2.83%	0.42%	0.00%	2.67%	1.33%	10.83%	8.67%	17.75%	19.58%	22.83%	13.08%	100.00%

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	--- Distribution of Income for Owned Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Connoquenessing	PA	16027	PA-Butler	0.00%	5.05%	0.00%	1.01%	6.06%	13.13%	13.13%	19.19%	15.15%	3.03%	24.24%	100.00%
East Butler	PA	16029	PA-Butler	0.71%	2.14%	0.00%	1.07%	2.14%	22.86%	18.93%	18.57%	15.00%	14.29%	4.29%	100.00%
Evans City	PA	16033	PA-Butler	0.74%	0.70%	0.00%	5.47%	2.10%	3.05%	4.98%	20.33%	19.79%	22.47%	20.37%	100.00%
Harmony	PA	16037	PA-NewCastle/Ellwood	0.97%	1.30%	0.00%	0.84%	2.33%	4.40%	14.51%	18.98%	11.46%	17.49%	27.72%	100.00%
Harmony	PA	16037	PA-Butler	0.97%	1.30%	0.00%	0.84%	2.33%	4.40%	14.51%	18.98%	11.46%	17.49%	27.72%	100.00%
Lyndora	PA	16045	PA-Butler	0.00%	3.27%	0.00%	7.64%	0.00%	4.00%	15.27%	24.36%	11.27%	27.64%	6.55%	100.00%
Prospect	PA	16052	PA-Butler	0.36%	2.01%	1.18%	2.61%	2.96%	9.00%	10.43%	19.43%	21.21%	16.59%	14.22%	100.00%
Renfrew	PA	16053	PA-Butler	0.43%	0.00%	3.06%	6.26%	2.06%	6.61%	10.95%	17.07%	24.11%	16.07%	13.37%	100.00%
Saxonburg	PA	16056	PA-Saxonburg	0.40%	1.74%	1.34%	3.15%	3.61%	5.62%	10.58%	21.22%	17.40%	18.21%	16.73%	100.00%
Saxonburg	PA	16056	PA-Butler	0.40%	1.74%	1.34%	3.15%	3.61%	5.62%	10.58%	21.22%	17.40%	18.21%	16.73%	100.00%
Zelienople	PA	16063	PA-NewCastle/Ellwood	2.05%	0.00%	1.41%	0.30%	2.57%	9.41%	6.93%	14.76%	16.94%	21.65%	23.96%	100.00%
New Castle	PA	16101	PA-NewCastle/Ellwood	1.11%	1.31%	3.37%	4.51%	4.68%	13.73%	16.70%	17.94%	16.17%	13.20%	7.31%	100.00%
New Castle	PA	16102	PA-NewCastle/Ellwood	1.67%	0.39%	4.70%	3.93%	7.47%	8.82%	13.91%	23.31%	16.03%	12.43%	7.34%	100.00%
New Castle	PA	16105	PA-NewCastle/Ellwood	1.47%	0.84%	1.47%	2.04%	2.88%	9.86%	12.32%	16.61%	15.98%	18.17%	18.36%	100.00%
Edinburg	PA	16116	PA-NewCastle/Ellwood	0.64%	0.00%	2.69%	6.34%	6.87%	6.23%	19.87%	24.70%	11.49%	18.58%	2.58%	100.00%
Ellwood City	PA	16117	PA-NewCastle/Ellwood	1.00%	1.82%	1.09%	4.81%	5.59%	6.93%	12.20%	20.61%	14.32%	22.11%	9.51%	100.00%
Fombell	PA	16123	PA-NewCastle/Ellwood	0.22%	0.11%	0.56%	0.45%	0.67%	4.37%	11.32%	11.55%	24.89%	21.86%	23.99%	100.00%
Koppel	PA	16136	PA-NewCastle/Ellwood	0.00%	1.71%	1.71%	3.85%	13.25%	4.27%	10.68%	28.63%	20.09%	14.53%	1.28%	100.00%
Wampum	PA	16157	PA-NewCastle/Ellwood	0.30%	1.68%	4.16%	4.06%	3.67%	11.30%	13.68%	17.34%	18.93%	13.78%	11.10%	100.00%
West Pittsburg	PA	16160	PA-NewCastle/Ellwood	6.20%	6.93%	1.09%	7.66%	6.93%	14.60%	18.98%	17.88%	9.85%	8.03%	1.82%	100.00%
Kittanning	PA	16201	PA-Kittanning	1.10%	2.36%	5.03%	2.52%	4.41%	7.32%	9.62%	18.68%	18.13%	18.07%	12.76%	100.00%
Clarion	PA	16214	PA-Clarion	2.60%	0.00%	2.85%	1.52%	4.24%	3.86%	11.02%	19.89%	14.19%	19.95%	19.89%	100.00%
Knox	PA	16232	PA-Clarion	1.66%	1.16%	2.66%	2.82%	4.73%	17.93%	12.78%	17.10%	19.92%	11.87%	7.39%	100.00%
Lucinda	PA	16235	PA-Clarion	1.49%	1.28%	2.77%	2.56%	4.48%	8.96%	9.38%	20.47%	11.09%	30.28%	7.25%	100.00%
Lucinda	PA	16235	PA-Coatesville	1.49%	1.28%	2.77%	2.56%	4.48%	8.96%	9.38%	20.47%	11.09%	30.28%	7.25%	100.00%
Shippenville	PA	16254	PA-Clarion	2.82%	1.00%	3.92%	5.01%	4.74%	13.11%	13.57%	17.12%	11.84%	16.39%	10.47%	100.00%
Sligo	PA	16255	PA-Clarion	2.06%	1.13%	1.88%	4.69%	2.81%	8.26%	16.32%	17.07%	18.01%	17.45%	10.32%	100.00%
Strattanville	PA	16258	PA-Clarion	3.38%	0.00%	1.27%	5.91%	2.32%	12.45%	21.31%	16.88%	9.07%	21.10%	6.33%	100.00%
Clarendon	PA	16313	PA-Warren	0.95%	2.84%	4.11%	4.90%	7.58%	13.90%	13.11%	14.69%	17.54%	16.75%	3.63%	100.00%
Marble	PA	16334	PA-Clarion	1.90%	0.00%	1.27%	4.43%	1.90%	7.59%	14.56%	20.25%	12.66%	27.85%	7.59%	100.00%
Warren	PA	16365	PA-Warren	1.12%	1.32%	2.03%	2.55%	5.71%	11.68%	12.46%	20.55%	15.77%	19.06%	7.77%	100.00%
Osceola Mills	PA	16666	PA-Philipsburg	0.25%	8.12%	5.44%	6.11%	4.27%	12.38%	17.99%	22.09%	6.86%	13.14%	3.35%	100.00%
Sandy Ridge	PA	16677	PA-Philipsburg	0.00%	20.91%	0.00%	20.91%	0.00%	14.55%	0.00%	20.00%	0.00%	16.36%	7.27%	100.00%
Kane	PA	16735	PA-Kane	3.05%	0.74%	4.05%	5.27%	5.42%	8.27%	20.17%	17.06%	15.53%	12.43%	8.00%	100.00%
Allport	PA	16821	PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	0.00%	30.43%	0.00%	33.70%	26.09%	9.78%	0.00%	100.00%
Bellefonte	PA	16823	PA-BOGGS	0.15%	0.57%	0.93%	2.56%	3.05%	7.55%	9.69%	18.58%	17.97%	26.65%	12.29%	100.00%
Bigler	PA	16825	PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	15.45%	0.00%	0.00%	84.55%	0.00%	0.00%	0.00%	100.00%
Clearfield	PA	16830	PA-Philipsburg	1.30%	2.22%	3.46%	6.25%	3.54%	8.60%	11.85%	22.65%	17.23%	14.72%	8.17%	100.00%
Hawk Run	PA	16840	PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	0.00%	9.24%	26.05%	11.76%	28.57%	5.04%	19.33%	100.00%
Howard	PA	16841	PA-BOGGS	0.48%	1.78%	1.59%	3.03%	2.84%	8.09%	13.68%	24.23%	17.24%	16.47%	10.55%	100.00%
Howard	PA	16841	PA-Nittany	0.48%	1.78%	1.59%	3.03%	2.84%	8.09%	13.68%	24.23%	17.24%	16.47%	10.55%	100.00%
Howard	PA	16841	PA-Nittany	0.48%	1.78%	1.59%	3.03%	2.84%	8.09%	13.68%	24.23%	17.24%	16.47%	10.55%	100.00%
Lamar	PA	16848	PA-Nittany	0.00%	0.00%	9.46%	0.00%	6.76%	20.27%	10.81%	31.08%	0.00%	6.76%	14.86%	100.00%
Lamar	PA	16848	PA-Nittany	0.00%	0.00%	9.46%	0.00%	6.76%	20.27%	10.81%	31.08%	0.00%	6.76%	14.86%	100.00%
Morrisdale	PA	16858	PA-Philipsburg	0.87%	1.58%	2.84%	3.95%	2.76%	5.45%	19.34%	25.02%	15.86%	16.57%	5.76%	100.00%
Munson	PA	16860	PA-Philipsburg	0.00%	0.00%	3.90%	0.00%	8.66%	0.00%	21.21%	56.28%	9.96%	0.00%	0.00%	100.00%
Philipsburg	PA	16866	PA-Philipsburg	2.23%	0.66%	4.17%	2.85%	4.62%	5.20%	17.38%	21.91%	15.31%	14.90%	10.77%	100.00%
Wallacetown	PA	16876	PA-Philipsburg	6.02%	0.00%	9.64%	12.05%	3.61%	8.43%	21.69%	14.46%	20.48%	3.61%	0.00%	100.00%
West Decatur	PA	16878	PA-Philipsburg	0.62%	1.09%	3.73%	7.62%	1.40%	4.04%	14.15%	21.15%	23.33%	19.13%	3.73%	100.00%
Woodland	PA	16881	PA-Philipsburg	2.11%	2.46%	9.72%	4.22%	5.62%	15.93%	14.40%	19.44%	13.82%	7.49%	4.80%	100.00%
Annvile	PA	17003	PA-Hershey/Palmyra	0.67%	0.70%	1.12%	3.09%	4.72%	5.87%	6.75%	20.57%	13.82%	28.07%	14.64%	100.00%
Campbelltown	PA	17010	PA-Hershey/Palmyra	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
Camp Hill	PA	17011	PA-Mechanicsburg	0.75%	0.18%	1.05%	1.11%	2.30%	5.50%	8.90%	14.12%	15.25%	24.98%	25.85%	100.00%
Carlisle	PA	17013	PA-Hershey/Palmyra	0.17%	0.11%	0.42%	2.21%	3.56%	7.15%	11.05%	20.59%	16.69%	22.47%	15.58%	100.00%
Elizabethtown	PA	17022	PA-Hershey/Palmyra	0.21%	0.42%	0.27%	1.02%	1.47%	3.95%	9.22%	18.19%	16.56%	29.11%	19.58%	100.00%
Enola	PA	17025	PA-Mechanicsburg	1.04%	0.27%	0.89%	0.90%	0.62%	7.01%	10.86%	15.94%	19.29%	20.12%	23.07%	100.00%
Enola	PA	17025	PA-Norristown	1.04%	0.27%	0.89%	0.90%	0.62%	7.01%	10.86%	15.94%	19.29%	20.12%	23.07%	100.00%
Hershey	PA	17033	PA-Hershey/Palmyra	0.66%	3.17%	1.18%	0.72%	0.92%	5.01%	8.46%	19.48%	10.82%	16.40%	33.18%	100.00%
Hummelstown	PA	17036	PA-Hershey/Palmyra	2.13%	2.13%	0.71%	0.48%	2.38%	2.68%	4.14%	15.26%	12.91%	22.68%	34.50%	100.00%
Lebanon	PA	17042	PA-Hershey/Palmyra	1.32%	0.34%	0.82%	2.22%	2.17%	8.42%	9.79%	21.66%	16.73%	21.81%	14.72%	100.00%
Lemoyne	PA	17043	PA-Mechanicsburg	0.73%	0.42%	0.00%	0.00%	2.06%	3.39%	9.32%	26.69%	16.46%	24.70%	16.22%	100.00%
Mechanicsburg	PA	17050	PA-Mechanicsburg	1.48%	0.11%	0.65%	1.14%	1.44%	4.16%	5.71%	15.72%	12.43%	22.65%	34.59%	100.00%
Mechanicsburg	PA	17055	PA-Mechanicsburg	1.06%	0.87%	0.74%	3.15%	3.40%	4.04%	9.17%	13.66%	14.75%	23.91%	25.24%	100.00%
Middletown	PA	17057	PA-Hershey/Palmyra	3.10%	0.72%	0.96%	3.11%	2.33%	7.18%	10.53%	18.23%	18.36%	16.97%	18.51%	100.00%



TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	--- Distribution of Income for Owned Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Myerstown	PA	17067	PA-Mechanicsburg	0.36%	0.60%	2.05%	3.03%	2.99%	7.25%	10.48%	19.80%	18.07%	19.67%	15.70%	100.00%
New Cumberland	PA	17070	PA-Mechanicsburg	0.63%	0.99%	0.32%	1.57%	2.09%	6.32%	6.64%	19.75%	15.68%	26.79%	19.22%	100.00%
Newport	PA	17074	PA-Mechanicsburg	1.59%	1.22%	3.49%	1.90%	2.99%	4.35%	9.07%	20.95%	19.59%	20.14%	14.69%	100.00%
Palmyra	PA	17078	PA-Hershey/Palmyra	0.00%	0.39%	1.37%	2.44%	1.95%	5.83%	11.30%	15.28%	14.29%	23.99%	23.16%	100.00%
Summerdale	PA	17093	PA-Mechanicsburg	0.00%	0.00%	0.00%	0.00%	2.87%	0.00%	3.45%	71.55%	11.21%	7.47%	3.45%	100.00%
Harrisburg	PA	17101	PA-Steelton W	0.00%	20.00%	37.78%	0.00%	0.00%	0.00%	42.22%	0.00%	0.00%	0.00%	0.00%	100.00%
Harrisburg	PA	17109	PA-Hershey/Palmyra	1.58%	0.47%	2.04%	0.45%	3.07%	9.69%	10.01%	18.78%	17.05%	24.89%	11.98%	100.00%
Harrisburg	PA	17111	PA-Hershey/Palmyra	1.11%	0.02%	1.26%	1.64%	1.31%	3.77%	10.29%	18.88%	17.73%	25.19%	18.82%	100.00%
Harrisburg	PA	17112	PA-Hershey/Palmyra	1.12%	0.72%	1.41%	1.05%	2.87%	3.48%	8.68%	18.07%	12.65%	26.92%	23.04%	100.00%
Harrisburg	PA	17113	PA-Steelton W	3.45%	1.33%	3.41%	1.89%	4.02%	11.33%	15.84%	23.23%	13.26%	13.98%	8.26%	100.00%
Etters	PA	17319	PA-Mechanicsburg	1.49%	1.60%	0.27%	0.33%	0.98%	4.20%	6.10%	18.55%	25.87%	24.33%	16.27%	100.00%
Gettysburg	PA	17325	PA-Lake Heritage	0.76%	1.10%	2.31%	2.67%	1.46%	6.15%	10.89%	17.02%	12.70%	25.92%	19.01%	100.00%
Lewisberry	PA	17339	PA-Mechanicsburg	1.15%	0.37%	0.64%	2.02%	1.15%	2.06%	10.87%	14.90%	20.91%	24.12%	21.82%	100.00%
York Haven	PA	17370	PA-Mechanicsburg	2.39%	0.62%	0.62%	0.19%	3.15%	6.68%	17.13%	13.41%	16.36%	27.48%	11.98%	100.00%
York Haven	PA	17370	PA-Hershey/Palmyra	2.39%	0.62%	0.62%	0.19%	3.15%	6.68%	17.13%	13.41%	16.36%	27.48%	11.98%	100.00%
Christiana	PA	17509	PA-Coatesville	1.03%	0.00%	4.62%	1.85%	0.82%	2.26%	10.87%	19.79%	10.97%	21.33%	26.46%	100.00%
Kirkwood	PA	17536	PA-Coatesville	0.63%	0.00%	0.32%	0.63%	23.15%	2.64%	10.25%	11.10%	16.38%	20.72%	14.16%	100.00%
Quarryville	PA	17566	PA-Coatesville	1.55%	1.78%	2.01%	2.07%	1.71%	3.02%	12.52%	23.24%	15.19%	20.38%	16.54%	100.00%
Mc Ewensville	PA	17749	PA-McEwensville W	0.00%	0.00%	0.00%	5.56%	6.94%	6.94%	9.72%	29.17%	9.72%	30.56%	1.39%	100.00%
Mill Hall	PA	17751	PA-Nittany	0.84%	0.35%	4.54%	4.62%	5.33%	7.93%	10.83%	24.61%	12.46%	19.46%	9.03%	100.00%
Mill Hall	PA	17751	PA-Nittany	0.84%	0.35%	4.54%	4.62%	5.33%	7.93%	10.83%	24.61%	12.46%	19.46%	9.03%	100.00%
Turbotville	PA	17772	PA-Turbotville W	0.47%	0.83%	2.01%	2.72%	3.91%	7.69%	16.21%	12.19%	10.77%	36.21%	6.98%	100.00%
Watsonstown	PA	17777	PA-McEwensville W	0.45%	0.74%	4.60%	3.71%	2.28%	11.97%	15.54%	19.40%	13.11%	15.88%	12.32%	100.00%
Watsonstown	PA	17777	PA-Milton	0.45%	0.74%	4.60%	3.71%	2.28%	11.97%	15.54%	19.40%	13.11%	15.88%	12.32%	100.00%
Sunbury	PA	17801	PA-Milton	0.68%	1.25%	2.47%	3.48%	6.52%	6.78%	13.56%	21.61%	16.14%	17.72%	9.79%	100.00%
Allenwood	PA	17810	PA-Milton	0.94%	1.13%	3.02%	9.81%	1.51%	7.92%	17.55%	16.79%	16.23%	18.49%	6.60%	100.00%
Herndon	PA	17830	PA-Milton	0.00%	1.48%	3.40%	1.92%	4.14%	10.36%	13.76%	20.56%	19.08%	15.38%	9.91%	100.00%
Lewisburg	PA	17837	PA-Milton	0.97%	0.66%	0.62%	2.65%	3.41%	9.00%	15.01%	12.36%	13.92%	22.09%	19.30%	100.00%
Milton	PA	17847	PA-Milton	1.56%	1.07%	1.69%	1.82%	8.31%	8.86%	11.17%	19.41%	17.40%	19.57%	9.15%	100.00%
Montandon	PA	17850	PA-Milton	0.00%	0.00%	14.79%	0.00%	7.69%	13.02%	36.09%	10.65%	1.78%	15.98%	0.00%	100.00%
New Columbia	PA	17856	PA-Milton	1.15%	0.00%	6.78%	0.00%	4.01%	1.15%	10.22%	27.22%	13.66%	21.49%	14.33%	100.00%
Northumberland	PA	17857	PA-Milton	1.44%	0.32%	1.12%	2.88%	3.28%	10.23%	11.83%	19.30%	20.78%	17.90%	10.95%	100.00%
West Milton	PA	17886	PA-Milton	0.00%	0.00%	4.89%	4.89%	19.57%	7.07%	10.33%	7.61%	27.17%	11.96%	6.52%	100.00%
White Deer	PA	17887	PA-Milton	0.00%	19.37%	18.92%	15.77%	0.00%	0.00%	0.00%	15.77%	30.18%	0.00%	0.00%	100.00%
Frackville	PA	17931	PA-Frackville	3.71%	1.28%	6.07%	1.73%	3.32%	6.07%	12.33%	15.78%	16.04%	23.39%	10.29%	100.00%
Bangor	PA	18013	PA-Bangor	0.55%	0.81%	1.77%	4.27%	2.03%	6.44%	10.14%	20.48%	15.56%	20.93%	17.01%	100.00%
Bangor	PA	18013	PA-Bangor	0.55%	0.81%	1.77%	4.27%	2.03%	6.44%	10.14%	20.48%	15.56%	20.93%	17.01%	100.00%
Bethlehem	PA	18018	PA-Elizabeth	1.23%	0.62%	2.41%	1.88%	1.25%	5.65%	12.65%	16.38%	13.94%	25.88%	18.10%	100.00%
Easton	PA	18040	PA-Nazareth	1.60%	1.15%	0.62%	0.43%	2.29%	3.36%	6.62%	12.89%	12.84%	21.73%	36.47%	100.00%
Easton	PA	18042	PA-Nazareth	1.07%	0.51%	1.77%	1.81%	1.70%	5.98%	8.52%	22.20%	15.33%	22.90%	18.21%	100.00%
Easton	PA	18045	PA-Nazareth	0.36%	0.84%	0.90%	0.67%	0.90%	4.29%	8.15%	16.25%	12.82%	26.02%	28.79%	100.00%
Nazareth	PA	18064	PA-Nazareth	0.58%	0.69%	1.45%	2.07%	4.20%	3.50%	5.65%	14.30%	13.13%	24.64%	29.80%	100.00%
Pen Argyl	PA	18072	PA-Bangor	0.00%	1.84%	2.61%	1.64%	1.38%	2.87%	14.48%	18.94%	17.91%	20.27%	18.07%	100.00%
Pen Argyl	PA	18072	PA-Nazareth	0.00%	1.84%	2.61%	1.64%	1.38%	2.87%	14.48%	18.94%	17.91%	20.27%	18.07%	100.00%
Stockertown	PA	18083	PA-Nazareth	0.00%	0.00%	0.00%	1.49%	1.98%	4.46%	13.37%	10.89%	14.85%	39.60%	13.37%	100.00%
Tatamy	PA	18085	PA-Nazareth	2.04%	0.41%	2.04%	0.00%	0.00%	6.12%	25.31%	21.22%	11.43%	13.47%	17.96%	100.00%
Wind Gap	PA	18091	PA-Nazareth	2.18%	3.77%	0.53%	4.04%	1.99%	6.15%	13.63%	17.60%	9.79%	18.27%	22.04%	100.00%
Tamaqua	PA	18252	PA-Frackville	0.43%	1.08%	4.24%	3.72%	3.38%	8.36%	10.36%	19.73%	17.61%	14.20%	16.90%	100.00%
Tamaqua	PA	18252	PA-Frackville	0.43%	1.08%	4.24%	3.72%	3.38%	8.36%	10.36%	19.73%	17.61%	14.20%	16.90%	100.00%
East Stroudsburg	PA	18301	PA-Lehman Pike	1.87%	0.00%	0.80%	1.34%	2.34%	4.70%	9.89%	14.44%	13.31%	24.00%	27.31%	100.00%
East Stroudsburg	PA	18302	PA-Lehman Pike	1.31%	1.47%	3.85%	6.88%	2.86%	4.45%	11.52%	17.32%	11.39%	24.71%	14.23%	100.00%
Bushkill	PA	18324	PA-Lehman Pike	1.28%	0.74%	3.60%	4.46%	3.66%	13.74%	5.23%	15.03%	15.35%	28.97%	7.93%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike	1.45%	2.53%	3.83%	2.19%	1.82%	4.13%	8.25%	25.95%	19.33%	15.24%	15.28%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike	1.45%	2.53%	3.83%	2.19%	1.82%	4.13%	8.25%	25.95%	19.33%	15.24%	15.28%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike	1.45%	2.53%	3.83%	2.19%	1.82%	4.13%	8.25%	25.95%	19.33%	15.24%	15.28%	100.00%
Marshalls Creek	PA	18335	PA-Lehman Pike	0.00%	0.00%	0.00%	0.00%	3.28%	2.27%	13.38%	8.84%	0.00%	38.38%	33.84%	100.00%
Matamoras	PA	18336	PA-Lehman Pike	0.00%	0.00%	1.45%	4.55%	3.00%	3.10%	18.88%	14.42%	13.55%	26.33%	14.71%	100.00%
Milford	PA	18337	PA-Lehman Pike	0.16%	0.60%	4.45%	2.93%	3.67%	6.25%	7.07%	12.76%	15.77%	24.02%	22.31%	100.00%
Mountainhome	PA	18342	PA-Lehman Pike	29.03%	0.00%	11.61%	0.00%	0.00%	0.00%	0.00%	0.00%	35.48%	0.00%	23.87%	100.00%
Mount Pocono	PA	18344	PA-Pocono	1.91%	0.00%	0.00%	0.00%	2.58%	3.82%	14.04%	16.74%	11.57%	23.93%	25.39%	100.00%
Pocono Summit	PA	18346	PA-Pocono	8.59%	0.81%	1.41%	3.64%	0.00%	1.72%	24.34%	15.66%	2.83%	27.07%	13.94%	100.00%
Pocono Lake	PA	18347	PA-Lehman Pike	7.75%	0.00%	4.86%	0.00%	7.07%	4.86%	7.07%	33.59%	11.55%	17.02%	6.23%	100.00%
Portland	PA	18351	PA-Lehman Pike	2.27%	0.00%	9.09%	21.59%	0.00%	0.00%	18.18%	23.86%	9.09%	13.64%	2.27%	100.00%
Saylorsburg	PA	18353	PA-Nazareth	1.11%	1.26%	2.19%	4.16%	2.80%	4.94%	13.62%	13.57%	15.43%	20.27%	20.65%	100.00%

TOTAL COMMUNITIES: 362

City	State	Zip Code	Profit Center	--- Distribution of Income for Owned Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Archbald	PA	18403	PA-WB/Scranton	1.65%	0.75%	1.36%	2.31%	2.45%	4.71%	11.39%	20.24%	18.45%	27.72%	8.99%	100.00%
Carbondale	PA	18407	PA-WB/Scranton	2.51%	1.78%	4.83%	3.42%	4.69%	9.13%	12.40%	20.01%	15.50%	13.35%	12.40%	100.00%
Clarks Summit	PA	18411	PA-Abington	1.42%	0.68%	3.12%	0.86%	2.70%	4.41%	8.94%	13.91%	15.76%	21.92%	26.27%	100.00%
Clarks Summit	PA	18411	PA-WB/Scranton	1.42%	0.68%	3.12%	0.86%	2.70%	4.41%	8.94%	13.91%	15.76%	21.92%	26.27%	100.00%
Dalton	PA	18414	PA-Abington	1.01%	0.48%	2.19%	2.72%	3.68%	5.93%	12.44%	19.49%	18.10%	15.96%	17.99%	100.00%
Dalton	PA	18414	PA-Abington	1.01%	0.48%	2.19%	2.72%	3.68%	5.93%	12.44%	19.49%	18.10%	15.96%	17.99%	100.00%
Dalton	PA	18414	PA-WB/Scranton	1.01%	0.48%	2.19%	2.72%	3.68%	5.93%	12.44%	19.49%	18.10%	15.96%	17.99%	100.00%
Factoryville	PA	18419	PA-Abington	4.84%	1.25%	3.15%	3.59%	8.35%	8.64%	12.45%	17.88%	13.11%	16.19%	10.55%	100.00%
Forest City	PA	18421	PA-WB/Scranton	2.09%	1.42%	2.23%	4.52%	3.64%	11.73%	8.83%	21.85%	12.74%	18.07%	12.88%	100.00%
Jermyn	PA	18433	PA-WB/Scranton	1.04%	1.33%	5.32%	2.54%	3.95%	3.78%	9.23%	17.37%	12.97%	18.74%	23.73%	100.00%
Jessup	PA	18434	PA-WB/Scranton	2.96%	0.00%	0.00%	5.74%	2.78%	9.74%	11.65%	27.04%	24.43%	7.91%	7.74%	100.00%
Lake Ariel	PA	18436	PA-Pocono	2.49%	0.00%	4.38%	3.31%	3.36%	7.52%	9.39%	22.01%	11.15%	26.37%	10.01%	100.00%
Moscow	PA	18444	PA-WB/Scranton	1.56%	0.45%	1.85%	1.81%	4.20%	5.83%	10.32%	16.01%	16.08%	23.83%	18.07%	100.00%
Olyphant	PA	18447	PA-WB/Scranton	0.98%	0.00%	0.86%	5.07%	3.36%	9.35%	17.02%	19.24%	22.98%	12.33%	8.81%	100.00%
Olyphant	PA	18447	PA-Abington	0.98%	0.00%	0.86%	5.07%	3.36%	9.35%	17.02%	19.24%	22.98%	12.33%	8.81%	100.00%
Peckville	PA	18452	PA-WB/Scranton	0.00%	0.00%	3.07%	6.26%	8.56%	15.76%	11.16%	18.18%	13.81%	15.53%	7.67%	100.00%
Thompson	PA	18465	PA-Susquehanna	2.75%	1.75%	2.00%	6.25%	2.75%	11.75%	16.25%	21.25%	11.00%	15.75%	8.50%	100.00%
Tobyhanna	PA	18466	PA-Pocono	0.05%	1.55%	2.92%	2.83%	3.21%	2.35%	15.19%	22.56%	18.85%	16.36%	14.12%	100.00%
Waverly	PA	18471	PA-Abington	10.34%	1.48%	0.00%	6.90%	0.00%	0.00%	1.48%	11.33%	9.85%	27.59%	31.03%	100.00%
Scranton	PA	18503	PA-WB/Scranton	0.00%	0.00%	0.00%	37.50%	0.00%	0.00%	29.17%	33.33%	0.00%	0.00%	0.00%	100.00%
Scranton	PA	18504	PA-WB/Scranton	2.06%	0.68%	3.70%	4.99%	3.37%	11.18%	12.56%	18.23%	15.60%	17.80%	9.82%	100.00%
Scranton	PA	18505	PA-WB/Scranton	3.42%	0.77%	1.15%	3.07%	5.88%	7.88%	17.45%	15.13%	13.35%	20.71%	11.69%	100.00%
Moosic	PA	18507	PA-WB/Scranton	1.09%	0.00%	3.62%	2.19%	4.10%	1.91%	15.23%	8.47%	14.62%	29.37%	19.40%	100.00%
Moosic	PA	18507	PA-Nazareth	1.09%	0.00%	3.62%	2.19%	4.10%	1.91%	15.23%	8.47%	14.62%	29.37%	19.40%	100.00%
Scranton	PA	18508	PA-WB/Scranton	0.67%	2.16%	3.82%	4.00%	5.21%	7.01%	18.02%	26.16%	13.53%	11.78%	7.64%	100.00%
Scranton	PA	18509	PA-WB/Scranton	0.61%	1.63%	2.07%	1.34%	3.33%	5.85%	10.49%	14.92%	18.29%	23.58%	17.89%	100.00%
Scranton	PA	18510	PA-WB/Scranton	1.58%	0.00%	2.84%	1.37%	7.57%	6.20%	10.88%	25.64%	11.88%	22.44%	9.62%	100.00%
Scranton	PA	18512	PA-WB/Scranton	3.06%	0.50%	3.09%	2.43%	4.41%	5.55%	11.38%	19.99%	16.69%	23.98%	8.93%	100.00%
Taylor	PA	18517	PA-WB/Scranton	1.08%	0.00%	5.76%	6.31%	3.46%	9.49%	20.27%	13.36%	22.92%	14.92%	100.00%	
Old Forge	PA	18518	PA-WB/Scranton	1.39%	0.29%	0.86%	4.83%	3.68%	10.32%	6.92%	16.78%	21.98%	17.03%	15.92%	100.00%
Scranton	PA	18519	PA-WB/Scranton	0.97%	0.62%	1.52%	3.53%	1.73%	4.92%	11.23%	18.92%	24.39%	18.64%	13.51%	100.00%
Berwick	PA	18603	PA-Berwick	1.36%	0.84%	2.98%	3.85%	3.15%	7.46%	16.12%	24.32%	16.30%	16.43%	7.20%	100.00%
Berwick	PA	18603	PA-Phillipsburg	1.36%	0.84%	2.98%	3.85%	3.15%	7.46%	16.12%	24.32%	16.30%	16.43%	7.20%	100.00%
Dallas	PA	18612	PA-WB/Scranton	3.09%	1.89%	0.89%	1.67%	1.05%	3.73%	6.73%	15.01%	12.08%	24.78%	29.09%	100.00%
Glen Lyon	PA	18617	PA-WB/Scranton	7.00%	1.45%	8.94%	7.25%	4.83%	18.60%	7.97%	9.42%	8.70%	19.32%	6.52%	100.00%
Hunlock Creek	PA	18621	PA-WB/Scranton	0.79%	0.67%	3.48%	6.29%	1.96%	11.28%	13.24%	18.74%	15.71%	16.78%	11.05%	100.00%
Lake Winola	PA	18625	PA-Abington	0.00%	0.00%	0.00%	0.00%	0.00%	28.89%	0.00%	31.11%	8.89%	31.11%	0.00%	100.00%
Nanticoke	PA	18634	PA-WB/Scranton	3.42%	1.54%	4.42%	4.02%	5.02%	7.07%	15.39%	19.52%	17.58%	13.59%	8.44%	100.00%
Nanticoke	PA	18634	PA-WB/Scranton	3.42%	1.54%	4.42%	4.02%	5.02%	7.07%	15.39%	19.52%	17.58%	13.59%	8.44%	100.00%
Nescopeck	PA	18635	PA-Berwick	0.24%	0.98%	1.71%	4.72%	1.87%	11.96%	10.90%	16.19%	17.74%	24.08%	9.60%	100.00%
Pittston	PA	18640	PA-WB/Scranton	1.51%	1.96%	3.57%	3.02%	4.06%	8.50%	12.46%	17.46%	18.58%	16.97%	11.91%	100.00%
Pittston	PA	18641	PA-WB/Scranton	0.75%	0.20%	1.50%	5.25%	4.50%	7.55%	11.01%	23.51%	23.01%	14.21%	8.50%	100.00%
Duryea	PA	18642	PA-WB/Scranton	0.00%	2.24%	2.09%	0.00%	3.58%	8.58%	10.00%	18.13%	21.87%	19.40%	14.10%	100.00%
Pittston	PA	18643	PA-WB/Scranton	1.05%	1.03%	1.64%	6.11%	0.90%	9.53%	14.52%	16.03%	19.13%	17.77%	12.29%	100.00%
Wyoming	PA	18644	PA-WB/Scranton	0.73%	0.90%	2.86%	2.45%	2.33%	6.41%	8.37%	20.53%	18.12%	21.43%	15.88%	100.00%
Plymouth	PA	18651	PA-WB/Scranton	2.60%	0.45%	8.43%	6.24%	4.04%	12.43%	12.56%	16.82%	12.65%	15.70%	8.08%	100.00%
Plymouth	PA	18651	PA-Norristown	2.60%	0.45%	8.43%	6.24%	4.04%	12.43%	12.56%	16.82%	12.65%	15.70%	8.08%	100.00%
Shickshinny	PA	18655	PA-WB/Scranton	2.21%	0.41%	3.44%	1.75%	5.19%	12.74%	13.35%	15.20%	20.08%	17.62%	8.01%	100.00%
Wilkes Barre	PA	18701	PA-WB/Scranton	0.00%	0.00%	4.55%	0.00%	19.70%	19.70%	14.39%	13.64%	0.00%	23.48%	4.55%	100.00%

TOTAL COMMUNITIES: 362

				--- Distribution of Income for Owned Units ---											
City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Wilkes Barre	PA	18702	PA-WB/Scranton	2.10%	1.79%	2.42%	3.17%	3.35%	7.57%	14.70%	21.46%	14.58%	17.57%	11.28%	100.00%
Kingston	PA	18704	PA-WB/Scranton	1.45%	1.33%	2.56%	4.03%	2.88%	5.49%	12.23%	18.48%	18.79%	18.44%	14.31%	100.00%
Wilkes Barre	PA	18705	PA-WB/Scranton	3.58%	0.10%	2.76%	7.57%	3.68%	6.61%	14.10%	21.67%	14.70%	15.97%	9.27%	100.00%
Wilkes Barre	PA	18706	PA-WB/Scranton	1.31%	1.24%	4.15%	5.12%	5.55%	12.43%	10.71%	23.57%	16.08%	12.07%	7.78%	100.00%
Wilkes Barre	PA	18706	PA-Mechanicsburg	1.31%	1.24%	4.15%	5.12%	5.55%	12.43%	10.71%	23.57%	16.08%	12.07%	7.78%	100.00%
Mountain Top	PA	18707	PA-WB/Scranton	1.32%	0.48%	1.89%	2.29%	2.27%	3.26%	9.27%	13.25%	17.24%	26.94%	21.79%	100.00%
Shavertown	PA	18708	PA-WB/Scranton	0.63%	1.76%	0.13%	1.50%	5.64%	12.70%	9.87%	9.15%	13.26%	20.44%	24.92%	100.00%
Shavertown	PA	18708	PA-WB/Scranton	0.63%	1.76%	0.13%	1.50%	5.64%	12.70%	9.87%	9.15%	13.26%	20.44%	24.92%	100.00%
Luzerne	PA	18709	PA-WB/Scranton	3.42%	3.30%	3.87%	3.64%	6.15%	8.88%	26.20%	12.53%	11.73%	8.54%	11.73%	100.00%
Montrose	PA	18801	PA-Susquehanna	1.99%	0.68%	1.74%	2.12%	4.66%	8.99%	13.73%	18.23%	15.98%	17.17%	14.71%	100.00%
Great Bend	PA	18821	PA-Susquehanna	2.16%	0.93%	0.62%	3.09%	5.86%	11.42%	12.65%	20.68%	12.35%	22.53%	7.72%	100.00%
Hallstead	PA	18822	PA-Susquehanna	1.00%	0.80%	3.98%	5.08%	7.47%	7.47%	13.15%	19.42%	15.04%	14.74%	11.85%	100.00%
Susquehanna	PA	18847	PA-Susquehanna	1.69%	2.28%	2.48%	7.56%	2.93%	10.50%	15.51%	17.34%	15.06%	13.75%	10.89%	100.00%
Newtown	PA	18940	PA-Yardley	0.50%	0.12%	0.35%	1.57%	0.96%	1.78%	3.53%	8.73%	10.32%	18.41%	53.74%	100.00%
Washington Crossing	PA	18977	PA-Yardley	0.00%	0.00%	1.32%	0.00%	0.00%	5.34%	1.88%	4.46%	6.28%	17.45%	63.28%	100.00%
Clifton Heights	PA	19018	PA-Lehman Pike	1.98%	1.01%	1.14%	2.88%	2.52%	8.25%	14.01%	15.21%	15.87%	20.59%	16.53%	100.00%
Media	PA	19063	PA-Royersford	1.25%	0.28%	0.39%	1.37%	1.19%	3.47%	5.54%	10.55%	10.30%	20.21%	45.46%	100.00%
Morrisville	PA	19067	PA-Yardley	0.69%	1.48%	1.04%	1.81%	1.28%	2.87%	4.70%	10.59%	11.38%	19.80%	44.36%	100.00%
Coatesville	PA	19320	PA-Coatesville	0.73%	0.38%	0.76%	1.43%	1.80%	3.40%	7.39%	18.50%	15.21%	25.14%	25.27%	100.00%
Downingtown	PA	19335	PA-Coatesville	0.30%	0.74%	1.22%	1.13%	0.90%	3.81%	4.21%	8.58%	9.23%	22.37%	47.50%	100.00%
Honey Brook	PA	19344	PA-Coatesville	0.45%	0.75%	2.25%	2.76%	2.82%	2.16%	7.49%	23.27%	12.76%	26.21%	19.11%	100.00%
Parkeburg	PA	19365	PA-Coatesville	0.39%	0.15%	1.57%	1.62%	2.69%	2.06%	5.93%	14.89%	15.48%	29.43%	25.81%	100.00%
Pomeroy	PA	19367	PA-Coatesville	68.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	31.82%	0.00%	0.00%	100.00%
Sadsburyville	PA	19369	PA-Coatesville	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Thorndale	PA	19372	PA-Coatesville	0.00%	0.00%	0.00%	0.00%	0.00%	1.18%	4.93%	43.79%	18.34%	12.43%	19.33%	100.00%
Norristown	PA	19401	PA-Norristown	1.18%	1.11%	2.50%	1.19%	2.03%	7.86%	7.54%	16.56%	21.39%	18.68%	19.95%	100.00%
Norristown	PA	19403	PA-Norristown	1.19%	0.64%	1.93%	2.00%	3.29%	3.62%	7.62%	16.32%	12.95%	22.36%	28.07%	100.00%
Bridgeport	PA	19405	PA-Norristown	4.27%	0.00%	1.73%	0.51%	0.00%	8.13%	5.18%	12.80%	15.35%	29.88%	22.15%	100.00%
King Of Prussia	PA	19406	PA-Norristown	2.25%	0.15%	1.23%	1.13%	1.59%	4.66%	6.55%	13.23%	12.42%	25.83%	30.96%	100.00%
Blue Bell	PA	19422	PA-Norristown	0.22%	0.63%	0.30%	0.40%	1.04%	6.51%	6.44%	10.02%	7.39%	14.86%	52.19%	100.00%
Collegeville	PA	19426	PA-Norristown	0.94%	0.58%	1.40%	0.93%	0.90%	2.78%	4.79%	7.87%	11.42%	19.42%	48.96%	100.00%
Collegeville	PA	19426	PA-Royersford	0.94%	0.58%	1.40%	0.93%	0.90%	2.78%	4.79%	7.87%	11.42%	19.42%	48.96%	100.00%
Lansdale	PA	19446	PA-Norristown	0.48%	0.66%	0.43%	1.53%	1.50%	4.80%	6.75%	11.95%	13.48%	20.73%	37.70%	100.00%
Mont Clare	PA	19453	PA-Royersford	0.00%	0.00%	3.48%	7.89%	3.71%	3.25%	0.93%	30.86%	5.34%	28.07%	16.47%	100.00%
North Wales	PA	19454	PA-Norristown	1.52%	1.06%	1.31%	1.85%	2.72%	4.98%	6.13%	13.02%	10.85%	18.20%	38.35%	100.00%
Oaks	PA	19456	PA-Royersford	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	26.76%	0.00%	0.00%	46.48%	26.76%	100.00%
Parker Ford	PA	19457	PA-Royersford	0.00%	0.00%	0.00%	46.94%	0.00%	0.00%	0.00%	0.00%	46.94%	0.00%	6.12%	100.00%
Phoenixville	PA	19460	PA-Royersford	1.43%	0.49%	0.76%	1.85%	0.68%	3.26%	7.25%	9.69%	9.69%	22.24%	42.63%	100.00%
Norristown	PA	19403	PA-Audubon	1.19%	0.64%	1.93%	2.00%	3.29%	3.62%	7.62%	16.32%	12.95%	22.36%	28.07%	100.00%
Plymouth Meeting	PA	19462	PA-Norristown	0.66%	0.76%	1.95%	1.25%	2.57%	4.60%	6.75%	8.54%	8.97%	20.82%	43.13%	100.00%
Pottstown	PA	19464	PA-Royersford	1.15%	0.28%	1.33%	2.29%	3.37%	6.62%	8.06%	18.06%	17.24%	21.50%	20.09%	100.00%
Pottstown	PA	19465	PA-Royersford	1.48%	1.06%	0.35%	1.37%	1.04%	4.92%	7.16%	12.58%	13.23%	22.14%	34.67%	100.00%
Royersford	PA	19468	PA-Royersford	1.06%	0.29%	0.49%	0.99%	1.27%	4.50%	7.37%	13.46%	18.79%	20.26%	31.53%	100.00%
Schwenksville	PA	19473	PA-Royersford	1.38%	0.22%	1.63%	3.02%	1.42%	4.68%	4.31%	7.43%	8.22%	25.40%	42.29%	100.00%
Schwenksville	PA	19473	PA-Norristown	1.38%	0.22%	1.63%	3.02%	1.42%	4.68%	4.31%	7.43%	8.22%	25.40%	42.29%	100.00%
Spring City	PA	19475	PA-Royersford	0.39%	2.63%	1.67%	2.09%	1.26%	5.68%	3.83%	10.82%	15.13%	15.75%	40.75%	100.00%
Worcester	PA	19490	PA-Norristown	0.00%	0.00%	0.00%	0.00%	0.00%	6.96%	0.00%	0.00%	36.52%	0.00%	56.52%	100.00%
Birdsboro	PA	19508	PA-Glen	0.72%	0.60%	2.16%	3.59%	1.74%	7.02%	10.94%	16.76%	15.41%	27.24%	13.83%	100.00%
Douglassville	PA	19518	PA-Glen	1.88%	0.22%	0.59%	0.45%	3.71%	3.46%	8.57%	12.13%	8.79%	28.86%	31.35%	100.00%
Fleetwood	PA	19522	PA-Glen	1.61%	0.42%	0.68%	0.95%	4.43%	6.43%	8.00%	15.93%	16.27%	24.78%	20.49%	100.00%
Reading	PA	19606	PA-Glen	1.61%	0.88%	1.46%	1.50%	2.09%	8.03%	9.15%	18.10%	14.73%	21.53%	20.92%	100.00%
Reading	PA	19606	PA-Penn/Wyomissing	1.61%	0.88%	1.46%	1.50%	2.09%	8.03%	9.15%	18.10%	14.73%	21.53%	20.92%	100.00%
Reading	PA	19607	PA-Glen	1.68%	0.63%	1.85%	2.84%	1.61%	4.42%	11.46%	17.49%	17.75%	22.39%	17.89%	100.00%
Reading	PA	19608	PA-Penn/Wyomissing	0.91%	0.55%	1.62%	1.93%	0.55%	3.34%	6.43%	11.22%	14.24%	24.33%	34.88%	100.00%
Reading	PA	19608	PA-Glen	0.91%	0.55%	1.62%	1.93%	0.55%	3.34%	6.43%	11.22%	14.24%	24.33%	34.88%	100.00%
Reading	PA	19609	PA-Penn/Wyomissing	2.44%	0.72%	2.96%	1.78%	2.04%	6.50%	5.38%	21.62%	17.13%	22.56%	16.87%	100.00%
Reading	PA	19610	PA-Penn/Wyomissing	0.55%	0.78%	1.97%	1.09%	3.23%	4.32%	10.09%	17.90%	8.73%	19.08%	32.26%	100.00%
TOTAL CUSTOMERS				8,037	5,391	11,965	14,808	15,901	35,869	55,855	92,211	80,144	108,136	106,765	535,082

TOTAL COMMUNITIES: 362

				--- Distribution of Income for Rented Units ---											
City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Atlasburg	PA	15004	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Beaver Falls	PA	15010	PA-NewCastle/Ellwood	6.58%	8.68%	8.53%	6.18%	10.60%	14.28%	15.78%	12.99%	5.63%	5.72%	5.03%	100.00%
Bridgeville	PA	15017	PA-Pittsburgh	1.00%	7.47%	5.10%	4.79%	9.00%	10.15%	18.67%	17.83%	7.68%	14.89%	3.42%	100.00%
Bridgeville	PA	15017	PA-McMurray	1.00%	7.47%	5.10%	4.79%	9.00%	10.15%	18.67%	17.83%	7.68%	14.89%	3.42%	100.00%
Buena Vista	PA	15018	PA-Elizabeth	0.00%	10.29%	13.24%	0.00%	0.00%	29.41%	0.00%	13.24%	0.00%	33.82%	0.00%	100.00%
Bulger	PA	15019	PA-McMurray	6.45%	7.26%	4.84%	10.48%	4.03%	0.00%	51.61%	4.03%	0.00%	6.45%	4.84%	100.00%
Burgettstown	PA	15021	PA-McMurray	0.52%	4.20%	6.12%	16.26%	2.97%	18.71%	19.58%	15.56%	15.03%	1.05%	0.00%	100.00%
Charleroi	PA	15022	PA-Elizabeth	4.78%	10.99%	16.44%	7.55%	7.74%	16.25%	15.11%	16.16%	1.43%	3.25%	0.29%	100.00%
Clairton	PA	15025	PA-Elizabeth	7.24%	4.33%	8.72%	8.33%	5.59%	21.33%	9.65%	17.32%	12.06%	3.45%	1.97%	100.00%
Clairton	PA	15025	PA-Pittsburgh	7.24%	4.33%	8.72%	8.33%	5.59%	21.33%	9.65%	17.32%	12.06%	3.45%	1.97%	100.00%
Clinton	PA	15026	PA-McMurray	0.00%	0.00%	1.30%	9.38%	4.69%	8.33%	6.25%	2.60%	45.31%	9.38%	12.76%	100.00%
Cuddy	PA	15031	PA-McMurray	12.61%	14.29%	38.66%	0.00%	0.00%	15.13%	10.92%	0.00%	8.40%	0.00%	0.00%	100.00%
Cuddy	PA	15031	PA-Pittsburgh	12.61%	14.29%	38.66%	0.00%	0.00%	15.13%	10.92%	0.00%	8.40%	0.00%	0.00%	100.00%
Donora	PA	15033	PA-Elizabeth	7.60%	15.12%	18.51%	4.85%	7.28%	6.55%	17.87%	20.86%	0.00%	0.73%	0.65%	100.00%
Dravosburg	PA	15034	PA-Elizabeth	4.19%	3.49%	13.26%	18.14%	22.56%	7.44%	16.05%	7.67%	3.95%	1.86%	1.40%	100.00%
Dravosburg	PA	15034	PA-Pittsburgh	4.19%	3.49%	13.26%	18.14%	22.56%	7.44%	16.05%	7.67%	3.95%	1.86%	1.40%	100.00%
Elizabeth	PA	15037	PA-Elizabeth	3.44%	0.57%	7.46%	4.02%	7.65%	11.09%	12.05%	30.40%	15.30%	6.69%	1.34%	100.00%
Elrama	PA	15038	PA-Elizabeth	0.00%	0.00%	0.00%	0.00%	0.00%	44.12%	0.00%	55.88%	0.00%	0.00%	0.00%	100.00%
Glassport	PA	15045	PA-Elizabeth	7.24%	0.00%	7.87%	4.88%	12.60%	17.80%	15.28%	13.07%	19.53%	1.73%	0.00%	100.00%
Greenock	PA	15047	PA-Elizabeth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hookstown	PA	15050	PA-McMurray	0.00%	0.00%	0.00%	4.92%	31.15%	6.56%	24.59%	16.39%	8.20%	8.20%	0.00%	100.00%
Joffre	PA	15053	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Langeloth	PA	15054	PA-McMurray	0.00%	0.00%	13.79%	0.00%	0.00%	39.66%	0.00%	0.00%	0.00%	46.55%	0.00%	100.00%
Lawrence	PA	15055	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.98%	35.29%	13.73%	0.00%	0.00%	100.00%
Mc Donald	PA	15057	PA-McMurray	1.79%	4.53%	6.04%	4.81%	9.89%	29.26%	15.38%	11.95%	9.07%	6.73%	0.55%	100.00%
Mc Donald	PA	15057	PA-Pittsburgh	1.79%	4.53%	6.04%	4.81%	9.89%	29.26%	15.38%	11.95%	9.07%	6.73%	0.55%	100.00%
Midland	PA	15059	PA-McMurray	1.16%	2.71%	15.85%	8.12%	9.02%	9.41%	4.38%	16.37%	12.24%	15.46%	5.28%	100.00%
Midway	PA	15060	PA-McMurray	0.00%	0.00%	19.51%	0.00%	0.00%	39.02%	26.83%	0.00%	14.63%	0.00%	0.00%	100.00%
Monongahela	PA	15063	PA-Elizabeth	6.17%	1.68%	12.44%	10.65%	2.80%	22.42%	17.71%	17.71%	6.17%	1.57%	0.67%	100.00%
Morgan	PA	15064	PA-Pittsburgh	0.00%	0.00%	0.00%	40.28%	0.00%	0.00%	25.00%	0.00%	19.44%	15.28%	0.00%	100.00%
New Eagle	PA	15067	PA-Elizabeth	0.00%	8.57%	12.38%	1.90%	4.29%	11.43%	36.19%	12.86%	2.38%	6.19%	3.81%	100.00%
Oakdale	PA	15071	PA-McMurray	2.11%	1.16%	10.98%	1.38%	3.20%	10.62%	13.02%	14.11%	13.89%	24.44%	5.09%	100.00%
Oakdale	PA	15071	PA-Pittsburgh	2.11%	1.16%	10.98%	1.38%	3.20%	10.62%	13.02%	14.11%	13.89%	24.44%	5.09%	100.00%
Slovan	PA	15078	PA-McMurray	33.33%	0.00%	31.75%	0.00%	0.00%	0.00%	0.00%	34.92%	0.00%	0.00%	0.00%	100.00%
Sturgeon	PA	15082	PA-McMurray	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Sturgeon	PA	15082	PA-Pittsburgh	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Sutersville	PA	15083	PA-Elizabeth	5.00%	12.50%	5.00%	17.50%	0.00%	0.00%	10.00%	25.00%	17.50%	7.50%	0.00%	100.00%
West Elizabeth	PA	15088	PA-Elizabeth	4.65%	13.95%	4.65%	16.28%	0.00%	30.23%	0.00%	27.91%	2.33%	0.00%	0.00%	100.00%
West Newton	PA	15089	PA-Elizabeth	7.71%	12.14%	8.47%	18.20%	5.82%	7.84%	14.16%	10.75%	3.67%	11.25%	0.00%	100.00%
Allison Park	PA	15101	PA-Mechanicsburg	1.80%	1.19%	3.27%	5.17%	4.78%	9.52%	31.65%	20.51%	6.68%	12.54%	2.91%	100.00%
Bethel Park	PA	15102	PA-Hershey/Palmyra	4.69%	1.64%	1.97%	4.33%	2.89%	17.69%	12.80%	22.38%	7.02%	20.34%	4.25%	100.00%
Bethel Park	PA	15102	PA-Pittsburgh	4.69%	1.64%	1.97%	4.33%	2.89%	17.69%	12.80%	22.38%	7.02%	20.34%	4.25%	100.00%
Carnegie	PA	15106	PA-Pittsburgh	2.46%	1.58%	8.20%	13.16%	10.98%	19.36%	16.37%	9.12%	10.24%	7.22%	1.30%	100.00%
Homestead	PA	15120	PA-Pittsburgh	5.26%	12.41%	9.12%	7.13%	9.09%	20.08%	9.60%	14.47%	5.01%	6.77%	1.06%	100.00%
West Mifflin	PA	15122	PA-Elizabeth	8.33%	10.33%	8.22%	6.27%	3.35%	14.33%	18.66%	9.36%	11.84%	7.41%	1.89%	100.00%
West Mifflin	PA	15122	PA-Pittsburgh	8.33%	10.33%	8.22%	6.27%	3.35%	14.33%	18.66%	9.36%	11.84%	7.41%	1.89%	100.00%
South Park	PA	15129	PA-Pittsburgh	1.26%	2.97%	9.59%	2.74%	3.54%	4.91%	19.63%	24.54%	19.75%	8.22%	2.85%	100.00%
Mckeesport	PA	15133	PA-Elizabeth	2.37%	0.00%	5.64%	2.08%	12.02%	15.73%	6.08%	31.45%	16.02%	6.23%	2.37%	100.00%
Mckeesport	PA	15135	PA-Elizabeth	0.00%	0.00%	5.62%	6.05%	0.00%	0.00%	50.11%	25.92%	6.05%	6.26%	0.00%	100.00%
Presto	PA	15142	PA-Pittsburgh	0.00%	0.00%	0.00%	0.00%	0.00%	20.19%	0.00%	45.83%	16.99%	5.77%	11.22%	100.00%
Pittsburgh	PA	15201	PA-McMurray	2.95%	5.30%	5.43%	1.51%	3.32%	5.63%	13.81%	18.81%	13.34%	15.32%	14.58%	100.00%
Pittsburgh	PA	15202	PA-Pittsburgh	1.42%	3.55%	7.21%	5.73%	8.26%	14.65%	22.56%	19.95%	7.75%	7.31%	1.60%	100.00%
Pittsburgh	PA	15204	PA-Pittsburgh	14.11%	7.95%	13.63%	5.76%	3.08%	7.95%	23.68%	9.33%	11.03%	3.49%	0.00%	100.00%
Pittsburgh	PA	15205	PA-Pittsburgh	6.55%	5.37%	6.21%	5.93%	7.68%	8.73%	13.20%	18.22%	14.83%	8.69%	4.59%	100.00%
Pittsburgh	PA	15205	PA-Elizabeth	6.55%	5.37%	6.21%	5.93%	7.68%	8.73%	13.20%	18.22%	14.83%	8.69%	4.59%	100.00%
Pittsburgh	PA	15207	PA-Pittsburgh	4.82%	16.14%	10.34%	14.29%	8.48%	5.87%	11.85%	10.69%	5.34%	8.30%	3.89%	100.00%
Pittsburgh	PA	15210	PA-Pittsburgh	8.67%	7.14%	9.38%	8.14%	8.27%	16.28%	12.76%	11.73%	7.66%	6.46%	3.51%	100.00%
Pittsburgh	PA	15212	PA-Pittsburgh	9.19%	7.21%	7.91%	6.17%	9.03%	9.91%	12.69%	13.60%	9.91%	7.39%	7.00%	100.00%
Pittsburgh	PA	15215	PA-Pittsburgh	3.18%	1.38%	10.85%	12.09%	5.25%	6.01%	22.39%	12.72%	7.12%	7.19%	11.82%	100.00%
Pittsburgh	PA	15216	PA-Pittsburgh	3.11%	5.79%	5.11%	5.54%	3.92%	12.98%	20.88%	17.13%	12.96%	11.23%	1.34%	100.00%
Pittsburgh	PA	15220	PA-Pittsburgh	2.14%	0.86%	3.88%	4.43%	2.90%	12.71%	10.92%	15.29%	21.17%	19.15%	6.54%	100.00%
Pittsburgh	PA	15221	PA-Pittsburgh	6.39%	10.14%	11.17%	5.09%	8.15%	11.97%	14.90%	16.65%	6.73%	7.26%	1.58%	100.00%
Pittsburgh	PA	15222	PA-Pittsburgh	4.36%	1.90%	2.42%	1.51%	2.46%	6.03%	2.86%	17.02%	11.23%	22.41%	27.81%	100.00%
Pittsburgh	PA	15226	PA-Pittsburgh	3.50%	1.41%	10.07%	4.96%	1.25%	9.96%	16.28%	18.57%	18.57%	10.17%	5.27%	100.00%

TOTAL COMMUNITIES: 362

				--- Distribution of Income for Rented Units ---											
City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Pittsburgh	PA	15227	PA-Pittsburgh	8.89%	1.42%	14.16%	8.83%	6.91%	13.75%	18.52%	13.77%	3.36%	7.39%	3.00%	100.00%
Pittsburgh	PA	15228	PA-Pittsburgh	4.04%	4.93%	6.24%	5.63%	7.89%	7.56%	12.44%	15.12%	9.62%	20.89%	5.63%	100.00%
Pittsburgh	PA	15234	PA-Pittsburgh	1.51%	0.70%	11.38%	3.13%	7.20%	3.02%	13.76%	30.76%	10.10%	11.84%	6.62%	100.00%
Pittsburgh	PA	15236	PA-Pittsburgh	5.24%	4.95%	4.10%	4.29%	9.62%	17.80%	19.22%	18.62%	8.71%	6.31%	1.14%	100.00%
Pittsburgh	PA	15239	PA-Pittsburgh	5.60%	0.47%	2.29%	5.60%	1.66%	14.51%	17.35%	19.64%	17.98%	13.64%	1.26%	100.00%
Pittsburgh	PA	15241	PA-McMurray	7.84%	0.75%	1.87%	2.99%	7.19%	17.37%	14.75%	9.15%	14.66%	12.98%	10.46%	100.00%
Pittsburgh	PA	15241	PA-Pittsburgh	7.84%	0.75%	1.87%	2.99%	7.19%	17.37%	14.75%	9.15%	14.66%	12.98%	10.46%	100.00%
Pittsburgh	PA	15243	PA-Pittsburgh	4.93%	0.00%	3.24%	6.90%	6.34%	24.65%	14.08%	8.73%	13.66%	5.63%	11.83%	100.00%
Washington	PA	15301	PA-McMurray	3.77%	5.17%	10.50%	4.44%	4.83%	15.44%	15.00%	18.67%	10.35%	7.87%	3.96%	100.00%
Amity	PA	15311	PA-McMurray	17.65%	0.00%	17.65%	0.00%	0.00%	0.00%	0.00%	64.71%	0.00%	0.00%	0.00%	100.00%
Avella	PA	15312	PA-McMurray	0.00%	2.39%	6.83%	1.71%	23.55%	9.90%	34.81%	2.73%	9.90%	4.10%	4.10%	100.00%
Bentleyville	PA	15314	PA-Elizabeth	12.89%	7.63%	18.16%	15.00%	1.84%	6.58%	16.05%	15.53%	4.21%	1.05%	1.05%	100.00%
Bentleyville	PA	15314	PA-McMurray	12.89%	7.63%	18.16%	15.00%	1.84%	6.58%	16.05%	15.53%	4.21%	1.05%	1.05%	100.00%
Canonsburg	PA	15317	PA-McMurray	0.28%	1.25%	3.66%	4.74%	8.00%	11.32%	11.60%	21.55%	11.40%	21.38%	4.82%	100.00%
Canonsburg	PA	15317	PA-Pittsburgh	0.28%	1.25%	3.66%	4.74%	8.00%	11.32%	11.60%	21.55%	11.40%	21.38%	4.82%	100.00%
Cecil	PA	15321	PA-McMurray	0.00%	0.00%	0.00%	0.00%	7.55%	6.29%	0.00%	8.81%	8.81%	60.38%	8.18%	100.00%
Cecil	PA	15321	PA-Pittsburgh	0.00%	0.00%	0.00%	0.00%	7.55%	6.29%	0.00%	8.81%	8.81%	60.38%	8.18%	100.00%
Claysville	PA	15323	PA-McMurray	3.58%	1.08%	12.90%	12.90%	7.89%	7.53%	8.60%	18.64%	11.83%	13.62%	1.43%	100.00%
Prosperity	PA	15329	PA-McMurray	0.00%	0.00%	0.00%	2.20%	18.68%	4.40%	13.19%	34.07%	14.29%	0.00%	13.19%	100.00%
Eighty Four	PA	15330	PA-McMurray	10.36%	3.60%	2.70%	0.00%	0.00%	4.05%	14.41%	39.64%	9.01%	0.00%	16.22%	100.00%
Finleyville	PA	15332	PA-Elizabeth	2.36%	14.38%	3.43%	6.22%	5.58%	17.17%	11.16%	19.31%	13.95%	6.22%	0.21%	100.00%
Finleyville	PA	15332	PA-McMurray	2.36%	14.38%	3.43%	6.22%	5.58%	17.17%	11.16%	19.31%	13.95%	6.22%	0.21%	100.00%
Finleyville	PA	15332	PA-Pittsburgh	2.36%	14.38%	3.43%	6.22%	5.58%	17.17%	11.16%	19.31%	13.95%	6.22%	0.21%	100.00%
Hickory	PA	15340	PA-McMurray	0.00%	0.00%	0.00%	16.98%	47.17%	0.00%	18.87%	16.98%	0.00%	0.00%	0.00%	100.00%
Houston	PA	15342	PA-McMurray	4.06%	12.17%	7.83%	14.49%	16.52%	18.84%	1.16%	9.57%	6.67%	8.70%	0.00%	100.00%
Jefferson	PA	15344	PA-Pittsburgh	0.00%	0.00%	1.61%	16.13%	0.00%	9.68%	4.84%	9.68%	3.23%	37.10%	17.74%	100.00%
Muse	PA	15350	PA-McMurray	37.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.56%	31.48%	0.00%	0.00%	100.00%
Southview	PA	15361	PA-McMurray	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Strabane	PA	15363	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	63.43%	36.57%	0.00%	0.00%	0.00%	0.00%	100.00%
Venetia	PA	15367	PA-McMurray	0.00%	0.00%	0.00%	0.00%	3.91%	4.35%	6.96%	63.04%	7.83%	13.91%	0.00%	100.00%
Venetia	PA	15367	PA-Pittsburgh	0.00%	0.00%	0.00%	0.00%	3.91%	4.35%	6.96%	63.04%	7.83%	13.91%	0.00%	100.00%
Westland	PA	15378	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
West Middletown	PA	15379	PA-McMurray	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%	0.00%	0.00%	100.00%
Uniontown	PA	15401	PA-Uniontown/Connell	12.70%	9.19%	12.41%	9.00%	10.39%	11.93%	14.13%	13.22%	3.14%	2.86%	1.02%	100.00%
Uniontown	PA	15401	PA-Uniontown/Connell	12.70%	9.19%	12.41%	9.00%	10.39%	11.93%	14.13%	13.22%	3.14%	2.86%	1.02%	100.00%
Allison	PA	15413	PA-Brownsville	0.00%	0.00%	0.00%	0.00%	0.00%	28.57%	0.00%	0.00%	71.43%	0.00%	0.00%	100.00%
Brownsville	PA	15417	PA-Brownsville	16.44%	15.65%	9.84%	6.50%	9.45%	9.94%	7.28%	9.15%	5.71%	5.61%	4.43%	100.00%
California	PA	15419	PA-Brownsville	9.39%	1.75%	19.10%	5.13%	4.59%	19.32%	24.02%	2.62%	9.06%	4.48%	0.55%	100.00%
Coal Center	PA	15423	PA-Brownsville	0.00%	3.70%	2.47%	29.63%	3.09%	19.75%	17.90%	10.49%	6.17%	3.70%	3.09%	100.00%
Connellsville	PA	15425	PA-Uniontown/Connell	3.33%	14.17%	22.35%	7.76%	8.69%	12.06%	13.54%	8.14%	4.68%	3.92%	1.35%	100.00%
Daisytown	PA	15427	PA-Brownsville	0.00%	0.00%	1.87%	11.21%	16.82%	36.45%	12.15%	21.50%	0.00%	0.00%	0.00%	100.00%
Dunbar	PA	15431	PA-Uniontown/Connell	0.00%	1.57%	10.66%	12.85%	7.21%	5.96%	14.73%	20.38%	13.17%	13.48%	0.00%	100.00%
East Millsboro	PA	15433	PA-Brownsville	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Farmington	PA	15437	PA-Farmington	8.99%	0.00%	7.55%	0.00%	0.00%	0.00%	22.66%	32.01%	4.68%	21.22%	2.88%	100.00%
Grindstone	PA	15442	PA-Brownsville	0.00%	19.63%	0.00%	0.00%	11.48%	0.00%	28.89%	0.00%	9.26%	2.96%	27.78%	100.00%
Hiller	PA	15444	PA-Brownsville	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Hopwood	PA	15445	PA-Uniontown/Connell	0.00%	13.56%	3.95%	5.65%	0.00%	0.00%	35.03%	41.81%	0.00%	0.00%	0.00%	100.00%
Lemont Furnace	PA	15456	PA-Uniontown/Connell	7.56%	6.98%	4.07%	0.00%	0.00%	5.23%	25.00%	51.16%	0.00%	0.00%	0.00%	100.00%
Mc Clellandtown	PA	15458	PA-Uniontown/Connell	0.00%	0.00%	0.00%	0.00%	0.00%	17.56%	0.00%	65.23%	8.24%	8.96%	0.00%	100.00%
New Salem	PA	15468	PA-Brownsville	10.48%	0.00%	9.52%	0.00%	23.33%	42.86%	0.00%	0.00%	11.43%	2.38%	0.00%	100.00%
Oliver	PA	15472	PA-Uniontown/Connell	0.00%	29.58%	0.00%	0.00%	11.27%	0.00%	54.93%	0.00%	4.23%	0.00%	0.00%	100.00%
Uledi	PA	15484	PA-Uniontown/Connell	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Greensburg	PA	15601	PA-Uniontown/Connell	5.78%	4.88%	11.61%	12.42%	7.33%	14.54%	16.77%	13.42%	6.02%	4.14%	3.09%	100.00%
Indiana	PA	15701	PA-Indiana	4.49%	8.34%	11.16%	10.45%	14.88%	12.44%	12.78%	11.76%	3.42%	6.80%	3.46%	100.00%
Anita	PA	15711	PA-Punxsatawney	9.68%	9.68%	0.00%	0.00%	0.00%	0.00%	38.71%	29.03%	0.00%	12.90%	0.00%	100.00%
Big Run	PA	15715	PA-Punxsatawney	0.00%	0.00%	9.26%	9.26%	7.41%	7.41%	27.78%	31.48%	7.41%	0.00%	0.00%	100.00%
Punxsatawney	PA	15767	PA-Punxsatawney	6.80%	5.97%	12.12%	10.07%	7.76%	13.73%	19.05%	9.75%	6.22%	6.61%	1.92%	100.00%
Walston	PA	15781	PA-Punxsatawney	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Worthville	PA	15784	PA-Punxsatawney	0.00%	0.00%	33.33%	0.00%	0.00%	0.00%	66.67%	0.00%	0.00%	0.00%	0.00%	100.00%
Brookville	PA	15825	PA-Punxsatawney	6.49%	3.55%	10.34%	7.91%	5.27%	15.92%	13.08%	29.41%	5.88%	1.32%	0.81%	100.00%
Corsica	PA	15829	PA-Clarion	1.45%	0.00%	8.70%	11.59%	15.94%	10.14%	5.80%	5.80%	39.13%	1.45%	0.00%	100.00%
Butler	PA	16001	PA-Butler	6.11%	5.66%	16.13%	6.42%	8.02%	15.71%	13.39%	16.53%	7.55%	3.52%	0.95%	100.00%
Butler	PA	16002	PA-Butler	6.54%	9.98%	7.34%	2.52%	3.33%	22.13%	18.00%	16.97%	6.77%	6.42%	0.00%	100.00%
Cabot	PA	16023	PA-Butler	9.40%	2.80%	1.80%	17.60%	3.00%	39.80%	11.20%	7.00%	3.80%	2.20%	1.40%	100.00%

TOTAL COMMUNITIES: 362

			--- Distribution of Income for Rented Units ---											
City	State	Zip Code Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Connoquenessing	PA	16027 PA-Butler	0.00%	0.00%	44.44%	0.00%	0.00%	0.00%	20.37%	14.81%	7.41%	9.26%	3.70%	100.00%
East Butler	PA	16029 PA-Butler	0.00%	2.22%	18.89%	0.00%	5.56%	22.22%	13.33%	35.56%	0.00%	0.00%	2.22%	100.00%
Evans City	PA	16033 PA-Butler	0.00%	0.47%	9.45%	6.14%	10.24%	12.76%	10.24%	20.63%	24.25%	3.15%	2.68%	100.00%
Harmony	PA	16037 PA-NewCastle/Ellwood	0.35%	14.08%	3.52%	8.80%	0.00%	8.80%	9.15%	17.96%	13.38%	23.24%	0.70%	100.00%
Harmony	PA	16037 PA-Butler	0.35%	14.08%	3.52%	8.80%	0.00%	8.80%	9.15%	17.96%	13.38%	23.24%	0.70%	100.00%
Lyndora	PA	16045 PA-Butler	0.00%	10.20%	10.88%	8.84%	21.09%	4.76%	4.76%	0.00%	0.68%	38.78%	0.00%	100.00%
Prospect	PA	16052 PA-Butler	0.00%	14.08%	0.00%	5.63%	7.04%	7.04%	0.00%	45.07%	9.86%	11.27%	0.00%	100.00%
Renfrew	PA	16053 PA-Butler	0.00%	0.00%	19.17%	0.00%	0.00%	6.22%	19.69%	13.99%	5.70%	31.09%	4.15%	100.00%
Saxonburg	PA	16056 PA-Saxonburg	5.51%	3.08%	7.27%	7.93%	9.91%	16.96%	18.94%	17.62%	4.19%	7.05%	1.54%	100.00%
Saxonburg	PA	16056 PA-Butler	5.51%	3.08%	7.27%	7.93%	9.91%	16.96%	18.94%	17.62%	4.19%	7.05%	1.54%	100.00%
Zelienople	PA	16063 PA-NewCastle/Ellwood	1.48%	3.27%	1.24%	12.99%	0.00%	17.34%	18.27%	23.48%	2.88%	18.35%	0.70%	100.00%
New Castle	PA	16101 PA-NewCastle/Ellwood	6.62%	10.27%	18.85%	9.20%	11.75%	11.15%	12.45%	12.37%	4.02%	2.47%	0.85%	100.00%
New Castle	PA	16102 PA-NewCastle/Ellwood	2.66%	3.29%	14.08%	19.72%	13.93%	13.15%	11.11%	12.36%	4.07%	3.76%	1.88%	100.00%
New Castle	PA	16105 PA-NewCastle/Ellwood	2.44%	5.20%	7.37%	5.27%	15.27%	18.43%	7.44%	14.61%	16.59%	3.55%	3.82%	100.00%
Edinburg	PA	16116 PA-NewCastle/Ellwood	5.13%	0.00%	5.13%	0.00%	0.00%	7.69%	42.31%	6.41%	3.85%	29.49%	0.00%	100.00%
Ellwood City	PA	16117 PA-NewCastle/Ellwood	9.39%	6.78%	6.09%	14.49%	6.34%	12.31%	15.36%	10.76%	5.72%	12.56%	0.19%	100.00%
Fombell	PA	16123 PA-NewCastle/Ellwood	3.95%	7.89%	3.95%	0.00%	1.32%	2.63%	18.42%	15.79%	7.89%	38.16%	0.00%	100.00%
Koppel	PA	16136 PA-NewCastle/Ellwood	3.19%	0.00%	24.47%	7.45%	7.45%	15.96%	8.51%	18.09%	10.64%	0.00%	4.26%	100.00%
Wampum	PA	16157 PA-NewCastle/Ellwood	4.24%	2.83%	30.74%	12.37%	4.95%	15.55%	11.66%	9.89%	4.24%	3.53%	0.00%	100.00%
West Pittsburg	PA	16160 PA-NewCastle/Ellwood	1.66%	1.66%	8.84%	0.00%	9.39%	12.15%	29.83%	28.18%	1.10%	5.52%	1.66%	100.00%
Kittanning	PA	16201 PA-Kittanning	3.72%	5.18%	11.49%	5.86%	12.39%	14.53%	17.74%	16.27%	4.28%	4.22%	4.34%	100.00%
Clarion	PA	16214 PA-Clarion	7.43%	14.98%	11.33%	7.37%	13.93%	10.90%	11.27%	11.52%	8.36%	1.67%	1.24%	100.00%
Knox	PA	16232 PA-Clarion	2.00%	8.00%	19.11%	5.56%	4.44%	7.78%	24.89%	13.33%	9.33%	4.44%	1.11%	100.00%
Lucinda	PA	16235 PA-Clarion	5.77%	0.00%	13.46%	5.77%	0.00%	26.92%	5.77%	13.46%	21.15%	7.69%	0.00%	100.00%
Lucinda	PA	16235 PA-Coatesville	5.77%	0.00%	13.46%	5.77%	0.00%	26.92%	5.77%	13.46%	21.15%	7.69%	0.00%	100.00%
Shippenville	PA	16254 PA-Clarion	2.80%	2.40%	3.20%	10.00%	4.80%	12.00%	22.00%	20.80%	8.00%	12.40%	1.60%	100.00%
Sligo	PA	16255 PA-Clarion	1.23%	0.00%	24.07%	34.57%	5.56%	17.90%	3.70%	2.47%	8.64%	1.85%	0.00%	100.00%
Strattanville	PA	16258 PA-Clarion	0.00%	20.77%	4.23%	12.68%	8.10%	2.46%	16.90%	22.89%	11.62%	0.35%	0.00%	100.00%
Clarendon	PA	16313 PA-Warren	4.03%	0.00%	2.01%	5.37%	22.15%	18.79%	8.05%	24.16%	9.40%	6.04%	0.00%	100.00%
Marble	PA	16334 PA-Clarion	0.00%	0.00%	75.61%	0.00%	0.00%	0.00%	9.76%	14.63%	0.00%	0.00%	0.00%	100.00%
Warren	PA	16365 PA-Warren	6.40%	5.44%	7.44%	5.18%	9.75%	21.24%	16.23%	18.58%	6.92%	1.78%	1.04%	100.00%
Osceola Mills	PA	16666 PA-Philipsburg	3.77%	0.00%	3.77%	3.77%	9.43%	23.58%	31.13%	12.26%	12.26%	0.00%	0.00%	100.00%
Sandy Ridge	PA	16677 PA-Philipsburg	0.00%	0.00%	86.67%	0.00%	0.00%	0.00%	0.00%	0.00%	13.33%	0.00%	0.00%	100.00%
Kane	PA	16735 PA-Kane	0.63%	6.01%	15.03%	9.18%	6.49%	23.42%	14.72%	13.61%	8.07%	1.74%	1.11%	100.00%
Allport	PA	16821 PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bellefonte	PA	16823 PA-BOGGS	1.04%	6.34%	4.92%	10.38%	13.06%	9.97%	18.01%	18.95%	11.10%	5.17%	1.07%	100.00%
Bigler	PA	16825 PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
Clearfield	PA	16830 PA-Philipsburg	6.95%	4.01%	13.84%	9.41%	12.03%	13.90%	16.89%	17.32%	3.79%	1.23%	0.64%	100.00%
Hawk Run	PA	16840 PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Howard	PA	16841 PA-BOGGS	0.80%	0.53%	8.29%	2.14%	7.75%	30.48%	20.05%	9.89%	13.64%	5.61%	0.80%	100.00%
Howard	PA	16841 PA-Nittany	0.80%	0.53%	8.29%	2.14%	7.75%	30.48%	20.05%	9.89%	13.64%	5.61%	0.80%	100.00%
Howard	PA	16841 PA-Nittany	0.80%	0.53%	8.29%	2.14%	7.75%	30.48%	20.05%	9.89%	13.64%	5.61%	0.80%	100.00%
Lamar	PA	16848 PA-Nittany	0.00%	0.00%	0.00%	0.00%	0.00%	54.17%	25.00%	0.00%	20.83%	0.00%	0.00%	100.00%
Lamar	PA	16848 PA-Nittany	0.00%	0.00%	0.00%	0.00%	0.00%	54.17%	25.00%	0.00%	20.83%	0.00%	0.00%	100.00%
Morrisdale	PA	16858 PA-Philipsburg	11.56%	0.00%	1.70%	1.36%	14.29%	44.56%	3.74%	13.95%	0.68%	4.76%	3.40%	100.00%
Munson	PA	16860 PA-Philipsburg	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Philipsburg	PA	16866 PA-Philipsburg	5.15%	6.44%	19.31%	21.03%	9.18%	9.44%	14.94%	5.58%	3.52%	5.15%	0.26%	100.00%
Wallacetown	PA	16876 PA-Philipsburg	0.00%	0.00%	21.05%	0.00%	5.26%	31.58%	10.53%	21.05%	10.53%	0.00%	0.00%	100.00%
West Decatur	PA	16878 PA-Philipsburg	2.25%	1.12%	5.62%	38.20%	5.62%	7.87%	10.11%	25.84%	3.37%	0.00%	0.00%	100.00%
Woodland	PA	16881 PA-Philipsburg	0.00%	0.00%	14.84%	0.00%	0.00%	20.65%	0.00%	16.13%	5.16%	43.23%	0.00%	100.00%
Annaville	PA	17003 PA-Hershey/Palmyra	4.32%	3.68%	1.51%	3.89%	8.43%	10.16%	19.14%	13.30%	22.70%	10.70%	2.16%	100.00%
Campbelltown	PA	17010 PA-Hershey/Palmyra	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
Camp Hill	PA	17011 PA-Mechanicsburg	3.33%	5.09%	6.18%	3.51%	4.69%	9.05%	12.16%	20.56%	16.59%	13.67%	5.16%	100.00%
Carlisle	PA	17013 PA-Hershey/Palmyra	3.56%	4.34%	8.77%	7.04%	5.44%	13.52%	17.73%	20.04%	9.22%	7.36%	3.00%	100.00%
Elizabethtown	PA	17022 PA-Hershey/Palmyra	4.08%	5.25%	7.33%	2.38%	6.68%	12.77%	12.50%	31.11%	7.85%	8.69%	1.36%	100.00%
Enola	PA	17025 PA-Mechanicsburg	2.54%	8.73%	0.60%	1.70%	2.29%	14.21%	17.26%	27.13%	16.11%	8.03%	1.40%	100.00%
Enola	PA	17025 PA-Norristown	2.54%	8.73%	0.60%	1.70%	2.29%	14.21%	17.26%	27.13%	16.11%	8.03%	1.40%	100.00%
Hershey	PA	17033 PA-Hershey/Palmyra	5.21%	4.83%	7.12%	6.76%	2.36%	9.30%	15.11%	21.59%	15.53%	6.94%	5.25%	100.00%
Hummelstown	PA	17036 PA-Hershey/Palmyra	2.87%	1.10%	2.08%	4.40%	5.39%	13.17%	14.24%	23.87%	16.52%	6.76%	9.59%	100.00%
Lebanon	PA	17042 PA-Hershey/Palmyra	4.16%	6.38%	4.68%	7.38%	2.99%	11.85%	19.13%	23.85%	10.07%	7.96%	1.54%	100.00%
Lemoyne	PA	17043 PA-Mechanicsburg	2.00%	0.00%	21.65%	7.11%	5.27%	11.42%	22.76%	15.89%	9.03%	1.28%	3.59%	100.00%
Mechanicsburg	PA	17050 PA-Mechanicsburg	6.12%	1.47%	2.56%	4.62%	2.91%	6.96%	14.69%	13.06%	21.57%	18.91%	7.13%	100.00%
Mechanicsburg	PA	17055 PA-Mechanicsburg	2.34%	3.33%	3.20%	9.65%	3.12%	13.99%	11.51%	25.90%	13.99%	7.90%	5.08%	100.00%
Middletown	PA	17057 PA-Hershey/Palmyra	7.16%	7.23%	2.85%	3.43%	11.48%	11.99%	14.09%	16.10%	13.51%	11.24%	0.92%	100.00%

TOTAL COMMUNITIES: 362

				--- Distribution of Income for Rented Units ---											
City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Myerstown	PA	17067	PA-Mechanicsburg	2.12%	6.36%	7.35%	9.47%	5.23%	11.52%	18.03%	15.76%	20.76%	1.82%	1.59%	100.00%
New Cumberland	PA	17070	PA-Mechanicsburg	5.08%	5.02%	4.38%	10.57%	12.73%	4.91%	19.33%	11.92%	11.51%	10.75%	3.80%	100.00%
Newport	PA	17074	PA-Mechanicsburg	2.68%	5.79%	7.63%	13.28%	3.67%	11.86%	17.37%	11.86%	13.42%	9.32%	3.11%	100.00%
Palmyra	PA	17078	PA-Hershey/Palmyra	5.32%	3.21%	5.91%	5.11%	7.64%	14.62%	13.79%	26.99%	9.30%	6.08%	2.04%	100.00%
Summerdale	PA	17093	PA-Mechanicsburg	45.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.53%	0.00%	31.37%	0.00%	100.00%
Harrisburg	PA	17101	PA-Steelton W	2.77%	5.53%	13.70%	1.01%	2.95%	10.43%	11.88%	40.85%	4.53%	4.09%	2.26%	100.00%
Harrisburg	PA	17109	PA-Hershey/Palmyra	5.52%	2.48%	6.60%	5.87%	7.73%	13.27%	17.03%	23.32%	12.35%	4.77%	1.06%	100.00%
Harrisburg	PA	17111	PA-Hershey/Palmyra	5.61%	4.04%	3.34%	5.70%	3.66%	5.99%	20.06%	21.57%	14.87%	11.77%	3.39%	100.00%
Harrisburg	PA	17112	PA-Hershey/Palmyra	6.58%	0.23%	1.08%	1.67%	5.31%	13.32%	15.18%	17.74%	19.75%	16.92%	2.21%	100.00%
Harrisburg	PA	17113	PA-Steelton W	11.06%	4.49%	7.95%	2.56%	6.22%	8.09%	21.01%	10.78%	19.14%	5.04%	3.66%	100.00%
Etters	PA	17319	PA-Mechanicsburg	6.19%	4.12%	10.10%	2.27%	0.00%	15.46%	27.42%	21.03%	6.19%	7.22%	0.00%	100.00%
Gettysburg	PA	17325	PA-Lake Heritage	2.63%	5.04%	6.46%	7.98%	6.67%	12.95%	15.61%	19.07%	13.71%	5.49%	4.39%	100.00%
Lewisberry	PA	17339	PA-Mechanicsburg	9.64%	0.00%	0.00%	2.69%	1.35%	1.57%	19.73%	38.12%	6.50%	15.25%	5.16%	100.00%
York Haven	PA	17370	PA-Mechanicsburg	1.86%	4.83%	10.04%	0.00%	2.60%	12.27%	33.09%	10.78%	2.23%	18.96%	3.35%	100.00%
York Haven	PA	17370	PA-Hershey/Palmyra	1.86%	4.83%	10.04%	0.00%	2.60%	12.27%	33.09%	10.78%	2.23%	18.96%	3.35%	100.00%
Christiana	PA	17509	PA-Coatesville	4.17%	0.78%	1.82%	0.00%	2.86%	16.67%	20.05%	35.68%	11.98%	4.69%	1.30%	100.00%
Kirkwood	PA	17536	PA-Coatesville	11.36%	0.00%	3.79%	0.00%	15.15%	18.18%	18.94%	0.00%	14.39%	14.39%	3.79%	100.00%
Quarryville	PA	17566	PA-Coatesville	3.78%	1.53%	5.80%	2.25%	5.48%	12.96%	10.79%	32.93%	11.92%	9.58%	2.98%	100.00%
Mc Ewensville	PA	17749	PA-McEwensville W	3.70%	0.00%	0.00%	0.00%	7.41%	25.93%	37.04%	16.67%	9.26%	0.00%	0.00%	100.00%
Mill Hall	PA	17751	PA-Nittany	3.51%	6.14%	4.61%	7.02%	5.48%	13.60%	19.30%	17.98%	9.87%	12.50%	0.00%	100.00%
Mill Hall	PA	17751	PA-Nittany	3.51%	6.14%	4.61%	7.02%	5.48%	13.60%	19.30%	17.98%	9.87%	12.50%	0.00%	100.00%
Turbotville	PA	17772	PA-Turbotville W	9.32%	10.17%	5.08%	11.02%	8.47%	12.71%	7.63%	11.86%	8.47%	11.02%	4.24%	100.00%
Watsonstown	PA	17777	PA-McEwensville W	0.95%	9.19%	6.50%	11.41%	8.40%	22.66%	13.31%	16.32%	9.51%	1.74%	0.00%	100.00%
Watsonstown	PA	17777	PA-Milton	0.95%	9.19%	6.50%	11.41%	8.40%	22.66%	13.31%	16.32%	9.51%	1.74%	0.00%	100.00%
Sunbury	PA	17801	PA-Milton	5.04%	5.94%	18.47%	9.02%	8.08%	13.13%	21.46%	10.18%	5.34%	2.09%	1.24%	100.00%
Allenwood	PA	17810	PA-Milton	1.75%	13.16%	0.00%	0.00%	0.00%	11.40%	17.54%	18.42%	28.07%	9.65%	0.00%	100.00%
Herndon	PA	17830	PA-Milton	0.00%	4.84%	3.23%	5.65%	17.74%	16.13%	14.52%	19.35%	11.29%	7.26%	0.00%	100.00%
Lewisburg	PA	17837	PA-Milton	6.50%	5.30%	9.78%	9.39%	9.49%	14.93%	14.74%	6.07%	8.96%	7.47%	7.37%	100.00%
Milton	PA	17847	PA-Milton	3.33%	4.74%	3.61%	5.08%	8.24%	29.91%	18.40%	14.39%	9.99%	1.52%	0.79%	100.00%
Montandon	PA	17850	PA-Milton	0.00%	0.00%	0.00%	17.35%	0.00%	0.00%	29.59%	17.35%	35.71%	0.00%	0.00%	100.00%
New Columbia	PA	17856	PA-Milton	0.00%	0.00%	13.71%	24.87%	0.00%	5.08%	30.46%	13.20%	4.57%	3.55%	4.57%	100.00%
Northumberland	PA	17857	PA-Milton	5.45%	4.03%	10.00%	13.90%	2.47%	17.01%	24.29%	11.95%	9.22%	1.69%	0.00%	100.00%
West Milton	PA	17886	PA-Milton	0.00%	0.00%	0.00%	4.55%	78.79%	4.04%	3.03%	0.00%	9.60%	0.00%	0.00%	100.00%
White Deer	PA	17887	PA-Milton	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Frackville	PA	17931	PA-Frackville	6.99%	2.85%	6.99%	2.59%	13.21%	20.21%	15.54%	6.99%	8.55%	16.06%	0.00%	100.00%
Bangor	PA	18013	PA-Bangor	3.49%	0.99%	5.64%	10.30%	5.35%	13.61%	16.00%	20.94%	15.53%	5.82%	2.33%	100.00%
Bangor	PA	18013	PA-Bangor	3.49%	0.99%	5.64%	10.30%	5.35%	13.61%	16.00%	20.94%	15.53%	5.82%	2.33%	100.00%
Bethlehem	PA	18018	PA-Elizabeth	3.94%	4.13%	9.28%	8.52%	5.99%	12.00%	14.81%	21.36%	10.37%	6.48%	3.13%	100.00%
Easton	PA	18040	PA-Nazareth	4.65%	0.00%	3.85%	3.85%	2.88%	5.13%	22.60%	33.33%	9.78%	5.29%	8.65%	100.00%
Easton	PA	18042	PA-Nazareth	4.49%	5.96%	6.23%	6.10%	5.88%	11.52%	13.61%	20.32%	13.80%	8.34%	3.74%	100.00%
Easton	PA	18045	PA-Nazareth	1.76%	0.00%	1.26%	7.71%	0.77%	5.72%	15.50%	20.41%	14.47%	21.54%	10.86%	100.00%
Nazareth	PA	18064	PA-Nazareth	0.63%	0.72%	1.35%	17.52%	8.89%	14.56%	9.25%	14.47%	18.55%	9.84%	4.22%	100.00%
Pen Argyl	PA	18072	PA-Bangor	12.28%	1.24%	2.62%	8.14%	3.86%	10.48%	27.86%	20.55%	5.52%	3.86%	3.59%	100.00%
Pen Argyl	PA	18072	PA-Nazareth	12.28%	1.24%	2.62%	8.14%	3.86%	10.48%	27.86%	20.55%	5.52%	3.86%	3.59%	100.00%
Stockertown	PA	18083	PA-Nazareth	0.00%	0.00%	0.00%	10.87%	4.35%	0.00%	23.91%	0.00%	0.00%	60.87%	0.00%	100.00%
Tatamy	PA	18085	PA-Nazareth	0.00%	0.00%	0.00%	0.00%	0.00%	36.26%	5.49%	39.56%	16.48%	2.20%	0.00%	100.00%
Wind Gap	PA	18091	PA-Nazareth	1.01%	2.89%	1.01%	4.34%	4.08%	14.60%	23.41%	20.95%	6.21%	21.10%	0.00%	100.00%
Tamaqua	PA	18252	PA-Frackville	6.43%	3.51%	15.63%	10.01%	11.76%	12.34%	13.88%	10.52%	6.21%	6.28%	3.43%	100.00%
Tamaqua	PA	18252	PA-Frackville	6.43%	3.51%	15.63%	10.01%	11.76%	12.34%	13.88%	10.52%	6.21%	6.28%	3.43%	100.00%
East Stroudsburg	PA	18301	PA-Lehman Pike	4.37%	1.31%	7.94%	6.98%	12.24%	10.83%	12.17%	20.04%	10.48%	9.04%	4.61%	100.00%
East Stroudsburg	PA	18302	PA-Lehman Pike	0.81%	0.00%	1.97%	0.81%	9.84%	6.13%	32.29%	27.08%	13.31%	4.17%	3.59%	100.00%
Bushkill	PA	18324	PA-Lehman Pike	14.26%	17.51%	2.17%	3.43%	7.40%	3.25%	27.62%	9.93%	3.97%	10.47%	0.00%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike	12.54%	0.00%	17.95%	0.00%	35.33%	9.69%	7.41%	17.09%	0.00%	0.00%	0.00%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike	12.54%	0.00%	17.95%	0.00%	35.33%	9.69%	7.41%	17.09%	0.00%	0.00%	0.00%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike	12.54%	0.00%	17.95%	0.00%	35.33%	9.69%	7.41%	17.09%	0.00%	0.00%	0.00%	100.00%
Marshalls Creek	PA	18335	PA-Lehman Pike	19.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	41.46%	0.00%	0.00%	39.02%	100.00%
Matamoras	PA	18336	PA-Lehman Pike	6.06%	0.00%	10.09%	11.19%	10.28%	7.16%	11.56%	11.38%	16.88%	10.46%	4.95%	100.00%
Milford	PA	18337	PA-Lehman Pike	5.98%	2.53%	7.90%	5.47%	8.51%	7.60%	19.86%	12.46%	16.31%	8.00%	5.37%	100.00%
Mountainhome	PA	18342	PA-Lehman Pike	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Mount Pocono	PA	18344	PA-Pocono	0.00%	0.00%	7.61%	33.07%	12.60%	25.98%	11.81%	3.94%	0.00%	4.99%	0.00%	100.00%
Pocono Summit	PA	18346	PA-Pocono	0.00%	5.00%	0.00%	37.50%	8.75%	0.00%	0.00%	0.00%	27.50%	21.25%	0.00%	100.00%
Pocono Lake	PA	18347	PA-Lehman Pike	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.31%	0.00%	0.00%	93.69%	0.00%	100.00%
Portland	PA	18351	PA-Lehman Pike	0.00%	0.00%	0.00%	6.90%	6.90%	10.34%	10.34%	11.49%	51.72%	2.30%	0.00%	100.00%
Saylorsburg	PA	18353	PA-Nazareth	4.83%	8.41%	0.00%	0.00%	4.52%	13.24%	7.79%	16.51%	44.70%	0.00%	0.00%	100.00%

TOTAL COMMUNITIES: 362

				--- Distribution of Income for Rented Units ---											
City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Archbald	PA	18403	PA-WB/Scranton	0.00%	0.00%	23.63%	5.50%	6.09%	23.92%	8.62%	26.89%	1.93%	3.42%	0.00%	100.00%
Carbondale	PA	18407	PA-WB/Scranton	4.45%	5.43%	20.07%	7.73%	9.35%	9.69%	10.18%	14.64%	4.65%	11.70%	2.10%	100.00%
Clarks Summit	PA	18411	PA-Abington	3.82%	1.99%	1.16%	6.31%	4.81%	7.41%	10.67%	27.99%	17.87%	11.67%	6.31%	100.00%
Clarks Summit	PA	18411	PA-WB/Scranton	3.82%	1.99%	1.16%	6.31%	4.81%	7.41%	10.67%	27.99%	17.87%	11.67%	6.31%	100.00%
Dalton	PA	18414	PA-Abington	7.69%	8.28%	1.48%	6.51%	5.62%	5.03%	13.02%	18.64%	17.75%	11.24%	4.73%	100.00%
Dalton	PA	18414	PA-Abington	7.69%	8.28%	1.48%	6.51%	5.62%	5.03%	13.02%	18.64%	17.75%	11.24%	4.73%	100.00%
Dalton	PA	18414	PA-WB/Scranton	7.69%	8.28%	1.48%	6.51%	5.62%	5.03%	13.02%	18.64%	17.75%	11.24%	4.73%	100.00%
Factoryville	PA	18419	PA-Abington	1.48%	2.96%	6.67%	20.49%	6.17%	8.15%	23.70%	12.35%	7.41%	9.14%	1.48%	100.00%
Forest City	PA	18421	PA-WB/Scranton	5.86%	5.63%	6.53%	6.53%	7.66%	10.36%	18.92%	19.37%	7.43%	7.66%	4.05%	100.00%
Jermyn	PA	18433	PA-WB/Scranton	7.12%	1.12%	8.99%	8.24%	6.55%	13.30%	3.37%	33.90%	6.18%	10.30%	0.94%	100.00%
Jessup	PA	18434	PA-WB/Scranton	0.00%	0.00%	32.23%	0.00%	25.60%	15.29%	8.29%	14.18%	4.42%	0.00%	0.00%	100.00%
Lake Ariel	PA	18436	PA-Pocono	0.00%	3.43%	2.92%	10.98%	2.92%	24.53%	18.70%	12.86%	12.01%	7.03%	4.63%	100.00%
Moscow	PA	18444	PA-WB/Scranton	5.13%	5.02%	11.86%	10.04%	3.42%	17.41%	8.97%	13.46%	16.03%	7.48%	1.18%	100.00%
Olyphant	PA	18447	PA-WB/Scranton	1.24%	6.67%	6.84%	10.38%	3.95%	16.56%	8.07%	22.98%	13.43%	9.88%	0.00%	100.00%
Olyphant	PA	18447	PA-Abington	1.24%	6.67%	6.84%	10.38%	3.95%	16.56%	8.07%	22.98%	13.43%	9.88%	0.00%	100.00%
Peckville	PA	18452	PA-WB/Scranton	8.07%	0.00%	3.79%	20.92%	8.07%	13.18%	5.93%	20.43%	9.72%	9.88%	0.00%	100.00%
Thompson	PA	18465	PA-Susquehanna	0.00%	0.00%	16.30%	1.09%	8.70%	6.52%	20.65%	14.13%	18.48%	14.13%	0.00%	100.00%
Tobyhanna	PA	18466	PA-Pocono	4.59%	6.59%	5.62%	9.95%	12.99%	7.56%	15.77%	10.02%	11.05%	14.03%	1.81%	100.00%
Waverly	PA	18471	PA-Abington	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
Scranton	PA	18503	PA-WB/Scranton	8.14%	2.71%	14.47%	12.30%	3.07%	8.14%	13.56%	28.93%	1.63%	7.05%	0.00%	100.00%
Scranton	PA	18504	PA-WB/Scranton	5.34%	2.88%	12.16%	12.48%	4.74%	10.44%	18.32%	23.15%	6.34%	2.70%	1.45%	100.00%
Scranton	PA	18505	PA-WB/Scranton	4.08%	6.45%	13.22%	13.48%	8.47%	10.50%	15.47%	11.63%	8.52%	6.25%	1.93%	100.00%
Moosic	PA	18507	PA-WB/Scranton	8.68%	2.69%	2.40%	28.29%	0.00%	5.69%	23.80%	13.17%	4.64%	0.00%	10.63%	100.00%
Moosic	PA	18507	PA-Nazareth	8.68%	2.69%	2.40%	28.29%	0.00%	5.69%	23.80%	13.17%	4.64%	0.00%	10.63%	100.00%
Scranton	PA	18508	PA-WB/Scranton	5.30%	5.77%	15.28%	7.93%	5.93%	19.84%	15.20%	16.18%	5.85%	2.71%	0.00%	100.00%
Scranton	PA	18509	PA-WB/Scranton	7.82%	3.84%	9.24%	7.99%	10.16%	16.31%	17.62%	16.23%	4.87%	3.73%	2.20%	100.00%
Scranton	PA	18510	PA-WB/Scranton	5.34%	8.19%	11.61%	9.56%	8.19%	16.24%	9.04%	16.79%	8.56%	3.49%	2.98%	100.00%
Scranton	PA	18512	PA-WB/Scranton	1.75%	8.83%	5.82%	4.97%	10.05%	13.06%	25.01%	18.98%	6.29%	5.24%	0.00%	100.00%
Taylor	PA	18517	PA-WB/Scranton	0.00%	14.76%	4.67%	0.00%	7.53%	12.50%	21.39%	16.57%	14.01%	8.58%	0.00%	100.00%
Old Forge	PA	18518	PA-WB/Scranton	4.18%	4.18%	13.73%	6.91%	6.35%	11.33%	16.31%	17.35%	9.80%	6.59%	3.29%	100.00%
Scranton	PA	18519	PA-WB/Scranton	8.72%	5.38%	14.81%	3.11%	6.57%	18.64%	15.65%	13.62%	2.75%	10.75%	0.00%	100.00%
Berwick	PA	18603	PA-Berwick	10.11%	7.59%	11.48%	8.34%	6.67%	14.66%	18.81%	13.60%	6.40%	1.90%	0.44%	100.00%
Berwick	PA	18603	PA-Phillipsburg	10.11%	7.59%	11.48%	8.34%	6.67%	14.66%	18.81%	13.60%	6.40%	1.90%	0.44%	100.00%
Dallas	PA	18612	PA-WB/Scranton	8.84%	3.41%	5.27%	11.01%	5.27%	8.14%	16.67%	13.57%	11.78%	2.95%	13.10%	100.00%
Glen Lyon	PA	18617	PA-WB/Scranton	11.70%	7.45%	14.89%	6.03%	15.60%	17.38%	13.48%	2.84%	10.64%	0.00%	0.00%	100.00%
Hunlock Creek	PA	18621	PA-WB/Scranton	2.38%	0.00%	0.00%	0.00%	4.76%	5.95%	19.64%	35.12%	20.24%	0.00%	11.90%	100.00%
Lake Winola	PA	18625	PA-Abington	0.00%	0.00%	0.00%	0.00%	0.00%	83.33%	0.00%	16.67%	0.00%	0.00%	0.00%	100.00%
Nanticoke	PA	18634	PA-WB/Scranton	7.63%	9.82%	10.82%	4.69%	3.74%	11.07%	16.65%	19.39%	9.12%	6.78%	0.30%	100.00%
Nanticoke	PA	18634	PA-WB/Scranton	7.63%	9.82%	10.82%	4.69%	3.74%	11.07%	16.65%	19.39%	9.12%	6.78%	0.30%	100.00%
Nescopeck	PA	18635	PA-Berwick	0.00%	0.00%	5.04%	11.63%	5.81%	9.30%	22.48%	24.81%	13.95%	5.81%	1.16%	100.00%
Pittston	PA	18640	PA-WB/Scranton	7.74%	3.18%	9.03%	5.67%	9.42%	18.88%	20.81%	8.17%	9.71%	6.57%	0.82%	100.00%
Pittston	PA	18641	PA-WB/Scranton	5.54%	0.00%	7.22%	4.18%	6.49%	24.37%	20.92%	12.87%	10.15%	7.64%	0.63%	100.00%
Duryea	PA	18642	PA-WB/Scranton	8.51%	8.98%	9.69%	2.13%	10.64%	11.11%	20.09%	0.00%	11.82%	17.02%	0.00%	100.00%
Pittston	PA	18643	PA-WB/Scranton	6.42%	5.11%	6.42%	1.93%	2.12%	14.90%	18.02%	13.90%	16.52%	9.10%	5.55%	100.00%
Wyoming	PA	18644	PA-WB/Scranton	1.13%	1.33%	11.18%	8.31%	9.54%	29.03%	14.97%	12.62%	7.49%	3.59%	0.82%	100.00%
Plymouth	PA	18651	PA-WB/Scranton	3.65%	7.24%	6.48%	4.09%	7.61%	27.75%	12.90%	16.24%	5.54%	3.71%	4.78%	100.00%
Plymouth	PA	18651	PA-Norristown	3.65%	7.24%	6.48%	4.09%	7.61%	27.75%	12.90%	16.24%	5.54%	3.71%	4.78%	100.00%
Shickshinny	PA	18655	PA-WB/Scranton	10.78%	4.04%	12.13%	4.85%	0.27%	3.50%	19.68%	21.56%	13.75%	8.36%	1.08%	100.00%
Wilkes Barre	PA	18701	PA-WB/Scranton	8.05%	4.79%	5.55%	12.73%	13.49%	12.51%	30.90%	7.40%	3.48%	1.09%	0.00%	100.00%



TOTAL COMMUNITIES: 362

				--- Distribution of Income for Rented Units ---											
City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Wilkes Barre	PA	18702	PA-WB/Scranton	11.76%	7.53%	9.76%	8.44%	6.73%	16.69%	11.47%	14.95%	7.05%	3.90%	1.71%	100.00%
Kingston	PA	18704	PA-WB/Scranton	7.44%	8.47%	8.56%	4.68%	9.10%	12.59%	16.54%	17.03%	7.17%	6.28%	2.13%	100.00%
Wilkes Barre	PA	18705	PA-WB/Scranton	3.95%	1.36%	3.60%	7.37%	5.31%	11.45%	19.48%	24.31%	17.95%	4.17%	1.05%	100.00%
Wilkes Barre	PA	18706	PA-WB/Scranton	5.77%	7.38%	6.62%	5.94%	10.60%	9.84%	12.93%	11.28%	20.06%	6.15%	3.44%	100.00%
Wilkes Barre	PA	18706	PA-Mechanicsburg	5.77%	7.38%	6.62%	5.94%	10.60%	9.84%	12.93%	11.28%	20.06%	6.15%	3.44%	100.00%
Mountain Top	PA	18707	PA-WB/Scranton	0.00%	1.63%	12.48%	4.52%	15.91%	8.32%	31.83%	12.48%	7.23%	5.24%	0.36%	100.00%
Shavertown	PA	18708	PA-WB/Scranton	0.00%	5.67%	23.44%	7.37%	10.02%	0.00%	22.12%	11.34%	2.84%	12.29%	4.91%	100.00%
Shavertown	PA	18708	PA-WB/Scranton	0.00%	5.67%	23.44%	7.37%	10.02%	0.00%	22.12%	11.34%	2.84%	12.29%	4.91%	100.00%
Luzerne	PA	18709	PA-WB/Scranton	6.91%	10.62%	10.46%	4.55%	8.43%	20.91%	11.30%	13.66%	8.60%	4.55%	0.00%	100.00%
Montrose	PA	18801	PA-Susquehanna	1.92%	1.79%	12.42%	13.06%	2.69%	18.05%	15.62%	12.93%	12.42%	8.58%	0.51%	100.00%
Great Bend	PA	18821	PA-Susquehanna	7.09%	7.80%	10.64%	4.96%	0.00%	19.15%	15.60%	15.60%	14.89%	2.84%	1.42%	100.00%
Hallstead	PA	18822	PA-Susquehanna	9.27%	10.22%	17.89%	7.03%	3.19%	13.10%	18.21%	14.06%	0.96%	6.07%	0.00%	100.00%
Susquehanna	PA	18847	PA-Susquehanna	5.49%	6.71%	9.15%	7.11%	7.72%	25.00%	11.18%	17.28%	5.49%	3.86%	1.02%	100.00%
Newtown	PA	18940	PA-Yardley	7.35%	0.57%	2.62%	3.13%	6.44%	9.57%	5.98%	17.21%	11.17%	16.75%	19.20%	100.00%
Washington Crossing	PA	18977	PA-Yardley	0.00%	0.00%	0.00%	10.91%	0.00%	0.00%	0.00%	13.94%	28.48%	21.82%	24.85%	100.00%
Clifton Heights	PA	19018	PA-Lehman Pike	5.44%	3.01%	6.12%	1.65%	8.89%	9.01%	13.59%	25.20%	9.72%	9.84%	7.53%	100.00%
Media	PA	19063	PA-Royersford	3.46%	1.45%	6.89%	2.34%	3.57%	11.58%	12.82%	18.83%	13.57%	17.34%	8.15%	100.00%
Morrisville	PA	19067	PA-Yardley	5.66%	2.01%	4.20%	3.12%	1.58%	5.86%	14.64%	21.43%	11.72%	20.60%	9.18%	100.00%
Coatesville	PA	19320	PA-Coatesville	2.69%	4.71%	6.76%	7.79%	4.76%	12.01%	14.23%	23.70%	10.27%	7.99%	5.10%	100.00%
Downingtown	PA	19335	PA-Coatesville	1.21%	2.29%	1.85%	2.99%	9.40%	9.92%	17.03%	22.51%	17.98%	9.48%	5.33%	100.00%
Honey Brook	PA	19344	PA-Coatesville	0.65%	4.61%	4.28%	1.93%	0.81%	11.40%	29.43%	28.94%	9.62%	6.39%	1.94%	100.00%
Parkeburg	PA	19365	PA-Coatesville	6.99%	1.89%	7.13%	8.30%	6.55%	8.59%	4.37%	22.71%	10.63%	5.82%	17.03%	100.00%
Pomeroy	PA	19367	PA-Coatesville	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sadsburyville	PA	19369	PA-Coatesville	0.00%	51.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	48.89%	0.00%	0.00%	100.00%
Thorndale	PA	19372	PA-Coatesville	0.00%	0.00%	0.00%	0.00%	0.00%	11.17%	18.72%	11.73%	16.20%	39.39%	2.79%	100.00%
Norristown	PA	19401	PA-Norristown	3.82%	3.42%	7.51%	8.30%	7.53%	15.46%	13.58%	16.65%	12.55%	7.72%	3.47%	100.00%
Norristown	PA	19403	PA-Norristown	2.63%	2.08%	5.18%	3.02%	4.93%	9.97%	10.46%	16.68%	17.27%	13.23%	14.54%	100.00%
Bridgeport	PA	19405	PA-Norristown	4.82%	0.00%	9.34%	2.41%	5.68%	8.57%	14.74%	24.95%	13.29%	9.73%	6.45%	100.00%
King Of Prussia	PA	19406	PA-Norristown	2.41%	0.87%	0.62%	3.23%	3.17%	5.04%	8.92%	18.21%	18.52%	22.49%	16.51%	100.00%
Blue Bell	PA	19422	PA-Norristown	1.44%	3.70%	0.75%	1.30%	4.59%	6.24%	12.75%	13.02%	17.61%	22.76%	15.83%	100.00%
Collegeville	PA	19426	PA-Norristown	0.82%	1.36%	0.68%	0.68%	0.88%	6.52%	13.32%	23.51%	24.25%	14.54%	13.45%	100.00%
Collegeville	PA	19426	PA-Royersford	0.82%	1.36%	0.68%	0.68%	0.88%	6.52%	13.32%	23.51%	24.25%	14.54%	13.45%	100.00%
Lansdale	PA	19446	PA-Norristown	2.90%	1.89%	4.93%	3.73%	5.69%	8.62%	12.88%	21.36%	15.70%	15.56%	6.73%	100.00%
Mont Clare	PA	19453	PA-Royersford	0.00%	0.00%	0.00%	0.00%	0.00%	5.50%	21.31%	38.83%	6.87%	27.49%	0.00%	100.00%
North Wales	PA	19454	PA-Norristown	4.78%	0.00%	4.11%	0.00%	2.39%	9.93%	9.55%	17.09%	20.65%	16.80%	14.70%	100.00%
Oaks	PA	19456	PA-Royersford	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Parker Ford	PA	19457	PA-Royersford	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Phoenixville	PA	19460	PA-Royersford	7.43%	1.52%	3.60%	4.87%	2.58%	8.47%	10.26%	16.60%	17.55%	15.58%	11.54%	100.00%
Norristown	PA	19403	PA-Audubon	2.63%	2.08%	5.18%	3.02%	4.93%	9.97%	10.46%	16.68%	17.27%	13.23%	14.54%	100.00%
Plymouth Meeting	PA	19462	PA-Norristown	4.02%	0.74%	1.72%	0.99%	2.87%	8.13%	15.35%	21.59%	13.30%	17.32%	13.96%	100.00%
Pottstown	PA	19464	PA-Royersford	3.79%	3.26%	8.63%	8.37%	10.70%	9.04%	15.95%	20.00%	9.52%	9.58%	1.15%	100.00%
Pottstown	PA	19465	PA-Royersford	3.22%	2.21%	4.16%	2.68%	4.97%	11.61%	18.93%	19.33%	18.59%	10.87%	3.42%	100.00%
Royersford	PA	19468	PA-Royersford	0.53%	0.73%	5.04%	3.74%	8.17%	4.96%	18.93%	26.30%	17.98%	8.17%	5.46%	100.00%
Schwenksville	PA	19473	PA-Royersford	4.69%	2.93%	1.41%	13.60%	11.61%	8.68%	10.20%	20.16%	8.21%	14.54%	3.99%	100.00%
Schwenksville	PA	19473	PA-Norristown	4.69%	2.93%	1.41%	13.60%	11.61%	8.68%	10.20%	20.16%	8.21%	14.54%	3.99%	100.00%
Spring City	PA	19475	PA-Royersford	12.93%	3.20%	3.95%	12.59%	0.61%	4.97%	20.63%	12.05%	20.69%	4.70%	3.68%	100.00%
Worcester	PA	19490	PA-Norristown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Birdsboro	PA	19508	PA-Glen	8.01%	0.75%	6.24%	4.19%	4.10%	30.38%	22.55%	8.85%	8.67%	4.57%	1.68%	100.00%
Douglassville	PA	19518	PA-Glen	7.91%	1.72%	10.09%	2.41%	3.78%	17.32%	9.29%	15.71%	24.43%	3.44%	3.90%	100.00%
Fleetwood	PA	19522	PA-Glen	6.97%	5.67%	4.85%	0.95%	2.60%	7.21%	6.62%	28.13%	17.49%	15.25%	4.26%	100.00%
Reading	PA	19606	PA-Glen	4.76%	4.36%	2.95%	4.39%	9.23%	8.79%	19.93%	23.52%	8.49%	8.69%	4.90%	100.00%
Reading	PA	19606	PA-Penn/Wyomissing	4.76%	4.36%	2.95%	4.39%	9.23%	8.79%	19.93%	23.52%	8.49%	8.69%	4.90%	100.00%
Reading	PA	19607	PA-Glen	3.75%	1.21%	6.23%	3.25%	4.87%	12.22%	13.46%	28.13%	11.07%	13.46%	2.36%	100.00%
Reading	PA	19608	PA-Penn/Wyomissing	0.00%	4.79%	0.77%	4.41%	2.59%	18.18%	20.99%	17.36%	20.33%	8.43%	2.15%	100.00%
Reading	PA	19608	PA-Glen	0.00%	4.79%	0.77%	4.41%	2.59%	18.18%	20.99%	17.36%	20.33%	8.43%	2.15%	100.00%
Reading	PA	19609	PA-Penn/Wyomissing	8.50%	2.68%	1.89%	1.73%	5.83%	21.57%	30.08%	8.82%	6.14%	12.44%	0.31%	100.00%
Reading	PA	19610	PA-Penn/Wyomissing	4.36%	1.34%	3.32%	2.13%	10.65%	15.96%	6.19%	20.32%	11.30%	9.76%	14.67%	100.00%
TOTAL CUSTOMERS				4,720	4,615	7,546	6,174	6,478	11,955	13,540	14,747	9,167	7,037	2,698	88,676

Pennsylvania-American Water Company  
Case No. R-2023-3043189  
Wastewater Affordability Summary - Bills for Basic Water Service  
Customer Counts as of December 31, 2022

Affordability Target: 2.0%

Income Level	Size	Water Service	Average Income	Customers	Proposed Base Bill	--- Customers by FPL ---											--- Customers by FPL ---					
						0-50%	51%-100%	101%-150%	151%-200%	201%-250%	251%-300%	301%-350%	351%-400%	401%-450%	451%-500%	Over 500%	0-150%	151-300%	301-500%	Over 500%		
\$0-\$5k	1	1,200	\$ 3,000	1,277	\$ 44.94	1,277	-	-	-	-	-	-	-	-	-	-	-	-	1,277	-	-	-
\$0-\$5k	2	2,400	\$ 3,000	752	\$ 72.65	752	-	-	-	-	-	-	-	-	-	-	-	-	752	-	-	-
\$0-\$5k	3	3,600	\$ 3,000	257	\$ 101.81	257	-	-	-	-	-	-	-	-	-	-	-	-	257	-	-	-
\$0-\$5k	4	4,800	\$ 3,000	154	\$ 131.92	154	-	-	-	-	-	-	-	-	-	-	-	-	154	-	-	-
\$0-\$5k	5	6,000	\$ 3,000	70	\$ 159.70	70	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-
\$0-\$5k	6	7,200	\$ 3,000	29	\$ 190.48	29	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	-
\$0-\$5k	7	8,400	\$ 3,000	20	\$ 217.69	20	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-
\$5-\$10k	1	1,200	\$ 7,500	1,336	\$ 50.39	660	676	-	-	-	-	-	-	-	-	-	-	-	1,336	-	-	-
\$5-\$10k	2	2,400	\$ 7,500	527	\$ 72.26	527	-	-	-	-	-	-	-	-	-	-	-	-	527	-	-	-
\$5-\$10k	3	3,600	\$ 7,500	187	\$ 101.23	187	-	-	-	-	-	-	-	-	-	-	-	-	187	-	-	-
\$5-\$10k	4	4,800	\$ 7,500	121	\$ 130.45	121	-	-	-	-	-	-	-	-	-	-	-	-	121	-	-	-
\$5-\$10k	5	6,000	\$ 7,500	54	\$ 160.28	54	-	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-
\$5-\$10k	6	7,200	\$ 7,500	18	\$ 192.86	18	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-
\$5-\$10k	7	8,400	\$ 7,500	15	\$ 218.62	15	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-
\$10-\$15k	1	1,200	\$ 12,500	2,969	\$ 45.07	-	2,675	294	-	-	-	-	-	-	-	-	-	-	2,969	-	-	-
\$10-\$15k	2	2,400	\$ 12,500	852	\$ 72.57	-	852	-	-	-	-	-	-	-	-	-	-	-	852	-	-	-
\$10-\$15k	3	3,600	\$ 12,500	293	\$ 101.71	-	156	-	-	-	-	-	-	-	-	-	-	-	293	-	-	-
\$10-\$15k	4	4,800	\$ 12,500	193	\$ 131.15	-	-	-	-	-	-	-	-	-	-	-	-	-	193	-	-	-
\$10-\$15k	5	6,000	\$ 12,500	78	\$ 160.07	-	-	-	-	-	-	-	-	-	-	-	-	-	78	-	-	-
\$10-\$15k	6	7,200	\$ 12,500	27	\$ 189.95	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-
\$10-\$15k	7	8,400	\$ 12,500	15	\$ 223.45	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-
\$15-\$20k	1	1,200	\$ 17,500	2,619	\$ 45.55	-	-	2,619	-	-	-	-	-	-	-	-	-	-	2,619	-	-	-
\$15-\$20k	2	2,400	\$ 17,500	985	\$ 73.14	-	894	91	-	-	-	-	-	-	-	-	-	-	985	-	-	-
\$15-\$20k	3	3,600	\$ 17,500	342	\$ 102.43	-	342	-	-	-	-	-	-	-	-	-	-	-	342	-	-	-
\$15-\$20k	4	4,800	\$ 17,500	213	\$ 131.61	-	213	-	-	-	-	-	-	-	-	-	-	-	213	-	-	-
\$15-\$20k	5	6,000	\$ 17,500	110	\$ 161.38	-	68	42	-	-	-	-	-	-	-	-	-	-	110	-	-	-
\$15-\$20k	6	7,200	\$ 17,500	36	\$ 192.23	-	36	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-
\$15-\$20k	7	8,400	\$ 17,500	22	\$ 221.02	-	22	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-
\$20-\$25k	1	1,200	\$ 22,500	2,573	\$ 45.02	-	-	1,024	1,549	-	-	-	-	-	-	-	-	-	1,024	1,549	-	-
\$20-\$25k	2	2,400	\$ 22,500	1,360	\$ 72.44	-	-	1,360	-	-	-	-	-	-	-	-	-	-	1,360	-	-	-
\$20-\$25k	3	3,600	\$ 22,500	465	\$ 102.02	-	465	-	-	-	-	-	-	-	-	-	-	-	465	-	-	-
\$20-\$25k	4	4,800	\$ 22,500	285	\$ 130.72	-	285	-	-	-	-	-	-	-	-	-	-	-	285	-	-	-
\$20-\$25k	5	6,000	\$ 22,500	135	\$ 161.03	-	135	-	-	-	-	-	-	-	-	-	-	-	135	-	-	-
\$20-\$25k	6	7,200	\$ 22,500	57	\$ 191.12	-	57	-	-	-	-	-	-	-	-	-	-	-	57	-	-	-
\$20-\$25k	7	8,400	\$ 22,500	37	\$ 219.73	-	26	11	-	-	-	-	-	-	-	-	-	-	37	-	-	-
\$25-\$35k	1	1,200	\$ 22,500	4,275	\$ 44.15	-	-	-	1,709	2,566	-	-	-	-	-	-	-	-	-	4,275	-	-
\$25-\$35k	2	2,400	\$ 30,000	3,099	\$ 71.27	-	-	1,545	1,555	-	-	-	-	-	-	-	-	-	1,545	1,555	-	-
\$25-\$35k	3	3,600	\$ 30,000	1,060	\$ 99.84	-	-	1,060	-	-	-	-	-	-	-	-	-	-	1,060	-	-	-
\$25-\$35k	4	4,800	\$ 30,000	657	\$ 127.89	-	321	337	-	-	-	-	-	-	-	-	-	-	657	-	-	-
\$25-\$35k	5	6,000	\$ 30,000	331	\$ 157.83	-	331	-	-	-	-	-	-	-	-	-	-	-	331	-	-	-
\$25-\$35k	6	7,200	\$ 30,000	148	\$ 187.43	-	148	-	-	-	-	-	-	-	-	-	-	-	148	-	-	-
\$25-\$35k	7	8,400	\$ 30,000	82	\$ 213.13	-	82	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-
\$35-\$50k	1	1,200	\$ 37,500	4,478	\$ 44.57	-	-	-	-	447	2,244	1,788	-	-	-	-	-	-	-	2,690	1,788	-
\$35-\$50k	2	2,400	\$ 37,500	4,917	\$ 72.03	-	-	-	1,473	3,444	-	-	-	-	-	-	-	-	-	4,917	-	-
\$35-\$50k	3	3,600	\$ 37,500	1,822	\$ 101.20	-	-	358	1,464	-	-	-	-	-	-	-	-	-	358	1,464	-	-
\$35-\$50k	4	4,800	\$ 37,500	1,213	\$ 130.51	-	-	846	367	-	-	-	-	-	-	-	-	-	846	367	-	-
\$35-\$50k	5	6,000	\$ 37,500	651	\$ 159.59	-	-	651	-	-	-	-	-	-	-	-	-	-	651	-	-	-
\$35-\$50k	6	7,200	\$ 37,500	263	\$ 188.14	-	94	169	-	-	-	-	-	-	-	-	-	-	263	-	-	-
\$35-\$50k	7	8,400	\$ 37,500	141	\$ 216.21	-	99	42	-	-	-	-	-	-	-	-	-	-	141	-	-	-
\$50-\$75k	1	1,200	\$ 62,500	4,875	\$ 44.51	-	-	-	-	-	-	-	-	-	1,462	1,467	1,459	487	-	-	4,388	487
\$50-\$75k	2	2,400	\$ 62,500	7,579	\$ 71.97	-	-	-	-	-	-	-	-	3,029	3,037	1,514	-	-	-	3,029	4,550	-
\$50-\$75k	3	3,600	\$ 62,500	3,155	\$ 101.04	-	-	-	-	-	1,570	1,586	-	-	-	-	-	-	-	3,155	-	-
\$50-\$75k	4	4,800	\$ 62,500	2,297	\$ 130.26	-	-	-	916	1,381	-	-	-	-	-	-	-	-	-	2,297	-	-
\$50-\$75k	5	6,000	\$ 62,500	1,100	\$ 158.58	-	-	110	771	219	-	-	-	-	-	-	-	-	110	990	-	-
\$50-\$75k	6	7,200	\$ 62,500	448	\$ 187.44	-	-	180	268	-	-	-	-	-	-	-	-	-	180	268	-	-

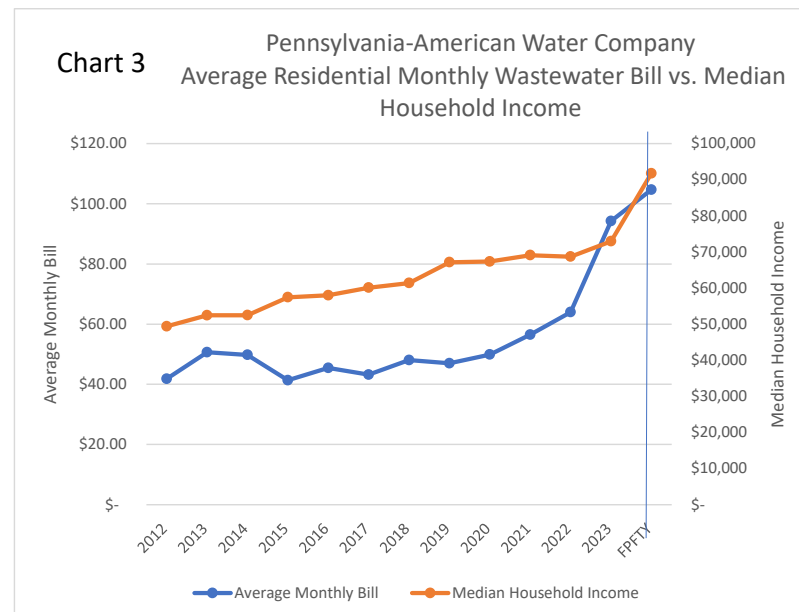
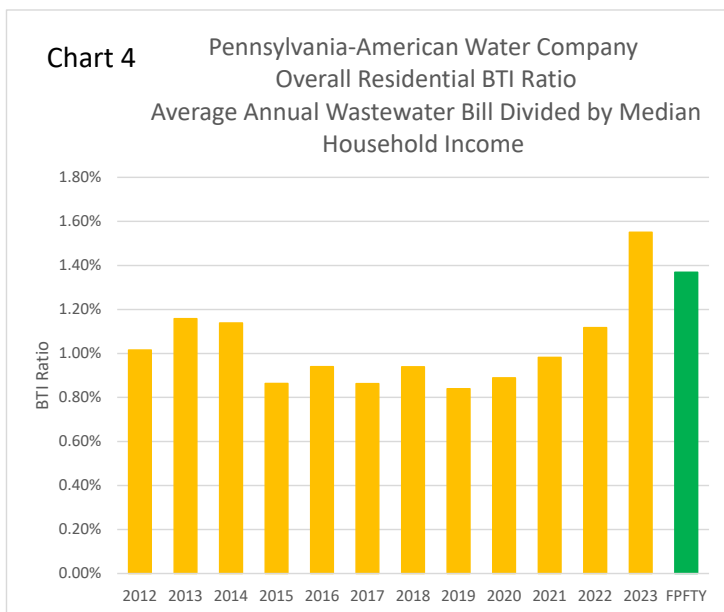
Pennsylvania-American Water Company  
Case No. R-2023-3043189  
Wastewater Affordability Summary - Bills for Basic Water Service  
Customer Counts as of December 31, 2022

Affordability Target: 2.0%

Income Level	Size	Water Service	Average Income	Customers	Proposed Base Bill	--- Customers by FPL ---											--- Customers by FPL ---				
						0-50%	51%-100%	101%-150%	151%-200%	201%-250%	251%-300%	301%-350%	351%-400%	401%-450%	451%-500%	Over 500%	0-150%	151-300%	301-500%	Over 500%	
\$50-\$75k	7	8,400	\$ 62,500	242	\$ 216.10	-	-	174	68	-	-	-	-	-	-	-	-	174	68	-	-
\$75-\$100k	1	1,200	\$ 87,500	2,540	\$ 46.12	-	-	-	-	-	-	-	-	-	-	-	2,540	-	-	-	2,540
\$75-\$100k	2	2,400	\$ 87,500	5,680	\$ 72.33	-	-	-	-	-	-	-	1,131	1,714	2,269	566	-	-	5,114	566	
\$75-\$100k	3	3,600	\$ 87,500	2,614	\$ 101.09	-	-	-	-	-	-	1,302	1,313	-	-	-	-	-	2,614	-	
\$75-\$100k	4	4,800	\$ 87,500	2,214	\$ 130.53	-	-	-	-	-	1,330	884	-	-	-	-	-	1,330	884	-	
\$75-\$100k	5	6,000	\$ 87,500	983	\$ 158.72	-	-	-	-	498	486	-	-	-	-	-	-	983	-	-	
\$75-\$100k	6	7,200	\$ 87,500	391	\$ 186.88	-	-	-	77	314	-	-	-	-	-	-	-	391	-	-	
\$75-\$100k	7	8,400	\$ 87,500	210	\$ 215.42	-	-	-	137	73	-	-	-	-	-	-	-	210	-	-	
\$100-\$150k	1	1,200	\$ 125,000	2,147	\$ 43.89	-	-	-	-	-	-	-	-	-	-	-	2,147	-	-	-	2,147
\$100-\$150k	2	2,400	\$ 125,000	7,229	\$ 71.76	-	-	-	-	-	-	-	-	-	-	-	7,229	-	-	-	7,229
\$100-\$150k	3	3,600	\$ 125,000	3,777	\$ 100.71	-	-	-	-	-	-	-	-	753	1,129	1,895	-	-	1,883	1,895	
\$100-\$150k	4	4,800	\$ 125,000	3,707	\$ 130.09	-	-	-	-	-	-	369	1,111	1,117	1,111	-	-	-	3,707	-	
\$100-\$150k	5	6,000	\$ 125,000	1,549	\$ 158.53	-	-	-	-	-	156	614	471	309	-	-	-	156	1,394	-	
\$100-\$150k	6	7,200	\$ 125,000	570	\$ 186.38	-	-	-	-	-	230	230	110	-	-	-	-	230	340	-	
\$100-\$150k	7	8,400	\$ 125,000	326	\$ 215.42	-	-	-	-	91	145	91	-	-	-	-	-	235	91	-	
Over \$150k	1	1,200	\$ 200,000	910	\$ 45.34	-	-	-	-	-	-	-	-	-	-	-	910	-	-	-	910
Over \$150k	2	2,400	\$ 200,000	4,280	\$ 72.13	-	-	-	-	-	-	-	-	-	-	-	4,280	-	-	-	4,280
Over \$150k	3	3,600	\$ 200,000	2,633	\$ 101.47	-	-	-	-	-	-	-	-	-	-	-	2,633	-	-	-	2,633
Over \$150k	4	4,800	\$ 200,000	3,093	\$ 131.32	-	-	-	-	-	-	-	-	-	-	-	3,093	-	-	-	3,093
Over \$150k	5	6,000	\$ 200,000	1,300	\$ 160.33	-	-	-	-	-	-	-	-	129	259	913	-	-	388	913	
Over \$150k	6	7,200	\$ 200,000	444	\$ 188.66	-	-	-	-	-	-	-	44	90	98	212	-	-	233	212	
Over \$150k	7	8,400	\$ 200,000	244	\$ 217.26	-	-	-	-	-	-	21	51	59	64	49	-	-	195	49	
Total:				108,157		4,743	7,877	10,859	10,353	10,602	9,203	8,334	7,206	5,639	6,389	26,953	23,479	30,159	27,567	26,953	

Pennsylvania-American Water Company  
Wastewater Affordability Analysis

Residential Statistics	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	FPFTY
PA Revenue	\$ 8,192,044	\$ 10,187,282	\$ 9,577,075	\$ 8,246,667	\$ 12,492,060	\$ 26,477,494	\$ 34,582,301	\$ 35,161,761	\$ 41,862,824	\$ 49,621,071	\$ 64,432,350	\$ 101,838,158	\$ 122,293,420
PA Customers	16,325	16,752	16,024	16,617	22,909	51,050	59,964	62,356	69,901	73,136	83,892	90,000	97,360
PA Statewide Median Income	\$ 51,904	\$ 55,156	\$ 55,173	\$ 60,389	\$ 60,979	\$ 63,173	\$ 64,524	\$ 70,582	\$ 70,789	\$ 72,627	\$ 72,210	\$ 76,680	\$ 96,449
PA Customer Median Income	\$ 49,384	\$ 52,478	\$ 52,495	\$ 57,457	\$ 58,019	\$ 60,106	\$ 61,392	\$ 67,156	\$ 67,353	\$ 69,101	\$ 68,705	\$ 72,958	\$ 91,767
PA Average Monthly Bill	\$ 41.82	\$ 50.68	\$ 49.81	\$ 41.36	\$ 45.44	\$ 43.22	\$ 48.06	\$ 46.99	\$ 49.91	\$ 56.54	\$ 64.00	\$ 94.29	\$ 104.67
PA BTI Ratio	1.02%	1.16%	1.14%	0.86%	0.94%	0.86%	0.94%	0.84%	0.89%	0.98%	1.12%	1.55%	1.37%



TOTAL COMMUNITIES: 84

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter
Beaver Falls	PA	15010	PA-Koppel WW	1	1	1	1	1	1	1	\$ 63,856	\$ 80,731	\$ 31,692	84.7%	15.3%	\$ 73,222	1	0
Dravosburg	PA	15034	PA-McKeesport WW	552	1	552	1	1	1	1	\$ 35,417	\$ 51,875	\$ 23,626	68.3%	31.7%	\$ 42,918	377	175
Duquesne	PA	15110	PA-McKeesport WW	10	1	10	6	1	1	1	\$ 37,478	\$ 44,323	\$ 32,917	65.7%	34.3%	\$ 40,413	7	3
Duquesne	PA	15110	PA-McKeesport WW	1,656	1	1,656	1	1	1	1	\$ 37,478	\$ 44,323	\$ 32,917	65.7%	34.3%	\$ 40,413	1,088	568
West Mifflin	PA	15122	PA-McKeesport WW	16	1	16	1	1	1	1	\$ 57,705	\$ 68,445	\$ 34,797	87.8%	12.2%	\$ 64,351	14	2
Mckeesport	PA	15131	PA-McKeesport WW	9	1	9	7	1	1	1	\$ 56,449	\$ 77,052	\$ 35,716	91.8%	8.2%	\$ 73,682	8	1
Mckeesport	PA	15132	PA-McKeesport WW	5,775	1	5,775	6	1	1	1	\$ 32,782	\$ 46,534	\$ 24,438	65.3%	34.7%	\$ 38,873	3,773	2,002
Mckeesport	PA	15132	PA-McKeesport WW	29	1	29	7	1	1	1	\$ 32,782	\$ 46,534	\$ 24,438	65.3%	34.7%	\$ 38,873	19	10
Mckeesport	PA	15133	PA-McKeesport WW	4	1	4	6	1	1	1	\$ 59,541	\$ 62,804	\$ 54,714	81.1%	18.9%	\$ 61,278	3	1
Mckeesport	PA	15133	PA-McKeesport WW	1,618	1	1,618	7	1	1	1	\$ 59,541	\$ 62,804	\$ 54,714	81.1%	18.9%	\$ 61,278	1,313	305
Pittsburgh	PA	15227	PA-Brentwood WW	3,702	1	3,702	11	1	1	1	\$ 64,827	\$ 81,538	\$ 32,355	89.4%	10.6%	\$ 76,327	3,310	392
Claysville	PA	15233	PA-Claysville WW	442	1	442	1	1	1	1	\$ 67,200	\$ 75,417	\$ 39,821	87.0%	13.0%	\$ 70,779	384	58
Farmington	PA	15437	PA-Farmington WW	442	1	442	13	1	1	1	\$ 68,478	\$ 70,188	\$ 67,731	84.2%	15.8%	\$ 69,800	372	70
Butler	PA	16001	PA-BASA WW	9,980	1	9,980	12	1	1	1	\$ 57,500	\$ 76,719	\$ 29,040	86.9%	13.1%	\$ 70,462	8,670	1,310
Butler	PA	16002	PA-BASA WW	1,425	1	1,425	12	1	1	1	\$ 69,714	\$ 79,015	\$ 27,500	95.4%	4.6%	\$ 76,637	1,359	66
East Butler	PA	16029	PA-BASA WW	1,425	1	1,425	12	1	1	1	\$ 49,405	\$ 53,750	\$ 36,250	88.9%	11.1%	\$ 51,806	1,267	158
Lyndora	PA	16045	PA-BASA WW	1,425	1	1,425	12	1	0	1	\$ 70,294	\$ 72,596	-	68.6%	31.4%	\$ 49,785	977	448
Koppel	PA	16136	PA-Koppel WW	336	1	336	1	1	1	1	\$ 56,786	\$ 62,500	\$ 30,833	78.8%	21.2%	\$ 55,783	265	71
Wampum	PA	16157	PA-Koppel WW	4	1	4	1	1	1	1	\$ 52,600	\$ 66,688	\$ 17,464	88.7%	11.3%	\$ 61,108	4	0
Clarion	PA	16214	PA-Clarion WW	1,885	1	1,885	1	1	1	1	\$ 47,321	\$ 79,957	\$ 22,761	77.9%	22.1%	\$ 67,338	1,469	416
Shippenville	PA	16254	PA-Clarion WW	204	1	204	1	1	1	1	\$ 52,917	\$ 57,679	\$ 45,833	88.1%	11.9%	\$ 56,272	180	24
Shippenville	PA	16254	PA-Clarion WW	359	1	359	1	1	1	1	\$ 52,917	\$ 57,679	\$ 45,833	88.1%	11.9%	\$ 56,272	316	43
Strattanville	PA	16258	PA-Clarion WW	18	1	18	1	1	1	1	\$ 47,891	\$ 62,500	\$ 39,063	82.6%	17.4%	\$ 58,417	15	3
Kane	PA	16735	PA-Kane WW	1,823	1	1,823	4	1	1	1	\$ 47,383	\$ 52,930	\$ 31,176	86.9%	13.1%	\$ 50,074	1,584	239
Camp Hill	PA	17011	PA-Fairview WW	525	1	525	1	1	1	1	\$ 84,471	\$ 101,845	\$ 55,131	86.2%	13.8%	\$ 95,379	452	73
Mechanicsburg	PA	17055	PA-Fairview WW	1	1	1	1	1	1	1	\$ 81,525	\$ 98,874	\$ 51,026	87.8%	12.2%	\$ 93,048	1	0
New Cumberland	PA	17070	PA-Fairview WW	2,222	1	2,222	1	1	1	1	\$ 79,082	\$ 91,358	\$ 38,446	87.9%	12.1%	\$ 84,970	1,954	268
New Cumberland	PA	17070	PA-Mechanicsburg	3	1	3	1	1	1	1	\$ 79,082	\$ 91,358	\$ 38,446	87.9%	12.1%	\$ 84,970	3	0
New Cumberland	PA	17070	PA-New Cumberland W	2,817	1	2,817	2	1	1	1	\$ 79,082	\$ 91,358	\$ 38,446	87.9%	12.1%	\$ 84,970	2,477	340
Biglerville	PA	17307	PA-Fairview WW	1	1	1	1	1	1	1	\$ 68,910	\$ 80,298	\$ 32,776	92.8%	7.2%	\$ 76,895	1	0
Biglerville	PA	17307	PA-FRANKLIN WW	127	1	127	1	1	1	1	\$ 68,910	\$ 80,298	\$ 32,776	92.8%	7.2%	\$ 76,895	118	9
Etters	PA	17319	PA-Fairview WW	740	1	740	1	1	1	1	\$ 84,416	\$ 89,295	\$ 45,422	92.6%	7.4%	\$ 86,035	685	55
Lewisberry	PA	17339	PA-Fairview WW	429	1	429	1	1	1	1	\$ 90,625	\$ 94,951	\$ 63,298	94.6%	5.4%	\$ 93,248	406	23
Ortanna	PA	17353	PA-FRANKLIN WW	193	1	193	1	1	1	1	\$ 76,793	\$ 83,798	\$ 35,313	84.0%	16.0%	\$ 76,059	162	31
York	PA	17401	PA-York WW (future)	4,502	1	4,502	8	1	1	1	\$ 33,950	\$ 41,644	\$ 29,106	56.6%	43.4%	\$ 36,204	2,549	1,953
York	PA	17403	PA-York WW (future)	4,785	1	4,785	8	1	1	1	\$ 60,840	\$ 81,868	\$ 31,846	80.3%	19.7%	\$ 72,008	3,842	943
York	PA	17404	PA-York WW (future)	2,574	1	2,574	8	1	1	1	\$ 67,838	\$ 74,892	\$ 44,466	84.8%	15.2%	\$ 70,261	2,182	392
York	PA	17406	PA-York WW (future)	15	1	15	8	1	1	1	\$ 76,153	\$ 83,541	\$ 57,246	89.2%	10.8%	\$ 80,701	13	2
Mc Ewensville	PA	17749	PA-McEwensville WW	2	1	2	1	1	1	1	\$ 50,455	\$ 65,833	\$ 40,179	78.3%	21.7%	\$ 60,256	2	0
Mc Ewensville	PA	17749	PA-McEwensville WW	96	1	96	1	1	1	1	\$ 50,455	\$ 65,833	\$ 40,179	78.3%	21.7%	\$ 60,256	75	21
Turbotville	PA	17772	PA-Turbotville WW	257	1	257	1	1	1	1	\$ 75,568	\$ 83,281	\$ 29,275	93.0%	7.0%	\$ 79,486	239	18
Watsonstown	PA	17777	PA-McEwensville WW	21	1	21	1	1	1	1	\$ 53,092	\$ 64,229	\$ 31,250	88.9%	11.1%	\$ 60,560	19	2
Drifton	PA	18221	Foster Township WW	1	1	1	9	1	0	1	\$ 62,165	\$ 66,389	-	72.5%	27.5%	\$ 48,121	1	0
Freeland	PA	18224	Foster Township WW	496	1	496	9	1	1	1	\$ 50,827	\$ 55,712	\$ 34,254	79.4%	20.6%	\$ 51,296	394	102
East Stroudsburg	PA	18301	PA-Lehman Pike WW	40	1	40	1	1	1	1	\$ 79,645	\$ 101,809	\$ 44,375	81.0%	19.0%	\$ 90,909	32	8
East Stroudsburg	PA	18301	PA-Pocono BlueMtn WW	861	1	861	1	1	1	1	\$ 79,645	\$ 101,809	\$ 44,375	81.0%	19.0%	\$ 90,909	698	163
East Stroudsburg	PA	18302	PA-Lehman Pike WW	10	1	10	1	1	1	1	\$ 70,669	\$ 77,500	\$ 49,429	88.3%	11.7%	\$ 74,230	9	1
East Stroudsburg	PA	18302	PA-Pocono BlueMtn WW	16	1	16	1	1	1	1	\$ 70,669	\$ 77,500	\$ 49,429	88.3%	11.7%	\$ 74,230	14	2
East Stroudsburg	PA	18302	PA-Winona Lake WW	39	1	39	1	1	1	1	\$ 70,669	\$ 77,500	\$ 49,429	88.3%	11.7%	\$ 74,230	34	5
Bushkill	PA	18324	PA-Lehman Pike WW	2,661	1	2,661	1	1	1	1	\$ 64,042	\$ 80,708	\$ 35,404	85.9%	14.1%	\$ 74,300	2,285	376
Bushkill	PA	18324	PA-Winona Lake WW	44	1	44	1	1	1	1	\$ 64,042	\$ 80,708	\$ 35,404	85.9%	14.1%	\$ 74,300	38	6
Dingmans Ferry	PA	18328	PA-CLN TRTMT WW	358	1	358	1	1	1	1	\$ 69,978	\$ 74,932	\$ 22,168	90.4%	9.6%	\$ 69,877	324	34
Dingmans Ferry	PA	18328	PA-Lehman Pike WW	35	1	35	1	1	1	1	\$ 69,978	\$ 74,932	\$ 22,168	90.4%	9.6%	\$ 69,877	32	3
Pocono Summit	PA	18346	PA-Pocono WW	1	1	1	1	1	0	1	\$ 59,500	\$ 66,471	-	93.1%	6.9%	\$ 61,906	1	0
Moscow	PA	18444	PA-Scranton WW	3	1	3	3	1	1	1	\$ 78,467	\$ 86,239	\$ 32,955	89.4%	10.6%	\$ 80,591	3	0
Tobyhanna	PA	18466	PA-Pocono WW	3,758	1	3,758	1	1	1	1	\$ 66,603	\$ 74,271	\$ 41,553	78.5%	21.5%	\$ 67,236	2,950	808
Scranton	PA	18503	PA-Scranton WW	61	1	61	3	1	1	1	\$ 35,699	\$ 43,571	\$ 35,478	63.2%	36.8%	\$ 40,589	39	22
Scranton	PA	18504	PA-Scranton WW	7,216	1	7,216	3	1	1	1	\$ 50,531	\$ 68,095	\$ 35,984	76.2%	23.8%	\$ 60,462	5,501	1,715
Scranton	PA	18505	PA-Scranton WW	6,130	1	6,130	3	1	1	1	\$ 45,030	\$ 67,585	\$ 30,521	74.9%	25.1%	\$ 58,268	4,589	1,541
Moosic	PA	18507	PA-Scranton WW	2	1	2	3	1	1	1	\$ 65,956	\$ 98,393	\$ 36,136	82.6%	17.4%	\$ 87,543	2	0
Scranton	PA	18508	PA-Scranton WW	3,352	1	3,352	3	1	1	1	\$ 41,461	\$ 56,191	\$ 31,419	71.1%	28.9%	\$ 49,023	2,382	970
Scranton	PA	18509	PA-Scranton WW	3,888	1	3,888	3	1	1	1	\$ 47,531	\$ 83,664	\$ 29,163	77.0%	23.0%	\$ 71,139	2,995	893
Scranton	PA	18510	PA-Scranton WW	2,988	1	2,988	3	1	1	1	\$ 43,019	\$ 65,820	\$ 29,453	74.9%	25.1%	\$ 56,700	2,239	749
Scranton	PA	18512	PA-Scranton WW	3,238	1	3,238	3	1	1	1	\$ 56,571	\$ 74,601	\$ 37,124	84.9%	15.1%	\$ 68,953	2,750	488
Taylor	PA	18517	PA-Scranton WW	2	1	2	3	1	1	1	\$ 63,408	\$ 76,151	\$ 44,135	90.0%	10.0%	\$ 72,965	2	0
Scranton	PA	18519	PA-Scranton WW	1	1	1	3	1	1	1	\$ 60,328	\$ 85,406	\$ 32,743	78.7%	21.3%	\$ 74,179	1	0
Kingston	PA	18704	PA-Scranton WW	1	1	1	3	1	1	1	\$ 55,843	\$ 76,972	\$ 34,320	80.7%	19.3%	\$ 68,748	1	0
Clifton Heights	PA	19018	PA-Lehman Pike WW	1	1	1	1	1	1	1	\$ 63,442	\$ 80,099	\$ 51,126	89.8%	10.2%	\$ 77,130	1	0

TOTAL COMMUNITIES: 84

City	State	Zip Code	Profit Center	Residential Customers	Analyzer Flag	Analyzed Customers	Rate Zone	PWS Zone	Income Flag	Household Flag	Median Income Total	Median Income Owned	Median Income Rented	Percent Owned	Percent Renter S.F.	Customer Median Income	Residential Customers Owner	Residential Customers Renter	
Coatesville	PA	19320	PA - Sadsbury WW	953	1	953	1	1	1	1	\$ 82,158	\$ 100,677	\$ 44,508	83.0%	17.0%	\$ 91,132	791	162	
Coatesville	PA	19320	PA-Coatesville WW	4,996	1	4,996	1	1	1	1	\$ 82,158	\$ 100,677	\$ 44,508	83.0%	17.0%	\$ 91,132	4,147	849	
Coatesville	PA	19320	PA-Coatesville WW	2,724	1	2,724	5	1	1	1	\$ 82,158	\$ 100,677	\$ 44,508	83.0%	17.0%	\$ 91,132	2,261	463	
Parkesburg	PA	19365	PA - Sadsbury WW	238	1	238	1	1	1	1	\$ 93,134	\$ 106,313	\$ 58,542	88.0%	12.0%	\$ 100,589	209	29	
Parkesburg	PA	19365	PA-Coatesville WW	1,141	1	1,141	1	1	1	1	\$ 93,134	\$ 106,313	\$ 58,542	88.0%	12.0%	\$ 100,589	1,004	137	
Sadsburyville	PA	19369	PA-Sadsbury WW	225	1	225	14	1	0	1	-	-	-	13.5%	86.5%	\$ -	30	195	
Pottstown	PA	19464	Upper Pottsgrove WW	1,494	1	1,494	1	1	1	1	\$ 67,891	\$ 89,364	\$ 39,153	79.7%	20.3%	\$ 79,155	1,190	304	
Pottstown	PA	19465	Upper Pottsgrove WW	16	1	16	1	1	1	1	\$ 94,949	\$ 111,231	\$ 51,058	93.5%	6.5%	\$ 107,292	15	1	
Royersford	PA	19468	Royersford WW	1,276	1	1,276	10	1	1	1	\$ 89,661	\$ 106,250	\$ 54,512	92.9%	7.1%	\$ 102,592	1,186	90	
Birdsboro	PA	19508	PA-Exeter Twp WW	1,156	1	1,156	1	1	1	1	\$ 73,488	\$ 83,550	\$ 34,496	92.7%	7.3%	\$ 79,974	1,072	84	
Reading	PA	19601	PA-Exeter Twp WW	1	1	1	1	1	1	1	\$ 34,405	\$ 52,345	\$ 26,409	62.6%	37.4%	\$ 42,649	1	0	
Reading	PA	19606	PA-Exeter Twp WW	6,393	1	6,393	1	1	1	1	\$ 74,654	\$ 86,914	\$ 44,879	87.8%	12.2%	\$ 81,772	5,611	782	
Reading	PA	19606	PA-Glen	2	1	2	1	1	1	1	\$ 74,654	\$ 86,914	\$ 44,879	87.8%	12.2%	\$ 81,772	2	0	
Reading	PA	19607	PA-Exeter Twp WW	26	1	26	1	1	1	1	\$ 71,606	\$ 86,651	\$ 53,130	83.5%	16.5%	\$ 81,124	22	4	
Reading	PA	19608	PA-Exeter Twp WW	26	1	26	1	1	1	1	\$ 98,750	\$ 120,034	\$ 47,371	87.3%	12.7%	\$ 110,839	23	3	
Reading	PA	19610	PA-Exeter Twp WW	4	1	4	1	1	1	1	\$ 83,628	\$ 106,307	\$ 57,000	91.5%	8.5%	\$ 102,113	4	0	
TOTAL CUSTOMERS				108,324		108,324										calculated median customer income analyzed customers	\$ 68,126		\$ 106,672
																statewide calculated median household income ratio	\$ 71,602	PA	0.9515

TOTAL COMMUNITIES:

84

City	State	Zip Code	Profit Center	Total Persons per Household	Owned Persons per Household	Rented Persons per Household	Total Population	Population Below .50 FPL	Population 0.50 - 1.00 FPL	Population 1.00 - 1.25 FPL	Population 1.25 - 1.50 FPL	Population 1.50 - 1.85 FPL	Population 1.85 - 2.00 FPL	Population Over 2.00 FPL	Total Housing Units	Owned Housing Units	Rented Housing Units
Beaver Falls	PA	15010	PA-Koppel WW	2.35	2.47	2.08	27,690	2,131	1,427	1,128	675	1,645	884	19,800	11,743	8,263	3,480
Dravosburg	PA	15034	PA-McKeesport WW	1.87	2.10	1.65	1,592	41	223	58	165	50	137	918	850	420	430
Duquesne	PA	15110	PA-McKeesport WW	2.45	2.26	2.61	5,277	1,045	446	189	582	892	100	2,023	2,138	997	1,141
Duquesne	PA	15110	PA-McKeesport WW	2.45	2.26	2.61	5,277	1,045	446	189	582	892	100	2,023	2,138	997	1,141
West Mifflin	PA	15122	PA-McKeesport WW	2.33	2.30	2.42	19,144	1,560	1,129	1,137	511	1,727	255	12,825	8,237	6,388	1,849
McKeesport	PA	15131	PA-McKeesport WW	2.06	2.23	1.65	8,108	434	336	112	600	551	124	5,951	3,952	2,805	1,147
McKeesport	PA	15132	PA-McKeesport WW	2.05	2.23	1.88	18,901	2,115	2,901	909	1,464	2,034	983	8,495	9,155	4,413	4,742
McKeesport	PA	15132	PA-McKeesport WW	2.05	2.23	1.88	18,901	2,115	2,901	909	1,464	2,034	983	8,495	9,155	4,413	4,742
McKeesport	PA	15133	PA-McKeesport WW	2.16	2.19	2.06	6,078	177	276	360	350	331	116	4,468	2,812	2,138	674
McKeesport	PA	15133	PA-McKeesport WW	2.16	2.19	2.06	6,078	177	276	360	350	331	116	4,468	2,812	2,138	674
Pittsburgh	PA	15227	PA-Brentwood WW	2.28	2.37	2.04	29,202	1,787	1,637	959	811	2,080	879	21,049	12,833	9,232	3,601
Claysville	PA	15233	PA-Claysville WW	2.45	2.54	2.06	3,895	128	220	121	124	169	72	3,061	1,574	1,295	279
Farmington	PA	15437	PA-Farmington WW	2.45	2.37	2.74	2,488	644	230	94	52	135	27	1,306	774	496	279
Butler	PA	16001	PA-BASA WW	2.16	2.37	1.72	39,181	1,883	2,566	1,666	1,551	1,899	1,031	28,585	18,074	12,314	5,760
Butler	PA	16002	PA-BASA WW	2.43	2.47	2.17	15,482	602	566	402	480	1,505	462	11,465	6,348	5,476	872
East Butler	PA	16029	PA-BASA WW	2.46	2.64	1.91	910	33	36	147	78	32	22	562	370	280	90
Lyndora	PA	16045	PA-BASA WW	2.66	2.63	2.73	1,126	148	107	42	32	62	42	693	422	275	147
Koppel	PA	16136	PA-Koppel WW	2.37	2.63	1.72	777	13	34	36	61	118	11	504	328	234	94
Wampum	PA	16157	PA-Koppel WW	2.22	2.30	1.96	2,845	59	307	151	97	204	33	1,994	1,292	1,009	283
Clarion	PA	16214	PA-Clarion WW	2.47	2.66	2.28	7,887	1,279	657	328	562	427	53	4,581	3,194	1,579	1,615
Shippenville	PA	16254	PA-Clarion WW	2.50	2.45	2.74	3,379	130	240	207	278	235	64	2,327	1,348	1,098	250
Shippenville	PA	16254	PA-Clarion WW	2.50	2.45	2.74	3,379	130	240	207	278	235	64	2,327	1,348	1,098	250
Strattanville	PA	16258	PA-Clarion WW	2.17	2.30	1.95	1,652	73	129	110	47	127	154	1,012	758	474	284
Kane	PA	16735	PA-Kane WW	2.38	2.58	1.80	5,997	215	446	384	312	414	254	3,972	2,531	1,899	632
Camp Hill	PA	17011	PA-Fairview WW	2.45	2.65	2.05	33,584	1,335	1,080	284	1,051	1,231	467	28,136	13,698	9,200	4,498
Mechanicsburg	PA	17055	PA-Fairview WW	2.22	2.38	1.82	38,355	962	1,227	792	1,473	1,445	997	31,459	17,310	12,348	4,962
New Cumberland	PA	17070	PA-Fairview WW	2.28	2.38	1.93	16,842	476	704	596	487	697	416	13,466	7,393	5,681	1,712
New Cumberland	PA	17070	PA-Mechanicsburg	2.28	2.38	1.93	16,842	476	704	596	487	697	416	13,466	7,393	5,681	1,712
New Cumberland	PA	17070	PA-New Cumberland W	2.28	2.38	1.93	16,842	476	704	596	487	697	416	13,466	7,393	5,681	1,712
Biglerville	PA	17307	PA-Fairview WW	2.49	2.48	2.52	5,702	278	289	175	174	448	311	4,027	2,277	1,802	475
Biglerville	PA	17307	PA-FRANKLIN WW	2.49	2.48	2.52	5,702	278	289	175	174	448	311	4,027	2,277	1,802	475
Etters	PA	17319	PA-Fairview WW	2.70	2.77	2.20	11,238	201	437	98	147	336	452	9,567	4,172	3,687	485
Lewisberry	PA	17339	PA-Fairview WW	2.37	2.48	1.83	6,213	100	90	163	21	435	89	5,315	2,627	2,181	446
Orrtanna	PA	17353	PA-FRANKLIN WW	2.56	2.46	2.95	2,871	187	241	18	112	102	-	2,209	1,121	895	226
York	PA	17401	PA-York WW (future)	2.45	2.02	2.64	18,119	2,918	3,552	1,447	1,332	1,710	1,176	5,984	7,286	2,166	5,120
York	PA	17403	PA-York WW (future)	2.46	2.53	2.35	36,916	2,949	3,368	2,112	1,291	2,340	1,087	23,769	14,963	9,482	5,481
York	PA	17404	PA-York WW (future)	2.55	2.58	2.47	37,532	1,704	1,565	1,467	1,707	1,881	1,068	28,140	14,699	10,543	4,156
York	PA	17406	PA-York WW (future)	2.53	2.55	2.42	23,242	436	866	811	558	724	714	19,133	9,271	7,391	1,880
Mc Ewensville	PA	17749	PA-McEwensville WW	2.52	2.93	1.96	317	22	5	8	36	18	3	225	126	72	54
Mc Ewensville	PA	17749	PA-McEwensville WW	2.52	2.93	1.96	317	22	5	8	36	18	3	225	126	72	54
Turbotville	PA	17772	PA-Turbotville WW	2.47	2.53	2.05	2,380	79	134	42	82	126	89	1,828	963	845	118
Watsonstown	PA	17777	PA-McEwensville WW	2.54	2.74	1.91	6,747	194	316	241	466	298	212	5,020	2,652	2,021	631
Drifton	PA	18221	Foster Township WW	2.72	2.21	4.07	406	-	35	-	-	16	-	355	149	108	41
Freeland	PA	18224	Foster Township WW	2.34	2.38	2.25	6,353	344	511	238	785	213	189	4,073	2,711	1,953	758
East Stroudsburg	PA	18301	PA-Lehman Pike WW	2.94	2.96	2.88	28,494	1,130	2,316	1,038	890	1,677	447	20,996	9,701	6,792	2,909
East Stroudsburg	PA	18301	PA-Pocono BlueMtn WW	2.94	2.96	2.88	28,494	1,130	2,316	1,038	890	1,677	447	20,996	9,701	6,792	2,909
East Stroudsburg	PA	18302	PA-Lehman Pike WW	2.92	2.84	3.41	17,649	712	1,209	532	721	1,234	771	12,470	6,036	5,172	864
East Stroudsburg	PA	18302	PA-Pocono BlueMtn WW	2.92	2.84	3.41	17,649	712	1,209	532	721	1,234	771	12,470	6,036	5,172	864
East Stroudsburg	PA	18302	PA-Winona Lake WW	2.92	2.84	3.41	17,649	712	1,209	532	721	1,234	771	12,470	6,036	5,172	864
Bushkill	PA	18324	PA-Lehman Pike WW	2.61	2.58	2.79	9,587	495	796	232	676	750	237	6,401	3,668	3,114	554
Bushkill	PA	18324	PA-Winona Lake WW	2.61	2.58	2.79	9,587	495	796	232	676	750	237	6,401	3,668	3,114	554
Dingmans Ferry	PA	18328	PA-CLN TRTMT WW	2.58	2.48	3.34	7,819	833	288	365	403	317	81	5,532	3,041	2,690	351
Dingmans Ferry	PA	18328	PA-Lehman Pike WW	2.58	2.48	3.34	7,819	833	288	365	403	317	81	5,532	3,041	2,690	351
Pocono Summit	PA	18346	PA-Pocono WW	2.43	2.45	2.20	2,605	232	114	40	197	8	144	1,870	1,070	990	80
Moscow	PA	18444	PA-Scranton WW	2.60	2.70	2.17	13,945	716	558	388	549	562	224	10,948	5,364	4,428	936
Tobyhanna	PA	18466	PA-Pocono WW	3.04	3.11	2.85	17,472	1,404	1,390	1,122	352	1,600	401	11,203	5,753	4,206	1,547
Scranton	PA	18503	PA-Scranton WW	1.19	1.19	1.19	705	83	100	73	49	50	-	350	577	24	553
Scranton	PA	18504	PA-Scranton WW	2.41	2.44	2.37	20,430	1,505	1,960	839	887	1,708	711	12,820	8,507	5,134	3,373
Scranton	PA	18505	PA-Scranton WW	2.54	2.51	2.57	21,214	2,093	2,003	1,848	1,138	1,233	385	12,514	8,360	4,533	3,827
Moosic	PA	18507	PA-Scranton WW	2.56	2.80	2.03	5,463	132	373	416	154	140	15	4,233	2,132	1,464	668
Scranton	PA	18508	PA-Scranton WW	2.26	2.38	2.16	10,852	950	1,288	739	437	887	570	5,981	4,771	2,225	2,546
Scranton	PA	18509	PA-Scranton WW	2.31	2.80	1.88	12,519	1,255	1,473	389	536	1,211	618	7,037	5,275	2,460	2,815
Scranton	PA	18510	PA-Scranton WW	2.26	2.31	2.22	10,849	1,019	1,311	782	562	604	332	6,239	4,822	1,903	2,919
Scranton	PA	18512	PA-Scranton WW	2.24	2.54	1.63	12,728	490	696	401	493	829	800	9,019	5,678	3,787	1,891
Taylor	PA	18517	PA-Scranton WW	2.37	2.33	2.46	5,032	424	410	344	-	299	96	3,459	2,139	1,475	664
Scranton	PA	18519	PA-Scranton WW	2.29	2.41	2.07	5,226	407	275	150	32	456	51	3,555	2,280	1,443	837
Kingston	PA	18704	PA-Scranton WW	2.26	2.39	2.08	30,372	2,502	2,360	1,290	1,628	2,044	728	19,820	13,420	7,883	5,537
Clifton Heights	PA	19018	PA-Lehman Pike WW	2.42	2.69	1.94	23,296	862	1,412	1,641	780	1,123	518	16,960	9,603	6,218	3,385

TOTAL COMMUNITIES:				84											Total	Owned	Rented	
City	State	Zip Code	Profit Center	Persons per Household	Persons per Household	Persons per Household	Total Population	Population Below .50 FPL	Population 0.50 - 1.00 FPL	Population 1.00 - 1.25 FPL	Population 1.25 - 1.50 FPL	Population 1.50 - 1.85 FPL	Population 1.85 - 2.00 FPL	Population Over 2.00 FPL	Housing Units	Housing Units	Housing Units	
Coatesville	PA	19320	PA - Sadsbury WW	2.69	2.65	2.79	54,235	2,646	2,928	2,088	1,316	2,430	1,976	40,851	19,960	14,605	5,355	
Coatesville	PA	19320	PA-Coatesville WW	2.69	2.65	2.79	54,235	2,646	2,928	2,088	1,316	2,430	1,976	40,851	19,960	14,605	5,355	
Coatesville	PA	19320	PA-Coatesville WW	2.69	2.65	2.79	54,235	2,646	2,928	2,088	1,316	2,430	1,976	40,851	19,960	14,605	5,355	
Parkesburg	PA	19365	PA - Sadsbury WW	2.76	2.87	2.44	7,554	211	182	254	87	269	276	6,275	2,729	2,042	687	
Parkesburg	PA	19365	PA-Coatesville WW	2.76	2.87	2.44	7,554	211	182	254	87	269	276	6,275	2,729	2,042	687	
Sadsburyville	PA	19369	PA-Sadsbury WW	1.54	2.00	1.47	80	44	-	-	-	-	-	36	52	7	45	
Pottstown	PA	19464	Upper Pottsgrove WW	2.57	2.61	2.50	47,728	2,970	2,411	1,600	1,791	3,557	951	34,448	18,586	11,970	6,616	
Pottstown	PA	19465	Upper Pottsgrove WW	2.56	2.66	2.18	18,546	488	479	391	204	733	220	16,031	7,244	5,754	1,490	
Royersford	PA	19468	Royersford WW	2.49	2.61	2.12	26,271	597	944	491	679	584	491	22,485	10,572	7,952	2,620	
Birdsboro	PA	19508	PA-Exeter Twp WW	2.52	2.69	1.74	15,315	365	866	298	530	835	382	12,039	6,084	5,011	1,073	
Reading	PA	19601	PA-Exeter Twp WW	2.84	3.05	2.70	35,537	5,363	6,425	2,571	2,383	3,347	1,742	13,706	12,390	4,782	7,608	
Reading	PA	19606	PA-Exeter Twp WW	2.59	2.64	2.44	35,710	1,583	1,321	547	963	1,826	769	28,701	13,771	10,790	2,981	
Reading	PA	19606	PA-Glen	2.59	2.64	2.44	35,710	1,583	1,321	547	963	1,826	769	28,701	13,771	10,790	2,981	
Reading	PA	19607	PA-Exeter Twp WW	2.40	2.44	2.33	23,101	955	1,376	298	262	1,880	674	17,656	9,592	6,204	3,388	
Reading	PA	19608	PA-Exeter Twp WW	2.70	2.77	2.44	23,335	837	328	744	622	618	255	19,931	8,662	6,847	1,815	
Reading	PA	19610	PA-Exeter Twp WW	2.22	2.50	1.56	15,089	326	342	203	393	651	315	12,859	6,783	4,765	2,018	
TOTAL CUSTOMERS				2.47	Persons per Customer Household		1,313,456	75,998	85,009	49,862	49,317	77,638	37,866	937,766				



TOTAL COMMUNITIES: 84

--- Distribution of Income for Owned Units ---

City	State	Zip Code	Profit Center	0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Beaver Falls	PA	15010	PA-Koppel WW	1.68%	1.54%	1.67%	2.36%	3.84%	6.35%	11.16%	17.77%	15.91%	23.24%	14.49%	100.00%
Dravosburg	PA	15034	PA-McKeesport WW	4.05%	1.67%	0.00%	4.52%	1.19%	17.62%	14.52%	24.05%	14.52%	7.86%	10.00%	100.00%
Duquesne	PA	15110	PA-McKeesport WW	4.21%	3.31%	3.71%	5.82%	3.71%	13.94%	21.66%	18.76%	8.63%	14.04%	2.21%	100.00%
Duquesne	PA	15110	PA-McKeesport WW	4.21%	3.31%	3.71%	5.82%	3.71%	13.94%	21.66%	18.76%	8.63%	14.04%	2.21%	100.00%
West Mifflin	PA	15122	PA-McKeesport WW	2.54%	1.22%	2.68%	6.53%	2.97%	9.05%	11.21%	17.44%	17.50%	18.96%	9.91%	100.00%
Mckeesport	PA	15131	PA-McKeesport WW	0.04%	3.81%	0.57%	2.03%	2.35%	8.24%	16.26%	14.33%	24.88%	15.29%	12.19%	100.00%
Mckeesport	PA	15132	PA-McKeesport WW	3.20%	2.36%	9.29%	5.73%	4.69%	12.78%	17.18%	14.68%	11.35%	13.39%	5.35%	100.00%
Mckeesport	PA	15132	PA-McKeesport WW	3.20%	2.36%	9.29%	5.73%	4.69%	12.78%	17.18%	14.68%	11.35%	13.39%	5.35%	100.00%
Mckeesport	PA	15133	PA-McKeesport WW	3.13%	0.56%	1.96%	4.82%	5.75%	9.64%	14.03%	22.03%	14.41%	16.70%	6.97%	100.00%
Mckeesport	PA	15133	PA-McKeesport WW	3.13%	0.56%	1.96%	4.82%	5.75%	9.64%	14.03%	22.03%	14.41%	16.70%	6.97%	100.00%
Pittsburgh	PA	15227	PA-Brentwood WW	1.75%	0.74%	1.94%	1.36%	1.87%	7.97%	11.02%	19.37%	18.85%	23.30%	11.83%	100.00%
Claysville	PA	15323	PA-Claysville WW	0.00%	0.31%	3.32%	3.17%	4.02%	11.04%	9.27%	18.53%	14.83%	17.53%	17.99%	100.00%
Farmington	PA	15437	PA-Farmington WW	0.00%	0.00%	6.25%	5.85%	1.61%	14.92%	9.27%	19.56%	15.32%	22.58%	4.64%	100.00%
Butler	PA	16001	PA-BASA WW	1.61%	0.98%	2.35%	3.13%	3.70%	8.37%	11.47%	17.32%	13.75%	22.80%	14.53%	100.00%
Butler	PA	16002	PA-BASA WW	3.32%	2.34%	2.83%	1.77%	4.40%	7.03%	6.98%	18.37%	16.65%	19.61%	16.69%	100.00%
East Butler	PA	16029	PA-BASA WW	0.71%	2.14%	0.00%	1.07%	2.14%	22.86%	18.93%	18.57%	15.00%	14.29%	4.29%	100.00%
Lyndora	PA	16045	PA-BASA WW	0.00%	3.27%	0.00%	7.64%	0.00%	4.00%	15.27%	24.36%	11.27%	27.64%	6.55%	100.00%
Koppel	PA	16136	PA-Koppel WW	0.00%	1.71%	1.71%	3.85%	13.25%	4.27%	10.68%	28.63%	20.09%	14.53%	1.28%	100.00%
Wampum	PA	16157	PA-Koppel WW	0.30%	1.68%	4.16%	4.06%	3.67%	11.30%	13.68%	17.34%	18.93%	13.78%	11.10%	100.00%
Clarion	PA	16214	PA-Clarion WW	2.60%	0.00%	2.85%	1.52%	4.24%	3.86%	11.02%	19.89%	14.19%	19.95%	19.89%	100.00%
Shippenville	PA	16254	PA-Clarion WW	2.82%	1.00%	3.92%	5.01%	4.74%	13.11%	13.57%	17.12%	11.84%	16.39%	10.47%	100.00%
Shippenville	PA	16254	PA-Paint Elk Twp WW	2.82%	1.00%	3.92%	5.01%	4.74%	13.11%	13.57%	17.12%	11.84%	16.39%	10.47%	100.00%
Strattanville	PA	16258	PA-Clarion WW	3.38%	0.00%	1.27%	5.91%	2.32%	12.45%	21.31%	16.88%	9.07%	21.10%	6.33%	100.00%
Kane	PA	16735	PA-Kane WW	3.05%	0.74%	4.05%	5.27%	5.42%	8.27%	20.17%	17.06%	15.53%	12.43%	8.00%	100.00%
Camp Hill	PA	17011	PA-Fairview WW	0.75%	0.18%	1.05%	1.11%	2.30%	5.50%	8.90%	14.12%	15.25%	24.98%	25.85%	100.00%
Mechanicsburg	PA	17055	PA-Fairview WW	1.06%	0.87%	0.74%	3.15%	3.40%	4.04%	9.17%	13.66%	14.75%	23.91%	25.24%	100.00%
New Cumberland	PA	17070	PA-Fairview WW	0.63%	0.99%	0.32%	1.57%	2.09%	6.32%	6.64%	19.75%	15.68%	26.79%	19.22%	100.00%
New Cumberland	PA	17070	PA-Mechanicsburg	0.63%	0.99%	0.32%	1.57%	2.09%	6.32%	6.64%	19.75%	15.68%	26.79%	19.22%	100.00%
New Cumberland	PA	17070	PA-New Cumberland W	0.63%	0.99%	0.32%	1.57%	2.09%	6.32%	6.64%	19.75%	15.68%	26.79%	19.22%	100.00%
Biglerville	PA	17307	PA-Fairview WW	0.61%	3.94%	1.00%	0.61%	3.50%	3.88%	13.32%	17.15%	20.20%	23.53%	12.26%	100.00%
Biglerville	PA	17307	PA-FRANKLIN WW	0.61%	3.94%	1.00%	0.61%	3.50%	3.88%	13.32%	17.15%	20.20%	23.53%	12.26%	100.00%
Etters	PA	17319	PA-Fairview WW	1.49%	1.60%	0.27%	0.33%	0.98%	4.20%	6.10%	18.55%	25.87%	24.33%	16.27%	100.00%
Lewisberry	PA	17339	PA-Fairview WW	1.15%	0.37%	0.64%	2.02%	1.15%	2.06%	10.87%	14.90%	20.91%	24.12%	21.82%	100.00%
Ortanna	PA	17353	PA-FRANKLIN WW	0.00%	0.00%	2.01%	2.01%	3.35%	7.37%	11.73%	16.98%	21.68%	14.41%	20.45%	100.00%
York	PA	17401	PA-York WW (future)	1.25%	2.12%	3.60%	4.48%	9.14%	19.53%	18.05%	28.39%	4.25%	7.20%	1.99%	100.00%
York	PA	17403	PA-York WW (future)	1.86%	1.89%	1.76%	3.30%	3.91%	7.16%	9.33%	16.00%	15.08%	22.09%	17.61%	100.00%
York	PA	17404	PA-York WW (future)	2.17%	1.30%	1.49%	1.80%	2.38%	6.64%	13.50%	20.88%	14.95%	19.56%	15.34%	100.00%
York	PA	17406	PA-York WW (future)	1.43%	0.53%	0.70%	3.29%	2.31%	4.76%	10.69%	20.39%	17.81%	16.95%	21.13%	100.00%
Mc Ewensville	PA	17749	PA-McEwensville WW	0.00%	0.00%	0.00%	5.56%	6.94%	6.94%	9.72%	29.17%	9.72%	30.56%	1.39%	100.00%
Mc Ewensville	PA	17749	PA-McEwensville WW	0.00%	0.00%	0.00%	5.56%	6.94%	6.94%	9.72%	29.17%	9.72%	30.56%	1.39%	100.00%
Turbotville	PA	17772	PA-Turbotville WW	0.47%	0.83%	2.01%	2.72%	3.91%	7.69%	16.21%	12.19%	10.77%	36.21%	6.98%	100.00%
Watsonstown	PA	17777	PA-McEwensville WW	0.45%	0.74%	4.60%	3.71%	2.28%	11.97%	15.54%	19.40%	13.11%	15.88%	12.32%	100.00%
Drifton	PA	18221	Foster Township WW	0.00%	0.00%	0.00%	0.00%	14.81%	0.00%	9.26%	37.04%	38.89%	0.00%	0.00%	100.00%
Freeland	PA	18224	Foster Township WW	0.00%	3.02%	5.12%	4.86%	3.12%	16.13%	13.01%	20.33%	18.64%	11.88%	3.89%	100.00%
East Stroudsburg	PA	18301	PA-Lehman Pike WW	1.87%	0.00%	0.80%	1.34%	2.34%	4.70%	9.89%	14.44%	13.31%	24.00%	27.31%	100.00%
East Stroudsburg	PA	18301	PA-Pocono BlueMtn WW	1.87%	0.00%	0.80%	1.34%	2.34%	4.70%	9.89%	14.44%	13.31%	24.00%	27.31%	100.00%
East Stroudsburg	PA	18302	PA-Lehman Pike WW	1.31%	1.47%	3.85%	6.88%	2.86%	4.45%	11.52%	17.32%	11.39%	24.71%	14.23%	100.00%
East Stroudsburg	PA	18302	PA-Pocono BlueMtn WW	1.31%	1.47%	3.85%	6.88%	2.86%	4.45%	11.52%	17.32%	11.39%	24.71%	14.23%	100.00%
East Stroudsburg	PA	18302	PA-Winona Lake WW	1.31%	1.47%	3.85%	6.88%	2.86%	4.45%	11.52%	17.32%	11.39%	24.71%	14.23%	100.00%
Bushkill	PA	18324	PA-Lehman Pike WW	1.28%	0.74%	3.60%	4.46%	3.66%	13.74%	5.23%	15.03%	15.35%	28.97%	7.93%	100.00%
Bushkill	PA	18324	PA-Winona Lake WW	1.28%	0.74%	3.60%	4.46%	3.66%	13.74%	5.23%	15.03%	15.35%	28.97%	7.93%	100.00%
Dingmans Ferry	PA	18328	PA-CLN TRTMT WW	1.45%	2.53%	3.83%	2.19%	1.82%	4.13%	8.25%	25.95%	19.33%	15.24%	15.28%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike WW	1.45%	2.53%	3.83%	2.19%	1.82%	4.13%	8.25%	25.95%	19.33%	15.24%	15.28%	100.00%
Pocono Summit	PA	18346	PA-Pocono WW	8.59%	0.81%	1.41%	3.64%	0.00%	1.72%	24.34%	15.66%	2.83%	27.07%	13.94%	100.00%
Moscow	PA	18444	PA-Scranton WW	1.56%	0.45%	1.85%	1.81%	4.20%	5.83%	10.32%	16.01%	16.08%	23.83%	18.07%	100.00%
Tobytanna	PA	18466	PA-Pocono WW	0.05%	1.55%	2.92%	2.83%	3.21%	2.35%	15.19%	22.56%	18.85%	16.36%	14.12%	100.00%
Scranton	PA	18503	PA-Scranton WW	0.00%	0.00%	0.00%	37.50%	0.00%	0.00%	29.17%	33.33%	0.00%	0.00%	0.00%	100.00%
Scranton	PA	18504	PA-Scranton WW	2.06%	0.68%	3.70%	4.99%	3.37%	11.18%	12.56%	18.23%	15.60%	17.80%	9.82%	100.00%
Scranton	PA	18505	PA-Scranton WW	3.42%	0.77%	1.15%	3.07%	5.38%	7.88%	17.45%	15.13%	13.35%	20.71%	11.69%	100.00%
Moosic	PA	18507	PA-Scranton WW	1.09%	0.00%	3.62%	2.19%	4.10%	1.91%	15.23%	8.47%	14.62%	29.37%	19.40%	100.00%
Scranton	PA	18508	PA-Scranton WW	0.67%	2.16%	3.82%	4.00%	5.21%	7.01%	18.02%	26.16%	13.53%	11.78%	7.64%	100.00%
Scranton	PA	18509	PA-Scranton WW	0.61%	1.63%	2.07%	1.34%	3.33%	5.85%	10.49%	14.92%	18.29%	23.58%	17.89%	100.00%
Scranton	PA	18510	PA-Scranton WW	1.58%	0.00%	2.84%	1.37%	7.57%	6.20%	10.88%	25.64%	11.88%	22.44%	9.62%	100.00%
Scranton	PA	18512	PA-Scranton WW	3.06%	0.50%	3.09%	2.43%	4.41%	5.55%	11.38%	19.99%	16.69%	23.98%	8.93%	100.00%
Taylor	PA	18517	PA-Scranton WW	1.08%	0.00%	5.76%	6.31%	3.46%	2.44%	9.49%	20.27%	13.36%	22.92%	14.92%	100.00%
Scranton	PA	18519	PA-Scranton WW	0.97%	0.62%	1.52%	3.53%	1.73%	4.92%	11.23%	18.92%	24.39%	18.64%	13.51%	100.00%
Kingston	PA	18704	PA-Scranton WW	1.45%	1.33%	2.56%	4.03%	2.88%	5.49%	12.23%	18.48%	18.79%	18.44%	14.31%	100.00%
Clifton Heights	PA	19018	PA-Lehman Pike WW	1.98%	1.01%	1.14%	2.88%	2.52%	8.25%	14.01%	15.21%	15.87%	20.59%	16.53%	100.00%

TOTAL COMMUNITIES: 84

City	State	Zip Code	Profit Center	--- Distribution of Income for Owned Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Coatesville	PA	19320	PA - Sadsbury WW	0.73%	0.38%	0.76%	1.43%	1.80%	3.40%	7.39%	18.50%	15.21%	25.14%	25.27%	100.00%
Coatesville	PA	19320	PA-Coatesville WW	0.73%	0.38%	0.76%	1.43%	1.80%	3.40%	7.39%	18.50%	15.21%	25.14%	25.27%	100.00%
Coatesville	PA	19320	PA-Coatesville WW	0.73%	0.38%	0.76%	1.43%	1.80%	3.40%	7.39%	18.50%	15.21%	25.14%	25.27%	100.00%
Parkesburg	PA	19365	PA - Sadsbury WW	0.39%	0.15%	1.57%	1.62%	2.69%	2.06%	5.93%	14.89%	15.48%	29.43%	25.81%	100.00%
Parkesburg	PA	19365	PA-Coatesville WW	0.39%	0.15%	1.57%	1.62%	2.69%	2.06%	5.93%	14.89%	15.48%	29.43%	25.81%	100.00%
Sadsburyville	PA	19369	PA-Sadsbury WW	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Pottstown	PA	19464	Upper Pottsgrove WW	1.15%	0.28%	1.33%	2.29%	3.37%	6.62%	8.06%	18.06%	17.24%	21.50%	20.09%	100.00%
Pottstown	PA	19465	Upper Pottsgrove WW	1.48%	1.06%	0.35%	1.37%	1.04%	4.92%	7.16%	12.58%	13.23%	22.14%	34.67%	100.00%
Royersford	PA	19468	Royersford WW	1.06%	0.29%	0.49%	0.99%	1.27%	4.50%	7.37%	13.46%	18.79%	20.26%	31.53%	100.00%
Birdsboro	PA	19508	PA-Exeter Twp WW	0.72%	0.60%	2.16%	3.59%	1.74%	7.02%	10.94%	16.76%	15.41%	27.24%	13.83%	100.00%
Reading	PA	19601	PA-Exeter Twp WW	2.34%	5.33%	5.27%	3.85%	5.90%	12.67%	11.79%	18.26%	16.33%	10.64%	7.61%	100.00%
Reading	PA	19606	PA-Exeter Twp WW	1.61%	0.88%	1.46%	1.50%	2.09%	8.03%	9.15%	18.10%	14.73%	21.53%	20.92%	100.00%
Reading	PA	19606	PA-Glen	1.61%	0.88%	1.46%	1.50%	2.09%	8.03%	9.15%	18.10%	14.73%	21.53%	20.92%	100.00%
Reading	PA	19607	PA-Exeter Twp WW	1.68%	0.63%	1.85%	2.84%	1.61%	4.42%	11.46%	17.49%	17.75%	22.39%	17.89%	100.00%
Reading	PA	19608	PA-Exeter Twp WW	0.91%	0.55%	1.62%	1.93%	0.55%	3.34%	6.43%	11.22%	14.24%	24.33%	34.88%	100.00%
Reading	PA	19610	PA-Exeter Twp WW	0.55%	0.78%	1.97%	1.09%	3.23%	4.32%	10.09%	17.90%	8.73%	19.08%	32.26%	100.00%
TOTAL CUSTOMERS				1,433	945	2,088	2,524	3,092	6,959	10,200	16,209	12,874	18,040	12,469	86,834

TOTAL COMMUNITIES: 84

City	State	Zip Code	Profit Center	--- Distribution of Income for Rented Units ---											
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150	> 150	Total
Beaver Falls	PA	15010	PA-Koppel WW	6.58%	8.68%	8.53%	6.18%	10.60%	14.28%	15.78%	12.99%	5.63%	5.72%	5.03%	100.00%
Dravosburg	PA	15034	PA-McKeesport WW	4.19%	3.49%	13.26%	18.14%	22.56%	7.44%	16.05%	7.67%	3.95%	1.86%	1.40%	100.00%
Duquesne	PA	15110	PA-McKeesport WW	9.03%	10.43%	13.50%	7.27%	5.00%	8.06%	17.79%	18.40%	8.24%	1.58%	0.70%	100.00%
Duquesne	PA	15110	PA-McKeesport WW	9.03%	10.43%	13.50%	7.27%	5.00%	8.06%	17.79%	18.40%	8.24%	1.58%	0.70%	100.00%
West Mifflin	PA	15122	PA-McKeesport WW	8.33%	10.33%	8.22%	6.27%	3.35%	14.33%	18.66%	9.36%	11.84%	7.41%	1.89%	100.00%
McKeesport	PA	15131	PA-McKeesport WW	3.66%	8.98%	8.37%	9.94%	2.70%	14.30%	30.51%	8.98%	11.60%	0.96%	0.00%	100.00%
McKeesport	PA	15132	PA-McKeesport WW	7.47%	6.75%	14.32%	9.87%	12.36%	15.58%	12.63%	14.38%	3.90%	1.41%	1.33%	100.00%
McKeesport	PA	15132	PA-McKeesport WW	7.47%	6.75%	14.32%	9.87%	12.36%	15.58%	12.63%	14.38%	3.90%	1.41%	1.33%	100.00%
McKeesport	PA	15133	PA-McKeesport WW	2.37%	0.00%	5.64%	2.08%	12.02%	15.73%	6.08%	31.45%	16.02%	6.23%	2.37%	100.00%
McKeesport	PA	15133	PA-McKeesport WW	2.37%	0.00%	5.64%	2.08%	12.02%	15.73%	6.08%	31.45%	16.02%	6.23%	2.37%	100.00%
Pittsburgh	PA	15227	PA-Brentwood WW	8.89%	1.42%	14.16%	8.83%	6.91%	13.75%	18.52%	13.77%	3.36%	7.39%	3.00%	100.00%
Claysville	PA	15233	PA-Claysville WW	3.58%	1.08%	12.90%	12.90%	7.89%	7.53%	8.60%	18.64%	11.83%	13.62%	1.43%	100.00%
Farmington	PA	15437	PA-Farmington WW	8.99%	0.00%	7.55%	0.00%	0.00%	0.00%	22.66%	32.01%	4.68%	21.22%	2.88%	100.00%
Butler	PA	16001	PA-BASA WW	6.11%	5.66%	16.13%	6.42%	8.02%	15.71%	13.39%	16.53%	7.55%	3.52%	0.95%	100.00%
Butler	PA	16002	PA-BASA WW	6.54%	9.98%	7.34%	2.52%	3.33%	22.13%	18.00%	16.97%	6.77%	6.42%	0.00%	100.00%
East Butler	PA	16029	PA-BASA WW	0.00%	2.22%	18.89%	0.00%	5.56%	22.22%	13.33%	35.56%	0.00%	0.00%	2.22%	100.00%
Lyndora	PA	16045	PA-BASA WW	0.00%	10.20%	10.88%	8.84%	21.09%	4.76%	4.76%	0.00%	0.68%	38.78%	0.00%	100.00%
Koppel	PA	16136	PA-Koppel WW	3.19%	0.00%	24.47%	7.45%	7.45%	15.96%	8.51%	18.09%	10.64%	0.00%	4.26%	100.00%
Wampum	PA	16157	PA-Koppel WW	4.24%	2.83%	30.74%	12.37%	4.95%	15.55%	11.66%	9.89%	4.24%	3.53%	0.00%	100.00%
Clarion	PA	16214	PA-Clarion WW	7.43%	14.98%	11.33%	7.37%	13.93%	10.90%	11.27%	11.52%	8.36%	1.67%	1.24%	100.00%
Shippenville	PA	16254	PA-Clarion WW	2.80%	2.40%	3.20%	10.00%	4.80%	12.00%	22.00%	20.80%	8.00%	12.40%	1.60%	100.00%
Shippenville	PA	16254	PA-Clarion WW	2.80%	2.40%	3.20%	10.00%	4.80%	12.00%	22.00%	20.80%	8.00%	12.40%	1.60%	100.00%
Strattanville	PA	16258	PA-Clarion WW	0.00%	20.77%	4.23%	12.68%	8.10%	2.46%	16.90%	22.89%	11.62%	0.35%	0.00%	100.00%
Kane	PA	16735	PA-Kane WW	0.63%	6.01%	15.03%	9.18%	6.49%	23.42%	14.72%	13.61%	8.07%	1.74%	1.11%	100.00%
Camp Hill	PA	17011	PA-Fairview WW	3.33%	5.09%	6.18%	3.51%	4.69%	9.05%	12.16%	20.56%	16.59%	13.67%	5.16%	100.00%
Mechanicsburg	PA	17055	PA-Fairview WW	2.34%	3.33%	3.20%	9.65%	3.12%	13.99%	11.51%	25.90%	13.99%	7.90%	5.08%	100.00%
New Cumberland	PA	17070	PA-Fairview WW	5.08%	5.02%	4.38%	10.57%	12.73%	4.91%	19.33%	11.92%	11.51%	10.75%	3.80%	100.00%
New Cumberland	PA	17070	PA-Mechanicsburg	5.08%	5.02%	4.38%	10.57%	12.73%	4.91%	19.33%	11.92%	11.51%	10.75%	3.80%	100.00%
New Cumberland	PA	17070	PA-New Cumberland W	5.08%	5.02%	4.38%	10.57%	12.73%	4.91%	19.33%	11.92%	11.51%	10.75%	3.80%	100.00%
Biglerville	PA	17307	PA-Fairview WW	2.95%	7.79%	5.89%	2.32%	10.95%	39.58%	6.74%	13.26%	7.79%	1.89%	0.84%	100.00%
Biglerville	PA	17307	PA-FRANKLIN WW	2.95%	7.79%	5.89%	2.32%	10.95%	39.58%	6.74%	13.26%	7.79%	1.89%	0.84%	100.00%
Etters	PA	17319	PA-Fairview WW	6.19%	4.12%	10.10%	2.27%	0.00%	15.46%	27.42%	21.03%	6.19%	7.22%	0.00%	100.00%
Lewisberry	PA	17339	PA-Fairview WW	9.64%	0.00%	0.00%	2.69%	1.35%	1.57%	19.73%	38.12%	6.50%	15.25%	5.16%	100.00%
Orrtanna	PA	17353	PA-FRANKLIN WW	15.49%	0.00%	14.16%	7.52%	0.00%	11.95%	17.26%	2.21%	15.04%	16.37%	0.00%	100.00%
York	PA	17401	PA-York WW (future)	4.84%	6.76%	16.00%	7.87%	6.88%	13.89%	16.43%	12.95%	8.20%	4.73%	1.46%	100.00%
York	PA	17403	PA-York WW (future)	4.87%	5.42%	10.71%	8.83%	8.54%	15.44%	14.96%	14.43%	10.80%	3.34%	2.66%	100.00%
York	PA	17404	PA-York WW (future)	6.98%	2.07%	2.43%	5.75%	5.70%	13.55%	18.17%	16.65%	17.18%	8.93%	2.60%	100.00%
York	PA	17406	PA-York WW (future)	0.85%	2.02%	2.29%	3.24%	2.23%	10.05%	18.94%	31.01%	18.78%	9.20%	1.38%	100.00%
Mc Ewensville	PA	17749	PA-McEwensville WW	3.70%	0.00%	0.00%	0.00%	7.41%	25.93%	37.04%	16.67%	9.26%	0.00%	0.00%	100.00%
Mc Ewensville	PA	17749	PA-McEwensville WW	3.70%	0.00%	0.00%	0.00%	7.41%	25.93%	37.04%	16.67%	9.26%	0.00%	0.00%	100.00%
Turbotville	PA	17772	PA-Turbotville WW	9.32%	10.17%	5.08%	11.02%	8.47%	12.71%	7.63%	11.86%	8.47%	11.02%	4.24%	100.00%
Watsonstown	PA	17777	PA-McEwensville WW	0.95%	9.19%	6.50%	11.41%	8.40%	22.66%	13.31%	16.32%	9.51%	1.74%	0.00%	100.00%
Drifton	PA	18221	Foster Township WW	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
Freeland	PA	18224	Foster Township WW	9.23%	0.66%	11.74%	12.53%	2.90%	15.17%	7.12%	18.21%	10.29%	12.14%	0.00%	100.00%
East Stroudsburg	PA	18301	PA-Lehman Pike WW	4.37%	1.31%	7.94%	6.98%	12.24%	10.83%	12.17%	20.04%	10.48%	9.04%	4.61%	100.00%
East Stroudsburg	PA	18301	PA-Pocono BlueMtn WW	4.37%	1.31%	7.94%	6.98%	12.24%	10.83%	12.17%	20.04%	10.48%	9.04%	4.61%	100.00%
East Stroudsburg	PA	18302	PA-Lehman Pike WW	0.81%	0.00%	1.97%	0.81%	9.84%	6.13%	32.29%	27.08%	13.31%	4.17%	3.59%	100.00%
East Stroudsburg	PA	18302	PA-Pocono BlueMtn WW	0.81%	0.00%	1.97%	0.81%	9.84%	6.13%	32.29%	27.08%	13.31%	4.17%	3.59%	100.00%
East Stroudsburg	PA	18302	PA-Winona Lake WW	0.81%	0.00%	1.97%	0.81%	9.84%	6.13%	32.29%	27.08%	13.31%	4.17%	3.59%	100.00%
Bushkill	PA	18324	PA-Lehman Pike WW	14.26%	17.51%	2.17%	3.43%	7.40%	3.25%	27.62%	9.93%	3.97%	10.47%	0.00%	100.00%
Bushkill	PA	18324	PA-Winona Lake WW	14.26%	17.51%	2.17%	3.43%	7.40%	3.25%	27.62%	9.93%	3.97%	10.47%	0.00%	100.00%
Dingmans Ferry	PA	18328	PA-CLN TRTMT WW	12.54%	0.00%	17.95%	0.00%	35.33%	9.69%	7.41%	17.09%	0.00%	0.00%	0.00%	100.00%
Dingmans Ferry	PA	18328	PA-Lehman Pike WW	12.54%	0.00%	17.95%	0.00%	35.33%	9.69%	7.41%	17.09%	0.00%	0.00%	0.00%	100.00%
Pocono Summit	PA	18346	PA-Pocono WW	0.00%	5.00%	0.00%	37.50%	8.75%	0.00%	0.00%	27.50%	21.25%	0.00%	0.00%	100.00%
Moscow	PA	18444	PA-Scranton WW	5.13%	5.02%	11.86%	10.04%	3.42%	17.41%	8.97%	13.46%	16.03%	7.48%	1.18%	100.00%
Tobytanna	PA	18466	PA-Pocono WW	4.59%	6.59%	5.62%	9.95%	12.99%	7.56%	15.77%	10.02%	11.05%	14.03%	1.81%	100.00%
Scranton	PA	18503	PA-Scranton WW	8.14%	2.71%	14.47%	12.30%	3.07%	8.14%	13.56%	28.93%	1.63%	7.05%	0.00%	100.00%
Scranton	PA	18504	PA-Scranton WW	5.34%	2.88%	12.16%	12.48%	4.74%	10.44%	18.32%	23.15%	6.34%	2.70%	1.45%	100.00%
Scranton	PA	18505	PA-Scranton WW	4.08%	6.45%	13.22%	13.48%	8.47%	10.50%	15.47%	11.63%	8.52%	6.25%	1.93%	100.00%
Moosic	PA	18507	PA-Scranton WW	8.68%	2.69%	2.40%	28.29%	0.00%	5.69%	23.80%	13.17%	4.64%	0.00%	10.63%	100.00%
Scranton	PA	18508	PA-Scranton WW	5.30%	5.77%	15.28%	7.93%	5.93%	19.84%	15.20%	16.18%	5.85%	2.71%	0.00%	100.00%
Scranton	PA	18509	PA-Scranton WW	7.82%	3.84%	9.24%	7.99%	10.16%	16.31%	17.62%	16.23%	4.87%	3.73%	2.20%	100.00%
Scranton	PA	18510	PA-Scranton WW	5.34%	8.19%	11.61%	9.56%	8.19%	16.24%	9.04%	16.79%	8.56%	3.49%	2.98%	100.00%
Scranton	PA	18512	PA-Scranton WW	1.75%	8.83%	5.82%	4.97%	10.05%	13.06%	25.01%	18.98%	6.29%	5.24%	0.00%	100.00%
Taylor	PA	18517	PA-Scranton WW	0.00%	14.76%	4.67%	0.00%	7.53%	12.50%	21.39%	16.57%	14.01%	8.58%	0.00%	100.00%
Scranton	PA	18519	PA-Scranton WW	8.72%	5.38%	14.81%	3.11%	6.57%	18.64%	15.65%	13.62%	2.75%	10.75%	0.00%	100.00%
Kingston	PA	18704	PA-Scranton WW	7.44%	8.47%	8.56%	4.68%	9.10%	12.59%	16.54%	17.03%	7.17%	6.28%	2.13%	100.00%
Clifton Heights	PA	19018	PA-Lehman Pike WW	5.44%	3.01%	6.12%	1.65%	8.89%	9.01%	13.59%	25.20%	9.72%	9.84%	7.53%	100.00%

TOTAL COMMUNITIES: 84

City	State	Zip Code	Profit Center	--- Distribution of Income for Rented Units ---										Total	
				0-5	5-10	10-15	15-20	20-25	25-35	35-50	50-75	75-100	100-150		> 150
Coatesville	PA	19320	PA - Sadsbury WW	2.69%	4.71%	6.76%	7.79%	4.76%	12.01%	14.23%	23.70%	10.27%	7.99%	5.10%	100.00%
Coatesville	PA	19320	PA-Coatesville WW	2.69%	4.71%	6.76%	7.79%	4.76%	12.01%	14.23%	23.70%	10.27%	7.99%	5.10%	100.00%
Coatesville	PA	19320	PA-Coatesville WW	2.69%	4.71%	6.76%	7.79%	4.76%	12.01%	14.23%	23.70%	10.27%	7.99%	5.10%	100.00%
Parkesburg	PA	19365	PA - Sadsbury WW	6.99%	1.89%	7.13%	8.30%	6.55%	8.59%	4.37%	22.71%	10.63%	5.82%	17.03%	100.00%
Parkesburg	PA	19365	PA-Coatesville WW	6.99%	1.89%	7.13%	8.30%	6.55%	8.59%	4.37%	22.71%	10.63%	5.82%	17.03%	100.00%
Sadsburyville	PA	19369	PA-Sadsbury WW	0.00%	51.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	48.89%	0.00%	0.00%	100.00%
Pottstown	PA	19464	Upper Pottsgrove WW	3.79%	3.26%	8.63%	8.37%	10.70%	9.04%	15.95%	20.00%	9.52%	9.58%	1.15%	100.00%
Pottstown	PA	19465	Upper Pottsgrove WW	3.22%	2.21%	4.16%	2.68%	4.97%	11.61%	18.93%	19.33%	18.59%	10.87%	3.42%	100.00%
Royersford	PA	19468	Royersford WW	0.53%	0.73%	5.04%	3.74%	8.17%	4.96%	18.93%	26.30%	17.98%	8.17%	5.46%	100.00%
Birdsboro	PA	19508	PA-Exeter Twp WW	8.01%	0.75%	6.24%	4.19%	4.10%	30.38%	22.55%	8.85%	8.67%	4.57%	1.68%	100.00%
Reading	PA	19601	PA-Exeter Twp WW	9.40%	10.55%	9.92%	7.47%	10.67%	12.47%	12.92%	16.59%	4.13%	4.32%	1.55%	100.00%
Reading	PA	19606	PA-Exeter Twp WW	4.76%	4.36%	2.95%	4.39%	9.23%	8.79%	19.93%	23.52%	8.49%	8.69%	4.90%	100.00%
Reading	PA	19606	PA-Glen	4.76%	4.36%	2.95%	4.39%	9.23%	8.79%	19.93%	23.52%	8.49%	8.69%	4.90%	100.00%
Reading	PA	19607	PA-Exeter Twp WW	3.75%	1.21%	6.23%	3.25%	4.87%	12.22%	13.46%	28.13%	11.07%	13.46%	2.36%	100.00%
Reading	PA	19608	PA-Exeter Twp WW	0.00%	4.79%	0.77%	4.41%	2.59%	18.18%	20.99%	17.36%	20.33%	8.43%	2.15%	100.00%
Reading	PA	19610	PA-Exeter Twp WW	4.36%	1.34%	3.32%	2.13%	10.65%	15.96%	6.19%	20.32%	11.30%	9.76%	14.67%	100.00%
TOTAL CUSTOMERS				1,142	1,332	2,356	1,827	1,840	2,705	3,301	3,503	1,759	1,278	447	21,490

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

Zone 1 - PAWC

		Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<b>Residential</b>					
5/8 - Meter	\$	17.50	\$ 20.00	\$ 2.50	14.3%
3/4 - Meter	\$	17.50	\$ 20.00	\$ 2.50	14.3%
1 - Meter	\$	17.50	\$ 20.00	\$ 2.50	14.3%
1 1/2 - Meter	\$	17.50	\$ 20.00	\$ 2.50	14.3%
2 - Meter	\$	121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$	227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$	285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$	426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$	826.30	\$ 893.00	\$ 66.70	8.1%
Unmetered Service	\$	70.00	\$ 90.00	\$ 20.00	28.6%
All Usage (per 100 Gallons)	\$	1.6108	\$ 2.1319	\$ 0.5211	32.4%
<b>Commercial/Municipal</b>					
		Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$	18.50	\$ 20.00	\$ 1.50	8.1%
3/4 - Meter	\$	28.00	\$ 30.00	\$ 2.00	7.1%
1 - Meter	\$	46.60	\$ 50.00	\$ 3.40	7.3%
1 1/2 - Meter	\$	76.10	\$ 82.00	\$ 5.90	7.8%
2 - Meter	\$	121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$	227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$	285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$	426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$	826.30	\$ 893.00	\$ 66.70	8.1%
Commercial - First 16,000 gallons	\$	1.5613	\$ 2.0346	\$ 0.4733	30.3%
Commercial - Over 16,000 gallons	\$	1.1493	\$ 1.5463	\$ 0.3970	34.5%
Municipal - First 16,000 gallons	\$	1.6700	\$ 1.9984	\$ 0.3284	19.7%
Municipal - Over 16,000 gallons	\$	0.9140	\$ 1.1091	\$ 0.1951	21.3%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
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Zone 1 - PAWC					
Industrial	Present Rate	Proposed Rate	Dollar Increase	Percent Increase	
5/8 - Meter	\$ 28.00	\$ 28.00	\$ -	0.0%	
3/4 - Meter	\$ 42.00	\$ 42.00	\$ -	0.0%	
1 - Meter	\$ 70.00	\$ 70.00	\$ -	0.0%	
1 1/2 - Meter	\$ 140.00	\$ 140.00	\$ -	0.0%	
2 - Meter	\$ 224.00	\$ 224.00	\$ -	0.0%	
3 - Meter	\$ 420.00	\$ 420.00	\$ -	0.0%	
4 - Meter	\$ 701.00	\$ 701.00	\$ -	0.0%	
6 - Meter	\$ 1,401.00	\$ 1,401.00	\$ -	0.0%	
8 - Meter	\$ 2,243.00	\$ 2,243.00	\$ -	0.0%	
10 - Meter	\$ 3,223.00	\$ 3,223.00	\$ -	0.0%	
12 - Meter	\$ 4,625.00	\$ 4,625.00	\$ -	0.0%	
First 16,000 Gallons	\$ 1.4200	\$ 1.9128	\$ 0.4928	34.7%	
Next 584,000 Gallons	\$ 1.0804	\$ 1.4824	\$ 0.4020	37.2%	
All Over 600,000 Gallons	\$ 0.8499	\$ 1.1477	\$ 0.2978	35.0%	
Curtailment					
First 16,000 Gallons	\$ 1.4200	\$ 1.9128	\$ 0.4928	34.7%	
Next 584,000 Gallons	\$ 1.0804	\$ 1.4824	\$ 0.4020	37.2%	
Next 14,400,000 Gallons	\$ 0.8499	\$ 1.1477	\$ 0.2978	35.0%	
All Over 15,000,000 Gallons	\$ 0.5110	\$ 0.6852	\$ 0.1742	34.1%	
Sales to Other Utilities					
	Present Rate	Proposed Rate	Dollar Increase	Percent Increase	
5/8 - Meter	\$ 29.10	\$ 29.10	\$ -	0.0%	
3/4 - Meter	\$ 44.00	\$ 44.00	\$ -	0.0%	
1 - Meter	\$ 73.00	\$ 73.00	\$ -	0.0%	
1 1/2 - Meter	\$ 145.00	\$ 145.00	\$ -	0.0%	
2 - Meter	\$ 232.00	\$ 232.00	\$ -	0.0%	
3 - Meter	\$ 436.00	\$ 436.00	\$ -	0.0%	
4 - Meter	\$ 726.00	\$ 726.00	\$ -	0.0%	
6 - Meter	\$ 1,452.00	\$ 1,452.00	\$ -	0.0%	
8 - Meter	\$ 2,325.00	\$ 2,325.00	\$ -	0.0%	
10 - Meter	\$ 3,340.00	\$ 3,340.00	\$ -	0.0%	
12 - Meter	\$ 4,793.00	\$ 4,793.00	\$ -	0.0%	
All Usage - Group A	\$ 0.7950	\$ 1.2100	\$ 0.4150	52.2%	
All Usage - Group B	\$ 1.1300	\$ 1.7300	\$ 0.6000	53.1%	

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
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Zone 1 - PAWC						
Public Fire						
		Present		Proposed	Dollar	Percent
		Rate		Rate	Increase	Increase
Hydrants Prior to 1/1/2000	\$	20.30	\$	25.30	\$ 5.00	24.6%
Hydrants at 25% of Cost of Service	\$	20.30	\$	25.30	\$ 5.00	24.6%
Brandford Township	\$	6.25	\$	6.25	\$ -	0.0%
Brownsville Area	\$	20.30	\$	25.30	\$ 5.00	24.6%
California Area	\$	20.30	\$	25.30	\$ 5.00	24.6%
Reading Area	\$	20.30	\$	25.30	\$ 5.00	24.6%
Valley District	\$	20.30	\$	25.30	\$ 5.00	24.6%
Audubon District	\$	25.70	\$	25.70	\$ -	0.0%
Private Fire						
		Present		Proposed	Dollar	Percent
		Rate		Rate	Increase	Increase
1	\$	5.34	\$	6.62	\$ 1.28	24.0%
1 1/4	\$	5.34	\$	6.62	\$ 1.28	24.0%
1 1/2	\$	7.69	\$	9.53	\$ 1.84	23.9%
2	\$	13.68	\$	16.96	\$ 3.28	24.0%
3	\$	31.11	\$	38.57	\$ 7.46	24.0%
4	\$	54.78	\$	67.91	\$ 13.13	24.0%
6	\$	124.47	\$	154.61	\$ 30.14	24.2%
8	\$	221.56	\$	274.67	\$ 53.11	24.0%
10	\$	346.02	\$	429.08	\$ 83.06	24.0%
12	\$	497.88	\$	617.22	\$ 119.34	24.0%
Hydrants	\$	26.87	\$	26.90	\$ 0.03	0.1%
Metered						
1	\$	43.75	\$	54.25	\$ 10.50	24.0%
1 1/4	\$	43.75	\$	54.25	\$ 10.50	24.0%
1 1/2	\$	62.48	\$	77.46	\$ 14.98	24.0%
2	\$	100.00	\$	123.97	\$ 23.97	24.0%
3	\$	187.49	\$	232.43	\$ 44.94	24.0%
4	\$	234.36	\$	290.54	\$ 56.18	24.0%
6	\$	351.54	\$	435.80	\$ 84.26	24.0%
8	\$	539.03	\$	668.24	\$ 129.21	24.0%
10	\$	757.77	\$	939.42	\$ 181.65	24.0%
12	\$	1,137.06	\$	1,137.06	\$ -	0.0%
Hydrants	\$	26.87	\$	26.90	\$ 0.03	0.1%
Sprinkler - 1	\$	65.22	\$	80.85	\$ 15.63	24.0%
Sprinkler - 2	\$	0.17	\$	0.21	\$ 0.04	23.5%
Standpipes	\$	50.71	\$	62.87	\$ 12.16	24.0%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
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Zone 2 - Valley

	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<b>Residential</b>				
5/8 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
3/4 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
1 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
1 1/2 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
2 - Meter	\$ 121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$ 227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$ 285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$ 426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$ 826.30	\$ 893.00	\$ 66.70	8.1%
First 3,400 gallons	\$ 1.1000	\$ 2.1319	\$ 1.0319	93.8%
Over 3,400 gallons	\$ 1.1000	\$ 2.1319	\$ 1.0319	93.8%
<b>Commercial/Municipal</b>				
	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 18.50	\$ 20.00	\$ 1.50	8.1%
3/4 - Meter	\$ 28.00	\$ 30.00	\$ 2.00	7.1%
1 - Meter	\$ 46.60	\$ 50.00	\$ 3.40	7.3%
1 1/2 - Meter	\$ 76.10	\$ 82.00	\$ 5.90	7.8%
2 - Meter	\$ 121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$ 227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$ 285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$ 426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$ 826.30	\$ 893.00	\$ 66.70	8.1%
Commercial - First 3,400 gallons	\$ 1.1000	\$ (1.1000)	(1.1000)	-100.0%
Commercial - Over 3,400 gallons	\$ 1.1000	\$ (1.1000)	(1.1000)	-100.0%
Commercial - First 16,000 gallons	\$ 2.0346	\$ 2.0346	0.00	0.0%
Commercial - Over 16,000 gallons	\$ 1.5463	\$ 1.5463	0.00	0.0%
Municipal - First 3,400 gallons	\$ 1.1000	\$ (1.1000)	(1.1000)	-100.0%
Municipal - Over 3,400 gallons	\$ 1.1000	\$ (1.1000)	(1.1000)	-100.0%
Municipal - First 16,000 gallons	\$ 1.9984	\$ 1.9984	0.00	0.0%
Municipal - Over 16,000 gallons	\$ 1.1091	\$ 1.1091	0.00	0.0%



Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
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Zone 2 - Valley		Present Rate	Proposed Rate	Dollar Increase	Percent Increase
Industrial					
5/8 - Meter	\$	18.50	\$ 28.00	\$ 9.50	51.4%
3/4 - Meter	\$	28.00	\$ 42.00	\$ 14.00	50.0%
1 - Meter	\$	46.60	\$ 70.00	\$ 23.40	50.2%
1 1/2 - Meter	\$	76.10	\$ 140.00	\$ 63.90	84.0%
2 - Meter	\$	121.80	\$ 224.00	\$ 102.20	83.9%
3 - Meter	\$	227.20	\$ 420.00	\$ 192.80	84.9%
4 - Meter	\$	285.10	\$ 701.00	\$ 415.90	145.9%
6 - Meter	\$	426.80	\$ 1,401.00	\$ 974.20	228.3%
8 - Meter	\$	826.30	\$ 2,243.00	\$ 1,416.70	171.5%
Industrial - First 3,400 gallons	\$	1.1000	\$	(1.1000)	-100.0%
Industrial - Over 3,400 gallons	\$	1.1000	\$	(1.1000)	-100.0%
First 16,000 Gallons		\$ 1.9128	\$	1.9128	0.0%
Next 584,000 Gallons		\$ 1.4824	\$	1.4824	0.0%
All Over 600,000 Gallons		\$ 1.1477	\$	1.1477	0.0%

Zone 3 - SLIBCO

All Charges		Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$	63.55	\$ 20.00	\$ (43.55)	-68.5%
3/4 - Meter	\$	63.55	\$ 30.00	\$ (33.55)	-52.8%
1 - Meter	\$	63.55	\$ 50.00	\$ (13.55)	-21.3%
1 1/2 - Meter	\$	63.55	\$ 82.00	\$ 18.45	29.0%
2 - Meter	\$	63.55	\$ 132.00	\$ 68.45	107.7%
3 - Meter	\$	63.55	\$ 246.00	\$ 182.45	287.1%
4 - Meter	\$	136.30	\$ 308.00	\$ 171.70	126.0%
6 - Meter	\$	136.30	\$ 461.00	\$ 324.70	238.2%
8 - Meter	\$	309.30	\$ 893.00	\$ 583.70	188.7%
Current Volumetric Rates					
First 20,000 Gallons	\$	1.8940	\$	(1.8940)	-100.0%
Next 80,000 Gallons	\$	1.6780	\$	(1.6780)	-100.0%
Over 100,000 Gallons	\$	1.3810	\$	(1.3810)	-100.0%
Commercial - First 16,000 gallons		\$ 2.0346	\$	2.0346	0.0%
Commercial - Over 16,000 gallons		\$ 1.5463	\$	1.5463	0.0%
Municipal - First 16,000 gallons		\$ 1.9984	\$	1.9984	0.0%
Municipal - Over 16,000 gallons		\$ 1.1091	\$	1.1091	0.0%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

Zone 4 - Turbotville

Residential	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
3/4 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
1 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
1 1/2 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
2 - Meter	\$ 121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$ 227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$ 285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$ 426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$ 826.30	\$ 893.00	\$ 66.70	8.1%
All Usage (per 100 Gallons)	\$ 1.6108	\$ 2.1319	\$ 0.5211	32.4%
Commercial/Municipal	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 18.50	\$ 20.00	\$ 1.50	8.1%
3/4 - Meter	\$ 28.00	\$ 30.00	\$ 2.00	7.1%
1 - Meter	\$ 46.60	\$ 50.00	\$ 3.40	7.3%
1 1/2 - Meter	\$ 76.10	\$ 82.00	\$ 5.90	7.8%
2 - Meter	\$ 121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$ 227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$ 285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$ 426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$ 826.30	\$ 893.00	\$ 66.70	8.1%
Commercial Volumetric	\$ 1.0706		\$ (1.0706)	-100.0%
Commercial First 16,000 Gallons	\$	2.0346	\$ 2.0346	0.0%
Commercial Over 16,000 Gallons	\$	1.5463	\$ 1.5463	0.0%
Municipal First 16,000 Gallons	\$ 1.6700	\$ 1.9984	\$ 0.3284	19.7%
Municipal Over 16,000 Gallons	\$ 0.9861	\$ 1.1091	\$ 0.1230	12.5%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

Zone 5 - Steelton

Residential	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
3/4 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
1 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
1 1/2 - Meter	\$ 17.50	\$ 20.00	\$ 2.50	14.3%
2 - Meter	\$ 121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$ 227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$ 285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$ 426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$ 826.30	\$ 893.00	\$ 66.70	8.1%

Commercial / Municipal	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 18.50	\$ 20.00	\$ 1.50	8.1%
3/4 - Meter	\$ 28.00	\$ 30.00	\$ 2.00	7.1%
1 - Meter	\$ 46.60	\$ 50.00	\$ 3.40	7.3%
1 1/2 - Meter	\$ 76.10	\$ 82.00	\$ 5.90	7.8%
2 - Meter	\$ 121.80	\$ 132.00	\$ 10.20	8.4%
3 - Meter	\$ 227.20	\$ 246.00	\$ 18.80	8.3%
4 - Meter	\$ 285.10	\$ 308.00	\$ 22.90	8.0%
6 - Meter	\$ 426.80	\$ 461.00	\$ 34.20	8.0%
8 - Meter	\$ 826.30	\$ 893.00	\$ 66.70	8.1%

Industrial	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 24.83	\$ 28.00	\$ 3.17	12.8%
3/4 - Meter	\$ 24.83	\$ 42.00	\$ 17.17	69.2%
1 - Meter	\$ 54.38	\$ 70.00	\$ 15.62	28.7%
1 1/2 - Meter	\$ 97.93	\$ 140.00	\$ 42.07	43.0%
2 - Meter	\$ 141.46	\$ 224.00	\$ 82.54	58.3%
3 - Meter	\$ 320.98	\$ 420.00	\$ 99.02	30.8%
4 - Meter	\$ 419.20	\$ 701.00	\$ 281.80	67.2%
6 - Meter	\$ 670.70	\$ 1,401.00	\$ 730.30	108.9%
8 - Meter	\$ 974.35	\$ 2,243.00	\$ 1,268.65	130.2%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

Zone 5 - Steelton Volumetric Rates	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<b>Current Volumetric Rates</b>				
First 1,700 Gallons	\$ 1.6108	\$	(1.6108)	---
Next 18,300 Gallons	\$ 1.6108	\$	(1.6108)	-100.0%
Next 30,000 Gallons	\$ 1.2500	\$	(1.2500)	-100.0%
Over 50,000 Gallons	\$ 1.2500	\$	(1.2500)	-100.0%
 Residential Usage	 \$	 2.1319	 \$ 2.1319	 0.0%
Commercial - First 16,000 gallons	\$	2.0346	\$ 2.0346	0.0%
Commercial - Over 16,000 gallons	\$	1.5463	\$ 1.5463	0.0%
 Municipal - First 16,000 gallons	 \$	 1.9984	 \$ 1.9984	 0.0%
Municipal - Over 16,000 gallons	\$	1.1091	\$ 1.1091	0.0%
 Industrial - First 16,000 Gallons	 \$	 1.9128	 \$ 1.9128	 0.0%
Industrial - Next 584,000 Gallons	\$	1.4824	\$ 1.4824	0.0%
Industrial - All Over 600,000 Gallons	\$	1.1477	\$ 1.1477	0.0%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

Zone X - Audubon

All Classes	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
5/8 - Meter	\$ 16.80	\$ 16.80	\$ -	0.0%
3/4 - Meter	\$ 16.80	\$ 16.80	\$ -	0.0%
1 - Meter	\$ 42.80	\$ 42.80	\$ -	0.0%
1 1/2 - Meter	\$ 72.90	\$ 72.90	\$ -	0.0%
2 - Meter	\$ 116.40	\$ 116.40	\$ -	0.0%
3 - Meter	\$ 218.60	\$ 218.60	\$ -	0.0%
4 - Meter	\$ 363.90	\$ 363.90	\$ -	0.0%
6 - Meter	\$ 727.80	\$ 727.80	\$ -	0.0%
8 - Meter	\$ 1,164.60	\$ 1,164.60	\$ -	0.0%
10 - Meter	\$ 1,410.60	\$ 1,410.60	\$ -	0.0%
12 - Meter	\$ 1,935.00	\$ 1,935.00	\$ -	0.0%
Residential Usage	\$ 0.8619	\$ 1.1410	\$ 0.2791	32.4%
Nonresidential Usage - 1st 100,000 gallons	\$ 0.8619	\$ 1.1410	\$ 0.2791	32.4%
Nonresidential Usage - Over 100,000 gallons	\$ 0.5723	\$ 1.4160	\$ 0.8437	147.4%
Private Fire	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
1	\$ 30.80	\$ 38.18	\$ 7.38	24.0%
4	\$ 69.40	\$ 86.04	\$ 16.64	24.0%
6	\$ 102.75	\$ 127.38	\$ 24.63	24.0%
8	\$ 167.00	\$ 207.03	\$ 40.03	24.0%
10	\$ 228.60	\$ 283.40	\$ 54.80	24.0%

Pennsylvania-American Water Company  
Proposed General Water Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

Zone X - Farmington

All Charges	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
Residential/Commercial Service Charge	\$ 67.50	\$ 20.00	\$ (47.50)	-70.4%
Industrial Service Charge	\$ 67.50	\$ 28.00	\$ (39.50)	-58.5%
Current Volumetric Rates				
First 5,000 Gallons	\$ -	\$ -	\$ -	---
Over 5,000 Gallons	\$ 1.5000	\$ -	\$ (1.5000)	---
Residential Volumetric Rate	\$ -	2.1319	\$ 2.1319	---
Commercial Volumetric Rate	\$ -	2.0346	\$ 2.0346	---
Industrial Volumetric Rate	\$ -	1.9128	\$ 1.9128	---
Municipal Volumetric Rate	\$ -	1.9984	\$ 1.9984	---

Pennsylvania-American Water Company  
Proposed General Wastewater Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

SSS Rates

	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<b>Zone 1 - PAWC</b>				
Residential Service Charge	\$ 14.30	\$ 20.00	\$ 5.70	39.9%
Non-Residential Service Charge	\$ 35.00	\$ 50.00	\$ 15.00	42.9%
Residential Usage (per 100 gallons)	\$ 2.8750	\$ 2.5650	\$ (0.3100)	-10.8%
Non-Residential Usage (per 100 gallons)	\$ 2.1030	\$ 2.0000	\$ (0.1030)	-4.9%
Unmetered	\$ 106.00	\$ 100.00	\$ (6.00)	-5.7%
Upper Pottsgrove: Non-Residential Service Charge	\$ 63.60	\$ 50.00	\$ (13.60)	-21.4%
Upper Pottsgrove: Non-Residential Volumetric Charge	\$ 0.5653	\$ 1.0000	\$ 0.4347	76.9%
<b>Zone 2 - New Cumberland</b>				
Residential Service Charge	\$ 14.30	\$ 20.00	\$ 5.70	39.9%
Non-Residential Service Charge	\$ 35.00	\$ 50.00	\$ 15.00	42.9%
Residential Usage (per 100 gallons)	\$ 2.4500	\$ 2.5650	\$ 0.1150	4.7%
Non-Residential Usage (per 100 gallons)	\$ 1.9000	\$ 2.0000	\$ 0.1000	5.3%
<b>Zone 5 - Valley</b>				
Residential Service Charge	\$ 14.30	\$ 20.00	\$ 5.70	39.9%
Residential Usage (per 100 gallons)	\$ 2.8750	\$ 2.5650	\$ (0.3100)	-10.8%
Non-Residential Service Charge	\$ 35.00	\$ 50.00	\$ 15.00	42.9%
Non-Residential Usage (per 100 gallons)	\$ 2.1030	\$ 2.0000	\$ (0.1030)	-4.9%
Unmetered	\$ 106.00	\$ 100.00	\$ (6.00)	-5.7%
<b>Westwood Fire Company</b>				
Service Charge	\$ -	\$ 50.00	\$ 50.00	0.0%
Usage Charge (per 100 gallons)	\$ 2.1030	\$ 2.0000	\$ (0.1030)	-4.9%
<b>Rainbow Washhouse Inc</b>				
Service Charge	\$ 75.00	\$ 79.50	\$ 4.50	6.0%
First 2,000 Gallons	\$ -	\$ 0.2226	\$ 0.2226	0.0%
All Over 2,000 Gallons	\$ 0.2100	\$ 0.2226	\$ 0.0126	6.0%

Pennsylvania-American Water Company  
 Proposed General Wastewater Rate Design (not including special rates)  
 Volumetric Rates are in \$ per hundred gallons

SSS Rates		Present	Proposed	Dollar	Percent
	Zone 7 - York	Rate	Rate	Increase	Increase
Residential Service Charge	\$	18.00	\$ 20.00	\$ 2.00	11.1%
Residential First 2,000 Gallons	\$	-	\$ 0.7500	\$ 0.7500	0.0%
Residential All Over 2,000 Gallons	\$	2.7375	\$ 2.5650	\$ (0.1725)	-6.3%
Non-Residential Service Charge	\$	30.00	\$ 50.00	\$ 20.00	66.7%
Non-Residential First 2,000 Gallons	\$	-	\$ 0.4000	\$ 0.4000	0.0%
Non-Residential All Over 2,000 Gallons	\$	1.6380	\$ 2.0000	\$ 0.3620	22.1%
Bulk Rate A (per 100 gallons)	\$	0.3750	\$ 0.4123	\$ 0.0373	9.9%
Bulk Rate B (per 100 gallons)	\$	0.2490	\$ 0.2737	\$ 0.0247	9.9%
	Zone 8- Foster Township	Present	Proposed	Dollar	Percent
		Rate	Rate	Increase	Increase
Unmetered	\$	106.00	\$ 100.00	\$ (6.00)	-5.7%
Butler Township per EDU	\$	15.00	\$ 25.00	\$ 10.00	66.7%
	Zone 9 - Royersford	Present	Proposed	Dollar	Percent
		Rate	Rate	Increase	Increase
Residential: Service Charge	\$	48.00	\$ 20.00	\$ (28.00)	-58.3%
Residential Flat Rate Per EDU	\$	50.00	\$ 65.00	\$ 15.00	30.0%
Residential: First 3,000 Gallons	\$	-	\$ 1.4150	\$ 1.4150	0.0%
Residential: Over 3,000 Gallons	\$	0.9400	\$ 1.4150	\$ 0.4750	50.5%
Non-Residential: Service Charge	\$	48.00	\$ 50.00	\$ 2.00	4.2%
Non-Residential Flat Rate Per EDU	\$	67.00	\$ 80.00	\$ 13.00	19.4%
Non-Residential: First 3,000 Gallons	\$	-	\$ 0.7500	\$ 0.7500	0.0%
Non-Residential: Over 3,000 Gallons	\$	0.9400	\$ 0.7500	\$ (0.1900)	-20.2%
	Zone X - Farmington	Present	Proposed	Dollar	Percent
		Rate	Rate	Increase	Increase
Service Charge per EDU	\$	53.50	\$	\$ (53.50)	-100.0%
Residential Service Charge	\$		\$ 20.00	\$ 20.00	0.0%
Residential Volumetric Rate	\$		\$ 1.3500	\$ 1.35	0.0%
Non-Residential Service Charge	\$		\$ 50.00	\$ 50.00	0.0%
Non-Residential Volumetric Rate	\$		\$ 0.7000	\$ 0.70	0.0%
	Zone X - Sadsbury	Present	Proposed	Dollar	Percent
		Rate	Rate	Increase	Increase
Residential Service Charge	\$	128.33	\$ 128.33	\$ -	0.0%



Pennsylvania-American Water Company  
Proposed General Wastewater Rate Design (not including special rates)  
Volumetric Rates are in \$ per hundred gallons

CSS Rates

	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<b>Zone 3 - Scranton</b>				
Residential Service Charge	\$ 19.50	\$ 19.71	\$ 0.21	1.1%
Residential Usage (per 100 gallons)	\$ 2.3510	\$ 2.3764	\$ 0.0254	1.1%
Unmetered Service	\$ 95.00	\$ 96.03	\$ 1.03	1.1%
Non-Residential Service Charge	\$ 35.00	\$ 35.38	\$ 0.38	1.1%
Usage per 100 gallons	\$ 1.7270	\$ 1.7457	\$ 0.0187	1.1%
<b>Zone 4 - Kane</b>				
Residential 5/8" Service Charge	\$ 40.00	\$ 20.00	\$ (20.00)	-50.0%
Residential Other Meter Sizes	\$ 100.00	\$ 20.00	\$ (80.00)	-80.0%
Residential Unmetered Service	\$ 110.00	\$ 110.00	\$ -	0.0%
Residential: First 10,000 Gallons	\$ 2.1000	\$ 2.8750	\$ 0.7750	36.9%
Residential: Over 10,000 Gallons	\$ 1.8000	\$ 2.8750	\$ 1.0750	59.7%
Non-Residential 5/8" Service Charge	\$ 40.00	\$ 50.00	\$ 10.00	25.0%
Non-Residential Other Meter Sizes	\$ 100.00	\$ 50.00	\$ (50.00)	-50.0%
Non-Residential: First 10,000 Gallons	\$ 2.1000	\$ 1.9000	\$ (0.2000)	-9.5%
Non-Residential: Over 10,000 Gallons	\$ 1.8000	\$ 1.9000	\$ 0.1000	5.6%
<b>Zone 6 - McKeesport / Port Vue</b>				
Residential Service Charge	\$ 14.30	\$ 20.00	\$ 5.70	39.9%
Residential Usage (per 100 gallons)	\$ 2.8750	\$ 2.8750	\$ -	0.0%
McKeesport: Non-Residential Service Charge	\$ 35.00	\$ 50.00	\$ 15.00	42.9%
McKeesport: Non-Residential Usage (per 100 gallons)	\$ 2.1416	\$ 1.9000	\$ (0.2416)	-11.3%
Port Vue: Non-Residential Service Charge	\$ 14.30	\$ 50.00	\$ 35.70	249.7%
Port Vue: Non-Residential Usage (per 100 gallons)	\$ 2.8750	\$ 1.9000	\$ (0.9750)	-33.9%
McKeesport Bulk - Monthly Charge	\$ 86.00	\$ 86.00	\$ -	0.0%
McKeesport Bulk - Quarterly Charge	\$ 258.00	\$ 258.00	\$ -	0.0%
McKeesport Bulk - Usage Charge	\$ 1.6680	\$ 1.6680	\$ -	0.0%

Pennsylvania-American Water Company  
 Proposed General Wastewater Rate Design (not including special rates)  
 Volumetric Rates are in \$ per hundred gallons

Other WW Operations Rates

BASA Acquisition	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<u>Unmetered</u>				
Flat Rate Customer Charge	\$ 45.50	\$ 45.50	\$ -	0.0%
<u>Special Rate for Multi-Family Dwelling Units</u>				
For the first 25 Units	\$ 45.50	\$ 45.50	\$ -	0.0%
For the next 25 Unit	\$ 44.60	\$ 44.60	\$ -	0.0%
For the next 25 Unit	\$ 43.70	\$ 43.70	\$ -	0.0%
For the next 25 Unit	\$ 42.80	\$ 42.80	\$ -	0.0%
For the next 25 Unit	\$ 41.90	\$ 41.90	\$ -	0.0%
For the next 25 Unit	\$ 41.00	\$ 41.00	\$ -	0.0%
For all Units over 150	\$ 40.10	\$ 40.10	\$ -	0.0%
Special Rate for VA Hospital	\$	1.3365	\$ 1.3365	0.0%
Residential Flat Rate	\$	70.00	\$ 70.00	0.0%
Residential Monthly Charge	\$	10.00	\$ 10.00	0.0%
Residential Usage Rate	\$	2.0580	\$ 2.0580	0.0%
Non-Residential Monthly Charge	\$	50.0000	\$ 50.00	0.0%
Non-Residential Usage Rate	\$	1.3365	\$ 1.3365	0.0%
<hr/>				
Brentwood Acquisition	Present Rate	Proposed Rate	Dollar Increase	Percent Increase
<u>Residential</u>				
<u>For Collection Service Provided By the Company</u>				
Service Charge per month	\$ 4.57	\$ 10.00	\$ 5.43	118.8%
Usage Charge per 100 gallons	\$ 0.8900	\$ 0.9810	\$ 0.0910	10.2%
<u>Non-Residential</u>				
<u>For Collection Service Provided By the Company</u>				
Service Charge per month	\$ 4.57	\$ 20.00	\$ 15.43	337.6%
Usage Charge per 100 gallons	\$ 0.8900	\$ 0.9810	\$ 0.0910	10.2%





PENNSYLVANIA RESIDENTIAL MODEL

				<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>Rain Lag 2</td> <td>0.1</td> <td>0.8</td> <td>1.0</td> </tr> <tr> <td>Rain Lag 1</td> <td>0.7</td> <td></td> <td></td> </tr> </table>																	Rain Lag 2	0.1	0.8	1.0	Rain Lag 1	0.7																						
Rain Lag 2	0.1	0.8	1.0																																													
Rain Lag 1	0.7																																															
Period	Obs	Year	Month	Cust	Sales	UPC	0.2423	-0.0575	-0.2285	0.0308	-0.0604	0.3825	0.4390	0.3309	0.3422	0.0100	-0.1248	-0.0043	-0.0333	0.0009	0.0004	0.2962	Predicted	Actual	Variance	Weather Effect	Billing Adjustments																					
10	184	2023	4	627185	2170022.691	3.460	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.328	3.460	-0.132	0.000	0																				
10	185	2023	5	627516	1953916.148	3.114	0	0	0	0	1	0	0	0	0	0	0	0	-1	0.000	0	0	0.4	3.233	3.114	0.119	0.000	0																				
10	186	2023	6	627622	2474960	3.943	0	0	0	0	0	1	0	0	0	0	0	0	0	-2.406	-50	0	0.4	3.706	3.943	-0.237	0.035	0																				
11	187	2023	7	627978	2286043.1	3.640	0	0	0	0	0	0	1	0	0	0	0	1	-2.462	-52	0	0.0	3.640																									
11	188	2023	8	628284	2201280.809	3.504	0	0	0	0	0	0	0	1	0	0	0	2	-0.320	0	0	0.0	3.504																									
11	189	2023	9	628528	2199884.187	3.500	0	0	0	0	0	0	0	0	1	0	0	3	0.000	0	0	0.0	3.500																									
11	190	2023	10	628744	1989081.74	3.164	0	0	0	0	0	0	0	0	0	1	0	4	0.000	0	0	0.0	3.164																									
11	191	2023	11	629263	1903204.289	3.024	0	0	0	0	0	0	0	0	0	0	1	5	0.000	0	0	0.0	3.024																									
11	192	2023	12	629501	1979811.24	3.145	0	0	0	0	0	0	0	0	0	0	0	6	0.000	0	0	0.0	3.145																									
11	193	2024	1	629876	2130933.209	3.383	1	0	0	0	0	0	0	0	0	0	0	7	0.000	0	0	0.0	3.383																									
11	194	2024	2	630210	1940426.652	3.079	0	1	0	0	0	0	0	0	0	0	0	8	0.000	0	0	0.0	3.079																									
11	195	2024	3	630693	1831370.997	2.904	0	0	1	0	0	0	0	0	0	0	0	9	0.000	0	0	0.0	2.904																									
11	196	2024	4	630954	1993078.231	3.159	0	0	0	1	0	0	0	0	0	0	0	10	0.000	0	0	0.0	3.159																									
11	197	2024	5	631058	1933137.555	3.063	0	0	0	0	1	0	0	0	0	0	0	11	0.000	0	0	0.0	3.063																									
11	198	2024	6	631273	2210717.751	3.502	0	0	0	0	0	1	0	0	0	0	0	12	0.000	0	0	0.0	3.502																									
12	199	2024	7	631629	2244981.481	3.554	0	0	0	0	0	0	1	0	0	0	0	13	0.000	0	0	0.0	3.554																									
12	200	2024	8	631935	2175066.466	3.442	0	0	0	0	0	0	0	1	0	0	0	14	0.000	0	0	0.0	3.442																									
12	201	2024	9	632179	2180368.258	3.449	0	0	0	0	0	0	0	0	1	0	0	15	0.000	0	0	0.0	3.449																									
12	202	2024	10	632395	1968326.397	3.112	0	0	0	0	0	0	0	0	0	1	0	16	0.000	0	0	0.0	3.112																									
12	203	2024	11	632914	1881914.679	2.973	0	0	0	0	0	0	0	0	0	0	1	17	0.000	0	0	0.0	2.973																									
12	204	2024	12	633151	1958949.588	3.094	0	0	0	0	0	0	0	0	0	0	0	18	0.000	0	0	0.0	3.094																									
12	205	2025	1	633527	2110921.452	3.332	1	0	0	0	0	0	0	0	0	0	0	19	0.000	0	0	0.0	3.332																									
12	206	2025	2	633861	1919287.686	3.028	0	1	0	0	0	0	0	0	0	0	0	20	0.000	0	0	0.0	3.028																									
12	207	2025	3	634344	1809567.483	2.853	0	0	1	0	0	0	0	0	0	0	0	21	0.000	0	0	0.0	2.853																									
12	208	2025	4	634605	1972192.665	3.108	0	0	0	1	0	0	0	0	0	0	0	22	0.000	0	0	0.0	3.108																									
12	209	2025	5	634709	1911898.01	3.012	0	0	0	0	1	0	0	0	0	0	0	23	0.000	0	0	0.0	3.012																									
12	210	2025	6	634924	2191068.705	3.451	0	0	0	0	0	1	0	0	0	0	0	24	0.000	0	0	0.0	3.451																									
13	211	2025	7	635279	2225505.099	3.503	0	0	0	0	0	0	1	0	0	0	0	25	0.000	0	0	0.0	3.503																									
13	212	2025	8	635586	2155164.249	3.391	0	0	0	0	0	0	0	1	0	0	0	26	0.000	0	0	0.0	3.391																									
13	213	2025	9	635830	2160479.344	3.398	0	0	0	0	0	0	0	0	1	0	0	27	0.000	0	0	0.0	3.398																									
13	214	2025	10	636045	1947198.07	3.061	0	0	0	0	0	0	0	0	0	1	0	28	0.000	0	0	0.0	3.061																									
13	215	2025	11	636564	1860252.084	2.922	0	0	0	0	0	0	0	0	0	0	1	29	0.000	0	0	0.0	2.922																									
13	216	2025	12	636802	1937714.952	3.043	0	0	0	0	0	0	0	0	0	0	0	30	0.000	0	0	0.0	3.043																									
13	217	2026	1	637177	2090536.711	3.281	1	0	0	0	0	0	0	0	0	0	0	31	0.000	0	0	0.0	3.281																									
13	218	2026	2	637511	1897775.735	2.977	0	1	0	0	0	0	0	0	0	0	0	32	0.000	0	0	0.0	2.977																									
13	219	2026	3	637994	1787390.986	2.802	0	0	1	0	0	0	0	0	0	0	0	33	0.000	0	0	0.0	2.802																									
13	220	2026	4	638255	1950934.114	3.057	0	0	0	1	0	0	0	0	0	0	0	34	0.000	0	0	0.0	3.057																									
13	221	2026	5	638359	1890285.482	2.961	0	0	0	0	1	0	0	0	0	0	0	35	0.000	0	0	0.0	2.961																									
13	222	2026	6	638574	2171046.675	3.400	0	0	0	0	0	1	0	0	0	0	0	36	0.000	0	0	0.0	3.400																									
14	223	2026	7	638930	2205655.732	3.452	0	0	0	0	0	0	1	0	0	0	0	37	0.000	0	0	0.0	3.452																									
14	224	2026	8	639236	2134889.047	3.340	0	0	0	0	0	0	0	1	0	0	0	38	0.000	0	0	0.0	3.340																									
14	225	2026	9	639480	2140217.445	3.347	0	0	0	0	0	0	0	0	1	0	0	39	0.000	0	0	0.0	3.347																									
14	226	2026	10	639696	1925696.758	3.010	0	0	0	0	0	0	0	0	0	1	0	40	0.000	0	0	0.0	3.010																									
14	227	2026	11	640215	1838216.505	2.871	0	0	0	0	0	0	0	0	0	0	1	41	0.000	0	0	0.0	2.871																									
14	228	2026	12	640453	1916107.332	2.992	0	0	0	0	0	0	0	0	0	0	0	42	0.000	0	0	0.0	2.992																									

REGRESSION MODEL

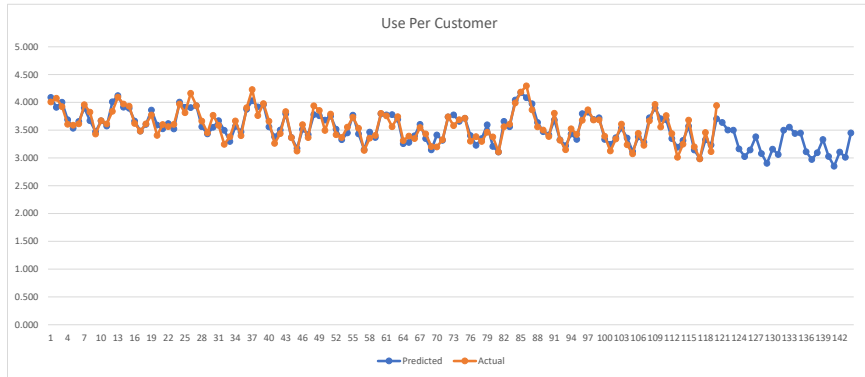
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9313
R Square	0.8672
Adjusted R Square	0.8466
Standard Error	0.1098
Observations	120

ANOVA					
	df	SS	MS	F	Significance F
Regression	16	8.11	0.5069	42.0491	0.0000
Residual	103	1.24	0.0121		
Total	119	9.35			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.1706	0.0445	71.2377	0.0000	3.0823	3.2589	4.3812	4.8161
Jan	0.2423	0.0491	4.9347	0.0000	0.1449	0.3397	-0.0904	0.4442
Feb	-0.0575	0.0491	-1.1713	0.2442	-0.1549	0.0399	-0.5977	-0.0631
Mar	-0.2285	0.0491	-4.6531	0.0000	-0.3259	-0.1311	-0.5800	-0.0454
Apr	0.0308	0.0493	0.6253	0.5332	-0.0669	0.1285	-0.4491	0.0880
May	-0.0604	0.0493	-1.2268	0.2227	-0.1581	0.0373	0.0664	0.6039
Jun	0.3825	0.0493	7.7655	0.0000	0.2848	0.4802	1.5893	2.1274
Jul	0.4390	0.0494	8.8837	0.0000	0.3410	0.5370	3.0936	3.6314
Aug	0.3309	0.0493	6.7142	0.0000	0.2332	0.4287	3.0495	3.5871
Sep	0.3422	0.0493	6.9486	0.0000	0.2446	0.4399	2.6027	3.1405
Oct	0.0100	0.0492	0.2035	0.8392	-0.0876	0.1077	1.1906	1.7252
Nov	-0.1248	0.0492	-2.5363	0.0127	-0.2224	-0.0272	-0.0387	0.4958
Trend	-0.0043	0.0004	-10.8213	0.0000	-0.0050	-0.0035	-0.0084	-0.0050
Rain	-0.0333	0.0094	-3.5456	0.0006	-0.0519	-0.0147	-0.2999	-0.1944
CDD	0.0009	0.0004	2.2482	0.0267	0.0001	0.0017	0.0050	0.0095
HDD	0.0004	0.0001	3.0833	0.0026	0.0001	0.0007	0.0050	0.0095
COVID	0.2962	0.0498	5.9428	0.0000	0.1974	0.3951	0.2478	0.8078

-0.613 Annual Decline

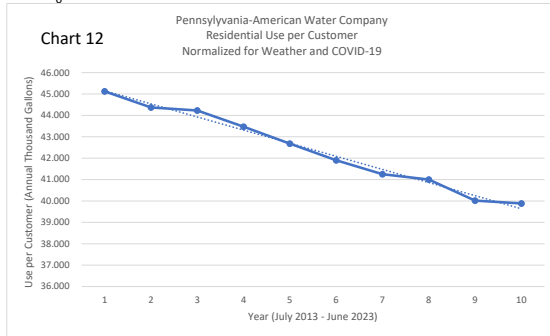


REGRESSION MODEL

SUMMARY OUTPUT

Auto-Correlation: -0.2742  
D-W Statistic 2.4841

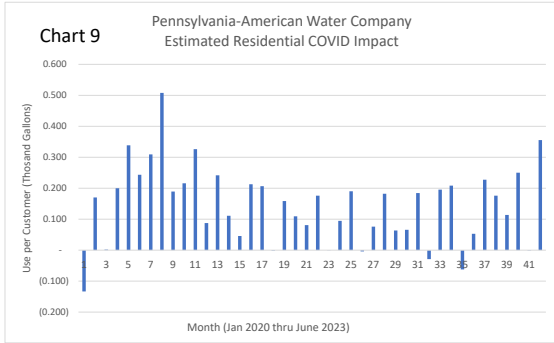
Month	Sum. Wea.	Win. Wea.	Period	Actual	Weather	COVID	Normalized
1	0	1	1	45.158	0.036	-	45.122
2	0	1	2	44.642	0.273	-	44.369
3	0	1	3	43.995	(0.233)	-	44.228
4	0	0	4	43.567	0.097	-	43.470
5	0	0	5	42.462	(0.220)	-	42.682
6	1	0	6	41.578	(0.323)	-	41.902
7	1	0	7	42.087	(0.052)	0.889	41.251
8	1	0	8	43.704	0.391	2.310	41.003
9	1	0	9	41.362	(0.080)	1.422	40.020
10	1	0	10	41.370	0.064	1.422	39.885
11	0	0					
12	0	0					



REGRESSION MODEL

SUMMARY OUTPUT

Data	Usage Per Customer
Jan-20	(0.133)
Feb-20	0.170
Mar-20	0.002
Apr-20	0.200
May-20	0.339
Jun-20	0.244
Jul-20	0.309
Aug-20	0.508
Sep-20	0.189
Oct-20	0.216
Nov-20	0.326
Dec-20	0.088
Jan-21	0.242
Feb-21	0.111
Mar-21	0.046
Apr-21	0.213
May-21	0.206
Jun-21	(0.001)
Jul-21	0.159
Aug-21	0.109
Sep-21	0.081
Oct-21	0.176
Nov-21	0.000
Dec-21	0.095
Jan-22	0.190
Feb-22	(0.004)
Mar-22	0.076
Apr-22	0.182
May-22	0.063
Jun-22	0.066
Jul-22	0.184
Aug-22	(0.029)
Sep-22	0.196
Oct-22	0.208
Nov-22	(0.062)
Dec-22	0.053
Jan-23	0.228
Feb-23	0.176
Mar-23	0.114
Apr-23	0.250
May-23	(0.001)
Jun-23	0.356





CUSTOMER DATA

Year	Month	Cust	Growth	Select
2013	7	591888		
2013	8	592369	481	0
2013	9	592245	-124	0
2013	10	597092	4847	0
2013	11	596889	-203	0
2013	12	596793	-96	0
2014	1	597327	534	0
2014	2	596962	-365	0
2014	3	597062	100	0
2014	4	596881	-181	0
2014	5	596409	-472	0
2014	6	596756	347	0
2014	7	597147	391	0
2014	8	597203	56	0
2014	9	597462	259	0
2014	10	597524	62	0
2014	11	597335	-189	0
2014	12	597479	144	0
2015	1	597621	142	0
2015	2	597822	201	0
2015	3	598207	385	0
2015	4	598625	418	0
2015	5	597986	-639	0
2015	6	598123	137	0
2015	7	598212	89	0
2015	8	598580	368	0
2015	9	598960	380	0
2015	10	598874	-86	0
2015	11	599240	366	0
2015	12	599380	140	0
2016	1	599524	144	0
2016	2	600159	635	0
2016	3	600642	483	0
2016	4	600940	298	0
2016	5	601028	88	0
2016	6	601147	119	0
2016	7	601359	212	0
2016	8	602054	695	0
2016	9	602368	314	0

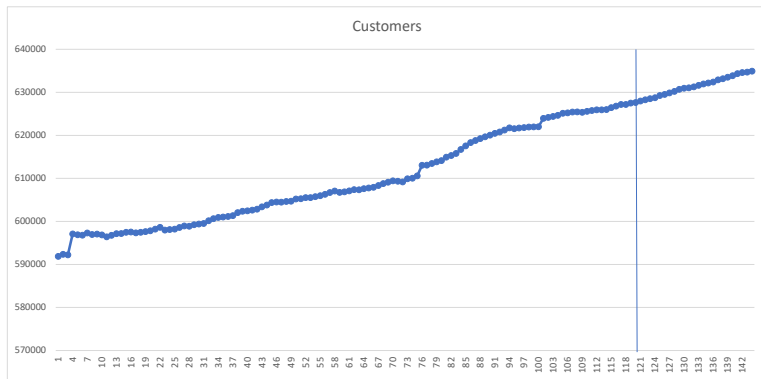
		Avg
Month	Growth	Last 60 Months
1	375	
2	334	
3	483	
4	261	
5	104	
6	215	
7	356	
8	306	
9	244	
10	216	
11	519	
12	238	
		3651

CUSTOMER DATA

Year	Month	Cust	Growth	Select
2016	10	602465	97	0
2016	11	602625	160	0
2016	12	602856	231	0
2017	1	603389	533	0
2017	2	603795	406	0
2017	3	604388	593	0
2017	4	604497	109	0
2017	5	604466	-31	0
2017	6	604646	180	0
2017	7	604712	66	0
2017	8	605210	498	0
2017	9	605274	64	0
2017	10	605542	268	0
2017	11	605539	-3	0
2017	12	605770	231	0
2018	1	605987	217	0
2018	2	606288	301	0
2018	3	606729	441	0
2018	4	607071	342	0
2018	5	606742	-329	0
2018	6	606877	135	0
2018	7	607090	213	1
2018	8	607391	301	1
2018	9	607368	-23	1
2018	10	607602	234	1
2018	11	607787	185	1
2018	12	607947	160	1
2019	1	608339	392	1
2019	2	608788	449	1
2019	3	609106	318	1
2019	4	609423	317	1
2019	5	609341	-82	1
2019	6	609185	-156	1
2019	7	609916	731	1
2019	8	610054	138	1
2019	9	610572	518	1
2019	10	613052	2480	0
2019	11	613091	39	1
2019	12	613460	369	1
2020	1	613855	395	1
2020	2	614148	293	1
2020	3	614940	792	1
2020	4	615330	390	1
2020	5	615811	481	1
2020	6	616730	919	1
2020	7	617571	841	1
2020	8	618309	738	1
2020	9	618810	501	1
2020	10	619258	448	1
2020	11	619675	417	1
2020	12	620045	370	1
2021	1	620477	432	1
2021	2	620790	313	1
2021	3	621236	446	1
2021	4	621730	494	1
2021	5	621545	-185	1
2021	6	621725	180	1
2021	7	621798	73	1
2021	8	621924	126	1
2021	9	621968	44	1
2021	10	621994	26	1
2021	11	623943	1949	1
2021	12	624174	231	1
2022	1	624389	215	1
2022	2	624655	266	1
2022	3	625136	481	1
2022	4	625220	84	1
2022	5	625422	202	1
2022	6	625448	26	1
2022	7	625369	-79	1

CUSTOMER DATA

Year	Month	Cust	Growth	Select
2022	8	625597	228	1
2022	9	625777	180	1
2022	10	625932	155	1
2022	11	625937	5	1
2022	12	625996	59	1
2023	1	626438	442	1
2023	2	626788	350	1
2023	3	627166	378	1
2023	4	627185	19	1
2023	5	627516	331	0
2023	6	627622	106	1
2023	7	627978	356	
2023	8	628284	306	
2023	9	628528	244	
2023	10	628744	216	
2023	11	629263	519	
2023	12	629501	238	
2024	1	629876	375	
2024	2	630210	334	
2024	3	630693	483	
2024	4	630954	261	
2024	5	631058	104	
2024	6	631273	215	
2024	7	631629	356	
2024	8	631935	306	
2024	9	632179	244	
2024	10	632395	216	
2024	11	632914	519	
2024	12	633151	238	
2025	1	633527	375	
2025	2	633861	334	
2025	3	634344	483	
2025	4	634605	261	
2025	5	634709	104	
2025	6	634924	215	
2025	7	635279	356	
2025	8	635586	306	
2025	9	635830	244	
2025	10	636045	216	
2025	11	636564	519	
2025	12	636802	238	
2026	1	637177	375	
2026	2	637511	334	
2026	3	637994	483	
2026	4	638255	261	
2026	5	638359	104	
2026	6	638574	215	
2026	7	638930	356	
2026	8	639236	306	
2026	9	639480	244	
2026	10	639696	216	
2026	11	640215	519	
2026	12	640453	238	



WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1	HDD	HDD Lag 1					
2013	7	3.573	0.155	-2.031	-15	-6	0	-5	47862	-16195	2013	39420	-65108
2013	8	-2.394	3.573	0.155	-71	-15	7	0	-96818	-54136	2014	-43205	83090
2013	9	-1.592	-2.394	3.573	-50	-71	47	7	47707	-3854	2015	-176753	122207
2013	10	-0.766	-1.592	-2.394	9	-50	18	47	49180	9077	2016	131772	72675
2013	11	0.653	-0.766	-1.592	2	9	89	18	-33292	0	2017	-104007	-275551
2013	12	0.950	0.653	-0.766	0	-2	22	89	24782	0	2018	48851	-132156
2014	1	-1.105	0.950	0.653	0	0	202	22	-33010	5146	2019	164702	-47566
2014	2	-1.068	-1.105	0.950	0	0	147	202	-92151	48276	2020	19022	179798
2014	3	-1.121	-1.068	-1.105	-1	0	164	147	25022	35052	2021	-8576	5064
2014	4	0.629	-1.121	-1.068	1	-1	-52	164	-599	0	2022	186400	116303
2014	5	0.859	0.629	-1.121	5	1	-19	-52	-23115	0			
2014	6	-1.345	0.859	0.629	43	5	-14	-19	102166	-1058	avg.	25763	5876
2014	7	-1.247	-1.345	0.859	-69	43	9	-14	16235	33393	s.d.	115902	138464
2014	8	1.146	-1.247	-1.345	-76	-69	5	9	-33295	-22583			
2014	9	-2.872	1.146	-1.247	-39	-76	25	5	-23283	-39487			
2014	10	-1.346	-2.872	1.146	-16	-39	13	25	24815	24351			
2014	11	-0.347	-1.346	-2.872	-2	-16	118	13	-192	0			
2014	12	-0.330	-0.347	-1.346	0	-2	49	118	-5797	0			
2015	1	-0.235	-0.330	-0.347	0	0	135	49	53386	11615			
2015	2	-2.078	-0.235	-0.330	0	0	405	135	110773	32294			
2015	3	0.959	-2.078	-0.235	-1	0	144	405	-46222	96968			
2015	4	0.899	0.959	-2.078	-11	-1	-38	144	31498	0			
2015	5	-1.731	0.899	0.959	54	-11	-53	-38	-48270	0			
2015	6	4.665	-1.731	0.899	-6	54	8	-53	21559	26569			
2015	7	-1.467	4.665	-1.731	-32	-6	-2	8	56780	-61628			
2015	8	-2.924	-1.467	4.665	-49	-32	3	-2	-153767	3738			
2015	9	1.778	-2.924	-1.467	31	-49	-21	3	-1257	18528			
2015	10	-0.646	1.778	-2.924	-27	31	46	-21	-61006	-5878			
2015	11	-0.697	-0.646	1.778	2	-27	-222	46	-12231	0			
2015	12	0.450	-0.697	-0.646	0	2	-301	-222	-127997	0			
2016	1	-1.005	0.450	-0.697	0	0	27	-301	49736	-72196			
2016	2	-0.078	-1.005	0.450	0	0	-37	27	151865	6446			
2016	3	-1.071	-0.078	-1.005	-1	0	-232	-37	-50876	-8786			
2016	4	-1.011	-1.071	-0.078	-9	-1	14	-232	-59250	0			
2016	5	1.639	-1.011	-1.071	-22	-9	50	14	42795	0			
2016	6	-2.325	1.639	-1.011	13	-22	-3	50	-16121	-19882			
2016	7	-0.277	-2.325	1.639	44	13	-1	-3	-119553	41044			
2016	8	-0.594	-0.277	-2.325	106	44	-3	-1	94757	41568			
2016	9	-0.222	-0.594	-0.277	46	106	-43	-3	-11846	61142			
2016	10	0.194	-0.222	-0.594	-3	46	-49	-43	-60911	23338			
2016	11	-1.247	0.194	-0.222	3	-3	-82	-49	72180	0			
2016	12	0.650	-1.247	0.194	0	3	134	-82	38997	0			
2017	1	1.025	0.650	-1.247	0	0	-168	134	-24576	32280			
2017	2	-1.598	1.025	0.650	2	0	-219	-168	721	-40698			
2017	3	1.599	-1.598	1.025	3	2	35	-219	29768	-52921			
2017	4	-0.021	1.599	-1.598	10	3	-154	35	-50873	0			
2017	5	0.889	-0.021	1.599	-31	10	30	-154	32121	0			
2017	6	5.005	0.889	-0.021	-11	-31	6	30	-95723	-47540			
2017	7	3.373	5.005	0.889	-12	-11	-2	6	-57639	-91862			
2017	8	-0.404	3.373	5.005	-89	-12	2	-2	112559	-70945			
2017	9	-2.142	-0.404	3.373	-4	-89	20	2	-22713	-32261			
2017	10	0.514	-2.142	-0.404	12	-4	-68	20	59596	28395			
2017	11	1.773	0.514	-2.142	-2	12	9	-68	-23998	0			
2017	12	-1.980	1.773	0.514	0	-2	201	9	-63252	0			
2018	1	0.455	-1.980	1.773	0	0	119	201	22775	48690			
2018	2	3.092	0.455	-1.980	2	0	-148	119	-62187	28864			
2018	3	-0.381	3.092	0.455	-1	2	201	-148	8335	-35863			
2018	4	0.489	-0.381	3.092	1	-1	184	201	65612	0			
2018	5	1.019	0.489	-0.381	55	1	-120	184	-23082	0			
2018	6	4.135	1.019	0.489	-2	55	6	-120	-5102	-8093			
2018	7	-2.217	4.135	1.019	3	-2	-2	6	10754	-52047			
2018	8	1.366	-2.217	4.135	15	3	-3	-2	132594	20231			
2018	9	8.458	1.366	-2.217	57	15	-6	-3	-28541	-36299			
2018	10	0.934	8.458	1.366	33	57	85	-6	-32592	-97639			
2018	11	1.233	0.934	8.458	-2	33	143	85	-70124	0			
2018	12	1.260	1.233	0.934	0	-2	-85	143	30407	0			

WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1	HDD	HDD Lag 1		
2019	1	-0.245	1.260	1.233	0	0	40	-85	34470	-20600
2019	2	1.352	-0.245	1.260	0	0	-34	40	-51569	9710
2019	3	-1.401	1.352	-0.245	-1	0	102	-34	-37021	-8177
2019	4	0.809	-1.401	1.352	-7	-1	-78	102	131767	0
2019	5	0.609	0.809	-1.401	5	-7	-46	-78	-6462	0
2019	6	-0.315	0.609	0.809	-43	5	12	-46	-1177	-11605
2019	7	-0.487	-0.315	0.609	-66	-43	0	12	117596	-20956
2019	8	2.416	-0.487	-0.315	68	-66	-3	0	-18456	-23816
2019	9	-1.572	2.416	-0.487	29	68	-52	-3	-1630	6275
2019	10	2.464	-1.572	2.416	12	29	-19	-52	62070	21604
2019	11	-0.747	2.464	-1.572	-2	12	142	-19	-96154	0
2019	12	0.300	-0.747	2.464	0	-2	25	142	31268	0
2020	1	0.775	0.300	-0.747	0	0	-187	25	81775	6027
2020	2	0.222	0.775	0.300	0	0	-1	-187	-104601	-46072
2020	3	2.319	0.222	0.775	1	0	-162	-1	-1110	-123
2020	4	1.479	2.319	0.222	-12	1	112	-162	59226	0
2020	5	-1.471	1.479	2.319	-15	-12	108	112	-26103	0
2020	6	-3.365	-1.471	1.479	3	-15	-4	108	32479	25493
2020	7	-1.427	-3.365	-1.471	132	3	-2	-4	-8161	73644
2020	8	0.656	-1.427	-3.365	38	132	-3	-2	-130894	88208
2020	9	-1.812	0.656	-1.427	-20	38	25	-3	66178	15649
2020	10	-0.786	-1.812	0.656	-18	-20	20	25	49706	16972
2020	11	-0.037	-0.786	-1.812	-2	-18	-138	20	-18659	0
2020	12	-0.830	-0.037	-0.786	0	-2	71	-138	19187	0
2021	1	-0.845	-0.830	-0.037	0	0	-57	71	-76339	17530
2021	2	-0.418	-0.845	-0.830	0	0	114	-57	4653	-14230
2021	3	-0.101	-0.418	-0.845	-1	0	-143	114	45091	28256
2021	4	-1.311	-0.101	-0.418	4	-1	6	-143	-58539	0
2021	5	-1.071	-1.311	-0.101	-4	4	83	6	-54684	0
2021	6	1.475	-1.071	-1.311	48	-4	-1	83	74536	15703
2021	7	-0.027	1.475	-1.071	-25	48	-2	-1	-25026	79
2021	8	1.276	-0.027	1.475	61	-25	-3	-2	5654	-12170
2021	9	0.908	1.276	-0.027	-35	61	-23	-3	23289	1285
2021	10	0.584	0.908	1.276	25	-35	-138	-23	-35721	-31389
2021	11	-1.697	0.584	0.908	-2	25	24	-138	73638	0
2021	12	0.910	-1.697	0.584	0	-2	-164	24	14873	0
2022	1	-0.065	0.910	-1.697	0	0	152	-164	-44757	-40910
2022	2	2.072	-0.065	0.910	0	0	-19	152	76437	37999
2022	3	-0.721	2.072	-0.065	-1	0	-94	-19	26444	-4635
2022	4	-0.051	-0.721	2.072	6	-1	66	-94	-39834	0
2022	5	1.509	-0.051	-0.721	1	6	-49	66	34389	0
2022	6	-4.735	1.509	-0.051	16	1	-12	-49	32995	60
2022	7	0.203	-4.735	1.509	39	16	-2	-12	-41215	76886
2022	8	-0.544	0.203	-4.735	0	39	-3	-2	92128	26665
2022	9	-0.932	-0.544	0.203	-13	0	31	-3	-48196	9758
2022	10	-1.146	-0.932	-0.544	-27	-13	88	31	-56200	10481
2022	11	1.113	-1.146	-0.932	7	-27	-86	88	113084	0
2022	12	-1.380	1.113	-1.146	0	7	50	-86	41126	0
2023	1	1.245	-1.380	1.113	0	0	-261	50	-68308	12426
2023	2	-1.498	1.245	-1.380	0	0	-210	-261	-35996	-65608
2023	3	-0.081	-1.498	1.245	-1	0	-11	-210	2992	-52653
2023	4	-1.911	-0.081	-1.498	15	-1	-56	-11	-82500	0
2023	5	-2.251	-1.911	-0.081	-46	15	15	-56	74777	0
2023	6	-3.195	-2.251	-1.911	-65	-46	5	15	-148797	21807
2023	7	0.000	-3.195	-2.251	0	-65	0	5		
2023	8	0.000	0.000	-3.195	0	0	0	0		
2023	9	0.000	0.000	0.000	0	0	0	0		
2023	10	0.000	0.000	0.000	0	0	0	0		
2023	11	0.000	0.000	0.000	0	0	0	0		
2023	12	0.000	0.000	0.000	0	0	0	0		
2024	1	0.000	0.000	0.000	0	0	0	0		
2024	2	0.000	0.000	0.000	0	0	0	0		
2024	3	0.000	0.000	0.000	0	0	0	0		
2024	4	0.000	0.000	0.000	0	0	0	0		
2024	5	0.000	0.000	0.000	0	0	0	0		
2024	6	0.000	0.000	0.000	0	0	0	0		
2024	7	0.000	0.000	0.000	0	0	0	0		

WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1	HDD	HDD Lag 1
2024	8	0.000	0.000	0.000	0	0	0	0
2024	9	0.000	0.000	0.000	0	0	0	0
2024	10	0.000	0.000	0.000	0	0	0	0
2024	11	0.000	0.000	0.000	0	0	0	0
2024	12	0.000	0.000	0.000	0	0	0	0
2025	1	0.000	0.000	0.000	0	0	0	0
2025	2	0.000	0.000	0.000	0	0	0	0
2025	3	0.000	0.000	0.000	0	0	0	0
2025	4	0.000	0.000	0.000	0	0	0	0
2025	5	0.000	0.000	0.000	0	0	0	0
2025	6	0.000	0.000	0.000	0	0	0	0
2025	7	0.000	0.000	0.000	0	0	0	0
2025	8	0.000	0.000	0.000	0	0	0	0
2025	9	0.000	0.000	0.000	0	0	0	0
2025	10	0.000	0.000	0.000	0	0	0	0
2025	11	0.000	0.000	0.000	0	0	0	0
2025	12	0.000	0.000	0.000	0	0	0	0
2026	1	0.000	0.000	0.000	0	0	0	0
2026	2	0.000	0.000	0.000	0	0	0	0
2026	3	0.000	0.000	0.000	0	0	0	0
2026	4	0.000	0.000	0.000	0	0	0	0
2026	5	0.000	0.000	0.000	0	0	0	0
2026	6	0.000	0.000	0.000	0	0	0	0
2026	7	0.000	0.000	0.000	0	0	0	0
2026	8	0.000	0.000	0.000	0	0	0	0
2026	9	0.000	0.000	0.000	0	0	0	0
2026	10	0.000	0.000	0.000	0	0	0	0
2026	11	0.000	0.000	0.000	0	0	0	0
2026	12	0.000	0.000	0.000	0	0	0	0

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2008	1	0	2008.01	0	1.890	1057	0	-0.785	-29	-0.785	0.000	0.000	0.000	0.000	-29	0
2008	2	0	2008.02	0	5.060	1012	0	1.682	133	1.682	-0.785	0.000	-0.400	0.000	133	-29
2008	3	0	2008.03	0	4.100	821	-1	0.779	85	0.779	1.682	-0.785	-0.600	-0.400	85	133
2008	4	0	2008.04	7	2.940	330	-5	-0.701	-63	-0.701	0.779	1.682	-4.800	-0.600	-63	85
2008	5	0	2008.05	14	5.380	246	-64	1.129	101	1.129	-0.701	0.779	-64.200	-4.800	101	-63
2008	6	0	2008.06	171	4.750	17	-3	-1.225	-1	-1.225	1.129	-0.701	-2.600	-64.200	-1	101
2008	7	0	2008.07	239	2.480	0	-40	-2.067	-2	-2.067	-1.225	1.129	-39.500	-2.600	-2	-1
2008	8	0	2008.08	163	2.040	2	-84	-2.964	-1	-2.964	-2.067	-1.225	-84.300	-39.500	-1	-2
2008	9	0	2008.09	85	1.690	34	-33	-1.752	-22	-1.752	-2.964	-2.067	-33.200	-84.300	-22	-1
2008	10	0	2008.10	4	1.960	415	-23	-1.956	108	-1.956	-1.752	-2.964	-22.500	-33.200	108	-22
2008	11	0	2008.11	0	2.060	729	-2	-0.447	74	-0.447	-1.956	-1.752	-1.500	-22.500	74	108
2008	12	0	2008.12	0	6.310	987	0	2.980	130	2.980	-0.447	-1.956	0.000	-1.500	130	74
2009	1	0	2009.01	0	3.060	1316	0	0.385	230	0.385	2.980	-0.447	0.000	0.000	230	130
2009	2	0	2009.02	0	1.070	904	0	-2.308	25	-2.308	0.385	2.980	-0.400	0.000	25	230
2009	3	0	2009.03	0	2.070	697	-1	-1.251	-39	-1.251	-2.308	0.385	-0.600	-0.400	-39	25
2009	4	0	2009.04	29	2.920	411	17	-0.721	18	-0.721	-1.251	-2.308	17.200	-0.600	18	-39
2009	5	0	2009.05	45	3.990	154	-33	-0.261	9	-0.261	-0.721	-1.251	-33.200	17.200	9	18
2009	6	0	2009.06	120	3.200	26	-54	-2.775	8	-2.775	-0.261	-0.721	-53.600	-33.200	8	9
2009	7	0	2009.07	142	4.670	5	-137	0.123	3	0.123	-2.775	-0.261	-136.500	-53.600	3	8
2009	8	0	2009.08	224	2.240	7	-23	-2.764	4	-2.764	0.123	-2.775	-23.300	-136.500	4	3
2009	9	0	2009.09	54	1.720	64	-64	-1.722	8	-1.722	-2.764	0.123	-64.200	-23.300	8	4
2009	10	0	2009.10	0	3.240	428	-27	-0.676	121	-0.676	-1.722	-2.764	-26.500	-64.200	121	8
2009	11	0	2009.11	0	1.060	518	-2	-1.447	-137	-1.447	-0.676	-1.722	-1.500	-26.500	-137	121
2009	12	0	2009.12	0	4.100	1044	0	0.770	187	0.770	-1.447	-0.676	0.000	-1.500	187	-137
2010	1	0	2010.01	0	2.340	1194	0	-0.335	108	-0.335	0.770	-1.447	0.000	0.000	108	187
2010	2	0	2010.02	0	1.560	1067	0	-1.818	188	-1.818	-0.335	0.770	-0.400	0.000	188	108
2010	3	0	2010.03	0	2.950	636	-1	-0.371	-100	-0.371	-1.818	-0.335	-0.600	-0.400	-100	188
2010	4	0	2010.04	29	1.360	289	17	-2.281	-104	-2.281	-0.371	-1.818	17.200	-0.600	-104	-100
2010	5	0	2010.05	86	5.610	112	8	1.359	-33	1.359	-2.281	-0.371	7.800	17.200	-33	-104
2010	6	0	2010.06	203	4.460	11	29	-1.515	-7	-1.515	1.359	-2.281	29.400	7.800	-7	-33
2010	7	0	2010.07	332	3.460	3	54	-1.087	1	-1.087	-1.515	1.359	53.500	29.400	1	-7
2010	8	0	2010.08	300	2.060	0	53	-2.944	-3	-2.944	-1.087	-1.515	52.700	53.500	-3	1
2010	9	0	2010.09	101	3.510	54	-17	0.068	-2	0.068	-2.944	-1.087	-17.200	52.700	-2	-3
2010	10	0	2010.10	5	2.400	299	-22	-1.516	-8	-1.516	0.068	-2.944	-21.500	-17.200	-8	-2
2010	11	0	2010.11	0	5.280	643	-2	2.773	-12	2.773	-1.516	0.068	-1.500	-21.500	-12	-8
2010	12	0	2010.12	0	1.170	1202	0	-2.160	345	-2.160	2.773	-1.516	0.000	-1.500	345	-12
2011	1	0	2011.01	0	1.790	1244	0	-0.885	158	-0.885	-2.160	2.773	0.000	0.000	158	345
2011	2	0	2011.02	0	3.030	807	0	-0.348	-73	-0.348	-0.885	-2.160	-0.400	0.000	-73	158
2011	3	0	2011.03	0	3.920	788	-1	0.599	52	0.599	-0.348	-0.885	-0.600	-0.400	52	-73
2011	4	0	2011.04	19	5.780	357	7	2.139	-36	2.139	0.599	-0.348	7.200	-0.600	-36	52
2011	5	0	2011.05	92	4.050	142	14	-0.201	-3	-0.201	2.139	0.599	13.800	7.200	-3	-36
2011	6	0	2011.06	176	1.770	12	2	-4.205	-6	-4.205	-0.201	2.139	2.400	13.800	-6	-3
2011	7	0	2011.07	388	3.930	0	110	-0.617	-2	-0.617	-4.205	-0.201	109.500	2.400	-2	-6
2011	8	0	2011.08	235	4.010	0	-12	-0.994	-3	-0.994	-0.617	-4.205	-12.300	109.500	-3	-2

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2011	9	0	2011.09	101	4.850	81	-17	1.408	25	1.408	-0.994	-0.617	-17.200	-12.300	25	-3
2011	10	0	2011.10	2	4.050	367	-25	0.134	60	0.134	1.408	-0.994	-24.500	-17.200	60	25
2011	11	0	2011.11	0	3.930	512	-2	1.423	-143	1.423	0.134	1.408	-1.500	-24.500	-143	60
2011	12	0	2011.12	0	3.100	824	0	-0.230	-34	-0.230	1.423	0.134	0.000	-1.500	-34	-143
2012	1	0	2012.01	0	3.110	968	0	0.435	-118	0.435	-0.230	1.423	0.000	0.000	-118	-34
2012	2	0	2012.02	0	1.800	816	0	-1.578	-64	-1.578	0.435	-0.230	-0.400	0.000	-64	-118
2012	3	0	2012.03	9	2.920	419	8	-0.401	-317	-0.401	-1.578	0.435	8.400	-0.400	-317	-64
2012	4	0	2012.04	6	1.640	439	-6	-2.001	46	-2.001	-0.401	-1.578	-5.800	8.400	46	-317
2012	5	0	2012.05	144	2.740	52	66	-1.511	-93	-1.511	-2.001	-0.401	65.800	-5.800	-93	46
2012	6	0	2012.06	206	1.680	22	32	-4.295	4	-4.295	-1.511	-2.001	32.400	65.800	4	-93
2012	7	0	2012.07	381	6.680	0	103	2.133	-2	2.133	-4.295	-1.511	102.500	32.400	-2	4
2012	8	0	2012.08	237	2.860	1	-10	-2.144	-2	-2.144	2.133	-4.295	-10.300	102.500	-2	-2
2012	9	0	2012.09	107	4.640	109	-11	1.198	53	1.198	-2.144	2.133	-11.200	-10.300	53	-2
2012	10	0	2012.10	20	5.000	346	-7	1.084	39	1.084	1.198	-2.144	-6.500	-11.200	39	53
2012	11	0	2012.11	0	0.700	727	-2	-1.807	72	-1.807	1.084	1.198	-1.500	-6.500	72	39
2012	12	0	2012.12	0	4.430	799	0	1.100	-59	1.100	-1.807	1.084	0.000	-1.500	-59	72
2013	1	0	2013.01	0	3.050	995	0	0.375	-91	0.375	1.100	-1.807	0.000	0.000	-91	-59
2013	2	0	2013.02	0	1.900	1005	0	-1.478	126	-1.478	0.375	1.100	-0.400	0.000	126	-91
2013	3	0	2013.03	0	1.920	917	-1	-1.401	181	-1.401	-1.478	0.375	-0.600	-0.400	181	126
2013	4	0	2013.04	21	2.860	366	9	-0.781	-27	-0.781	-1.401	-1.478	9.200	-0.600	-27	181
2013	5	0	2013.05	90	2.220	155	12	-2.031	10	-2.031	-0.781	-1.401	11.800	9.200	10	-27
2013	6	0	2013.06	168	6.130	13	-6	0.155	-5	0.155	-2.031	-0.781	-5.600	11.800	-5	10
2013	7	1	2013.07	264	8.120	2	-15	3.573	0	3.573	0.155	-2.031	-14.500	-5.600	0	-5
2013	8	1	2013.08	176	2.610	10	-71	-2.394	7	-2.394	3.573	0.155	-71.300	-14.500	7	0
2013	9	1	2013.09	68	1.850	103	-50	-1.592	47	-1.592	-2.394	3.573	-50.200	-71.300	47	7
2013	10	1	2013.10	35	3.150	325	9	-0.766	18	-0.766	-1.592	-2.394	8.500	-50.200	18	47
2013	11	1	2013.11	0	3.160	744	-2	0.653	89	0.653	-0.766	-1.592	-1.500	8.500	89	18
2013	12	1	2013.12	0	4.280	879	0	0.950	22	0.950	0.653	-0.766	0.000	-1.500	22	89
2014	1	1	2014.01	0	1.570	1288	0	-1.105	202	-1.105	0.950	0.653	0.000	0.000	202	22
2014	2	1	2014.02	0	2.310	1026	0	-1.068	147	-1.068	-1.105	0.950	-0.400	0.000	147	202
2014	3	1	2014.03	0	2.200	900	-1	-1.121	164	-1.121	-1.068	-1.105	-0.600	-0.400	164	147
2014	4	1	2014.04	13	4.270	341	1	0.629	-52	0.629	-1.121	-1.068	1.200	-0.600	-52	164
2014	5	1	2014.05	83	5.110	126	5	0.859	-19	0.859	0.629	-1.121	4.800	1.200	-19	-52
2014	6	1	2014.06	217	4.630	4	43	-1.345	-14	-1.345	0.859	0.629	43.400	4.800	-14	-19
2014	7	1	2014.07	210	3.300	11	-69	-1.247	9	-1.247	-1.345	0.859	-68.500	43.400	9	-14
2014	8	1	2014.08	171	6.150	8	-76	1.146	5	1.146	-1.247	-1.345	-76.300	-68.500	5	9
2014	9	1	2014.09	79	0.570	81	-39	-2.872	25	-2.872	1.146	-1.247	-39.200	-76.300	25	5
2014	10	1	2014.10	11	2.570	320	-16	-1.346	13	-1.346	-2.872	1.146	-15.500	-39.200	13	25
2014	11	1	2014.11	0	2.160	773	-2	-0.347	118	-0.347	-1.346	-2.872	-1.500	-15.500	118	13
2014	12	1	2014.12	0	3.000	906	0	-0.330	49	-0.330	-0.347	-1.346	0.000	-1.500	49	118
2015	1	1	2015.01	0	2.440	1221	0	-0.235	135	-0.235	-0.330	-0.347	0.000	0.000	135	49
2015	2	1	2015.02	0	1.300	1284	0	-2.078	405	-2.078	-0.235	-0.330	-0.400	0.000	405	135
2015	3	1	2015.03	0	4.280	880	-1	0.959	144	0.959	-2.078	-0.235	-0.600	-0.400	144	405
2015	4	1	2015.04	1	4.540	355	-11	0.899	-38	0.899	0.959	-2.078	-10.800	-0.600	-38	144



PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2015	5	1	2015.05	132	2.520	92	54	-1.731	-53	-1.731	0.899	0.959	53.800	-10.800	-53	-38
2015	6	1	2015.06	168	10.640	26	-6	4.665	8	4.665	-1.731	0.899	-5.600	53.800	8	-53
2015	7	1	2015.07	247	3.080	0	-32	-1.467	-2	-1.467	4.665	-1.731	-31.500	-5.600	-2	8
2015	8	1	2015.08	198	2.080	6	-49	-2.924	3	-2.924	-1.467	4.665	-49.300	-31.500	3	-2
2015	9	1	2015.09	149	5.220	35	31	1.778	-21	1.778	-2.924	-1.467	30.800	-49.300	-21	3
2015	10	1	2015.10	0	3.270	353	-27	-0.646	46	-0.646	1.778	-2.924	-26.500	30.800	46	-21
2015	11	1	2015.11	3	1.810	433	2	-0.697	-222	-0.697	-0.646	1.778	1.500	-26.500	-222	46
2015	12	1	2015.12	0	3.780	557	0	0.450	-301	0.450	-0.697	-0.646	0.000	1.500	-301	-222
2016	1	1	2016.01	0	1.670	1113	0	-1.005	27	-1.005	0.450	-0.697	0.000	0.000	27	-301
2016	2	1	2016.02	0	3.300	843	0	-0.078	-37	-0.078	-1.005	0.450	-0.400	0.000	-37	27
2016	3	1	2016.03	0	2.250	504	-1	-1.071	-232	-1.071	-0.078	-1.005	-0.600	-0.400	-232	-37
2016	4	1	2016.04	3	2.630	407	-9	-1.011	14	-1.011	-1.071	-0.078	-8.800	-0.600	14	-232
2016	5	1	2016.05	56	5.890	195	-22	1.639	50	1.639	-1.011	-1.071	-22.200	-8.800	50	14
2016	6	1	2016.06	187	3.650	15	13	-2.325	-3	-2.325	1.639	-1.011	13.400	-22.200	-3	50
2016	7	1	2016.07	322	4.270	1	44	-0.277	-1	-0.277	-2.325	1.639	43.500	13.400	-1	-3
2016	8	1	2016.08	353	4.410	0	106	-0.594	-3	-0.594	-0.277	-2.325	105.700	43.500	-3	-1
2016	9	1	2016.09	164	3.220	13	46	-0.222	-43	-0.222	-0.594	-0.277	45.800	105.700	-43	-3
2016	10	1	2016.10	24	4.110	258	-3	0.194	-49	0.194	-0.222	-0.594	-2.500	45.800	-49	-43
2016	11	1	2016.11	4	1.260	573	3	-1.247	-82	-1.247	0.194	-0.222	2.500	-2.500	-82	-49
2016	12	1	2016.12	0	3.980	991	0	0.650	134	0.650	-1.247	0.194	0.000	2.500	134	-82
2017	1	1	2017.01	0	3.700	918	0	1.025	-168	1.025	0.650	-1.247	0.000	0.000	-168	134
2017	2	1	2017.02	2	1.780	661	2	-1.598	-219	-1.598	1.025	0.650	1.600	0.000	-219	-168
2017	3	1	2017.03	4	4.920	771	3	1.599	35	1.599	-1.598	1.025	3.400	1.600	35	-219
2017	4	1	2017.04	22	3.620	239	10	-0.021	-154	-0.021	1.599	-1.598	10.200	3.400	-154	35
2017	5	1	2017.05	47	5.140	175	-31	0.889	30	0.889	-0.021	1.599	-31.200	10.200	30	-154
2017	6	1	2017.06	163	10.980	24	-11	5.005	6	5.005	0.889	-0.021	-10.600	-31.200	6	30
2017	7	1	2017.07	267	7.920	0	-12	3.373	-2	3.373	5.005	0.889	-11.500	-10.600	-2	6
2017	8	1	2017.08	158	4.600	5	-89	-0.404	2	-0.404	3.373	5.005	-89.300	-11.500	2	-2
2017	9	1	2017.09	114	1.300	76	-4	-2.142	20	-2.142	-0.404	3.373	-4.200	-89.300	20	2
2017	10	1	2017.10	38	4.430	239	12	0.514	-68	0.514	-2.142	-0.404	11.500	-4.200	-68	20
2017	11	1	2017.11	0	4.280	664	-2	1.773	9	1.773	0.514	-2.142	-1.500	11.500	9	-68
2017	12	1	2017.12	0	1.350	1058	0	-1.980	201	-1.980	1.773	0.514	0.000	-1.500	201	9

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2018	1	1	2018.01	0	3.130	1205	0	0.455	119	0.455	-1.980	1.773	0.000	0.000	119	201
2018	2	1	2018.02	2	6.470	732	2	3.092	-148	3.092	0.455	-1.980	1.600	0.000	-148	119
2018	3	1	2018.03	0	2.940	937	-1	-0.381	201	-0.381	3.092	0.455	-0.600	1.600	201	-148
2018	4	1	2018.04	13	4.130	577	1	0.489	184	0.489	-0.381	3.092	1.200	-0.600	184	201
2018	5	1	2018.05	133	5.270	25	55	1.019	-120	1.019	0.489	-0.381	54.800	1.200	-120	184
2018	6	1	2018.06	172	10.110	24	-2	4.135	6	4.135	1.019	0.489	-1.600	54.800	6	-120
2018	7	1	2018.07	281	2.330	0	3	-2.217	-2	-2.217	4.135	1.019	2.500	-1.600	-2	6
2018	8	1	2018.08	262	6.370	0	15	1.366	-3	1.366	-2.217	4.135	14.700	2.500	-3	-2
2018	9	1	2018.09	175	11.900	50	57	8.458	-6	8.458	1.366	-2.217	56.800	14.700	-6	-3
2018	10	1	2018.10	59	4.850	392	33	0.934	85	0.934	8.458	1.366	32.500	56.800	85	-6
2018	11	1	2018.11	0	3.740	798	-2	1.233	143	1.233	0.934	8.458	-1.500	32.500	143	85
2018	12	1	2018.12	0	4.590	773	0	1.260	-85	1.260	1.233	0.934	0.000	-1.500	-85	143
2019	1	1	2019.01	0	2.430	1126	0	-0.245	40	-0.245	1.260	1.233	0.000	0.000	40	-85
2019	2	1	2019.02	0	4.730	846	0	1.352	-34	1.352	-0.245	1.260	-0.400	0.000	-34	40
2019	3	1	2019.03	0	1.920	838	-1	-1.401	102	-1.401	1.352	-0.245	-0.600	-0.400	102	-34
2019	4	1	2019.04	5	4.450	315	-7	0.809	-78	0.809	-1.401	1.352	-6.800	-0.600	-78	102
2019	5	1	2019.05	83	4.860	99	5	0.609	-46	0.609	0.809	-1.401	4.800	-6.800	-46	-78
2019	6	1	2019.06	131	5.660	30	-43	-0.315	12	-0.315	0.609	0.809	-42.600	4.800	12	-46
2019	7	1	2019.07	213	4.060	2	-66	-0.487	0	-0.487	-0.315	0.609	-65.500	-42.600	0	12
2019	8	1	2019.08	315	7.420	0	68	2.416	-3	2.416	-0.487	-0.315	67.700	-65.500	-3	0
2019	9	1	2019.09	147	1.870	4	29	-1.572	-52	-1.572	2.416	-0.487	28.800	67.700	-52	-3
2019	10	1	2019.10	38	6.380	288	12	2.464	-19	2.464	-1.572	2.416	11.500	28.800	-19	-52
2019	11	1	2019.11	0	1.760	797	-2	-0.747	142	-0.747	2.464	-1.572	-1.500	11.500	142	-19
2019	12	1	2019.12	0	3.630	882	0	0.300	25	0.300	-0.747	2.464	0.000	-1.500	25	142
2020	1	1	2020.01	0	3.450	899	0	0.775	-187	0.775	0.300	-0.747	0.000	0.000	-187	25
2020	2	1	2020.02	0	3.600	879	0	0.222	-1	0.222	0.775	0.300	-0.400	0.000	-1	-187
2020	3	1	2020.03	2	5.640	574	1	2.319	-162	2.319	0.222	0.775	1.400	-0.400	-162	-1
2020	4	1	2020.04	0	5.120	505	-12	1.479	112	1.479	2.319	0.222	-11.800	1.400	112	-162
2020	5	1	2020.05	63	2.780	253	-15	-1.471	108	-1.471	1.479	2.319	-15.200	-11.800	108	112
2020	6	1	2020.06	177	2.610	14	3	-3.365	-4	-3.365	-1.471	1.479	3.400	-15.200	-4	108
2020	7	1	2020.07	410	3.120	0	132	-1.427	-2	-1.427	-3.365	-1.471	131.500	3.400	-2	-4
2020	8	1	2020.08	285	5.660	0	38	0.656	-3	0.656	-1.427	-3.365	37.700	131.500	-3	-2
2020	9	1	2020.09	98	1.630	81	-20	-1.812	25	-1.812	0.656	-1.427	-20.200	37.700	25	-3
2020	10	1	2020.10	9	3.130	327	-18	-0.786	20	-0.786	-1.812	0.656	-17.500	-20.200	20	25
2020	11	1	2020.11	0	2.470	517	-2	-0.037	-138	-0.037	-0.786	-1.812	-1.500	-17.500	-138	20
2020	12	1	2020.12	0	2.500	928	0	-0.830	71	-0.830	-0.037	-0.786	0.000	-1.500	71	-138
2021	1	1	2021.01	0	1.830	1029	0	-0.845	-57	-0.845	-0.830	-0.037	0.000	0.000	-57	71
2021	2	1	2021.02	0	2.960	993	0	-0.418	114	-0.418	-0.845	-0.830	0.000	0.000	114	-57
2021	3	1	2021.03	0	3.220	593	-1	-0.101	-143	-0.101	-0.418	-0.845	-0.600	-0.400	-143	114
2021	4	1	2021.04	16	2.330	399	4	-1.311	6	-1.311	-0.101	-0.418	4.200	-0.600	6	-143
2021	5	1	2021.05	74	3.180	228	-4	-1.071	83	-1.071	-1.311	-0.101	-4.200	4.200	83	6
2021	6	1	2021.06	222	7.450	17	48	1.475	-1	1.475	-1.071	-1.311	48.400	-4.200	-1	83
2021	7	1	2021.07	254	4.520	0	-25	-0.027	-2	-0.027	1.475	-1.071	-24.500	48.400	-2	-1
2021	8	1	2021.08	308	6.280	0	61	1.276	-3	1.276	-0.027	1.475	60.700	-24.500	-3	-2



Month	NORMAL	NORMAL	NORMAL	Res Flag	Res Flag
	CAL.	CAL.	CAL.		
	CLDD	PRCP	HTDD		
1	0	2.675	1086	0	1
2	0	3.378	880	0	1
3	1	3.321	736	0	1
4	12	3.641	393	0	0
5	78	4.251	145	0	0
6	174	5.975	18	1	0
7	279	4.547	2	1	0
8	247	5.004	3	1	0
9	118	3.442	56	1	0
10	27	3.916	307	1	0
11	2	2.507	655	0	0
12	0	3.330	858	0	0
	844	22.884	2702		

Normal Start: 2013.07  
 Normal End 2023.06  
 Normal Months 120.00

## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	COVID	COVID	COVID	
1	2008	1	578987	2652382	0	42370	1054535	0	2293	230990	0	843	357816	0	22	48398	0	6631616	0	0	0
2	2008	2	579235	2345982	0	42342	960424	0	2293	197559	0	843	384249	0	22	45706	0	6131911	0	0	0
3	2008	3	579614	2173053	0	42358	918425	0	2355	189383	0	843	381354	0	21	49794	0	6437546	0	0	0
4	2008	4	580127	2372217	0	42633	1031332	0	2477	211992	0	843	385702	0	20	44869	0	6215398	0	0	0
5	2008	5	580106	2377272	0	42734	1042963	0	2503	194427	0	842	460582	0	20	48884	0	6415951	0	0	0
6	2008	6	580539	2603258	0	42744	1112866	0	2521	224088	0	828	331628	0	20	52940	0	6643926	0	0	0
7	2008	7	580901	2723529	0	42873	1206788	0	2526	242539	0	831	445968	0	20	49241	0	6900382	0	0	0
8	2008	8	582223	2652609	0	42895	1226019	0	2536	230467	0	823	434150	0	20	57678	0	6982442	0	0	0
9	2008	9	582538	2667523	0	42776	1278607	0	2506	266544	0	810	444817	0	20	57308	0	6449154	0	0	0
10	2008	10	582620	2608924	0	42684	1181856	0	2400	262140	0	808	453528	0	20	56547	0	6288745	0	0	0
11	2008	11	582823	2110860	0	42617	920291	0	2335	185250	0	800	350068	0	20	48727	0	6077960	0	0	0
12	2008	12	582800	2454428	0	42589	1055671	0	2323	204200	0	804	336538	0	21	56984	0	6424172	0	0	0
13	2009	1	582785	2544922	0	42552	971953	0	2315	192890	0	800	306883	0	21	43140	0	6647774	0	0	0
14	2009	2	583025	2307932	0	42592	983208	0	2316	187963	0	797	341933	0	21	47727	0	6010903	0	0	0
15	2009	3	583414	2291848	0	42656	1047015	0	2376	195977	0	794	347796	0	21	42909	0	6345921	0	0	0
16	2009	4	583808	2302642	0	42837	979761	0	2484	195859	0	788	324310	0	21	44978	0	6038039	0	0	0
17	2009	5	583529	2284518	0	43022	980840	0	2505	172705	0	771	328163	0	21	52197	0	6364558	0	0	0
18	2009	6	583419	2621962	0	43030	1154195	0	2516	221170	0	758	349717	0	21	57494	0	6229429	0	0	0
19	2009	7	583627	2656779	0	43079	1166278	0	2519	217505	0	745	344799	0	21	46020	0	6543924	0	0	0
20	2009	8	584272	2402500	0	43124	1124622	0	2524	210990	0	734	352846	0	21	55862	0	6538560	0	0	0
21	2009	9	584347	2463035	0	43123	1156482	0	2504	230924	0	728	356164	0	20	48670	0	6248347	0	0	0
22	2009	10	585660	2470712	0	43069	1152311	0	2425	213833	0	740	335439	0	20	53877	0	6206123	0	0	0
23	2009	11	585774	2174790	0	42959	954294	0	2361	189911	0	728	301920	0	20	43605	0	5879757	0	0	0
24	2009	12	585777	2436213	0	42874	1088018	0	2324	189335	0	716	316209	0	20	45847	0	6194813	0	0	0
25	2010	1	585774	2469856	0	42911	951134	0	2327	179823	0	700	305106	0	21	48192	0	6444779	0	0	0
26	2010	2	586358	2286153	0	42923	938611	0	2322	173086	0	706	320624	0	21	42369	0	5725281	0	0	0
27	2010	3	586868	2247645	0	43112	1012084	0	2404	190893	0	692	348259	0	21	49748	0	6209066	0	0	0
28	2010	4	587242	2354074	0	43365	1005599	0	2529	195402	0	689	348733	0	21	42915	0	5926841	0	0	0
29	2010	5	586881	2249638	0	43671	1015483	0	2550	195611	0	674	340308	0	21	43407	0	6187620	0	0	0
30	2010	6	586752	2631401	0	43693	1136425	0	2560	217038	0	654	382515	0	21	47769	0	6203765	0	0	0
31	2010	7	586952	2800080	0	43701	1248292	0	2566	230428	0	653	430937	0	21	51761	0	6913912	0	0	0
32	2010	8	587454	2638351	0	43814	1230538	0	2577	234245	0	645	432784	0	21	51357	0	6761184	0	0	0
33	2010	9	587623	2647376	0	43873	1278440	0	2552	246721	0	633	413505	0	21	51409	0	6395070	0	0	0
34	2010	10	587530	2372625	0	43683	1140391	0	2475	219969	0	625	387036	0	21	44413	0	6103778	0	0	0
35	2010	11	587440	2147926	0	43530	1000427	0	2378	180401	0	622	344908	0	21	41718	0	5828126	0	0	0
36	2010	12	587386	2371303	0	43385	1039150	0	2362	181502	0	618	341460	0	21	53383	0	6318149	0	0	0
37	2011	1	587484	2425037	0	43418	1001877	0	2358	164299	0	618	322510	0	22	47113	0	6465805	0	0	0
38	2011	2	587848	2216258	0	43473	960045	0	2361	163655	0	619	343897	0	22	44013	0	5849485	0	0	0
39	2011	3	588189	2268045	0	43486	994168	0	2405	173241	0	616	356029	0	22	33348	0	6204788	0	0	0
40	2011	4	588540	2178101	0	43672	972402	0	2531	170091	0	616	348628	0	22	62849	0	5867241	0	0	0
41	2011	5	588252	2264481	0	43907	1003179	0	2560	176663	0	616	337072	0	22	38318	0	6215843	0	0	0
42	2011	6	588060	2655332	0	43972	1165958	0	2584	203346	0	617	389572	0	22	52153	0	6330499	0	0	0
43	2011	7	588071	2573253	0	44231	1187348	0	2465	202579	0	531	390917	0	22	51307	0	6891526	0	0	0
44	2011	8	588566	2702485	0	44282	1275601	0	2469	221253	0	532	427654	0	24	56780	0	6443606	0	0	0
45	2011	9	588430	2428060	0	44304	1219229	0	2457	204603	0	532	393004	0	24	44438	0	5927751	0	0	0
46	2011	10	588423	2220599	0	44111	1074957	0	2381	184136	0	534	349589	0	23	47116	0	5987956	0	0	0
47	2011	11	588386	2114682	0	43925	982710	0	2306	170667	0	527	341162	0	23	46021	0	5713879	0	0	0
48	2011	12	588325	2281348	0	43870	1070460	0	2287	159891	0	522	316788	0	23	50425	0	5953578	0	0	0
49	2012	1	588478	2373058	0	43823	991217	0	2275	156467	0	525	301755	0	23	54887	0	6059895	0	0	0
50	2012	2	588917	2139219	0	43845	950543	0	2273	153319	0	525	334179	0	24	46476	0	5530920	0	0	0

## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	COVID	COVID	COVID	
51	2012	3	589346	2178692	0	44040	1008589	0	2379	155438	0	524	332606	0	23	54709	0	5804740	0	0	0
52	2012	4	589823	2156937	0	44210	998665	0	2439	158829	0	523	359374	0	23	52288	0	5587528	0	0	0
53	2012	5	589334	2311424	0	44393	1066179	0	2463	174726	0	523	345813	0	23	51671	0	6040320	0	0	0
54	2012	6	589419	2549736	0	44452	1173183	0	2473	193956	0	524	351995	0	24	64471	0	6140070	0	0	0
55	2012	7	589443	2773942	0	44516	1293051	0	2475	225565	0	521	366602	0	24	73914	0	6481278	0	0	0
56	2012	8	590100	2449467	0	44583	1255261	0	2475	200785	0	519	385328	0	24	66278	0	6223900	0	0	0
57	2012	9	590129	2416762	0	44549	1246222	0	2465	219678	0	519	389690	0	24	70987	0	5740033	0	0	0
58	2012	10	590545	2204784	0	44462	1174272	0	2384	177588	0	520	330064	0	24	62298	0	5740995	0	0	0
59	2012	11	590508	2170799	0	44339	1060476	0	2286	162920	0	520	311824	0	25	69898	0	5546140	0	0	0
60	2012	12	590808	2227324	0	44302	1001751	0	2271	147316	0	517	269665	0	25	66299	0	5737818	0	0	0
61	2013	1	590977	2332430	0	44221	1026353	0	2271	145747	0	515	307466	0	25	63673	0	6006753	0	0	0
62	2013	2	591470	2170196	0	44227	994205	0	2274	156201	0	515	336955	0	24	63704	0	5444808	0	0	0
63	2013	3	592105	2117255	0	44310	992308	0	2303	148579	0	516	307125	0	24	68006	0	5828003	0	0	0
64	2013	4	592264	2153601	0	44509	993196	0	2440	156419	0	516	325419	0	24	62345	0	5658900	0	0	0
65	2013	5	591781	2262238	0	44697	1062781	0	2455	176010	0	515	359257	0	24	70195	0	6135744	0	0	0
66	2013	6	591733	2505865	0	44728	1169406	0	2463	192267	0	515	320471	0	24	63309	0	6038812	0	0	0
67	2013	7	591888	2372267	0	44780	1167967	0	2465	170229	0	515	365797	0	24	69761	0	6264270	0	0	0
68	2013	8	592369	2414428	0	44820	1212792	0	2464	191285	0	512	383426	0	24	72715	0	6056784	0	0	0
69	2013	9	592245	2323869	0	44760	1228046	0	2464	180458	0	513	424502	0	24	60609	0	5801582	0	0	0
70	2013	10	597092	2153860	0	44973	1094491	0	2406	176954	0	513	308519	0	24	68659	0	5854564	0	0	0
71	2013	11	596889	2143493	0	44816	1001988	0	2302	147394	0	528	302969	0	24	50226	0	5488085	0	0	0
72	2013	12	596793	2157024	0	44800	928260	0	2299	65298	80000	528	116300	160000	24	6126	50000	5825969	0	0	0
73	2014	1	597327	2364109	0	44757	1075158	0	2300	230114	-80000	528	473761	-160000	25	115081	-50000	6322281	0	0	0
74	2014	2	596962	2283430	0	44735	1056146	0	2300	163740	0	528	381299	-50000	24	73370	0	5802555	0	0	0
75	2014	3	597062	2048745	0	44743	1050009	0	2344	159285	0	528	369841	-40000	24	55893	0	6107581	0	0	0
76	2014	4	596881	2190953	0	44826	1035595	0	2421	192262	-30000	529	504466	-140000	24	69313	0	5681926	0	0	0
77	2014	5	596409	2154777	0	44935	1032792	0	2449	132861	30000	528	428443	-40000	24	60641	0	6001100	0	0	0
78	2014	6	596756	2291459	0	44934	1073051	0	2454	183940	0	529	225625	140000	24	58216	0	5951353	0	0	0
79	2014	7	597147	2444625	0	44926	1201938	0	2455	187139	0	528	429447	-30000	24	79139	0	6243420	0	0	0
80	2014	8	597203	2371306	0	44971	1202098	0	2454	182785	0	528	193069	160000	24	64054	0	6147136	0	0	0
81	2014	9	597462	2349630	0	44955	1174634	0	2445	195962	0	528	382440	0	24	66766	0	5920775	0	0	0
82	2014	10	597524	2164563	0	44813	1143875	0	2397	186890	0	525	355703	0	24	58487	0	5835349	0	0	0
83	2014	11	597335	2081455	0	44628	1039125	0	2298	165255	0	524	331209	0	24	63192	0	5576026	0	0	0
84	2014	12	597479	2159590	0	44599	1027776	0	2278	147993	0	525	342136	0	24	57826	0	5819770	0	0	0
85	2015	1	597621	2254798	0	44515	979228	0	2262	140413	0	524	288163	0	24	59803	0	6056894	0	0	0
86	2015	2	597822	2037073	0	44477	958041	0	2260	150902	0	524	348566	0	24	57242	0	5691028	0	0	0
87	2015	3	598207	2155256	0	44543	1039817	0	2322	157555	0	525	328631	0	25	48632	0	6334397	0	0	0
88	2015	4	598625	2134677	0	44714	1053328	0	2412	159030	0	524	287682	0	24	72477	0	5730349	0	0	0
89	2015	5	597986	2155022	0	44854	1040192	0	2423	168230	0	523	331956	0	24	51663	0	6192238	0	0	0
90	2015	6	598123	2374625	0	44904	1149823	0	2424	180068	0	522	348705	0	24	68471	0	5815290	0	0	0
91	2015	7	598212	2282829	0	44963	1189309	0	2439	172289	0	522	360843	0	23	74446	0	6093272	0	0	0
92	2015	8	598580	2492964	0	44962	1285547	0	2444	192705	0	521	369747	0	23	44793	0	6355915	0	0	0
93	2015	9	598960	2360954	0	44944	1378537	0	2444	195650	0	522	407499	0	23	62859	0	5964960	0	0	0
94	2015	10	598874	2194453	0	44830	1138523	0	2381	172193	0	523	338968	0	22	61975	0	5771601	0	0	0
95	2015	11	599240	2069520	0	44667	1023543	0	2274	160003	0	521	324588	0	22	55431	0	5448471	0	0	0
96	2015	12	599380	2258024	0	44603	1110894	0	2254	156651	-10000	520	320615	0	22	62038	0	5617996	0	0	0
97	2016	1	599524	2151324	0	44615	968680	0	2252	154782	-10000	519	284548	0	22	59839	0	5878329	0	0	0
98	2016	2	600159	1947744	0	44655	973578	0	2245	105794	40000	520	238145	20000	22	49258	0	5555033	0	0	0
99	2016	3	600642	2031663	0	44775	1006630	0	2310	152818	-10000	519	371140	-20000	22	55663	0	5708125	0	0	0
100	2016	4	600940	2203104	0	44858	1055770	0	2409	159961	-10000	520	327022	0	22	59323	0	5526353	0	0	0

## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	COVID	COVID	COVID	
101	2016	5	601028	2043971	0	45003	996008	0	2431	145875	0	520	351260	0	22	50962	0	5865651	0	0	0
102	2016	6	601147	2347125	0	45047	1145373	0	2436	168833	0	520	410648	0	22	59998	0	5961033	0	0	0
103	2016	7	601359	2543747	0	45075	1233279	0	2440	172930	0	521	367622	0	22	70256	0	6220756	0	0	0
104	2016	8	602054	2265070	0	45107	1202830	0	2441	174071	0	521	282117	0	22	62736	0	6156705	0	0	0
105	2016	9	602368	2396708	0	45038	1266264	0	2428	194424	0	522	404821	0	22	67138	0	5852848	0	0	0
106	2016	10	602465	2205627	0	44919	1137202	0	2384	175527	0	522	350877	0	22	58709	0	5710839	0	0	0
107	2016	11	602625	1965947	0	44797	978002	0	2259	145357	0	522	308153	0	22	54741	0	5433605	0	0	0
108	2016	12	602856	2072587	0	44788	984376	0	2259	138989	0	522	276562	0	22	58906	0	5728515	0	0	0
109	2017	1	603389	2313944	0	44757	1026720	0	2234	143333	0	522	309438	0	22	66214	0	5739165	0	0	0
110	2017	2	603795	2033582	0	44737	951842	0	2232	148106	0	522	307520	0	22	56046	0	4988547	0	0	0
111	2017	3	604388	1888418	0	44792	946803	0	2303	127833	0	522	284309	0	22	51404	0	5506276	0	0	0
112	2017	4	604497	2176537	0	45033	1024370	0	2391	132929	0	523	282155	0	22	57841	0	5529878	0	0	0
113	2017	5	604466	2035704	0	45147	1056532	0	2424	159216	0	523	341843	0	22	47322	0	5759405	0	0	0
114	2017	6	604646	2381865	0	45183	1129991	0	2428	172979	0	522	328432	0	22	65138	0	5746987	0	0	0
115	2017	7	604712	2331325	0	45215	1148907	0	2424	173017	0	522	365190	0	22	64021	0	5965476	0	0	0
116	2017	8	605210	2115991	0	45253	1133146	0	2427	172017	0	523	356493	0	22	54737	0	5908649	0	0	0
117	2017	9	605274	2294462	0	45254	1185156	0	2417	177470	0	523	370340	0	22	66547	0	5678537	0	0	0
118	2017	10	605542	2070079	0	45186	1112129	0	2373	164114	0	525	347764	0	22	55117	0	5705670	0	0	0
119	2017	11	605539	2041047	0	45030	989904	0	2240	146403	0	525	272098	0	22	48919	0	5312470	0	0	0
120	2017	12	605770	2154098	0	44995	1050636	0	2225	143072	0	525	338672	0	22	68029	0	5635817	0	0	0
121	2018	1	605987	2261765	0	44995	1023824	0	2218	142275	0	523	290352	0	22	63920	0	6357897	0	0	0
122	2018	2	606288	2143648	0	45017	1039240	0	2219	162647	0	523	334453	0	22	58971	0	5389598	0	0	0
123	2018	3	606729	1903550	0	45026	939563	0	2247	132711	0	522	308866	0	22	46989	0	5868848	0	0	0
124	2018	4	607071	2038092	0	45211	986816	0	2381	135346	0	522	323474	0	22	50101	0	5647760	0	0	0
125	2018	5	606742	2067698	0	45307	919600	0	2399	153806	0	521	318389	0	22	60058	0	6026165	0	0	0
126	2018	6	606877	2308300	0	45315	1246948	0	2401	175766	0	521	377843	0	22	60059	0	5921493	0	0	0
127	2018	7	607090	2281037	0	45329	1154181	0	2400	176090	0	521	356276	0	22	58795	0	6312397	0	0	0
128	2018	8	607391	2164390	0	45357	1145609	0	2398	172395	0	521	370693	0	22	56269	0	6007767	0	0	0
129	2018	9	607368	2273197	0	45319	1210549	0	2391	207208	0	522	376437	0	22	57845	0	5749749	0	0	0
130	2018	10	607602	2012343	0	45159	1078514	0	2340	158181	0	523	382073	0	23	59437	0	5731371	0	0	0
131	2018	11	607787	2063613	0	45035	1024229	0	2244	150619	0	521	306185	0	22	54011	0	5472280	0	0	0
132	2018	12	607947	2036897	0	44989	979257	0	2234	139876	0	523	269540	0	23	62366	0	5733739	0	0	0
133	2019	1	608339	2158382	0	45063	956835	0	2231	141030	0	522	296514	0	22	55756	0	5830681	0	0	0
134	2019	2	608788	2091242	0	45067	978793	0	2232	148737	0	521	294523	0	22	54291	0	5537762	0	0	0
135	2019	3	609106	1953107	0	45113	950982	0	2259	151516	0	521	322251	0	22	57165	0	5834470	0	0	0
136	2019	4	609423	1948955	0	45230	944298	0	2351	166277	0	522	292449	0	22	54847	0	5566284	0	0	0
137	2019	5	609341	2028709	0	45363	1002505	0	2380	152948	0	522	313134	0	22	51023	0	5925671	0	0	0
138	2019	6	609185	2278534	0	45392	1076783	0	2381	168441	0	523	331235	0	22	56415	0	5810436	0	0	0
139	2019	7	609916	2185039	0	45464	1107107	0	2384	160889	0	523	331421	0	22	57814	0	6225171	0	0	0
140	2019	8	610054	2250213	0	45493	1194214	0	2386	187993	0	523	347492	0	23	64476	0	6273923	0	0	0
141	2019	9	610572	2269703	0	45493	1173426	0	2376	190054	0	523	363806	0	22	62909	0	6058410	0	0	0
142	2019	10	613052	2024240	0	45489	1098226	0	2318	164815	0	534	317578	0	22	57221	0	5974121	0	0	0
143	2019	11	613091	2075722	0	45317	1033986	0	2212	144694	0	533	306507	0	23	56045	0	5773307	0	0	0
144	2019	12	613460	2023445	0	45299	989151	0	2198	138263	0	532	314518	0	22	65878	0	5896591	0	0	0
145	2020	1	613855	2126416	0	45311	931230	0	2197	131397	0	531	280100	0	22	58314	0	5866351	0	0	0
146	2020	2	614148	2074991	0	45334	978886	0	2197	154003	0	530	332124	0	22	56644	0	5356535	0	0	0
147	2020	3	614940	1912268	0	45361	920067	0	2277	131943	0	525	310569	0	22	52197	0	5484517	0	0	0
148	2020	4	615330	2192496	0	45484	818423	0	2320	87429	0	528	328264	0	22	52250	0	5255666	1	1	1
149	2020	5	615811	2220773	0	45635	800388	0	2350	79860	0	530	293525	0	23	53057	0	5713103	1	1	1
150	2020	6	616730	2461502	0	45742	910797	0	2366	115467	0	530	322201	0	25	62755	0	5903511	1	1	1









PENNSYLVANIA COMMERCIAL MODEL

														Rain Lag 2		0.3		0.8 CDD Lag								
														Rain Lag 1		0.7										
Period	Obs	Year	Month	Cust	Sales	UPC	0.221	-0.249	-0.641	0.321	-0.162	2.557	3.733	4.179	4.839	2.446	0.366	-0.018	-0.180	0.006	-2.450	Predicted	Actual	Variance	Weather Effect	Billing Adjustments
														Trend	Rain	CDD	COVID									
10	184	2023	4	46595	948922	20.365	0	0	0	1	0	0	0	0	0	0	0	-2	0.000	0	0.40	20.338	20.365	-0.028	0.000	0
10	185	2023	5	46750	959066	20.515	0	0	0	0	1	0	0	0	0	0	0	-1	-1.362	3	0.40	20.099	20.515	-0.416	0.262	0
10	186	2023	6	46726	1113821	23.837	0	0	0	0	0	1	0	0	0	0	0	0	-2.149	-50	0.40	22.634	23.837	-1.203	0.096	0
11	187	2023	7	46743	1163840	24.899	0	0	0	0	0	0	1	0	0	0	0	1	-2.912	-52	0.00	24.899				
11	188	2023	8	46774	1182235	25.276	0	0	0	0	0	0	0	1	0	0	0	2	-0.959	0	0.00	25.276				
11	189	2023	9	46787	1204565	25.746	0	0	0	0	0	0	0	0	1	0	0	3	0.000	0	0.00	25.746				
11	190	2023	10	46690	1089484	23.334	0	0	0	0	0	0	0	0	0	1	0	4	0.000	0	0.00	23.334				
11	191	2023	11	46588	989371	21.237	0	0	0	0	0	0	0	0	0	0	1	5	0.000	0	0.00	21.237				
11	192	2023	12	46553	970735	20.852	0	0	0	0	0	0	0	0	0	0	0	6	0.000	0	0.00	20.852				
11	193	2024	1	46595	981095	21.056	1	0	0	0	0	0	0	0	0	0	0	7	0.000	0	0.00	21.056				
11	194	2024	2	46624	958940	20.568	0	1	0	0	0	0	0	0	0	0	0	8	0.000	0	0.00	20.568				
11	195	2024	3	46688	941129	20.158	0	0	1	0	0	0	0	0	0	0	0	9	0.000	0	0.00	20.158				
11	196	2024	4	46843	988427	21.101	0	0	0	1	0	0	0	0	0	0	0	10	0.000	0	0.00	21.101				
11	197	2024	5	46963	967475	20.601	0	0	0	0	1	0	0	0	0	0	0	11	0.000	0	0.00	20.601				
11	198	2024	6	47008	1095332	23.301	0	0	0	0	0	1	0	0	0	0	0	12	0.000	0	0.00	23.301				
12	199	2024	7	47025	1150200	24.459	0	0	0	0	0	0	1	0	0	0	0	13	0.000	0	0.00	24.459				
12	200	2024	8	47056	1171075	24.887	0	0	0	0	0	0	0	1	0	0	0	14	0.000	0	0.00	24.887				
12	201	2024	9	47069	1201638	25.529	0	0	0	0	0	0	0	0	1	0	0	15	0.000	0	0.00	25.529				
12	202	2024	10	46972	1085898	23.118	0	0	0	0	0	0	0	0	0	1	0	16	0.000	0	0.00	23.118				
12	203	2024	11	46870	985216	21.020	0	0	0	0	0	0	0	0	0	0	1	17	0.000	0	0.00	21.020				
12	204	2024	12	46835	966479	20.636	0	0	0	0	0	0	0	0	0	0	0	18	0.000	0	0.00	20.636				
12	205	2025	1	46877	976887	20.839	1	0	0	0	0	0	0	0	0	0	0	19	0.000	0	0.00	20.839				
12	206	2025	2	46906	954588	20.351	0	1	0	0	0	0	0	0	0	0	0	20	0.000	0	0.00	20.351				
12	207	2025	3	46971	936647	19.941	0	0	1	0	0	0	0	0	0	0	0	21	0.000	0	0.00	19.941				
12	208	2025	4	47125	984178	20.884	0	0	0	1	0	0	0	0	0	0	0	22	0.000	0	0.00	20.884				
12	209	2025	5	47246	963059	20.384	0	0	0	0	1	0	0	0	0	0	0	23	0.000	0	0.00	20.384				
12	210	2025	6	47290	1091668	23.084	0	0	0	0	0	1	0	0	0	0	0	24	0.000	0	0.00	23.084				
13	211	2025	7	47307	1146859	24.243	0	0	0	0	0	0	1	0	0	0	0	25	0.000	0	0.00	24.243				
13	212	2025	8	47338	1167848	24.670	0	0	0	0	0	0	0	1	0	0	0	26	0.000	0	0.00	24.670				
13	213	2025	9	47352	1198590	25.313	0	0	0	0	0	0	0	0	1	0	0	27	0.000	0	0.00	25.313				
13	214	2025	10	47255	1082190	22.901	0	0	0	0	0	0	0	0	0	1	0	28	0.000	0	0.00	22.901				
13	215	2025	11	47152	980938	20.804	0	0	0	0	0	0	0	0	0	1	0	29	0.000	0	0.00	20.804				
13	216	2025	12	47117	962100	20.419	0	0	0	0	0	0	0	0	0	0	0	30	0.000	0	0.00	20.419				
13	217	2026	1	47159	972556	20.623	1	0	0	0	0	0	0	0	0	0	0	31	0.000	0	0.00	20.623				
13	218	2026	2	47188	950114	20.135	0	1	0	0	0	0	0	0	0	0	0	32	0.000	0	0.00	20.135				
13	219	2026	3	47253	932043	19.725	0	0	1	0	0	0	0	0	0	0	0	33	0.000	0	0.00	19.725				
13	220	2026	4	47407	979807	20.668	0	0	0	1	0	0	0	0	0	0	0	34	0.000	0	0.00	20.668				
13	221	2026	5	47528	958520	20.168	0	0	0	0	1	0	0	0	0	0	0	35	0.000	0	0.00	20.168				
13	222	2026	6	47573	1087882	22.868	0	0	0	0	0	1	0	0	0	0	0	36	0.000	0	0.00	22.868				
14	223	2026	7	47589	1143396	24.026	0	0	0	0	0	0	1	0	0	0	0	37	0.000	0	0.00	24.026				
14	224	2026	8	47620	1164499	24.454	0	0	0	0	0	0	0	1	0	0	0	38	0.000	0	0.00	24.454				
14	225	2026	9	47634	1195419	25.096	0	0	0	0	0	0	0	0	1	0	0	39	0.000	0	0.00	25.096				
14	226	2026	10	47537	1078359	22.685	0	0	0	0	0	0	0	0	0	1	0	40	0.000	0	0.00	22.685				
14	227	2026	11	47435	976538	20.587	0	0	0	0	0	0	0	0	0	0	1	41	0.000	0	0.00	20.587				
14	228	2026	12	47399	957599	20.203	0	0	0	0	0	0	0	0	0	0	0	42	0.000	0	0.00	20.203				

REGRESSION MODEL

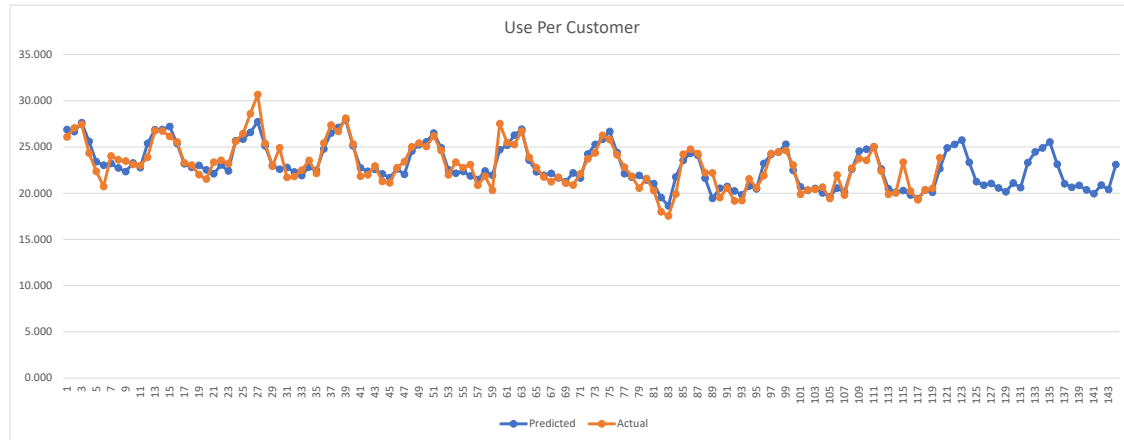
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9182
R Square	0.8430
Adjusted R Square	0.8204
Standard Error	1.0229
Observations	120

ANOVA					
	df	SS	MS	F	Significance F
Regression	15	584.27	38.9514	37.2281	0.0000
Residual	104	108.81	1.0463		
Total	119	693.09			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	20.9607	0.4108	51.0220	0.0000	20.1460	21.7754	4.3812	4.8161
Jan	0.2214	0.4575	0.4840	0.6294	-0.6858	1.1286	-0.0904	0.4442
Feb	-0.2486	0.4575	-0.5435	0.5880	-1.1559	0.6586	-0.5977	-0.0631
Mar	-0.6406	0.4576	-1.4001	0.1645	-1.5480	0.2668	-0.5800	-0.0454
Apr	0.3207	0.4590	0.6987	0.4863	-0.5895	1.2309	-0.4491	0.0880
May	-0.1616	0.4589	-0.3521	0.7254	-1.0716	0.7484	0.0664	0.6039
Jun	2.5567	0.4588	5.5723	0.0000	1.6468	3.4666	1.5893	2.1274
Jul	3.7332	0.4603	8.1106	0.0000	2.8204	4.6460	3.0936	3.6314
Aug	4.1788	0.4592	9.0998	0.0000	3.2681	5.0894	3.0495	3.5871
Sep	4.8390	0.4588	10.5475	0.0000	3.9293	5.7488	2.6027	3.1405
Oct	2.4458	0.4586	5.3334	0.0000	1.5364	3.3552	1.1906	1.7252
Nov	0.3661	0.4584	0.7987	0.4263	-0.5429	1.2752	-0.0387	0.4958
Trend	-0.0180	0.0036	-5.0336	0.0000	-0.0252	-0.0109	-0.0084	-0.0050
Rain	-0.1797	0.0825	-2.1788	0.0316	-0.3432	-0.0161	-0.2999	-0.1944
CDD	0.0058	0.0037	1.5722	0.1190	-0.0015	0.0131	0.0050	0.0095
COVID	-2.4496	0.4521	-5.4178	0.0000	-3.3463	-1.5530	0.2478	0.8078

-2.598 Annual Decline

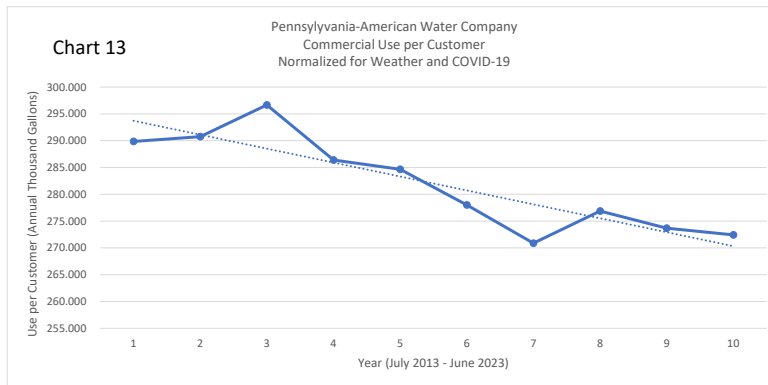


REGRESSION MODEL

SUMMARY OUTPUT

Auto-Correlation: 0.0973  
D-W Statistic 1.7881

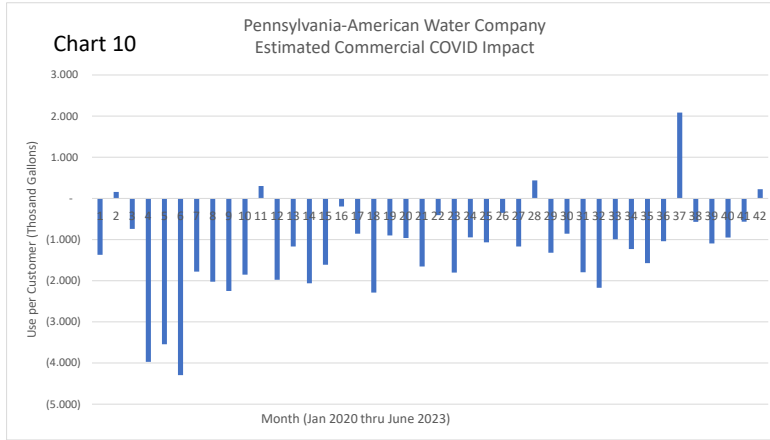
Month	Weather	Period	Actual	Weather	COVID	Normalized
1	0	1	289.058	(0.813)	-	289.871
2	0	2	290.704	(0.050)	-	290.754
3	0	3	296.023	(0.648)	-	296.671
4	0	4	287.766	1.366	-	286.400
5	1	5	282.933	(1.731)	-	284.663
6	1	6	276.555	(1.448)	-	278.003
7	1	7	263.063	(0.475)	(7.349)	270.886
8	1	8	260.102	2.338	(19.107)	276.871
9	1	9	261.555	(0.376)	(11.758)	273.689
10	1	10	262.157	1.497	(11.758)	272.419
11	0					
12	0					



REGRESSION MODEL

SUMMARY OUTPUT

Data	Usage Per Customer
Jan-20	(1.370)
Feb-20	0.159
Mar-20	(0.741)
Apr-20	(3.973)
May-20	(3.544)
Jun-20	(4.294)
Jul-20	(1.780)
Aug-20	(2.023)
Sep-20	(2.250)
Oct-20	(1.853)
Nov-20	0.301
Dec-20	(1.977)
Jan-21	(1.166)
Feb-21	(2.061)
Mar-21	(1.611)
Apr-21	(0.197)
May-21	(0.859)
Jun-21	(2.287)
Jul-21	(0.899)
Aug-21	(0.964)
Sep-21	(1.654)
Oct-21	(0.404)
Nov-21	(1.803)
Dec-21	(0.948)
Jan-22	(1.069)
Feb-22	(0.351)
Mar-22	(1.167)
Apr-22	0.436
May-22	(1.318)
Jun-22	(0.857)
Jul-22	(1.794)
Aug-22	(2.170)
Sep-22	(0.993)
Oct-22	(1.229)
Nov-22	(1.573)
Dec-22	(1.040)
Jan-23	2.085
Feb-23	(0.569)
Mar-23	(1.094)
Apr-23	(0.952)
May-23	(0.564)
Jun-23	0.224



CUSTOMER DATA

Year	Month	Cust	Growth	Select
2013	7	44780		
2013	8	44820	40	0
2013	9	44760	-60	0
2013	10	44973	213	0
2013	11	44816	-157	0
2013	12	44800	-16	0
2014	1	44757	-43	0
2014	2	44735	-22	0
2014	3	44743	8	0
2014	4	44826	83	0
2014	5	44935	109	0
2014	6	44934	-1	0
2014	7	44926	-8	0
2014	8	44971	45	0
2014	9	44955	-16	0
2014	10	44813	-142	0
2014	11	44628	-185	0
2014	12	44599	-29	0
2015	1	44515	-84	0
2015	2	44477	-38	0
2015	3	44543	66	0
2015	4	44714	171	0
2015	5	44854	140	0
2015	6	44904	50	0
2015	7	44963	59	0
2015	8	44962	-1	0
2015	9	44944	-18	0
2015	10	44830	-114	0
2015	11	44667	-163	0
2015	12	44603	-64	0
2016	1	44615	12	0
2016	2	44655	40	0
2016	3	44775	120	0
2016	4	44858	83	0
2016	5	45003	145	0
2016	6	45047	44	0
2016	7	45075	28	0
2016	8	45107	32	0
2016	9	45038	-69	0
2016	10	44919	-119	0
2016	11	44797	-122	0
2016	12	44788	-9	0
2017	1	44757	-31	0
2017	2	44737	-20	0
2017	3	44792	55	0
2017	4	45033	241	0
2017	5	45147	114	0
2017	6	45183	36	0
2017	7	45215	32	0
2017	8	45253	38	0
2017	9	45254	1	0
2017	10	45186	-68	0
2017	11	45030	-156	0
2017	12	44995	-35	0
2018	1	44995	0	0
2018	2	45017	22	0
2018	3	45026	9	0
2018	4	45211	185	0
2018	5	45307	96	0
2018	6	45315	8	0
2018	7	45329	14	1
2018	8	45357	28	1
2018	9	45319	-38	1
2018	10	45159	-160	1
2018	11	45035	-124	1
2018	12	44989	-46	1

Avg	
Month	Growth Last 60 Months
1	42
2	29
3	65
4	154
5	121
6	45
7	17
8	31
9	13
10	-97
11	-102
12	-35
<hr/>	
282	

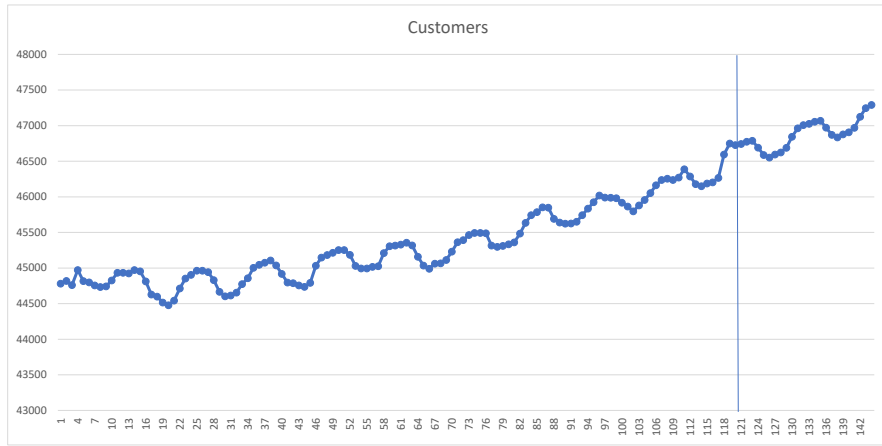
CUSTOMER DATA

Year	Month	Cust	Growth	Select
2019	1	45063	74	1
2019	2	45067	4	1
2019	3	45113	46	1
2019	4	45230	117	1
2019	5	45363	133	1
2019	6	45392	29	1
2019	7	45464	72	1
2019	8	45493	29	1
2019	9	45493	0	1
2019	10	45489	-4	1
2019	11	45317	-172	1
2019	12	45299	-18	1
2020	1	45311	12	1
2020	2	45334	23	1
2020	3	45361	27	1
2020	4	45484	123	1
2020	5	45635	151	1
2020	6	45742	107	1
2020	7	45786	44	1
2020	8	45852	66	1
2020	9	45848	-4	1
2020	10	45692	-156	1
2020	11	45639	-53	1
2020	12	45623	-16	1
2021	1	45627	4	1
2021	2	45650	23	1
2021	3	45742	92	1
2021	4	45835	93	1
2021	5	45924	89	1
2021	6	46019	95	1
2021	7	45991	-28	1
2021	8	45988	-3	1
2021	9	45982	-6	1
2021	10	45918	-64	1
2021	11	45864	-54	1
2021	12	45796	-68	1
2022	1	45880	84	1
2022	2	45956	76	1
2022	3	46052	96	1
2022	4	46163	111	1
2022	5	46238	75	1
2022	6	46255	17	1
2022	7	46237	-18	1
2022	8	46272	35	1
2022	9	46387	115	1
2022	10	46286	-101	1
2022	11	46178	-108	1
2022	12	46149	-29	1
2023	1	46187	38	1
2023	2	46204	17	1
2023	3	46267	63	1
2023	4	46595	328	1
2023	5	46750	155	1
2023	6	46726	-24	1
2023	7	46743	17	1
2023	8	46774	31	1
2023	9	46787	13	1
2023	10	46690	-97	1
2023	11	46588	-102	1
2023	12	46553	-35	1
2024	1	46595	42	1
2024	2	46624	29	1
2024	3	46688	65	1
2024	4	46843	154	1
2024	5	46963	121	1
2024	6	47008	45	1
2024	7	47025	17	1



CUSTOMER DATA

Year	Month	Cust	Growth	Select
2024	8	47056	31	
2024	9	47069	13	
2024	10	46972	-97	
2024	11	46870	-102	
2024	12	46835	-35	
2025	1	46877	42	
2025	2	46906	29	
2025	3	46971	65	
2025	4	47125	154	
2025	5	47246	121	
2025	6	47290	45	
2025	7	47307	17	
2025	8	47338	31	
2025	9	47352	13	
2025	10	47255	-97	
2025	11	47152	-102	
2025	12	47117	-35	
2026	1	47159	42	
2026	2	47188	29	
2026	3	47253	65	
2026	4	47407	154	
2026	5	47528	121	
2026	6	47573	45	
2026	7	47589	17	
2026	8	47620	31	
2026	9	47634	13	
2026	10	47537	-97	
2026	11	47435	-102	
2026	12	47399	-35	



WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1					
2013	7	3.573	0.155	-2.031	-15	-6	36088	2109	2013	233676	-32965
2013	8	-2.394	3.573	0.155	-71	-15	-17860	-27249	2014	-22015	-17430
2013	9	-1.592	-2.394	3.573	-50	-71	8660	-12586	2015	-386738	-12001
2013	10	-0.766	-1.592	-2.394	9	-50	57062	4760	2016	19353	71388
2013	11	0.653	-0.766	-1.592	-2	9	46791	0	2017	-29858	-99408
2013	12	0.950	0.653	-0.766	0	-2	102934	0	2018	-57206	-50715
2014	1	-1.105	0.950	0.653	0	0	-35852	0	2019	143724	-14951
2014	2	-1.068	-1.105	0.950	0	0	-39186	0	2020	125440	71846
2014	3	-1.121	-1.068	-1.105	-1	0	-51214	0	2021	141806	6472
2014	4	0.629	-1.121	-1.068	1	-1	7337	0	2022	63447	48537
2014	5	0.859	0.629	-1.121	5	1	-10144	-338			
2014	6	-1.345	0.859	0.629	43	5	68136	-3110	avg.	23163	-2923
2014	7	-1.247	-1.345	0.859	-69	43	5204	11005	s.d.	171385	54551
2014	8	1.146	-1.247	-1.345	-76	-69	6473	-7990			
2014	9	-2.872	1.146	-1.247	-39	-76	48920	-21446			
2014	10	-1.346	-2.872	1.146	-16	-39	-6417	4448			
2014	11	-0.347	-1.346	-2.872	-2	-16	-4408	0			
2014	12	-0.330	-0.347	-1.346	0	-2	-10866	0			
2015	1	-0.235	-0.330	-0.347	0	0	44820	0			
2015	2	-2.078	-0.235	-0.330	0	0	43424	0			
2015	3	0.959	-2.078	-0.235	-1	0	-55130	0			
2015	4	0.899	0.959	-2.078	-11	-1	-22683	0			
2015	5	-1.731	0.899	0.959	54	-11	-35600	-6838			
2015	6	4.665	-1.731	0.899	-6	54	2522	18535			
2015	7	-1.467	4.665	-1.731	-32	-6	-26924	-25001			
2015	8	-2.924	-1.467	4.665	-49	-32	-91132	-12167			
2015	9	1.778	-2.924	-1.467	31	-49	-132180	11393			
2015	10	-0.646	1.778	-2.924	-27	31	-12712	2077			
2015	11	-0.697	-0.646	1.778	2	-27	2407	0			
2015	12	0.450	-0.697	-0.646	0	2	-103550	0			
2016	1	-1.005	0.450	-0.697	0	0	48008	0			
2016	2	-0.078	-1.005	0.450	0	0	22225	0			
2016	3	-1.071	-0.078	-1.005	-1	0	-26510	0			
2016	4	-1.011	-1.071	-0.078	-9	-1	-31519	0			
2016	5	1.639	-1.011	-1.071	-22	-9	14356	5319			
2016	6	-2.325	1.639	-1.011	13	-22	-28484	-10777			
2016	7	-0.277	-2.325	1.639	44	13	-38411	14284			
2016	8	-0.594	-0.277	-2.325	106	44	19759	21883			
2016	9	-0.222	-0.594	-0.277	46	106	-9912	28558			
2016	10	0.194	-0.222	-0.594	-3	46	-8841	12123			
2016	11	-1.247	0.194	-0.222	3	-3	41233	0			
2016	12	0.650	-1.247	0.194	0	3	17448	0			
2017	1	1.025	0.650	-1.247	0	0	-16487	0			
2017	2	-1.598	1.025	0.650	2	0	36103	0			
2017	3	1.599	-1.598	1.025	3	2	24710	0			
2017	4	-0.021	1.599	-1.598	10	3	-5874	0			
2017	5	0.889	-0.021	1.599	-31	10	-61315	-3268			
2017	6	5.005	0.889	-0.021	-11	-31	-20812	-12109			
2017	7	3.373	5.005	0.889	-12	-11	-7906	-33460			
2017	8	-0.404	3.373	5.005	-89	-12	23128	-38519			
2017	9	-2.142	-0.404	3.373	-4	-89	13799	-24930			
2017	10	0.514	-2.142	-0.404	12	-4	13839	12879			
2017	11	1.773	0.514	-2.142	-2	12	24882	0			
2017	12	-1.980	1.773	0.514	0	-2	-53925	0			
2018	1	0.455	-1.980	1.773	0	0	-17962	0			
2018	2	3.092	0.455	-1.980	2	0	-54859	0			
2018	3	-0.381	3.092	0.455	-1	2	26552	0			
2018	4	0.489	-0.381	3.092	1	-1	25916	0			
2018	5	1.019	0.489	-0.381	55	1	73896	1281			
2018	6	4.135	1.019	0.489	-2	55	-127742	4454			
2018	7	-2.217	4.135	1.019	3	-2	-12843	-26269			
2018	8	1.366	-2.217	4.135	15	3	45949	3839			
2018	9	8.458	1.366	-2.217	57	15	8997	3716			
2018	10	0.934	8.458	1.366	33	57	-13607	-37738			
2018	11	1.233	0.934	8.458	-2	33	-19081	0			
2018	12	1.260	1.233	0.934	0	-2	7580	0			

WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1		
2019	1	-0.245	1.260	1.233	0	0	40790	0
2019	2	1.352	-0.245	1.260	0	0	-3077	0
2019	3	-1.401	1.352	-0.245	-1	0	7232	0
2019	4	0.809	-1.401	1.352	-7	-1	59065	0
2019	5	0.609	0.809	-1.401	5	-7	-21258	-2371
2019	6	-0.315	0.609	0.809	-43	5	23344	-6690
2019	7	-0.487	-0.315	0.609	-66	-43	41982	-12152
2019	8	2.416	-0.487	-0.315	68	-66	-19495	-6711
2019	9	-1.572	2.416	-0.487	29	68	40428	3206
2019	10	2.464	-1.572	2.416	12	29	12393	9766
2019	11	-0.747	2.464	-1.572	-2	12	-32357	0
2019	12	0.300	-0.747	2.464	0	-2	-5322	0
2020	1	0.775	0.300	-0.747	0	0	62074	0
2020	2	0.222	0.775	0.300	0	0	-7205	0
2020	3	2.319	0.222	0.775	1	0	33593	0
2020	4	1.479	2.319	0.222	-12	1	69307	0
2020	5	-1.471	1.479	2.319	-15	-12	49956	-17502
2020	6	-3.365	-1.471	1.479	3	-15	84364	1766
2020	7	-1.427	-3.365	-1.471	132	3	-30657	30727
2020	8	0.656	-1.427	-3.365	38	132	-19571	46576
2020	9	-1.812	0.656	-1.427	-20	38	-9152	6701
2020	10	-0.786	-1.812	0.656	-18	-20	-27250	3579
2020	11	-0.037	-0.786	-1.812	-2	-18	-125519	0
2020	12	-0.830	-0.037	-0.786	0	-2	45500	0
2021	1	-0.845	-0.830	-0.037	0	0	8507	0
2021	2	-0.418	-0.845	-0.830	0	0	49352	0
2021	3	-0.101	-0.418	-0.845	-1	0	28860	0
2021	4	-1.311	-0.101	-0.418	4	-1	-35876	0
2021	5	-1.071	-1.311	-0.101	-4	4	-5571	8494
2021	6	1.475	-1.071	-1.311	48	-4	60144	11140
2021	7	-0.027	1.475	-1.071	-25	48	-3696	3159
2021	8	1.276	-0.027	1.475	61	-25	-730	-5493
2021	9	0.908	1.276	-0.027	-35	61	30984	3778
2021	10	0.584	0.908	1.276	25	-35	-26426	-14607
2021	11	-1.697	0.584	0.908	-2	25	37733	0
2021	12	0.910	-1.697	0.584	0	-2	-1474	0
2022	1	-0.065	0.910	-1.697	0	0	4081	0
2022	2	2.072	-0.065	0.910	0	0	-28922	0
2022	3	-0.721	2.072	-0.065	-1	0	8632	0
2022	4	-0.051	-0.721	2.072	6	-1	-65355	0
2022	5	1.509	-0.051	-0.721	1	6	15657	3469
2022	6	-4.735	1.509	-0.051	16	1	-5679	-7598
2022	7	0.203	-4.735	1.509	39	16	37633	29367
2022	8	-0.544	0.203	-4.735	0	39	55085	18891
2022	9	-0.932	-0.544	0.203	-13	0	607	1890
2022	10	-1.146	-0.932	-0.544	-27	-13	11537	2518
2022	11	1.113	-1.146	-0.932	7	-27	27386	0
2022	12	-1.380	1.113	-1.146	0	7	2785	0
2023	1	1.245	-1.380	1.113	0	0	-141554	0
2023	2	-1.498	1.245	-1.380	0	0	-18990	0
2023	3	-0.081	-1.498	1.245	-1	0	5263	0
2023	4	-1.911	-0.081	-1.498	15	-1	-1290	0
2023	5	-2.251	-1.911	-0.081	-46	15	-19439	12233
2023	6	-3.195	-2.251	-1.911	-65	-46	-56229	4502
2023	7	0.000	-3.195	-2.251	0	-65		
2023	8	0.000	0.000	-3.195	0	0		
2023	9	0.000	0.000	0.000	0	0		
2023	10	0.000	0.000	0.000	0	0		
2023	11	0.000	0.000	0.000	0	0		
2023	12	0.000	0.000	0.000	0	0		
2024	1	0.000	0.000	0.000	0	0		
2024	2	0.000	0.000	0.000	0	0		
2024	3	0.000	0.000	0.000	0	0		
2024	4	0.000	0.000	0.000	0	0		
2024	5	0.000	0.000	0.000	0	0		
2024	6	0.000	0.000	0.000	0	0		
2024	7	0.000	0.000	0.000	0	0		

WEATHER DATA

Year	Month	Rain	Rain		CDD	CDD Lag 1
			Lag 1	Lag 2		
2024	8	0.000	0.000	0.000	0	0
2024	9	0.000	0.000	0.000	0	0
2024	10	0.000	0.000	0.000	0	0
2024	11	0.000	0.000	0.000	0	0
2024	12	0.000	0.000	0.000	0	0
2025	1	0.000	0.000	0.000	0	0
2025	2	0.000	0.000	0.000	0	0
2025	3	0.000	0.000	0.000	0	0
2025	4	0.000	0.000	0.000	0	0
2025	5	0.000	0.000	0.000	0	0
2025	6	0.000	0.000	0.000	0	0
2025	7	0.000	0.000	0.000	0	0
2025	8	0.000	0.000	0.000	0	0
2025	9	0.000	0.000	0.000	0	0
2025	10	0.000	0.000	0.000	0	0
2025	11	0.000	0.000	0.000	0	0
2025	12	0.000	0.000	0.000	0	0
2026	1	0.000	0.000	0.000	0	0
2026	2	0.000	0.000	0.000	0	0
2026	3	0.000	0.000	0.000	0	0
2026	4	0.000	0.000	0.000	0	0
2026	5	0.000	0.000	0.000	0	0
2026	6	0.000	0.000	0.000	0	0
2026	7	0.000	0.000	0.000	0	0
2026	8	0.000	0.000	0.000	0	0
2026	9	0.000	0.000	0.000	0	0
2026	10	0.000	0.000	0.000	0	0
2026	11	0.000	0.000	0.000	0	0
2026	12	0.000	0.000	0.000	0	0

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2008	1	0	2008.01	0	1.890	1057	0	-0.785	-29	-0.785	0.000	0.000	0.000	0.000	-29	0
2008	2	0	2008.02	0	5.060	1012	0	1.682	133	1.682	-0.785	0.000	-0.400	0.000	133	-29
2008	3	0	2008.03	0	4.100	821	-1	0.779	85	0.779	1.682	-0.785	-0.600	-0.400	85	133
2008	4	0	2008.04	7	2.940	330	-5	-0.701	-63	-0.701	0.779	1.682	-4.800	-0.600	-63	85
2008	5	0	2008.05	14	5.380	246	-64	1.129	101	1.129	-0.701	0.779	-64.200	-4.800	101	-63
2008	6	0	2008.06	171	4.750	17	-3	-1.225	-1	-1.225	1.129	-0.701	-2.600	-64.200	-1	101
2008	7	0	2008.07	239	2.480	0	-40	-2.067	-2	-2.067	-1.225	1.129	-39.500	-2.600	-2	-1
2008	8	0	2008.08	163	2.040	2	-84	-2.964	-1	-2.964	-2.067	-1.225	-84.300	-39.500	-1	-2
2008	9	0	2008.09	85	1.690	34	-33	-1.752	-22	-1.752	-2.964	-2.067	-33.200	-84.300	-22	-1
2008	10	0	2008.10	4	1.960	415	-23	-1.956	108	-1.956	-1.752	-2.964	-22.500	-33.200	108	-22
2008	11	0	2008.11	0	2.060	729	-2	-0.447	74	-0.447	-1.956	-1.752	-1.500	-22.500	74	108
2008	12	0	2008.12	0	6.310	987	0	2.980	130	2.980	-0.447	-1.956	0.000	-1.500	130	74
2009	1	0	2009.01	0	3.060	1316	0	0.385	230	0.385	2.980	-0.447	0.000	0.000	230	130
2009	2	0	2009.02	0	1.070	904	0	-2.308	25	-2.308	0.385	2.980	-0.400	0.000	25	230
2009	3	0	2009.03	0	2.070	697	-1	-1.251	-39	-1.251	-2.308	0.385	-0.600	-0.400	-39	25
2009	4	0	2009.04	29	2.920	411	17	-0.721	18	-0.721	-1.251	-2.308	17.200	-0.600	18	-39
2009	5	0	2009.05	45	3.990	154	-33	-0.261	9	-0.261	-0.721	-1.251	-33.200	17.200	9	18
2009	6	0	2009.06	120	3.200	26	-54	-2.775	8	-2.775	-0.261	-0.721	-53.600	-33.200	8	9
2009	7	0	2009.07	142	4.670	5	-137	0.123	3	0.123	-2.775	-0.261	-136.500	-53.600	3	8
2009	8	0	2009.08	224	2.240	7	-23	-2.764	4	-2.764	0.123	-2.775	-23.300	-136.500	4	3
2009	9	0	2009.09	54	1.720	64	-64	-1.722	8	-1.722	-2.764	0.123	-64.200	-23.300	8	4
2009	10	0	2009.10	0	3.240	428	-27	-0.676	121	-0.676	-1.722	-2.764	-26.500	-64.200	121	8
2009	11	0	2009.11	0	1.060	518	-2	-1.447	-137	-1.447	-0.676	-1.722	-1.500	-26.500	-137	121
2009	12	0	2009.12	0	4.100	1044	0	0.770	187	0.770	-1.447	-0.676	0.000	-1.500	187	-137
2010	1	0	2010.01	0	2.340	1194	0	-0.335	108	-0.335	0.770	-1.447	0.000	0.000	108	187
2010	2	0	2010.02	0	1.560	1067	0	-1.818	188	-1.818	-0.335	0.770	-0.400	0.000	188	108
2010	3	0	2010.03	0	2.950	636	-1	-0.371	-100	-0.371	-1.818	-0.335	-0.600	-0.400	-100	188
2010	4	0	2010.04	29	1.360	289	17	-2.281	-104	-2.281	-0.371	-1.818	17.200	-0.600	-104	-100
2010	5	0	2010.05	86	5.610	112	8	1.359	-33	1.359	-2.281	-0.371	7.800	17.200	-33	-104
2010	6	0	2010.06	203	4.460	11	29	-1.515	-7	-1.515	1.359	-2.281	29.400	7.800	-7	-33
2010	7	0	2010.07	332	3.460	3	54	-1.087	1	-1.087	-1.515	1.359	53.500	29.400	1	-7
2010	8	0	2010.08	300	2.060	0	53	-2.944	-3	-2.944	-1.087	-1.515	52.700	53.500	-3	1
2010	9	0	2010.09	101	3.510	54	-17	0.068	-2	0.068	-2.944	-1.087	-17.200	52.700	-2	-3
2010	10	0	2010.10	5	2.400	299	-22	-1.516	-8	-1.516	0.068	-2.944	-21.500	-17.200	-8	-2
2010	11	0	2010.11	0	5.280	643	-2	2.773	-12	2.773	-1.516	0.068	-1.500	-21.500	-12	-8
2010	12	0	2010.12	0	1.170	1202	0	-2.160	345	-2.160	2.773	-1.516	0.000	-1.500	345	-12
2011	1	0	2011.01	0	1.790	1244	0	-0.885	158	-0.885	-2.160	2.773	0.000	0.000	158	345
2011	2	0	2011.02	0	3.030	807	0	-0.348	-73	-0.348	-0.885	-2.160	-0.400	0.000	-73	158
2011	3	0	2011.03	0	3.920	788	-1	0.599	52	0.599	-0.348	-0.885	-0.600	-0.400	52	-73
2011	4	0	2011.04	19	5.780	357	7	2.139	-36	2.139	0.599	-0.348	7.200	-0.600	-36	52

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2011	5	0	2011.05	92	4.050	142	14	-0.201	-3	-0.201	2.139	0.599	13.800	7.200	-3	-36
2011	6	0	2011.06	176	1.770	12	2	-4.205	-6	-4.205	-0.201	2.139	2.400	13.800	-6	-3
2011	7	0	2011.07	388	3.930	0	110	-0.617	-2	-0.617	-4.205	-0.201	109.500	2.400	-2	-6
2011	8	0	2011.08	235	4.010	0	-12	-0.994	-3	-0.994	-0.617	-4.205	-12.300	109.500	-3	-2
2011	9	0	2011.09	101	4.850	81	-17	1.408	25	1.408	-0.994	-0.617	-17.200	-12.300	25	-3
2011	10	0	2011.10	2	4.050	367	-25	0.134	60	0.134	1.408	-0.994	-24.500	-17.200	60	25
2011	11	0	2011.11	0	3.930	512	-2	1.423	-143	1.423	0.134	1.408	-1.500	-24.500	-143	60
2011	12	0	2011.12	0	3.100	824	0	-0.230	-34	-0.230	1.423	0.134	0.000	-1.500	-34	-143
2012	1	0	2012.01	0	3.110	968	0	0.435	-118	0.435	-0.230	1.423	0.000	0.000	-118	-34
2012	2	0	2012.02	0	1.800	816	0	-1.578	-64	-1.578	0.435	-0.230	-0.400	0.000	-64	-118
2012	3	0	2012.03	9	2.920	419	8	-0.401	-317	-0.401	-1.578	0.435	8.400	-0.400	-317	-64
2012	4	0	2012.04	6	1.640	439	-6	-2.001	46	-2.001	-0.401	-1.578	-5.800	8.400	46	-317
2012	5	0	2012.05	144	2.740	52	66	-1.511	-93	-1.511	-2.001	-0.401	65.800	-5.800	-93	46
2012	6	0	2012.06	206	1.680	22	32	-4.295	4	-4.295	-1.511	-2.001	32.400	65.800	4	-93
2012	7	0	2012.07	381	6.680	0	103	2.133	-2	2.133	-4.295	-1.511	102.500	32.400	-2	4
2012	8	0	2012.08	237	2.860	1	-10	-2.144	-2	-2.144	2.133	-4.295	-10.300	102.500	-2	-2
2012	9	0	2012.09	107	4.640	109	-11	1.198	53	1.198	-2.144	2.133	-11.200	-10.300	53	-2
2012	10	0	2012.10	20	5.000	346	-7	1.084	39	1.084	1.198	-2.144	-6.500	-11.200	39	53
2012	11	0	2012.11	0	0.700	727	-2	-1.807	72	-1.807	1.084	1.198	-1.500	-6.500	72	39
2012	12	0	2012.12	0	4.430	799	0	1.100	-59	1.100	-1.807	1.084	0.000	-1.500	-59	72
2013	1	0	2013.01	0	3.050	995	0	0.375	-91	0.375	1.100	-1.807	0.000	0.000	-91	-59
2013	2	0	2013.02	0	1.900	1005	0	-1.478	126	-1.478	0.375	1.100	-0.400	0.000	126	-91
2013	3	0	2013.03	0	1.920	917	-1	-1.401	181	-1.401	-1.478	0.375	-0.600	-0.400	181	126
2013	4	0	2013.04	21	2.860	366	9	-0.781	-27	-0.781	-1.401	-1.478	9.200	-0.600	-27	181
2013	5	0	2013.05	90	2.220	155	12	-2.031	10	-2.031	-0.781	-1.401	11.800	9.200	10	-27
2013	6	0	2013.06	168	6.130	13	-6	0.155	-5	0.155	-2.031	-0.781	-5.600	11.800	-5	10
2013	7	1	2013.07	264	8.120	2	-15	3.573	0	3.573	0.155	-2.031	-14.500	-5.600	0	-5
2013	8	1	2013.08	176	2.610	10	-71	-2.394	7	-2.394	3.573	0.155	-71.300	-14.500	7	0
2013	9	1	2013.09	68	1.850	103	-50	-1.592	47	-1.592	-2.394	3.573	-50.200	-71.300	47	7
2013	10	1	2013.10	35	3.150	325	9	-0.766	18	-0.766	-1.592	-2.394	8.500	-50.200	18	47
2013	11	1	2013.11	0	3.160	744	-2	0.653	89	0.653	-0.766	-1.592	-1.500	8.500	89	18
2013	12	1	2013.12	0	4.280	879	0	0.950	22	0.950	0.653	-0.766	0.000	-1.500	22	89
2014	1	1	2014.01	0	1.570	1288	0	-1.105	202	-1.105	0.950	0.653	0.000	0.000	202	22
2014	2	1	2014.02	0	2.310	1026	0	-1.068	147	-1.068	-1.105	0.950	-0.400	0.000	147	202
2014	3	1	2014.03	0	2.200	900	-1	-1.121	164	-1.121	-1.068	-1.105	-0.600	-0.400	164	147
2014	4	1	2014.04	13	4.270	341	1	0.629	-52	0.629	-1.121	-1.068	1.200	-0.600	-52	164
2014	5	1	2014.05	83	5.110	126	5	0.859	-19	0.859	0.629	-1.121	4.800	1.200	-19	-52
2014	6	1	2014.06	217	4.630	4	43	-1.345	-14	-1.345	0.859	0.629	43.400	4.800	-14	-19
2014	7	1	2014.07	210	3.300	11	-69	-1.247	9	-1.247	-1.345	0.859	-68.500	43.400	9	-14
2014	8	1	2014.08	171	6.150	8	-76	1.146	5	1.146	-1.247	-1.345	-76.300	-68.500	5	9

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2014	9	1	2014.09	79	0.570	81	-39	-2.872	25	-2.872	1.146	-1.247	-39.200	-76.300	25	5
2014	10	1	2014.10	11	2.570	320	-16	-1.346	13	-1.346	-2.872	1.146	-15.500	-39.200	13	25
2014	11	1	2014.11	0	2.160	773	-2	-0.347	118	-0.347	-1.346	-2.872	-1.500	-15.500	118	13
2014	12	1	2014.12	0	3.000	906	0	-0.330	49	-0.330	-0.347	-1.346	0.000	-1.500	49	118
2015	1	1	2015.01	0	2.440	1221	0	-0.235	135	-0.235	-0.330	-0.347	0.000	0.000	135	49
2015	2	1	2015.02	0	1.300	1284	0	-2.078	405	-2.078	-0.235	-0.330	-0.400	0.000	405	135
2015	3	1	2015.03	0	4.280	880	-1	0.959	144	0.959	-2.078	-0.235	-0.600	-0.400	144	405
2015	4	1	2015.04	1	4.540	355	-11	0.899	-38	0.899	0.959	-2.078	-10.800	-0.600	-38	144
2015	5	1	2015.05	132	2.520	92	54	-1.731	-53	-1.731	0.899	0.959	53.800	-10.800	-53	-38
2015	6	1	2015.06	168	10.640	26	-6	4.665	8	4.665	-1.731	0.899	-5.600	53.800	8	-53
2015	7	1	2015.07	247	3.080	0	-32	-1.467	-2	-1.467	4.665	-1.731	-31.500	-5.600	-2	8
2015	8	1	2015.08	198	2.080	6	-49	-2.924	3	-2.924	-1.467	4.665	-49.300	-31.500	3	-2
2015	9	1	2015.09	149	5.220	35	31	1.778	-21	1.778	-2.924	-1.467	30.800	-49.300	-21	3
2015	10	1	2015.10	0	3.270	353	-27	-0.646	46	-0.646	1.778	-2.924	-26.500	30.800	46	-21
2015	11	1	2015.11	3	1.810	433	2	-0.697	-222	-0.697	-0.646	1.778	1.500	-26.500	-222	46
2015	12	1	2015.12	0	3.780	557	0	0.450	-301	0.450	-0.697	-0.646	0.000	1.500	-301	-222
2016	1	1	2016.01	0	1.670	1113	0	-1.005	27	-1.005	0.450	-0.697	0.000	0.000	27	-301
2016	2	1	2016.02	0	3.300	843	0	-0.078	-37	-0.078	-1.005	0.450	-0.400	0.000	-37	27
2016	3	1	2016.03	0	2.250	504	-1	-1.071	-232	-1.071	-0.078	-1.005	-0.600	-0.400	-232	-37
2016	4	1	2016.04	3	2.630	407	-9	-1.011	14	-1.011	-1.071	-0.078	-8.800	-0.600	14	-232
2016	5	1	2016.05	56	5.890	195	-22	1.639	50	1.639	-1.011	-1.071	-22.200	-8.800	50	14
2016	6	1	2016.06	187	3.650	15	13	-2.325	-3	-2.325	1.639	-1.011	13.400	-22.200	-3	50
2016	7	1	2016.07	322	4.270	1	44	-0.277	-1	-0.277	-2.325	1.639	43.500	13.400	-1	-3
2016	8	1	2016.08	353	4.410	0	106	-0.594	-3	-0.594	-0.277	-2.325	105.700	43.500	-3	-1
2016	9	1	2016.09	164	3.220	13	46	-0.222	-43	-0.222	-0.594	-0.277	45.800	105.700	-43	-3
2016	10	1	2016.10	24	4.110	258	-3	0.194	-49	0.194	-0.222	-0.594	-2.500	45.800	-49	-43
2016	11	1	2016.11	4	1.260	573	3	-1.247	-82	-1.247	0.194	-0.222	2.500	-2.500	-82	-49
2016	12	1	2016.12	0	3.980	991	0	0.650	134	0.650	-1.247	0.194	0.000	2.500	134	-82
2017	1	1	2017.01	0	3.700	918	0	1.025	-168	1.025	0.650	-1.247	0.000	0.000	-168	134
2017	2	1	2017.02	2	1.780	661	2	-1.598	-219	-1.598	1.025	0.650	1.600	0.000	-219	-168
2017	3	1	2017.03	4	4.920	771	3	1.599	35	1.599	-1.598	1.025	3.400	1.600	35	-219
2017	4	1	2017.04	22	3.620	239	10	-0.021	-154	-0.021	1.599	-1.598	10.200	3.400	-154	35
2017	5	1	2017.05	47	5.140	175	-31	0.889	30	0.889	-0.021	1.599	-31.200	10.200	30	-154
2017	6	1	2017.06	163	10.980	24	-11	5.005	6	5.005	0.889	-0.021	-10.600	-31.200	6	30
2017	7	1	2017.07	267	7.920	0	-12	3.373	-2	3.373	5.005	0.889	-11.500	-10.600	-2	6
2017	8	1	2017.08	158	4.600	5	-89	-0.404	2	-0.404	3.373	5.005	-89.300	-11.500	2	-2
2017	9	1	2017.09	114	1.300	76	-4	-2.142	20	-2.142	-0.404	3.373	-4.200	-89.300	20	2
2017	10	1	2017.10	38	4.430	239	12	0.514	-68	0.514	-2.142	-0.404	11.500	-4.200	-68	20
2017	11	1	2017.11	0	4.280	664	-2	1.773	9	1.773	0.514	-2.142	-1.500	11.500	9	-68
2017	12	1	2017.12	0	1.350	1058	0	-1.980	201	-1.980	1.773	0.514	0.000	-1.500	201	9

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2018	1	1	2018.01	0	3.130	1205	0	0.455	119	0.455	-1.980	1.773	0.000	0.000	119	201
2018	2	1	2018.02	2	6.470	732	2	3.092	-148	3.092	0.455	-1.980	1.600	0.000	-148	119
2018	3	1	2018.03	0	2.940	937	-1	-0.381	201	-0.381	3.092	0.455	-0.600	1.600	201	-148
2018	4	1	2018.04	13	4.130	577	1	0.489	184	0.489	-0.381	3.092	1.200	-0.600	184	201
2018	5	1	2018.05	133	5.270	25	55	1.019	-120	1.019	0.489	-0.381	54.800	1.200	-120	184
2018	6	1	2018.06	172	10.110	24	-2	4.135	6	4.135	1.019	0.489	-1.600	54.800	6	-120
2018	7	1	2018.07	281	2.330	0	3	-2.217	-2	-2.217	4.135	1.019	2.500	-1.600	-2	6
2018	8	1	2018.08	262	6.370	0	15	1.366	-3	1.366	-2.217	4.135	14.700	2.500	-3	-2
2018	9	1	2018.09	175	11.900	50	57	8.458	-6	8.458	1.366	-2.217	56.800	14.700	-6	-3
2018	10	1	2018.10	59	4.850	392	33	0.934	85	0.934	8.458	1.366	32.500	56.800	85	-6
2018	11	1	2018.11	0	3.740	798	-2	1.233	143	1.233	0.934	8.458	-1.500	32.500	143	85
2018	12	1	2018.12	0	4.590	773	0	1.260	-85	1.260	1.233	0.934	0.000	-1.500	-85	143
2019	1	1	2019.01	0	2.430	1126	0	-0.245	40	-0.245	1.260	1.233	0.000	0.000	40	-85
2019	2	1	2019.02	0	4.730	846	0	1.352	-34	1.352	-0.245	1.260	-0.400	0.000	-34	40
2019	3	1	2019.03	0	1.920	838	-1	-1.401	102	-1.401	1.352	-0.245	-0.600	-0.400	102	-34
2019	4	1	2019.04	5	4.450	315	-7	0.809	-78	0.809	-1.401	1.352	-6.800	-0.600	-78	102
2019	5	1	2019.05	83	4.860	99	5	0.609	-46	0.609	0.809	-1.401	4.800	-6.800	-46	-78
2019	6	1	2019.06	131	5.660	30	-43	-0.315	12	-0.315	0.609	0.809	-42.600	4.800	12	-46
2019	7	1	2019.07	213	4.060	2	-66	-0.487	0	-0.487	-0.315	0.609	-65.500	-42.600	0	12
2019	8	1	2019.08	315	7.420	0	68	2.416	-3	2.416	-0.487	-0.315	67.700	-65.500	-3	0
2019	9	1	2019.09	147	1.870	4	29	-1.572	-52	-1.572	2.416	-0.487	28.800	67.700	-52	-3
2019	10	1	2019.10	38	6.380	288	12	2.464	-19	2.464	-1.572	2.416	11.500	28.800	-19	-52
2019	11	1	2019.11	0	1.760	797	-2	-0.747	142	-0.747	2.464	-1.572	-1.500	11.500	142	-19
2019	12	1	2019.12	0	3.630	882	0	0.300	25	0.300	-0.747	2.464	0.000	-1.500	25	142
2020	1	1	2020.01	0	3.450	899	0	0.775	-187	0.775	0.300	-0.747	0.000	0.000	-187	25
2020	2	1	2020.02	0	3.600	879	0	0.222	-1	0.222	0.775	0.300	-0.400	0.000	-1	-187
2020	3	1	2020.03	2	5.640	574	1	2.319	-162	2.319	0.222	0.775	1.400	-0.400	-162	-1
2020	4	1	2020.04	0	5.120	505	-12	1.479	112	1.479	2.319	0.222	-11.800	1.400	112	-162
2020	5	1	2020.05	63	2.780	253	-15	-1.471	108	-1.471	1.479	2.319	-15.200	-11.800	108	112
2020	6	1	2020.06	177	2.610	14	3	-3.365	-4	-3.365	-1.471	1.479	3.400	-15.200	-4	108
2020	7	1	2020.07	410	3.120	0	132	-1.427	-2	-1.427	-3.365	-1.471	131.500	3.400	-2	-4
2020	8	1	2020.08	285	5.660	0	38	0.656	-3	0.656	-1.427	-3.365	37.700	131.500	-3	-2
2020	9	1	2020.09	98	1.630	81	-20	-1.812	25	-1.812	0.656	-1.427	-20.200	37.700	25	-3
2020	10	1	2020.10	9	3.130	327	-18	-0.786	20	-0.786	-1.812	0.656	-17.500	-20.200	20	25
2020	11	1	2020.11	0	2.470	517	-2	-0.037	-138	-0.037	-0.786	-1.812	-1.500	-17.500	-138	20
2020	12	1	2020.12	0	2.500	928	0	-0.830	71	-0.830	-0.037	-0.786	0.000	-1.500	71	-138
2021	1	1	2021.01	0	1.830	1029	0	-0.845	-57	-0.845	-0.830	-0.037	0.000	0.000	-57	71
2021	2	1	2021.02	0	2.960	993	0	-0.418	114	-0.418	-0.845	-0.830	-0.400	0.000	114	-57
2021	3	1	2021.03	0	3.220	593	-1	-0.101	-143	-0.101	-0.418	-0.845	-0.600	-0.400	-143	114
2021	4	1	2021.04	16	2.330	399	4	-1.311	6	-1.311	-0.101	-0.418	4.200	-0.600	6	-143





Month	NORMAL	NORMAL	NORMAL
	CAL.	CAL.	CAL.
	CLDD	PRCP	HTDD
1	0	2.675	1086
2	0	3.378	880
3	1	3.321	736
4	12	3.641	393
5	78	4.251	145
6	174	5.975	18
7	279	4.547	2
8	247	5.004	3
9	118	3.442	56
10	27	3.916	307
11	2	2.507	655
12	0	3.330	858

Normal Start: 2013.07  
 Normal End 2023.06  
 Normal Months 120.00

## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	COVID	COVID	COVID	
1	2008	1	578987	2652382	0	42370	1054535	0	2293	230990	0	843	357816	0	22	48398	0	6631616	0	0	0
2	2008	2	579235	2345982	0	42342	960424	0	2293	197559	0	843	384249	0	22	45706	0	6131911	0	0	0
3	2008	3	579614	2173053	0	42358	918425	0	2355	189383	0	843	381354	0	21	49794	0	6437546	0	0	0
4	2008	4	580127	2372217	0	42633	1031332	0	2477	211992	0	843	385702	0	20	44869	0	6215398	0	0	0
5	2008	5	580106	2377272	0	42734	1042963	0	2503	194427	0	842	460582	0	20	48884	0	6415951	0	0	0
6	2008	6	580539	2603258	0	42744	1112866	0	2521	224088	0	828	331628	0	20	52940	0	6643926	0	0	0
7	2008	7	580901	2723529	0	42873	1206788	0	2526	242539	0	831	445968	0	20	49241	0	6900382	0	0	0
8	2008	8	582223	2652609	0	42895	1226019	0	2536	230467	0	823	434150	0	20	57678	0	6982442	0	0	0
9	2008	9	582538	2667523	0	42776	1278607	0	2506	266544	0	810	444817	0	20	57308	0	6449154	0	0	0
10	2008	10	582620	2608924	0	42684	1181856	0	2400	262140	0	808	453528	0	20	56547	0	6288745	0	0	0
11	2008	11	582823	21110860	0	42617	920291	0	2335	185250	0	800	350068	0	20	48727	0	6077960	0	0	0
12	2008	12	582800	2454428	0	42589	1055671	0	2323	204200	0	804	336538	0	21	56984	0	6424172	0	0	0
13	2009	1	582785	2544922	0	42552	971953	0	2315	192890	0	800	306883	0	21	43140	0	6647774	0	0	0
14	2009	2	583025	2307932	0	42592	983208	0	2316	187963	0	797	341933	0	21	47727	0	6010903	0	0	0
15	2009	3	583414	2291848	0	42656	1047015	0	2376	195977	0	794	347796	0	21	42909	0	6345921	0	0	0
16	2009	4	583808	2302642	0	42837	979761	0	2484	195859	0	788	324310	0	21	44978	0	6038039	0	0	0
17	2009	5	583529	2284518	0	43022	980840	0	2505	172705	0	771	328163	0	21	52197	0	6364558	0	0	0
18	2009	6	583419	2621962	0	43030	1154195	0	2516	221170	0	758	349717	0	21	57494	0	6229429	0	0	0
19	2009	7	583627	2656779	0	43079	1166278	0	2519	217505	0	745	344799	0	21	46020	0	6543924	0	0	0
20	2009	8	584272	2402500	0	43124	1124622	0	2524	210990	0	734	352846	0	21	55862	0	6538560	0	0	0
21	2009	9	584347	2463035	0	43123	1156482	0	2504	230924	0	728	356164	0	20	48670	0	6248347	0	0	0
22	2009	10	585660	2470712	0	43069	1152311	0	2425	213833	0	740	335439	0	20	53877	0	6206123	0	0	0
23	2009	11	585774	2174790	0	42959	954294	0	2361	189911	0	728	301920	0	20	43605	0	5879757	0	0	0
24	2009	12	585777	2436213	0	42874	1088018	0	2324	189335	0	716	316209	0	20	45847	0	6194813	0	0	0
25	2010	1	585774	2469856	0	42911	951134	0	2327	179823	0	700	305106	0	21	48192	0	6444779	0	0	0
26	2010	2	586358	2286153	0	42923	938611	0	2322	173086	0	706	320624	0	21	42369	0	5725281	0	0	0
27	2010	3	586868	2247465	0	43112	1012084	0	2404	190893	0	692	348259	0	21	49748	0	6209066	0	0	0
28	2010	4	587242	2354074	0	43365	1005599	0	2529	195402	0	689	348733	0	21	42915	0	5926841	0	0	0
29	2010	5	586881	2249638	0	43671	1015483	0	2550	195611	0	674	340308	0	21	43407	0	6187620	0	0	0
30	2010	6	586752	2631401	0	43693	1136425	0	2560	217038	0	654	382515	0	21	47769	0	6203765	0	0	0
31	2010	7	586952	2800080	0	43701	1248292	0	2566	230428	0	653	430937	0	21	51761	0	6913912	0	0	0
32	2010	8	587454	2638351	0	43814	1230538	0	2577	234245	0	645	432784	0	21	51357	0	6761184	0	0	0
33	2010	9	587623	2647376	0	43873	1278440	0	2552	246721	0	633	413505	0	21	51409	0	6395070	0	0	0
34	2010	10	587530	2372625	0	43683	1140391	0	2475	219969	0	625	387036	0	21	44413	0	6103778	0	0	0
35	2010	11	587440	2147926	0	43530	1000427	0	2378	180401	0	622	344908	0	21	41718	0	5828126	0	0	0
36	2010	12	587386	2371303	0	43385	1039150	0	2362	181502	0	618	341460	0	21	53383	0	6318149	0	0	0
37	2011	1	587484	2425037	0	43418	1001877	0	2358	164299	0	618	322510	0	22	47113	0	6465805	0	0	0
38	2011	2	587848	2216258	0	43473	960045	0	2361	163655	0	619	343897	0	22	44013	0	5849485	0	0	0
39	2011	3	588189	2268045	0	43486	994168	0	2405	173241	0	616	356029	0	22	33348	0	6204788	0	0	0
40	2011	4	588540	2178101	0	43672	972402	0	2531	170091	0	616	348628	0	22	62849	0	5867241	0	0	0
41	2011	5	588252	2264481	0	43907	1003179	0	2560	176663	0	616	337072	0	22	38318	0	6215843	0	0	0
42	2011	6	588060	2655332	0	43972	1165958	0	2584	203346	0	617	389572	0	22	52153	0	6330499	0	0	0
43	2011	7	588071	2573253	0	44231	1187348	0	2465	202579	0	531	390917	0	22	51307	0	6891526	0	0	0
44	2011	8	588566	2702485	0	44282	1275601	0	2469	221253	0	532	427654	0	24	56780	0	6443606	0	0	0
45	2011	9	588430	2428060	0	44304	1219229	0	2457	204603	0	532	393004	0	24	44438	0	5927751	0	0	0
46	2011	10	588423	2220599	0	44111	1074957	0	2381	184136	0	534	349589	0	23	47116	0	5987956	0	0	0
47	2011	11	588386	2114682	0	43925	982710	0	2306	170667	0	527	341162	0	23	46021	0	5713879	0	0	0
48	2011	12	588325	2281348	0	43870	1070460	0	2287	159891	0	522	316788	0	23	50425	0	5953578	0	0	0
49	2012	1	588478	2373058	0	43823	991217	0	2275	156467	0	525	301755	0	23	54887	0	6059895	0	0	0
50	2012	2	588917	2139219	0	43845	950543	0	2273	153319	0	525	334179	0	24	46476	0	5530920	0	0	0
51	2012	3	589346	2178692	0	44040	1008589	0	2379	155438	0	524	332606	0	23	54709	0	5804740	0	0	0
52	2012	4	589823	2156937	0	44210	998665	0	2439	158829	0	523	359374	0	23	52288	0	5587528	0	0	0

PENNSYLVANIA SALES-USAGE DATA

Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust		COVID	COVID	COVID
53	2012	5	589334	2311424	0	44393	1066179	0	2463	174726	0	523	345813	0	23	51671	0	6040320	0	0	0
54	2012	6	589419	2549736	0	44452	1173183	0	2473	193956	0	524	351995	0	24	64471	0	6140070	0	0	0
55	2012	7	589443	2773942	0	44516	1293051	0	2475	225565	0	521	366602	0	24	73914	0	6481278	0	0	0
56	2012	8	590100	2449467	0	44583	1255261	0	2475	200785	0	519	385328	0	24	66278	0	6223900	0	0	0
57	2012	9	590129	2416762	0	44549	1246222	0	2465	219678	0	519	389690	0	24	70987	0	5740033	0	0	0
58	2012	10	590545	2204784	0	44462	1174272	0	2384	177588	0	520	330064	0	24	62298	0	5740995	0	0	0
59	2012	11	590508	2170799	0	44339	1060476	0	2286	162920	0	520	311824	0	25	69898	0	5546140	0	0	0
60	2012	12	590808	2227324	0	44302	1001751	0	2271	147316	0	517	269665	0	25	66299	0	5737818	0	0	0
61	2013	1	590977	2332430	0	44221	1026353	0	2271	145747	0	515	307466	0	25	63673	0	6006753	0	0	0
62	2013	2	591470	2170196	0	44227	994205	0	2274	156201	0	515	336955	0	24	63704	0	5444808	0	0	0
63	2013	3	592105	2117255	0	44310	992308	0	2303	148579	0	516	307125	0	24	68006	0	5828003	0	0	0
64	2013	4	592264	2153601	0	44509	993196	0	2440	156419	0	516	325419	0	24	62345	0	5658900	0	0	0
65	2013	5	591781	2262238	0	44697	1062781	0	2455	176010	0	515	359257	0	24	70195	0	6135744	0	0	0
66	2013	6	591733	2505865	0	44728	1169406	0	2463	192267	0	515	320471	0	24	63309	0	6038812	0	0	0
67	2013	7	591888	2372267	0	44780	1167967	0	2465	170229	0	515	365797	0	24	69761	0	6264270	0	0	0
68	2013	8	592369	2414428	0	44820	1212792	0	2464	191285	0	512	383426	0	24	72715	0	6056784	0	0	0
69	2013	9	592245	2323869	0	44760	1228046	0	2464	180458	0	513	424502	0	24	60609	0	5801582	0	0	0
70	2013	10	597092	2153860	0	44973	1094491	0	2406	176954	0	513	308519	0	24	68659	0	5854564	0	0	0
71	2013	11	596889	2143493	0	44816	1001988	0	2302	147394	0	528	302969	0	24	50226	0	5488085	0	0	0
72	2013	12	596793	2157024	0	44800	928260	0	2299	65298	80000	528	116300	160000	24	6126	50000	5825969	0	0	0
73	2014	1	597327	2364109	0	44757	1075158	0	2300	230114	-80000	528	473761	-160000	25	115081	-50000	6322281	0	0	0
74	2014	2	596962	2283430	0	44735	1056146	0	2300	163740	0	528	381299	-50000	24	73370	0	5802555	0	0	0
75	2014	3	597062	2048745	0	44743	1050009	0	2344	159285	0	528	369841	-40000	24	55893	0	6107581	0	0	0
76	2014	4	596881	2190953	0	44826	1035595	0	2421	192262	-30000	529	504466	-140000	24	69313	0	5681926	0	0	0
77	2014	5	596409	2154777	0	44935	1032792	0	2449	132861	30000	528	428443	-40000	24	60641	0	6001100	0	0	0
78	2014	6	596756	2291459	0	44934	1073051	0	2454	183940	0	529	225625	140000	24	58216	0	5951353	0	0	0
79	2014	7	597147	2444625	0	44926	1201938	0	2455	187139	0	528	429447	-30000	24	79139	0	6243420	0	0	0
80	2014	8	597203	2371306	0	44971	1202098	0	2454	182785	0	528	193069	160000	24	64054	0	6147136	0	0	0
81	2014	9	597462	2349630	0	44955	1174634	0	2445	195962	0	528	382440	0	24	66766	0	5920775	0	0	0
82	2014	10	597524	2164563	0	44813	1143875	0	2397	186890	0	525	355703	0	24	58487	0	5835349	0	0	0
83	2014	11	597335	2081455	0	44628	1039125	0	2298	165255	0	524	331209	0	24	63192	0	5576026	0	0	0
84	2014	12	597479	2159590	0	44599	1027776	0	2278	147993	0	525	342136	0	24	57826	0	5819770	0	0	0
85	2015	1	597621	2254798	0	44515	979228	0	2262	140413	0	524	288163	0	24	59803	0	6056894	0	0	0
86	2015	2	597822	2037073	0	44477	958041	0	2260	150902	0	524	348566	0	24	57242	0	5691028	0	0	0
87	2015	3	598207	2155256	0	44543	1039817	0	2322	157555	0	525	328631	0	25	48632	0	6334397	0	0	0
88	2015	4	598625	2134677	0	44714	1053328	0	2412	159030	0	524	287682	0	24	72477	0	5730349	0	0	0
89	2015	5	597986	2155022	0	44854	1040192	0	2423	168230	0	523	331956	0	24	51663	0	6192238	0	0	0
90	2015	6	598123	2374625	0	44904	1149823	0	2424	180068	0	522	348705	0	24	68471	0	5815290	0	0	0
91	2015	7	598212	2282829	0	44963	1189309	0	2439	172289	0	522	360843	0	23	74446	0	6093272	0	0	0
92	2015	8	598580	2492964	0	44962	1285547	0	2444	192705	0	521	369747	0	23	44793	0	6355915	0	0	0
93	2015	9	598960	2360954	0	44944	1378537	0	2444	195650	0	522	407499	0	23	62859	0	5964960	0	0	0
94	2015	10	598874	2194453	0	44830	1138523	0	2381	172193	0	523	338968	0	22	61975	0	5771601	0	0	0
95	2015	11	599240	2069520	0	44667	1023543	0	2274	160003	0	521	324588	0	22	55431	0	5448471	0	0	0
96	2015	12	599380	2258024	0	44603	1110894	0	2254	156651	-10000	520	320615	0	22	62038	0	5617996	0	0	0
97	2016	1	599524	2151324	0	44615	968680	0	2252	154782	-10000	519	284548	0	22	59839	0	5878329	0	0	0
98	2016	2	600159	1947744	0	44655	973578	0	2245	105794	40000	520	238145	20000	22	49258	0	5555033	0	0	0
99	2016	3	600642	2031663	0	44775	1006630	0	2310	152818	-10000	519	371140	-20000	22	55663	0	5708125	0	0	0
100	2016	4	600940	2203104	0	44858	1055770	0	2409	159961	-10000	520	327022	0	22	59323	0	5526353	0	0	0
101	2016	5	601028	2043971	0	45003	996008	0	2431	145875	0	520	351260	0	22	50962	0	5865651	0	0	0
102	2016	6	601147	2347125	0	45047	1145373	0	2436	168833	0	520	410648	0	22	59998	0	5961033	0	0	0
103	2016	7	601359	2543747	0	45075	1233279	0	2440	172930	0	521	367622	0	22	70256	0	6220756	0	0	0
104	2016	8	602054	2265070	0	45107	1202830	0	2441	174071	0	521	282117	0	22	62736	0	6156705	0	0	0

## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Res	Com	OPA	
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Production	COVID	COVID	COVID
105	2016	9	602368	2396708	0	45038	1266264	0	2428	194424	0	522	404821	0	22	67138	0	5852848	0	0	0
106	2016	10	602465	2205627	0	44919	1137202	0	2384	175527	0	522	350877	0	22	58709	0	5710839	0	0	0
107	2016	11	602625	1965947	0	44797	978002	0	2259	145357	0	522	308153	0	22	54741	0	5433605	0	0	0
108	2016	12	602856	2072587	0	44788	984376	0	2259	138989	0	522	276562	0	22	58906	0	5728515	0	0	0
109	2017	1	603389	2313944	0	44757	1026720	0	2234	143333	0	522	309438	0	22	66214	0	5739165	0	0	0
110	2017	2	603795	2033582	0	44737	951842	0	2232	148106	0	522	307520	0	22	56046	0	4988547	0	0	0
111	2017	3	604388	1888418	0	44792	946083	0	2303	127833	0	522	284309	0	22	51404	0	5506276	0	0	0
112	2017	4	604497	2176537	0	45033	1024370	0	2391	132929	0	523	282155	0	22	57841	0	5529878	0	0	0
113	2017	5	604466	2035704	0	45147	1056532	0	2424	159216	0	523	341843	0	22	47322	0	5759405	0	0	0
114	2017	6	604646	2381865	0	45183	1129991	0	2428	172979	0	522	328432	0	22	65138	0	5746987	0	0	0
115	2017	7	604712	2331325	0	45215	1148907	0	2424	173017	0	522	365190	0	22	64021	0	5965476	0	0	0
116	2017	8	605210	2115991	0	45253	1133146	0	2427	172017	0	523	356493	0	22	54737	0	5908649	0	0	0
117	2017	9	605274	2294462	0	45254	1185156	0	2417	177470	0	523	370340	0	22	66547	0	5678537	0	0	0
118	2017	10	605542	2070079	0	45186	1112129	0	2373	164114	0	525	347764	0	22	55117	0	5705670	0	0	0
119	2017	11	605539	2041047	0	45030	989904	0	2240	146403	0	525	272098	0	22	48919	0	5312470	0	0	0
120	2017	12	605770	2154098	0	44995	1050636	0	2225	143072	0	525	338672	0	22	68029	0	5635817	0	0	0
121	2018	1	605987	2261765	0	44995	1023824	0	2218	142275	0	523	290352	0	22	63920	0	6357897	0	0	0
122	2018	2	606288	2143648	0	45017	1039240	0	2219	162647	0	523	334453	0	22	58971	0	5389598	0	0	0
123	2018	3	606729	1903550	0	45026	939563	0	2247	132711	0	522	308866	0	22	46989	0	5868848	0	0	0
124	2018	4	607071	2038092	0	45211	986816	0	2381	135346	0	522	323474	0	22	50101	0	5647760	0	0	0
125	2018	5	606742	2067698	0	45307	919600	0	2399	153806	0	521	318389	0	22	60058	0	6026165	0	0	0
126	2018	6	606877	2308300	0	45315	1246948	0	2401	175766	0	521	377843	0	22	60059	0	5921493	0	0	0
127	2018	7	607090	2281037	0	45329	1154181	0	2400	176090	0	521	356276	0	22	58795	0	6312397	0	0	0
128	2018	8	607391	2164390	0	45357	1145609	0	2398	172395	0	521	370693	0	22	56269	0	6007767	0	0	0
129	2018	9	607368	2273197	0	45319	1210549	0	2391	207208	0	522	376437	0	22	57845	0	5749749	0	0	0
130	2018	10	607602	2012343	0	45159	1078514	0	2340	158181	0	523	382073	0	23	59437	0	5731371	0	0	0
131	2018	11	607787	2063613	0	45035	1024229	0	2244	150619	0	521	306185	0	22	54011	0	5472280	0	0	0
132	2018	12	607947	2036897	0	44989	979257	0	2234	139876	0	523	269540	0	23	62366	0	5733739	0	0	0
133	2019	1	608339	2158382	0	45063	956835	0	2231	141030	0	522	296514	0	22	55756	0	5830681	0	0	0
134	2019	2	608788	2091242	0	45067	978793	0	2232	148737	0	521	294523	0	22	54291	0	5537762	0	0	0
135	2019	3	609106	1953107	0	45113	950982	0	2259	151516	0	521	322251	0	22	57165	0	5834470	0	0	0
136	2019	4	609423	1948955	0	45230	944298	0	2351	166277	0	522	292449	0	22	54847	0	5566284	0	0	0
137	2019	5	609341	2028709	0	45363	1002505	0	2380	152948	0	522	313134	0	22	51023	0	5925671	0	0	0
138	2019	6	609185	2278534	0	45392	1076783	0	2381	168441	0	523	331235	0	22	56415	0	5810436	0	0	0
139	2019	7	609916	2185039	0	45464	1107107	0	2384	160889	0	523	331421	0	22	57814	0	6225171	0	0	0
140	2019	8	610054	2250213	0	45493	1194214	0	2386	187993	0	523	347492	0	23	64476	0	6273923	0	0	0
141	2019	9	610572	2269703	0	45493	1173426	0	2376	190054	0	523	363806	0	22	62909	0	6058410	0	0	0
142	2019	10	613052	2024240	0	45489	1098226	0	2318	164815	0	534	317578	0	22	57221	0	5974121	0	0	0
143	2019	11	613091	2075722	0	45317	1033986	0	2212	144694	0	533	306507	0	23	56045	0	5773307	0	0	0
144	2019	12	613460	2023445	0	45299	989151	0	2198	138263	0	532	314518	0	22	65878	0	5896591	0	0	0
145	2020	1	613855	2126416	0	45311	931230	0	2197	131397	0	531	280100	0	22	58314	0	5866351	0	0	0
146	2020	2	614148	2074991	0	45334	978886	0	2197	154003	0	530	332124	0	22	56644	0	5356535	0	0	0
147	2020	3	614940	1912268	0	45361	920067	0	2277	131943	0	525	310569	0	22	52197	0	5484517	0	0	0
148	2020	4	615330	2192496	0	45484	818423	0	2320	87429	0	528	328264	0	22	52250	0	5255666	1	1	1
149	2020	5	615811	2220773	0	45635	800388	0	2350	79860	0	530	293525	0	23	53057	0	5713103	1	1	1
150	2020	6	616730	2461502	0	45742	910797	0	2366	115467	0	530	322201	0	25	62755	0	5903511	1	1	1
151	2020	7	617571	2585941	0	45786	1108774	0	2370	151492	0	529	339776	0	25	62795	0	6478120	1	1	1
152	2020	8	618309	2656758	0	45852	1134650	0	2375	158517	0	532	383558	0	24	65049	0	6318650	1	1	1
153	2020	9	618810	2393470	0	45848	1113708	0	2378	158350	0	534	345805	0	24	73057	0	5845487	1	1	1
154	2020	10	619258	2204669	0	45692	1014772	0	2305	136532	0	534	300435	0	24	55056	0	5785603	1	1	1
155	2020	11	619675	2171382	0	45639	1012584	0	2217	121935	0	533	294749	0	24	63389	0	5506322	1	1	1
156	2020	12	620045	2099373	0	45623	890783	0	2207	88308	20000	535	309933	0	24	49631	0	5674935	0.4	0.4	0.4



PENNSYLVANIA OPA MODEL

Period	Obs	Year	Month	Cust	Sales	UPC	0.505	4.725	0.114	0.498	1.459	9.094	10.756	13.829	17.931	11.244	Rain Lag 2		0.9 CDD Lag		Predicted	Actual	Variance	Weather		Billing
																	Rain Lag 1	0.7	0.023	-18.078				Trend	Rain	
1	67	2013	7	2465	170229	69.058	0	0	0	0	0	0	1	0	0	0	0	-119	-0.501	-6	0.0	73.689	69.058	4.630	0.305	0
1	68	2013	8	2464	191285	77.632	0	0	0	0	0	0	1	0	0	0	0	-118	2.548	-20	0.0	73.705	77.632	-3.927	-2.747	0
1	69	2013	9	2464	180458	73.238	0	0	0	0	0	0	0	0	1	0	0	-117	-0.604	-69	0.0	79.535	73.238	6.297	-1.014	0
1	70	2013	10	2406	176954	73.547	0	0	0	0	0	0	0	0	0	1	0	-116	-1.833	-44	0.0	74.506	73.547	0.959	0.651	0
1	71	2013	11	2302	147394	64.029	0	0	0	0	0	0	0	0	0	0	1	-115	-1.014	8	0.0	68.915	64.029	4.886	1.081	0
1	72	2013	12	2299	145298	63.201	0	0	0	0	0	0	0	0	0	0	0	-114	0.000	0	0.0	62.600	63.201	-0.600	0.000	80000
1	73	2014	1	2300	150114	65.267	1	0	0	0	0	0	0	0	0	0	0	-113	0.000	0	0.0	63.100	65.267	-2.167	0.000	-80000
1	74	2014	2	2300	163740	71.191	0	1	0	0	0	0	0	0	0	0	0	-112	0.000	0	0.0	67.314	71.191	-3.877	0.000	0
1	75	2014	3	2344	159285	67.954	0	0	1	0	0	0	0	0	0	0	0	-111	0.000	0	0.0	62.697	67.954	-5.257	0.000	0
1	76	2014	4	2421	162262	67.023	0	0	0	1	0	0	0	0	0	0	0	-110	0.000	0	0.0	63.076	67.023	-3.947	0.000	-30000
1	77	2014	5	2449	162861	66.501	0	0	0	0	1	0	0	0	0	0	0	-109	0.104	2	0.0	63.974	66.501	-2.527	-0.058	30000
1	78	2014	6	2454	183940	74.955	0	0	0	0	0	1	0	0	0	0	0	-108	0.790	9	0.0	71.145	74.955	-3.810	-0.516	0
2	79	2014	7	2455	187139	76.228	0	0	0	0	0	0	1	0	0	0	0	-107	-0.684	32	0.0	74.658	76.228	-1.570	1.340	0
2	80	2014	8	2454	182785	74.484	0	0	0	0	0	0	0	1	0	0	0	-106	-1.276	-69	0.0	75.975	74.484	1.490	-0.411	0
2	81	2014	9	2445	195962	80.148	0	0	0	0	0	0	0	1	0	0	0	-105	0.428	-73	0.0	78.463	80.148	-1.685	-2.019	0
2	82	2014	10	2397	186890	77.968	0	0	0	0	0	0	0	0	1	0	0	-104	-1.667	-37	0.0	74.460	77.968	-3.509	0.671	0
2	83	2014	11	2298	165255	71.912	0	0	0	0	0	0	0	0	0	1	0	-103	-1.804	-14	0.0	69.074	71.912	-2.839	1.306	0
2	84	2014	12	2278	147993	64.966	0	0	0	0	0	0	0	0	0	0	0	-102	0.000	0	0.0	62.534	64.966	-2.432	0.000	0
2	85	2015	1	2262	140413	62.075	1	0	0	0	0	0	0	0	0	0	0	-101	0.000	0	0.0	63.033	62.075	0.959	0.000	0
2	86	2015	2	2260	150902	66.771	0	1	0	0	0	0	0	0	0	0	0	-100	0.000	0	0.0	67.248	66.771	0.477	0.000	0
2	87	2015	3	2322	157555	67.853	0	0	1	0	0	0	0	0	0	0	0	-99	0.000	0	0.0	62.631	67.853	-5.222	0.000	0
2	88	2015	4	2412	159030	65.933	0	0	0	1	0	0	0	0	0	0	0	-98	0.000	0	0.0	63.010	65.933	-2.923	0.000	0
2	89	2015	5	2423	168230	69.430	0	0	0	0	1	0	0	0	0	0	0	-97	0.917	-4	0.0	63.043	69.430	-6.387	-0.923	0
2	90	2015	6	2424	180068	74.285	0	0	0	0	0	1	0	0	0	0	0	-96	-0.942	48	0.0	73.520	74.285	-0.766	1.925	0
3	91	2015	7	2439	172289	70.639	0	0	0	0	0	0	1	0	0	0	0	-95	2.746	-8	0.0	70.596	70.639	-0.043	-2.655	0
3	92	2015	8	2444	192705	78.848	0	0	0	0	0	0	0	1	0	0	0	-94	0.373	-33	0.0	75.235	78.848	-3.613	-1.084	0
3	93	2015	9	2444	195650	80.053	0	0	0	0	0	0	0	0	1	0	0	-93	-2.487	-41	0.0	81.725	80.053	1.671	1.309	0
3	94	2015	10	2381	172193	72.319	0	0	0	0	0	0	0	0	0	1	0	-92	0.367	25	0.0	73.956	72.319	1.637	0.234	0
3	95	2015	11	2274	160003	70.362	0	0	0	0	0	0	0	0	0	1	0	-91	0.081	-24	0.0	67.095	70.362	-3.267	-0.606	0
3	96	2015	12	2254	146651	65.063	0	0	0	0	0	0	0	0	0	0	0	-90	0.000	0	0.0	62.468	65.063	-2.595	0.000	-10000
3	97	2016	1	2252	144782	64.290	1	0	0	0	0	0	0	0	0	0	0	-89	0.000	0	0.0	62.967	64.290	-1.323	0.000	-10000
3	98	2016	2	2245	145794	64.942	0	1	0	0	0	0	0	0	0	0	0	-88	0.000	0	0.0	67.182	64.942	2.240	0.000	40000
3	99	2016	3	2310	142818	61.826	0	0	1	0	0	0	0	0	0	0	0	-87	0.000	0	0.0	62.565	61.826	0.739	0.000	-10000
3	100	2016	4	2409	149961	62.250	0	0	0	1	0	0	0	0	0	0	0	-86	0.000	0	0.0	62.944	62.250	0.693	0.000	-10000
3	101	2016	5	2431	145875	60.006	0	0	0	0	1	0	0	0	0	0	0	-85	-1.029	-10	0.0	64.598	60.006	4.592	0.698	0
3	102	2016	6	2436	168833	69.308	0	0	0	0	0	1	0	0	0	0	0	-84	0.844	-19	0.0	70.350	69.308	1.042	-1.179	0
4	103	2016	7	2440	172930	70.873	0	0	0	0	0	0	1	0	0	0	0	-83	-1.136	16	0.0	74.577	70.873	3.703	1.391	0
4	104	2016	8	2441	174071	71.311	0	0	0	0	0	0	0	1	0	0	0	-82	-0.891	50	0.0	78.174	71.311	6.863	1.921	0
4	105	2016	9	2428	194424	80.076	0	0	0	0	0	0	0	0	1	0	0	-81	-0.499	100	0.0	83.043	80.076	2.967	2.693	0
4	106	2016	10	2384	175527	73.627	0	0	0	0	0	0	0	0	0	1	0	-80	-0.334	41	0.0	74.879	73.627	1.252	1.222	0
4	107	2016	11	2259	145357	64.346	0	0	0	0	0	0	0	0	0	0	1	-79	0.069	-2	0.0	67.528	64.346	3.182	-0.107	0
4	108	2016	12	2259	138989	61.527	0	0	0	0	0	0	0	0	0	0	0	-78	0.000	0	0.0	62.402	61.527	0.875	0.000	0
4	109	2017	1	2234	143333	64.160	1	0	0	0	0	0	0	0	0	0	0	-77	0.000	0	0.0	62.901	64.160	-1.259	0.000	0
4	110	2017	2	2232	148106	66.356	0	1	0	0	0	0	0	0	0	0	0	-76	0.000	0	0.0	67.115	66.356	0.760	0.000	0
4	111	2017	3	2303	127833	55.507	0	0	1	0	0	0	0	0	0	0	0	-75	0.000	0	0.0	62.499	55.507	6.992	0.000	0
4	112	2017	4	2391	132929	55.596	0	0	0	1	0	0	0	0	0	0	0	-74	0.000	0	0.0	62.877	55.596	7.281	0.000	0
4	113	2017	5	2424	159216	65.683	0	0	0	0	1	0	0	0	0	0	0	-73	0.465	6	0.0	63.552	65.683	-2.132	-0.282	0
4	114	2017	6	2428	172979	71.243	0	0	0	0	0	1	0	0	0	0	0	-72	0.616	-29	0.0	70.252	71.243	-0.991	-1.210	0
5	115	2017	7	2424	173017	71.377	0	0	0	0	0	0	1	0	0	0	0	-71	3.770	-11	0.0	69.486	71.377	-1.891	-3.633	0
5	116	2017	8	2427	172017	70.877	0	0	0	0	0	0	0	1	0	0	0	-70	3.863	-19	0.0	72.277	70.877	1.401	-3.910	0
5	117	2017	9	2417	177470	73.426	0	0	0	0	0	0	0	1	0	0	0	-69	0.729	-81	0.0	77.809	73.426	4.384	-2.474	0
5	118	2017	10	2373	164114	69.159	0	0	0	0	0	0	0	0	1	0	0	-68	-1.621	-3	0.0	74.989	69.159	5.830	1.399	0
5	119	2017	11	2240	146403	65.358	0	0	0	0	0	0	0	0	0	1	0	-67	-0.283	10	0.0	68.053	65.358	2.695	0.484	0
5	120	2017	12	2225	143072	64.302	0	0	0	0	0	0	0	0	0	0	0	-66	0.000	0	0.0	62.335	64.302	-1.967	0.000	0
5	121	2018	1	2218	142275	64.146	1	0	0	0	0	0	0	0	0	0	0	-65	0.000	0	0.0	62.835	64.146	-1.311	0.000	0
5	122	2018	2	2219	162647	73.297	0	1	0	0	0	0	0	0	0	0	0	-64	0.000	0	0.0	67.049	73.297	-6.248	0.000	0
5	123	2018	3																							





PENNSYLVANIA OPA MODEL

Period	Obs	Year	Month	Cust	Sales	UPC	0.505	4.725	0.114	0.498	1.459	9.094	10.756	13.829	17.931	11.244	Rain Lag 2		0.9 CDD Lag		Predicted	Actual	Variance	Weather Effect	Billing Adjustments	
																	Rain Lag 1	0.7	0.023	-18.078						
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Trend	Rain	CDD	COVID					
9	172	2022	4	2358	136987	58.095	0	0	0	1	0	0	0	0	0	0	0	-14	0.000	0	0.4	55.315	58.095	-2.780	0.000	-10000
9	173	2022	5	2384	146222	61.335	0	0	0	0	1	0	0	0	0	0	0	-13	-0.252	6	0.4	56.625	61.335	-4.710	0.354	10000
9	174	2022	6	2392	154538	64.606	0	0	0	0	0	1	0	0	0	0	0	-12	1.041	2	0.4	63.016	64.606	-1.590	-0.884	-20000
10	175	2022	7	2394	168763	70.494	0	0	0	0	0	0	1	0	0	0	0	-11	-2.862	19	0.4	68.550	70.494	-1.944	2.994	20000
10	176	2022	8	2399	166719	69.495	0	0	0	0	0	0	0	1	0	0	0	-10	-1.278	35	0.4	70.554	69.495	1.059	1.929	0
10	177	2022	9	2296	180983	78.825	0	0	0	0	0	0	0	0	1	0	0	-9	-0.320	-2	0.4	72.973	78.825	-5.852	0.252	0
10	178	2022	10	2256	163114	72.302	0	0	0	0	0	0	0	0	0	1	0	-8	-0.816	-15	0.4	66.434	72.302	-5.868	0.407	0
10	179	2022	11	2186	131500	60.156	0	0	0	0	0	0	0	0	0	0	1	-7	-1.082	-23	0.4	60.458	60.156	0.302	0.451	0
10	180	2022	12	2178	114220	52.443	0	0	0	0	0	0	0	0	0	0	0	-6	0.000	0	0.4	54.773	52.443	2.330	0.000	0
10	181	2023	1	2181	129426	59.342	1	0	0	0	0	0	0	0	0	0	0	-5	0.000	0	0.4	55.272	59.342	-4.070	0.000	-40000
10	182	2023	2	2181	124447	57.060	0	1	0	0	0	0	0	0	0	0	0	-4	0.000	0	0.4	59.487	57.060	2.427	0.000	0
10	183	2023	3	2213	127703	57.706	0	0	1	0	0	0	0	0	0	0	0	-3	0.000	0	0.4	54.870	57.706	-2.836	0.000	0
10	184	2023	4	2292	140851	61.453	0	0	0	1	0	0	0	0	0	0	0	-2	0.000	0	0.4	55.248	61.453	-6.205	0.000	0
10	185	2023	5	2302	140785	61.158	0	0	0	0	1	0	0	0	0	0	0	-1	-1.362	9	0.4	57.634	61.158	-3.523	1.429	0
10	186	2023	6	2303	163114	70.827	0	0	0	0	0	1	0	0	0	0	0	0	-2.149	-48	0.4	64.686	70.827	-6.141	0.853	0
11	187	2023	7	2306	170691	74.033	0	0	0	0	0	0	1	0	0	0	0	1	-2.912	-58	0.0	74.033				
11	188	2023	8	2308	176928	76.652	0	0	0	0	0	0	0	1	0	0	0	2	-0.959	0	0.0	76.652				
11	189	2023	9	2283	182380	79.886	0	0	0	0	0	0	0	1	0	0	0	3	0.000	0	0.0	79.886				
11	190	2023	10	2233	163410	73.193	0	0	0	0	0	0	0	0	0	1	0	4	0.000	0	0.0	73.193				
11	191	2023	11	2146	144177	67.171	0	0	0	0	0	0	0	0	0	0	1	5	0.000	0	0.0	67.171				
11	192	2023	12	2132	132064	61.938	0	0	0	0	0	0	0	0	0	0	0	6	0.000	0	0.0	61.938				
11	193	2024	1	2131	133041	62.437	1	0	0	0	0	0	0	0	0	0	0	7	0.000	0	0.0	62.437				
11	194	2024	2	2132	142101	66.652	0	1	0	0	0	0	0	0	0	0	0	8	0.000	0	0.0	66.652				
11	195	2024	3	2177	135063	62.035	0	0	1	0	0	0	0	0	0	0	0	9	0.000	0	0.0	62.035				
11	196	2024	4	2256	140792	62.413	0	0	0	1	0	0	0	0	0	0	0	10	0.000	0	0.0	62.413				
11	197	2024	5	2278	144344	63.370	0	0	0	0	1	0	0	0	0	0	0	11	0.000	0	0.0	63.370				
11	198	2024	6	2283	162118	70.999	0	0	0	0	0	1	0	0	0	0	0	12	0.000	0	0.0	70.999				
12	199	2024	7	2286	166090	72.655	0	0	0	0	0	0	1	0	0	0	0	13	0.000	0	0.0	72.655				
12	200	2024	8	2289	173300	75.723	0	0	0	0	0	0	0	0	1	0	0	14	0.000	0	0.0	75.723				
12	201	2024	9	2263	180664	79.820	0	0	0	0	0	0	0	0	1	0	0	15	0.000	0	0.0	79.820				
12	202	2024	10	2213	161829	73.126	0	0	0	0	0	0	0	0	0	1	0	16	0.000	0	0.0	73.126				
12	203	2024	11	2127	142719	67.105	0	0	0	0	0	0	0	0	0	0	1	17	0.000	0	0.0	67.105				
12	204	2024	12	2113	130710	61.872	0	0	0	0	0	0	0	0	0	0	0	18	0.000	0	0.0	61.872				
12	205	2025	1	2111	131677	62.371	1	0	0	0	0	0	0	0	0	0	0	19	0.000	0	0.0	62.371				
12	206	2025	2	2112	140655	66.585	0	1	0	0	0	0	0	0	0	0	0	20	0.000	0	0.0	66.585				
12	207	2025	3	2158	133704	61.969	0	0	1	0	0	0	0	0	0	0	0	21	0.000	0	0.0	61.969				
12	208	2025	4	2236	139421	62.347	0	0	0	1	0	0	0	0	0	0	0	22	0.000	0	0.0	62.347				
12	209	2025	5	2258	142952	63.304	0	0	0	0	1	0	0	0	0	0	0	23	0.000	0	0.0	63.304				
12	210	2025	6	2264	160577	70.932	0	0	0	0	0	1	0	0	0	0	0	24	0.000	0	0.0	70.932				
13	211	2025	7	2266	164516	72.589	0	0	0	0	0	0	1	0	0	0	0	25	0.000	0	0.0	72.589				
13	212	2025	8	2269	171665	75.657	0	0	0	0	0	0	0	0	1	0	0	26	0.000	0	0.0	75.657				
13	213	2025	9	2244	178951	79.753	0	0	0	0	0	0	0	0	0	1	0	27	0.000	0	0.0	79.753				
13	214	2025	10	2193	160250	73.060	0	0	0	0	0	0	0	0	0	0	1	28	0.000	0	0.0	73.060				
13	215	2025	11	2107	141265	67.039	0	0	0	0	0	0	0	0	0	0	1	29	0.000	0	0.0	67.039				
13	216	2025	12	2093	129359	61.805	0	0	0	0	0	0	0	0	0	0	0	30	0.000	0	0.0	61.805				
13	217	2026	1	2092	130316	62.305	1	0	0	0	0	0	0	0	0	0	0	31	0.000	0	0.0	62.305				
13	218	2026	2	2093	139211	66.519	0	1	0	0	0	0	0	0	0	0	0	32	0.000	0	0.0	66.519				
13	219	2026	3	2138	132347	61.902	0	0	1	0	0	0	0	0	0	0	0	33	0.000	0	0.0	61.902				
13	220	2026	4	2217	138052	62.281	0	0	0	1	0	0	0	0	0	0	0	34	0.000	0	0.0	62.281				
13	221	2026	5	2239	141563	63.237	0	0	0	0	1	0	0	0	0	0	0	35	0.000	0	0.0	63.237				
13	222	2026	6	2244	159038	70.866	0	0	0	0	0	1	0	0	0	0	0	36	0.000	0	0.0	70.866				
14	223	2026	7	2247	162944	72.523	0	0	0	0	0	0	1	0	0	0	0	37	0.000	0	0.0	72.523				
14	224	2026	8	2249	170033	75.591	0	0	0	0	0	0	0	1	0	0	0	38	0.000	0	0.0	75.591				
14	225	2026	9	2224	177240	79.687	0	0	0	0	0	0	0	0	1	0	0	39	0.000	0	0.0	79.687				
14	226	2026	10	2174	158674	72.994	0	0	0	0	0	0	0	0	0	1	0	40	0.000	0	0.0	72.994				
14	227	2026	11	2088	139812	66.973	0	0	0	0	0	0	0	0	0	0	1	41	0.000	0	0.0	66.973				
14	228	2026	12	2073	128010	61.739	0	0	0	0	0	0	0	0	0	0	0	42	0.000	0	0.0	61.739				

REGRESSION MODEL

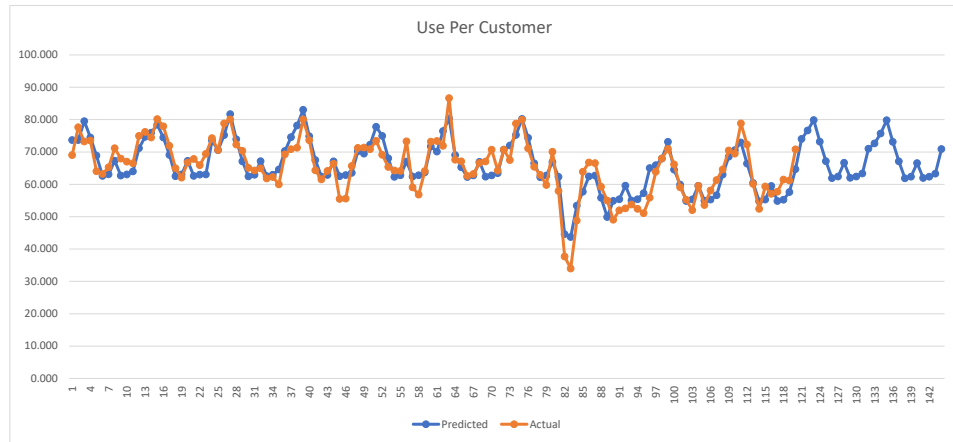
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.8944
R Square	0.8000
Adjusted R Square	0.7711
Standard Error	4.0639
Observations	120

ANOVA					
	df	SS	MS	F	Significance F
Regression	15	6868.14	457.8761	27.7249	0.0000
Residual	104	1717.56	16.5150		
Total	119	8585.70			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	61.9711	1.6371	37.8551	0.0000	58.7248	65.2175	4.3812	4.8161
Jan	0.5047	1.8175	0.2777	0.7818	-3.0995	4.1088	-0.0904	0.4442
Feb	4.7246	1.8176	2.5993	0.0107	1.1202	8.3291	-0.5977	-0.0631
Mar	0.1136	1.8179	0.0625	0.9503	-3.4914	3.7186	-0.5800	-0.0454
Apr	0.4976	1.8237	0.2729	0.7855	-3.1188	4.1140	-0.4491	0.0880
May	1.4595	1.8233	0.8005	0.4253	-2.1561	5.0751	0.0664	0.6039
Jun	9.0939	1.8230	4.9885	0.0000	5.4789	12.7089	1.5893	2.1274
Jul	10.7558	1.8290	5.8806	0.0000	7.1288	14.3829	3.0936	3.6314
Aug	13.8292	1.8247	7.5790	0.0000	10.2109	17.4476	3.0495	3.5871
Sep	17.9315	1.8228	9.8371	0.0000	14.3167	21.5462	2.6027	3.1405
Oct	11.2436	1.8220	6.1710	0.0000	7.6305	14.8567	1.1906	1.7252
Nov	5.2280	1.8213	2.8705	0.0050	1.6163	8.8397	-0.0387	0.4958
Trend	-0.0055	0.0143	-0.3854	0.7007	-0.0339	0.0229	-0.0084	-0.0050
Rain	-0.8998	0.3143	-2.8626	0.0051	-1.5232	-0.2765	-0.2999	-0.1944
CDD	0.0225	0.0136	1.6587	0.1002	-0.0044	0.0494	0.0050	0.0095
COVID	-18.0782	1.8153	-9.9590	0.0000	-21.6779	-14.4785	0.2478	0.8078

-0.795 Annual Decline



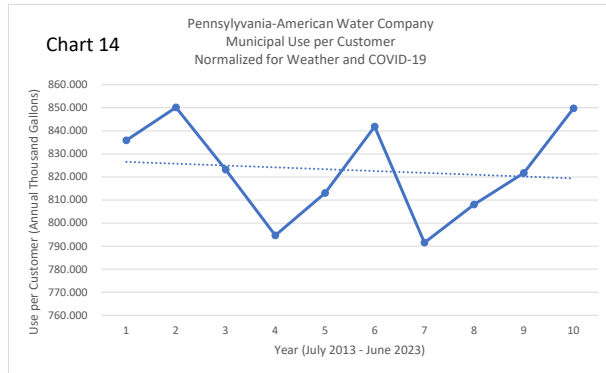
REGRESSION MODEL

SUMMARY OUTPUT

Auto-Correlation: 0.3493  
D-W Statistic 1.2794

Month	Weather
1	0
2	0
3	0
4	0
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	0

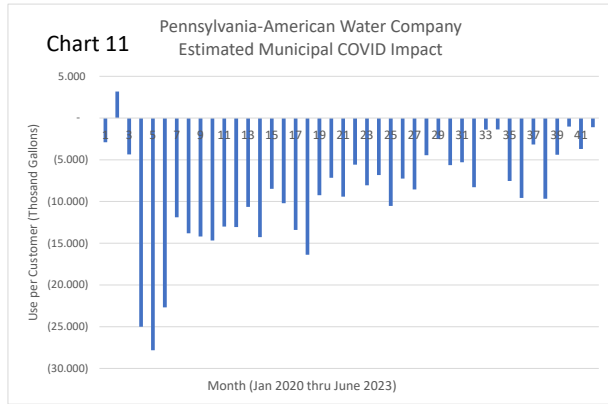
Period	Actual	Weather	COVID	Normalized
1	833.595	(2.298)	-	835.893
2	852.055	1.889	-	850.165
3	819.906	(3.285)	-	823.192
4	800.305	5.628	-	794.677
5	805.165	(7.859)	-	813.024
6	831.913	(9.927)	-	841.840
7	734.007	(3.268)	(54.235)	791.509
8	678.282	11.250	(141.010)	808.042
9	732.608	(2.325)	(86.775)	821.709
10	771.261	8.316	(86.775)	849.721



REGRESSION MODEL

SUMMARY OUTPUT

Data	Usage Per Customer
Jan-20	(2.895)
Feb-20	3.180
Mar-20	(4.354)
Apr-20	(24.993)
May-20	(27.821)
Jun-20	(22.688)
Jul-20	(11.881)
Aug-20	(13.799)
Sep-20	(14.185)
Oct-20	(14.674)
Nov-20	(12.997)
Dec-20	(13.062)
Jan-21	(10.651)
Feb-21	(14.260)
Mar-21	(8.472)
Apr-21	(10.210)
May-21	(13.400)
Jun-21	(16.367)
Jul-21	(9.244)
Aug-21	(7.162)
Sep-21	(9.415)
Oct-21	(5.579)
Nov-21	(8.063)
Dec-21	(6.833)
Jan-22	(10.534)
Feb-22	(7.261)
Mar-22	(8.555)
Apr-22	(4.451)
May-22	(2.522)
Jun-22	(5.642)
Jul-22	(5.287)
Aug-22	(8.290)
Sep-22	(1.379)
Oct-22	(1.363)
Nov-22	(7.533)
Dec-22	(9.562)
Jan-23	(3.161)
Feb-23	(9.658)
Mar-23	(4.395)
Apr-23	(1.026)
May-23	(3.708)
Jun-23	(1.091)



CUSTOMER DATA

Year	Month	Cust	Growth	Select
2013	7	2465		
2013	8	2464	-1	0
2013	9	2464	0	0
2013	10	2406	-58	0
2013	11	2302	-104	0
2013	12	2299	-3	0
2014	1	2300	1	0
2014	2	2300	0	0
2014	3	2344	44	0
2014	4	2421	77	0
2014	5	2449	28	0
2014	6	2454	5	0
2014	7	2455	1	0
2014	8	2454	-1	0
2014	9	2445	-9	0
2014	10	2397	-48	0
2014	11	2298	-99	0
2014	12	2278	-20	0
2015	1	2262	-16	0
2015	2	2260	-2	0
2015	3	2322	62	0
2015	4	2412	90	0
2015	5	2423	11	0
2015	6	2424	1	0
2015	7	2439	15	0
2015	8	2444	5	0
2015	9	2444	0	0
2015	10	2381	-63	0
2015	11	2274	-107	0
2015	12	2254	-20	0
2016	1	2252	-2	0
2016	2	2245	-7	0
2016	3	2310	65	0
2016	4	2409	99	0
2016	5	2431	22	0
2016	6	2436	5	0
2016	7	2440	4	0
2016	8	2441	1	0
2016	9	2428	-13	0
2016	10	2384	-44	0
2016	11	2259	-125	0
2016	12	2259	0	0
2017	1	2234	-25	0
2017	2	2232	-2	0
2017	3	2303	71	0
2017	4	2391	88	0
2017	5	2424	33	0
2017	6	2428	4	0
2017	7	2424	-4	0
2017	8	2427	3	0
2017	9	2417	-10	0
2017	10	2373	-44	0
2017	11	2240	-133	0
2017	12	2225	-15	0
2018	1	2218	-7	0
2018	2	2219	1	0
2018	3	2247	28	0
2018	4	2381	134	0
2018	5	2399	18	0
2018	6	2401	2	0
2018	7	2400	-1	1
2018	8	2398	-2	1
2018	9	2391	-7	1
2018	10	2340	-51	1
2018	11	2244	-96	1
2018	12	2234	-10	1

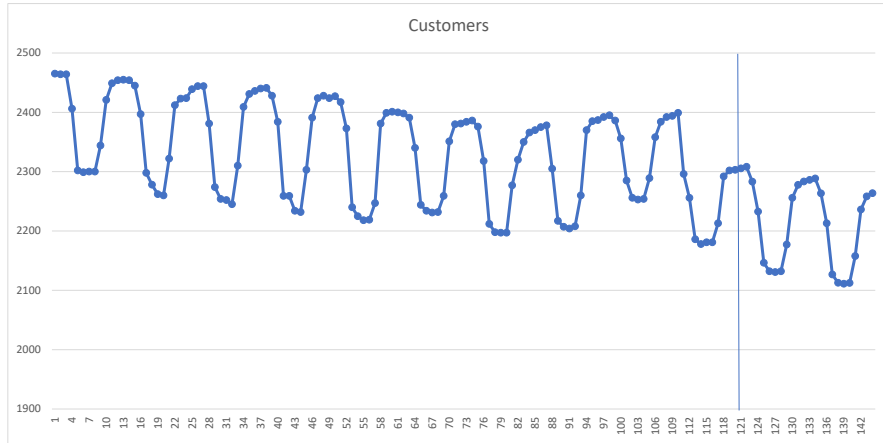
Avg	
Month	Growth Last 60 Months
1	-1
2	1
3	45
4	79
5	22
6	6
7	3
8	3
9	-25
10	-50
11	-86
12	-14

CUSTOMER DATA

Year	Month	Cust	Growth	Select
2019	1	2231	-3	1
2019	2	2232	1	1
2019	3	2259	27	1
2019	4	2351	92	1
2019	5	2380	29	1
2019	6	2381	1	1
2019	7	2384	3	1
2019	8	2386	2	1
2019	9	2376	-10	1
2019	10	2318	-58	1
2019	11	2212	-106	1
2019	12	2198	-14	1
2020	1	2197	-1	1
2020	2	2197	0	1
2020	3	2277	80	1
2020	4	2320	43	1
2020	5	2350	30	1
2020	6	2366	16	1
2020	7	2370	4	1
2020	8	2375	5	1
2020	9	2378	3	1
2020	10	2305	-73	1
2020	11	2217	-88	1
2020	12	2207	-10	1
2021	1	2204	-3	1
2021	2	2208	4	1
2021	3	2260	52	1
2021	4	2370	110	1
2021	5	2385	15	1
2021	6	2387	2	1
2021	7	2392	5	1
2021	8	2395	3	1
2021	9	2386	-9	1
2021	10	2356	-30	1
2021	11	2285	-71	1
2021	12	2256	-29	1
2022	1	2253	-3	1
2022	2	2254	1	1
2022	3	2289	35	1
2022	4	2358	69	1
2022	5	2384	26	1
2022	6	2392	8	1
2022	7	2394	2	1
2022	8	2399	5	1
2022	9	2296	-103	1
2022	10	2256	-40	1
2022	11	2186	-70	1
2022	12	2178	-8	1
2023	1	2181	3	1
2023	2	2181	0	1
2023	3	2213	32	1
2023	4	2292	79	1
2023	5	2302	10	1
2023	6	2303	1	1
2023	7	2306	3	1
2023	8	2308	3	1
2023	9	2283	-25	1
2023	10	2233	-50	1
2023	11	2146	-86	1
2023	12	2132	-14	1
2024	1	2131	-1	1
2024	2	2132	1	1
2024	3	2177	45	1
2024	4	2256	79	1
2024	5	2278	22	1
2024	6	2283	6	1
2024	7	2286	3	1

CUSTOMER DATA

Year	Month	Cust	Growth	Select
2024	8	2289	3	
2024	9	2263	-25	
2024	10	2213	-50	
2024	11	2127	-86	
2024	12	2113	-14	
2025	1	2111	-1	
2025	2	2112	1	
2025	3	2158	45	
2025	4	2236	79	
2025	5	2258	22	
2025	6	2264	6	
2025	7	2266	3	
2025	8	2269	3	
2025	9	2244	-25	
2025	10	2193	-50	
2025	11	2107	-86	
2025	12	2093	-14	
2026	1	2092	-1	
2026	2	2093	1	
2026	3	2138	45	
2026	4	2217	79	
2026	5	2239	22	
2026	6	2244	6	
2026	7	2247	3	
2026	8	2249	3	
2026	9	2224	-25	
2026	10	2174	-50	
2026	11	2088	-86	
2026	12	2073	-14	



WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1					
2013	7	3.573	0.155	-2.031	-15	-6	11414	751	2013	29432	-4459
2013	8	-2.394	3.573	0.155	-71	-15	-9675	-6767	2014	-76107	545
2013	9	-1.592	-2.394	3.573	-50	-71	15516	-2498	2015	-47492	-4322
2013	10	-0.766	-1.592	-2.394	9	-50	2309	1567	2016	64268	16118
2013	11	0.653	-0.766	-1.592	-2	9	11249	2489	2017	49728	-23493
2013	12	0.950	0.653	-0.766	0	-2	-1380	0	2018	-12728	-20491
2014	1	-1.105	0.950	0.653	0	0	-4985	0	2019	-20123	-5922
2014	2	-1.068	-1.105	0.950	0	0	-8918	0	2020	18782	18102
2014	3	-1.121	-1.068	-1.105	-1	0	-12322	0	2021	76408	496
2014	4	0.629	-1.121	-1.068	1	-1	-9555	0	2022	-34101	13010
2014	5	0.859	0.629	-1.121	5	1	-6189	-143			
2014	6	-1.345	0.859	0.629	43	5	-9350	-1266	avg.	4807	-1041
2014	7	-1.247	-1.345	0.859	-69	43	-3854	3290	s.d.	50780	14110
2014	8	1.146	-1.247	-1.345	-76	-69	3658	-1008			
2014	9	-2.872	1.146	-1.247	-39	-76	-4119	-4936			
2014	10	-1.346	-2.872	1.146	-16	-39	-8411	1608			
2014	11	-0.347	-1.346	-2.872	-2	-16	-6524	3001			
2014	12	-0.330	-0.347	-1.346	0	-2	-5540	0			
2015	1	-0.235	-0.330	-0.347	0	0	2169	0			
2015	2	-2.078	-0.235	-0.330	0	0	1078	0			
2015	3	0.959	-2.078	-0.235	-1	0	-12125	0			
2015	4	0.899	0.959	-2.078	-11	-1	-7050	0			
2015	5	-1.731	0.899	0.959	54	-11	-15476	-2236			
2015	6	4.665	-1.731	0.899	-6	54	-1856	4666			
2015	7	-1.467	4.665	-1.731	-32	-6	-106	-6477			
2015	8	-2.924	-1.467	4.665	-49	-32	-8831	-2650			
2015	9	1.778	-2.924	-1.467	31	-49	4085	3198			
2015	10	-0.646	1.778	-2.924	-27	31	3897	556			
2015	11	-0.697	-0.646	1.778	2	-27	-7429	-1379			
2015	12	0.450	-0.697	-0.646	0	2	-5848	0			
2016	1	-1.005	0.450	-0.697	0	0	-2980	0			
2016	2	-0.078	-1.005	0.450	0	0	5028	0			
2016	3	-1.071	-0.078	-1.005	-1	0	1708	0			
2016	4	-1.011	-1.071	-0.078	-9	-1	1670	0			
2016	5	1.639	-1.011	-1.071	-22	-9	11162	1696			
2016	6	-2.325	1.639	-1.011	13	-22	2539	-2872			
2016	7	-0.277	-2.325	1.639	44	13	9037	3395			
2016	8	-0.594	-0.277	-2.325	106	44	16752	4689			
2016	9	-0.222	-0.594	-0.277	46	106	7204	6538			
2016	10	0.194	-0.222	-0.594	-3	46	2984	2914			
2016	11	-1.247	0.194	-0.222	3	-3	7188	-242			
2016	12	0.650	-1.247	0.194	0	3	1976	0			
2017	1	1.025	0.650	-1.247	0	0	-2812	0			
2017	2	-1.598	1.025	0.650	2	0	1696	0			
2017	3	1.599	-1.598	1.025	3	2	16102	0			
2017	4	-0.021	1.599	-1.598	10	3	17410	0			
2017	5	0.889	-0.021	1.599	-31	10	-5167	-684			
2017	6	5.005	0.889	-0.021	-11	-31	-2406	-2938			
2017	7	3.373	5.005	0.889	-12	-11	-4584	-8807			
2017	8	-0.404	3.373	5.005	-89	-12	3400	-9488			
2017	9	-2.142	-0.404	3.373	-4	-89	10595	-5980			
2017	10	0.514	-2.142	-0.404	12	-4	13836	3320			
2017	11	1.773	0.514	-2.142	-2	12	6036	1084			
2017	12	-1.980	1.773	0.514	0	-2	-4376	0			
2018	1	0.455	-1.980	1.773	0	0	-2908	0			
2018	2	3.092	0.455	-1.980	2	0	-13865	0			
2018	3	-0.381	3.092	0.455	-1	2	7574	0			
2018	4	0.489	-0.381	3.092	1	-1	14207	0			
2018	5	1.019	0.489	-0.381	55	1	-966	-138			
2018	6	4.135	1.019	0.489	-2	55	-3546	798			
2018	7	-2.217	4.135	1.019	3	-2	-7739	-6975			
2018	8	1.366	-2.217	4.135	15	3	11015	873			
2018	9	8.458	1.366	-2.217	57	15	-15017	391			
2018	10	0.934	8.458	1.366	33	57	3399	-10466			
2018	11	1.233	0.934	8.458	-2	33	-4117	-4974			
2018	12	1.260	1.233	0.934	0	-2	-766	0			



## WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1		
2019	1	-0.245	1.260	1.233	0	0	-993	0
2019	2	1.352	-0.245	1.260	0	0	769	0
2019	3	-1.401	1.352	-0.245	-1	0	-10631	0
2019	4	0.809	-1.401	1.352	-7	-1	-18764	0
2019	5	0.609	0.809	-1.401	5	-7	-1954	-615
2019	6	-0.315	0.609	0.809	-43	5	-34	-1430
2019	7	-0.487	-0.315	0.609	-66	-43	10783	-2327
2019	8	2.416	-0.487	-0.315	68	-66	-8395	-1867
2019	9	-1.572	2.416	-0.487	29	68	493	109
2019	10	2.464	-1.572	2.416	12	29	7655	2196
2019	11	-0.747	2.464	-1.572	-2	12	2489	-1987
2019	12	0.300	-0.747	2.464	0	-2	-1541	0
2020	1	0.775	0.300	-0.747	0	0	6360	0
2020	2	0.222	0.775	0.300	0	0	-6987	0
2020	3	2.319	0.222	0.775	1	0	9914	0
2020	4	1.479	2.319	0.222	-12	1	16043	0
2020	5	-1.471	1.479	2.319	-15	-12	22896	-4302
2020	6	-3.365	-1.471	1.479	3	-15	10907	537
2020	7	-1.427	-3.365	-1.471	132	3	-14688	6829
2020	8	0.656	-1.427	-3.365	38	132	-10162	10819
2020	9	-1.812	0.656	-1.427	-20	38	-9257	1641
2020	10	-0.786	-1.812	0.656	-18	-20	-7846	1189
2020	11	-0.037	-0.786	-1.812	-2	-18	-11266	1389
2020	12	-0.830	-0.037	-0.786	0	-2	12868	0
2021	1	-0.845	-0.830	-0.037	0	0	7537	0
2021	2	-0.418	-0.845	-0.830	0	0	15520	0
2021	3	-0.101	-0.418	-0.845	-1	0	2805	0
2021	4	-1.311	-0.101	-0.418	4	-1	7059	0
2021	5	-1.071	-1.311	-0.101	-4	4	14711	2215
2021	6	1.475	-1.071	-1.311	48	-4	21807	2512
2021	7	-0.027	1.475	-1.071	-25	48	4815	682
2021	8	1.276	-0.027	1.475	61	-25	-166	-1774
2021	9	0.908	1.276	-0.027	-35	61	5211	844
2021	10	0.584	0.908	1.276	25	-35	-3893	-3709
2021	11	-1.697	0.584	0.908	-2	25	1900	-274
2021	12	0.910	-1.697	0.584	0	-2	-898	0
2022	1	-0.065	0.910	-1.697	0	0	7441	0
2022	2	2.072	-0.065	0.910	0	0	66	0
2022	3	-0.721	2.072	-0.065	-1	0	3030	0
2022	4	-0.051	-0.721	2.072	6	-1	-6555	0
2022	5	1.509	-0.051	-0.721	1	6	-11228	844
2022	6	-4.735	1.509	-0.051	16	1	-3802	-2114
2022	7	0.203	-4.735	1.509	39	16	-4654	7167
2022	8	-0.544	0.203	-4.735	0	39	2540	4629
2022	9	-0.932	-0.544	0.203	-13	0	-13437	579
2022	10	-1.146	-0.932	-0.544	-27	-13	-13238	918
2022	11	1.113	-1.146	-0.932	7	-27	660	987
2022	12	-1.380	1.113	-1.146	0	7	5075	0
2023	1	1.245	-1.380	1.113	0	0	-8877	0
2023	2	-1.498	1.245	-1.380	0	0	5293	0
2023	3	-0.081	-1.498	1.245	-1	0	-6276	0
2023	4	-1.911	-0.081	-1.498	15	-1	-14222	0
2023	5	-2.251	-1.911	-0.081	-46	15	-8111	3291
2023	6	-3.195	-2.251	-1.911	-65	-46	-14142	1963
2023	7	0.000	-3.195	-2.251	0	-65		
2023	8	0.000	0.000	-3.195	0	0		
2023	9	0.000	0.000	0.000	0	0		
2023	10	0.000	0.000	0.000	0	0		
2023	11	0.000	0.000	0.000	0	0		
2023	12	0.000	0.000	0.000	0	0		
2024	1	0.000	0.000	0.000	0	0		
2024	2	0.000	0.000	0.000	0	0		
2024	3	0.000	0.000	0.000	0	0		
2024	4	0.000	0.000	0.000	0	0		
2024	5	0.000	0.000	0.000	0	0		
2024	6	0.000	0.000	0.000	0	0		
2024	7	0.000	0.000	0.000	0	0		

WEATHER DATA

Year	Month	Rain	Rain Lag 1	Rain Lag 2	CDD	CDD Lag 1
2024	8	0.000	0.000	0.000	0	0
2024	9	0.000	0.000	0.000	0	0
2024	10	0.000	0.000	0.000	0	0
2024	11	0.000	0.000	0.000	0	0
2024	12	0.000	0.000	0.000	0	0
2025	1	0.000	0.000	0.000	0	0
2025	2	0.000	0.000	0.000	0	0
2025	3	0.000	0.000	0.000	0	0
2025	4	0.000	0.000	0.000	0	0
2025	5	0.000	0.000	0.000	0	0
2025	6	0.000	0.000	0.000	0	0
2025	7	0.000	0.000	0.000	0	0
2025	8	0.000	0.000	0.000	0	0
2025	9	0.000	0.000	0.000	0	0
2025	10	0.000	0.000	0.000	0	0
2025	11	0.000	0.000	0.000	0	0
2025	12	0.000	0.000	0.000	0	0
2026	1	0.000	0.000	0.000	0	0
2026	2	0.000	0.000	0.000	0	0
2026	3	0.000	0.000	0.000	0	0
2026	4	0.000	0.000	0.000	0	0
2026	5	0.000	0.000	0.000	0	0
2026	6	0.000	0.000	0.000	0	0
2026	7	0.000	0.000	0.000	0	0
2026	8	0.000	0.000	0.000	0	0
2026	9	0.000	0.000	0.000	0	0
2026	10	0.000	0.000	0.000	0	0
2026	11	0.000	0.000	0.000	0	0
2026	12	0.000	0.000	0.000	0	0

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2008	1	0	2008.01	0	1.890	1057	0	-0.785	-29	-0.785	0.000	0.000	0.000	0.000	-29	0
2008	2	0	2008.02	0	5.060	1012	0	1.682	133	1.682	-0.785	0.000	-0.400	0.000	133	-29
2008	3	0	2008.03	0	4.100	821	-1	0.779	85	0.779	1.682	-0.785	-0.600	-0.400	85	133
2008	4	0	2008.04	7	2.940	330	-5	-0.701	-63	-0.701	0.779	1.682	-4.800	-0.600	-63	85
2008	5	0	2008.05	14	5.380	246	-64	1.129	101	1.129	-0.701	0.779	-64.200	-4.800	101	-63
2008	6	0	2008.06	171	4.750	17	-3	-1.225	-1	-1.225	1.129	-0.701	-2.600	-64.200	-1	101
2008	7	0	2008.07	239	2.480	0	-40	-2.067	-2	-2.067	-1.225	1.129	-39.500	-2.600	-2	-1
2008	8	0	2008.08	163	2.040	2	-84	-2.964	-1	-2.964	-2.067	-1.225	-84.300	-39.500	-1	-2
2008	9	0	2008.09	85	1.690	34	-33	-1.752	-22	-1.752	-2.964	-2.067	-33.200	-84.300	-22	-1
2008	10	0	2008.10	4	1.960	415	-23	-1.956	108	-1.956	-1.752	-2.964	-22.500	-33.200	108	-22
2008	11	0	2008.11	0	2.060	729	-2	-0.447	74	-0.447	-1.956	-1.752	-1.500	-22.500	74	108
2008	12	0	2008.12	0	6.310	987	0	2.980	130	2.980	-0.447	-1.956	0.000	-1.500	130	74
2009	1	0	2009.01	0	3.060	1316	0	0.385	230	0.385	2.980	-0.447	0.000	0.000	230	130
2009	2	0	2009.02	0	1.070	904	0	-2.308	25	-2.308	0.385	2.980	-0.400	0.000	25	230
2009	3	0	2009.03	0	2.070	697	-1	-1.251	-39	-1.251	-2.308	0.385	-0.600	-0.400	-39	25
2009	4	0	2009.04	29	2.920	411	17	-0.721	18	-0.721	-1.251	-2.308	17.200	-0.600	18	-39
2009	5	0	2009.05	45	3.990	154	-33	-0.261	9	-0.261	-0.721	-1.251	-33.200	17.200	9	18
2009	6	0	2009.06	120	3.200	26	-54	-2.775	8	-2.775	-0.261	-0.721	-53.600	-33.200	8	9
2009	7	0	2009.07	142	4.670	5	-137	0.123	3	0.123	-2.775	-0.261	-136.500	-53.600	3	8
2009	8	0	2009.08	224	2.240	7	-23	-2.764	4	-2.764	0.123	-2.775	-23.300	-136.500	4	3
2009	9	0	2009.09	54	1.720	64	-64	-1.722	8	-1.722	-2.764	0.123	-64.200	-23.300	8	4
2009	10	0	2009.10	0	3.240	428	-27	-0.676	121	-0.676	-1.722	-2.764	-26.500	-64.200	121	8
2009	11	0	2009.11	0	1.060	518	-2	-1.447	-137	-1.447	-0.676	-1.722	-1.500	-26.500	-137	121
2009	12	0	2009.12	0	4.100	1044	0	0.770	187	0.770	-1.447	-0.676	0.000	-1.500	187	-137
2010	1	0	2010.01	0	2.340	1194	0	-0.335	108	-0.335	0.770	-1.447	0.000	0.000	108	187
2010	2	0	2010.02	0	1.560	1067	0	-1.818	188	-1.818	-0.335	0.770	-0.400	0.000	188	108
2010	3	0	2010.03	0	2.950	636	-1	-0.371	-100	-0.371	-1.818	-0.335	-0.600	-0.400	-100	188
2010	4	0	2010.04	29	1.360	289	17	-2.281	-104	-2.281	-0.371	-1.818	17.200	-0.600	-104	-100
2010	5	0	2010.05	86	5.610	112	8	1.359	-33	1.359	-2.281	-0.371	7.800	17.200	-33	-104
2010	6	0	2010.06	203	4.460	11	29	-1.515	-7	-1.515	1.359	-2.281	29.400	7.800	-7	-33
2010	7	0	2010.07	332	3.460	3	54	-1.087	1	-1.087	-1.515	1.359	53.500	29.400	1	-7
2010	8	0	2010.08	300	2.060	0	53	-2.944	-3	-2.944	-1.087	-1.515	52.700	53.500	-3	1
2010	9	0	2010.09	101	3.510	54	-17	0.068	-2	0.068	-2.944	-1.087	-17.200	52.700	-2	-3
2010	10	0	2010.10	5	2.400	299	-22	-1.516	-8	-1.516	0.068	-2.944	-21.500	-17.200	-8	-2
2010	11	0	2010.11	0	5.280	643	-2	2.773	-12	2.773	-1.516	0.068	-1.500	-21.500	-12	-8
2010	12	0	2010.12	0	1.170	1202	0	-2.160	345	-2.160	2.773	-1.516	0.000	-1.500	345	-12
2011	1	0	2011.01	0	1.790	1244	0	-0.885	158	-0.885	-2.160	2.773	0.000	0.000	158	345
2011	2	0	2011.02	0	3.030	807	0	-0.348	-73	-0.348	-0.885	-2.160	-0.400	0.000	-73	158
2011	3	0	2011.03	0	3.920	788	-1	0.599	52	0.599	-0.348	-0.885	-0.600	-0.400	52	-73
2011	4	0	2011.04	19	5.780	357	7	2.139	-36	2.139	0.599	-0.348	7.200	-0.600	-36	52

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2011	5	0	2011.05	92	4.050	142	14	-0.201	-3	-0.201	2.139	0.599	13.800	7.200	-3	-36
2011	6	0	2011.06	176	1.770	12	2	-4.205	-6	-4.205	-0.201	2.139	2.400	13.800	-6	-3
2011	7	0	2011.07	388	3.930	0	110	-0.617	-2	-0.617	-4.205	-0.201	109.500	2.400	-2	-6
2011	8	0	2011.08	235	4.010	0	-12	-0.994	-3	-0.994	-0.617	-4.205	-12.300	109.500	-3	-2
2011	9	0	2011.09	101	4.850	81	-17	1.408	25	1.408	-0.994	-0.617	-17.200	-12.300	25	-3
2011	10	0	2011.10	2	4.050	367	-25	0.134	60	0.134	1.408	-0.994	-24.500	-17.200	60	25
2011	11	0	2011.11	0	3.930	512	-2	1.423	-143	1.423	0.134	1.408	-1.500	-24.500	-143	60
2011	12	0	2011.12	0	3.100	824	0	-0.230	-34	-0.230	1.423	0.134	0.000	-1.500	-34	-143
2012	1	0	2012.01	0	3.110	968	0	0.435	-118	0.435	-0.230	1.423	0.000	0.000	-118	-34
2012	2	0	2012.02	0	1.800	816	0	-1.578	-64	-1.578	0.435	-0.230	-0.400	0.000	-64	-118
2012	3	0	2012.03	9	2.920	419	8	-0.401	-317	-0.401	-1.578	0.435	8.400	-0.400	-317	-64
2012	4	0	2012.04	6	1.640	439	-6	-2.001	46	-2.001	-0.401	-1.578	-5.800	8.400	46	-317
2012	5	0	2012.05	144	2.740	52	66	-1.511	-93	-1.511	-2.001	-0.401	65.800	-5.800	-93	46
2012	6	0	2012.06	206	1.680	22	32	-4.295	4	-4.295	-1.511	-2.001	32.400	65.800	4	-93
2012	7	0	2012.07	381	6.680	0	103	2.133	-2	2.133	-4.295	-1.511	102.500	32.400	-2	4
2012	8	0	2012.08	237	2.860	1	-10	-2.144	-2	-2.144	2.133	-4.295	-10.300	102.500	-2	-2
2012	9	0	2012.09	107	4.640	109	-11	1.198	53	1.198	-2.144	2.133	-11.200	-10.300	53	-2
2012	10	0	2012.10	20	5.000	346	-7	1.084	39	1.084	1.198	-2.144	-6.500	-11.200	39	53
2012	11	0	2012.11	0	0.700	727	-2	-1.807	72	-1.807	1.084	1.198	-1.500	-6.500	72	39
2012	12	0	2012.12	0	4.430	799	0	1.100	-59	1.100	-1.807	1.084	0.000	-1.500	-59	72
2013	1	0	2013.01	0	3.050	995	0	0.375	-91	0.375	1.100	-1.807	0.000	0.000	-91	-59
2013	2	0	2013.02	0	1.900	1005	0	-1.478	126	-1.478	0.375	1.100	-0.400	0.000	126	-91
2013	3	0	2013.03	0	1.920	917	-1	-1.401	181	-1.401	-1.478	0.375	-0.600	-0.400	181	126
2013	4	0	2013.04	21	2.860	366	9	-0.781	-27	-0.781	-1.401	-1.478	9.200	-0.600	-27	181
2013	5	0	2013.05	90	2.220	155	12	-2.031	10	-2.031	-0.781	-1.401	11.800	9.200	10	-27
2013	6	0	2013.06	168	6.130	13	-6	0.155	-5	0.155	-2.031	-0.781	-5.600	11.800	-5	10
2013	7	1	2013.07	264	8.120	2	-15	3.573	0	3.573	0.155	-2.031	-14.500	-5.600	0	-5
2013	8	1	2013.08	176	2.610	10	-71	-2.394	7	-2.394	3.573	0.155	-71.300	-14.500	7	0
2013	9	1	2013.09	68	1.850	103	-50	-1.592	47	-1.592	-2.394	3.573	-50.200	-71.300	47	7
2013	10	1	2013.10	35	3.150	325	9	-0.766	18	-0.766	-1.592	-2.394	8.500	-50.200	18	47
2013	11	1	2013.11	0	3.160	744	-2	0.653	89	0.653	-0.766	-1.592	-1.500	8.500	89	18
2013	12	1	2013.12	0	4.280	879	0	0.950	22	0.950	0.653	-0.766	0.000	-1.500	22	89
2014	1	1	2014.01	0	1.570	1288	0	-1.105	202	-1.105	0.950	0.653	0.000	0.000	202	22
2014	2	1	2014.02	0	2.310	1026	0	-1.068	147	-1.068	-1.105	0.950	-0.400	0.000	147	202
2014	3	1	2014.03	0	2.200	900	-1	-1.121	164	-1.121	-1.068	-1.105	-0.600	-0.400	164	147
2014	4	1	2014.04	13	4.270	341	1	0.629	-52	0.629	-1.121	-1.068	1.200	-0.600	-52	164
2014	5	1	2014.05	83	5.110	126	5	0.859	-19	0.859	0.629	-1.121	4.800	1.200	-19	-52
2014	6	1	2014.06	217	4.630	4	43	-1.345	-14	-1.345	0.859	0.629	43.400	4.800	-14	-19
2014	7	1	2014.07	210	3.300	11	-69	-1.247	9	-1.247	-1.345	0.859	-68.500	43.400	9	-14
2014	8	1	2014.08	171	6.150	8	-76	1.146	5	1.146	-1.247	-1.345	-76.300	-68.500	5	9

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2014	9	1	2014.09	79	0.570	81	-39	-2.872	25	-2.872	1.146	-1.247	-39.200	-76.300	25	5
2014	10	1	2014.10	11	2.570	320	-16	-1.346	13	-1.346	-2.872	1.146	-15.500	-39.200	13	25
2014	11	1	2014.11	0	2.160	773	-2	-0.347	118	-0.347	-1.346	-2.872	-1.500	-15.500	118	13
2014	12	1	2014.12	0	3.000	906	0	-0.330	49	-0.330	-0.347	-1.346	0.000	-1.500	49	118
2015	1	1	2015.01	0	2.440	1221	0	-0.235	135	-0.235	-0.330	-0.347	0.000	0.000	135	49
2015	2	1	2015.02	0	1.300	1284	0	-2.078	405	-2.078	-0.235	-0.330	-0.400	0.000	405	135
2015	3	1	2015.03	0	4.280	880	-1	0.959	144	0.959	-2.078	-0.235	-0.600	-0.400	144	405
2015	4	1	2015.04	1	4.540	355	-11	0.899	-38	0.899	0.959	-2.078	-10.800	-0.600	-38	144
2015	5	1	2015.05	132	2.520	92	54	-1.731	-53	-1.731	0.899	0.959	53.800	-10.800	-53	-38
2015	6	1	2015.06	168	10.640	26	-6	4.665	8	4.665	-1.731	0.899	-5.600	53.800	8	-53
2015	7	1	2015.07	247	3.080	0	-32	-1.467	-2	-1.467	4.665	-1.731	-31.500	-5.600	-2	8
2015	8	1	2015.08	198	2.080	6	-49	-2.924	3	-2.924	-1.467	4.665	-49.300	-31.500	3	-2
2015	9	1	2015.09	149	5.220	35	31	1.778	-21	1.778	-2.924	-1.467	30.800	-49.300	-21	3
2015	10	1	2015.10	0	3.270	353	-27	-0.646	46	-0.646	1.778	-2.924	-26.500	30.800	46	-21
2015	11	1	2015.11	3	1.810	433	2	-0.697	-222	-0.697	-0.646	1.778	1.500	-26.500	-222	46
2015	12	1	2015.12	0	3.780	557	0	0.450	-301	0.450	-0.697	-0.646	0.000	1.500	-301	-222
2016	1	1	2016.01	0	1.670	1113	0	-1.005	27	-1.005	0.450	-0.697	0.000	0.000	27	-301
2016	2	1	2016.02	0	3.300	843	0	-0.078	-37	-0.078	-1.005	0.450	-0.400	0.000	-37	27
2016	3	1	2016.03	0	2.250	504	-1	-1.071	-232	-1.071	-0.078	-1.005	-0.600	-0.400	-232	-37
2016	4	1	2016.04	3	2.630	407	-9	-1.011	14	-1.011	-1.071	-0.078	-8.800	-0.600	14	-232
2016	5	1	2016.05	56	5.890	195	-22	1.639	50	1.639	-1.011	-1.071	-22.200	-8.800	50	14
2016	6	1	2016.06	187	3.650	15	13	-2.325	-3	-2.325	1.639	-1.011	13.400	-22.200	-3	50
2016	7	1	2016.07	322	4.270	1	44	-0.277	-1	-0.277	-2.325	1.639	43.500	13.400	-1	-3
2016	8	1	2016.08	353	4.410	0	106	-0.594	-3	-0.594	-0.277	-2.325	105.700	43.500	-3	-1
2016	9	1	2016.09	164	3.220	13	46	-0.222	-43	-0.222	-0.594	-0.277	45.800	105.700	-43	-3
2016	10	1	2016.10	24	4.110	258	-3	0.194	-49	0.194	-0.222	-0.594	-2.500	45.800	-49	-43
2016	11	1	2016.11	4	1.260	573	3	-1.247	-82	-1.247	0.194	-0.222	2.500	-2.500	-82	-49
2016	12	1	2016.12	0	3.980	991	0	0.650	134	0.650	-1.247	0.194	0.000	2.500	134	-82
2017	1	1	2017.01	0	3.700	918	0	1.025	-168	1.025	0.650	-1.247	0.000	0.000	-168	134
2017	2	1	2017.02	2	1.780	661	2	-1.598	-219	-1.598	1.025	0.650	1.600	0.000	-219	-168
2017	3	1	2017.03	4	4.920	771	3	1.599	35	1.599	-1.598	1.025	3.400	1.600	35	-219
2017	4	1	2017.04	22	3.620	239	10	-0.021	-154	-0.021	1.599	-1.598	10.200	3.400	-154	35
2017	5	1	2017.05	47	5.140	175	-31	0.889	30	0.889	-0.021	1.599	-31.200	10.200	30	-154
2017	6	1	2017.06	163	10.980	24	-11	5.005	6	5.005	0.889	-0.021	-10.600	-31.200	6	30
2017	7	1	2017.07	267	7.920	0	-12	3.373	-2	3.373	5.005	0.889	-11.500	-10.600	-2	6
2017	8	1	2017.08	158	4.600	5	-89	-0.404	2	-0.404	3.373	5.005	-89.300	-11.500	2	-2
2017	9	1	2017.09	114	1.300	76	-4	-2.142	20	-2.142	-0.404	3.373	-4.200	-89.300	20	2
2017	10	1	2017.10	38	4.430	239	12	0.514	-68	0.514	-2.142	-0.404	11.500	-4.200	-68	20
2017	11	1	2017.11	0	4.280	664	-2	1.773	9	1.773	0.514	-2.142	-1.500	11.500	9	-68
2017	12	1	2017.12	0	1.350	1058	0	-1.980	201	-1.980	1.773	0.514	0.000	-1.500	201	9

## PENNSYLVANIA WEATHER DATA

DU Year	Month	Normal		CAL.	CAL.	CAL.	MODEL	MODEL	MODEL	Rain	Rain Lag	Rain Lag 2	CDD	CDD Lag	HDD	HDD Lag
			DATE	CLDD	PRCP	HTDD	CLDD	PRCP	HTDD							
2018	1	1	2018.01	0	3.130	1205	0	0.455	119	0.455	-1.980	1.773	0.000	0.000	119	201
2018	2	1	2018.02	2	6.470	732	2	3.092	-148	3.092	0.455	-1.980	1.600	0.000	-148	119
2018	3	1	2018.03	0	2.940	937	-1	-0.381	201	-0.381	3.092	0.455	-0.600	1.600	201	-148
2018	4	1	2018.04	13	4.130	577	1	0.489	184	0.489	-0.381	3.092	1.200	-0.600	184	201
2018	5	1	2018.05	133	5.270	25	55	1.019	-120	1.019	0.489	-0.381	54.800	1.200	-120	184
2018	6	1	2018.06	172	10.110	24	-2	4.135	6	4.135	1.019	0.489	-1.600	54.800	6	-120
2018	7	1	2018.07	281	2.330	0	3	-2.217	-2	-2.217	4.135	1.019	2.500	-1.600	-2	6
2018	8	1	2018.08	262	6.370	0	15	1.366	-3	1.366	-2.217	4.135	14.700	2.500	-3	-2
2018	9	1	2018.09	175	11.900	50	57	8.458	-6	8.458	1.366	-2.217	56.800	14.700	-6	-3
2018	10	1	2018.10	59	4.850	392	33	0.934	85	0.934	8.458	1.366	32.500	56.800	85	-6
2018	11	1	2018.11	0	3.740	798	-2	1.233	143	1.233	0.934	8.458	-1.500	32.500	143	85
2018	12	1	2018.12	0	4.590	773	0	1.260	-85	1.260	1.233	0.934	0.000	-1.500	-85	143
2019	1	1	2019.01	0	2.430	1126	0	-0.245	40	-0.245	1.260	1.233	0.000	0.000	40	-85
2019	2	1	2019.02	0	4.730	846	0	1.352	-34	1.352	-0.245	1.260	-0.400	0.000	-34	40
2019	3	1	2019.03	0	1.920	838	-1	-1.401	102	-1.401	1.352	-0.245	-0.600	-0.400	102	-34
2019	4	1	2019.04	5	4.450	315	-7	0.809	-78	0.809	-1.401	1.352	-6.800	-0.600	-78	102
2019	5	1	2019.05	83	4.860	99	5	0.609	-46	0.609	0.809	-1.401	4.800	-6.800	-46	-78
2019	6	1	2019.06	131	5.660	30	-43	-0.315	12	-0.315	0.609	0.809	-42.600	4.800	12	-46
2019	7	1	2019.07	213	4.060	2	-66	-0.487	0	-0.487	-0.315	0.609	-65.500	-42.600	0	12
2019	8	1	2019.08	315	7.420	0	68	2.416	-3	2.416	-0.487	-0.315	67.700	-65.500	-3	0
2019	9	1	2019.09	147	1.870	4	29	-1.572	-52	-1.572	2.416	-0.487	28.800	67.700	-52	-3
2019	10	1	2019.10	38	6.380	288	12	2.464	-19	2.464	-1.572	2.416	11.500	28.800	-19	-52
2019	11	1	2019.11	0	1.760	797	-2	-0.747	142	-0.747	2.464	-1.572	-1.500	11.500	142	-19
2019	12	1	2019.12	0	3.630	882	0	0.300	25	0.300	-0.747	2.464	0.000	-1.500	25	142
2020	1	1	2020.01	0	3.450	899	0	0.775	-187	0.775	0.300	-0.747	0.000	0.000	-187	25
2020	2	1	2020.02	0	3.600	879	0	0.222	-1	0.222	0.775	0.300	-0.400	0.000	-1	-187
2020	3	1	2020.03	2	5.640	574	1	2.319	-162	2.319	0.222	0.775	1.400	-0.400	-162	-1
2020	4	1	2020.04	0	5.120	505	-12	1.479	112	1.479	2.319	0.222	-11.800	1.400	112	-162
2020	5	1	2020.05	63	2.780	253	-15	-1.471	108	-1.471	1.479	2.319	-15.200	-11.800	108	112
2020	6	1	2020.06	177	2.610	14	3	-3.365	-4	-3.365	-1.471	1.479	3.400	-15.200	-4	108
2020	7	1	2020.07	410	3.120	0	132	-1.427	-2	-1.427	-3.365	-1.471	131.500	3.400	-2	-4
2020	8	1	2020.08	285	5.660	0	38	0.656	-3	0.656	-1.427	-3.365	37.700	131.500	-3	-2
2020	9	1	2020.09	98	1.630	81	-20	-1.812	25	-1.812	0.656	-1.427	-20.200	37.700	25	-3
2020	10	1	2020.10	9	3.130	327	-18	-0.786	20	-0.786	-1.812	0.656	-17.500	-20.200	20	25
2020	11	1	2020.11	0	2.470	517	-2	-0.037	-138	-0.037	-0.786	-1.812	-1.500	-17.500	-138	20
2020	12	1	2020.12	0	2.500	928	0	-0.830	71	-0.830	-0.037	-0.786	0.000	-1.500	71	-138
2021	1	1	2021.01	0	1.830	1029	0	-0.845	-57	-0.845	-0.830	-0.037	0.000	0.000	-57	71
2021	2	1	2021.02	0	2.960	993	0	-0.418	114	-0.418	-0.845	-0.830	-0.400	0.000	114	-57
2021	3	1	2021.03	0	3.220	593	-1	-0.101	-143	-0.101	-0.418	-0.845	-0.600	-0.400	-143	114
2021	4	1	2021.04	16	2.330	399	4	-1.311	6	-1.311	-0.101	-0.418	4.200	-0.600	6	-143



Month	NORMAL	NORMAL	NORMAL
	CAL.	CAL.	CAL.
	CLDD	PRCP	HTDD
1	0	2.675	1086
2	0	3.378	880
3	1	3.321	736
4	12	3.641	393
5	78	4.251	145
6	174	5.975	18
7	279	4.547	2
8	247	5.004	3
9	118	3.442	56
10	27	3.916	307
11	2	2.507	655
12	0	3.330	858

Normal Start: 2013.07  
 Normal End 2023.06  
 Normal Months 120.00



## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	COVID	COVID	COVID	
1	2008	1	578987	2652382	0	42370	1054535	0	2293	230990	0	843	357816	0	22	48398	0	6631616	0	0	0
2	2008	2	579235	2345982	0	42342	960424	0	2293	197559	0	843	384249	0	22	45706	0	6131911	0	0	0
3	2008	3	579614	2173053	0	42358	918425	0	2355	189383	0	843	381354	0	21	49794	0	6437546	0	0	0
4	2008	4	580127	2372217	0	42633	1031332	0	2477	211992	0	843	385702	0	20	44869	0	6215398	0	0	0
5	2008	5	580106	2377272	0	42734	1042963	0	2503	194427	0	842	460582	0	20	48884	0	6415951	0	0	0
6	2008	6	580539	2603258	0	42744	1112866	0	2521	224088	0	828	331628	0	20	52940	0	6643926	0	0	0
7	2008	7	580901	2723529	0	42873	1206788	0	2526	242539	0	831	445968	0	20	49241	0	6900382	0	0	0
8	2008	8	582223	2652609	0	42895	1226019	0	2536	230467	0	823	434150	0	20	57678	0	6982442	0	0	0
9	2008	9	582538	2667523	0	42776	1278607	0	2506	266544	0	810	444817	0	20	57308	0	6449154	0	0	0
10	2008	10	582620	2608924	0	42684	1181856	0	2400	262140	0	808	453528	0	20	56547	0	6288745	0	0	0
11	2008	11	582823	21110860	0	42617	920291	0	2335	185250	0	800	350068	0	20	48727	0	6077960	0	0	0
12	2008	12	582800	2454428	0	42589	1055671	0	2323	204200	0	804	336538	0	21	56984	0	6424172	0	0	0
13	2009	1	582785	2544922	0	42552	971953	0	2315	192890	0	800	306883	0	21	43140	0	6647774	0	0	0
14	2009	2	583025	2307932	0	42592	983208	0	2316	187963	0	797	341933	0	21	47727	0	6010903	0	0	0
15	2009	3	583414	2291848	0	42656	1047015	0	2376	195977	0	794	347796	0	21	42909	0	6345921	0	0	0
16	2009	4	583808	2302642	0	42837	979761	0	2484	195859	0	788	324310	0	21	44978	0	6038039	0	0	0
17	2009	5	583529	2284518	0	43022	980840	0	2505	172705	0	771	328163	0	21	52197	0	6364558	0	0	0
18	2009	6	583419	2621962	0	43030	1154195	0	2516	221170	0	758	349717	0	21	57494	0	6229429	0	0	0
19	2009	7	583627	2656779	0	43079	1166278	0	2519	217505	0	745	344799	0	21	46020	0	6543924	0	0	0
20	2009	8	584272	2402500	0	43124	1124622	0	2524	210990	0	734	352846	0	21	55862	0	6538560	0	0	0
21	2009	9	584347	2463035	0	43123	1156482	0	2504	230924	0	728	356164	0	20	48670	0	6248347	0	0	0
22	2009	10	585660	2470712	0	43069	1152311	0	2425	213833	0	740	335439	0	20	53877	0	6206123	0	0	0
23	2009	11	585774	2174790	0	42959	954294	0	2361	189911	0	728	301920	0	20	43605	0	5879757	0	0	0
24	2009	12	585777	2436213	0	42874	1088018	0	2324	189335	0	716	316209	0	20	45847	0	6194813	0	0	0
25	2010	1	585774	2469856	0	42911	951134	0	2327	179823	0	700	305106	0	21	48192	0	6444779	0	0	0
26	2010	2	586358	2286153	0	42923	938611	0	2322	173086	0	706	320624	0	21	42369	0	5725281	0	0	0
27	2010	3	586868	2247465	0	43112	1012084	0	2404	190893	0	692	348259	0	21	49748	0	6209066	0	0	0
28	2010	4	587242	2354074	0	43365	1005599	0	2529	195402	0	689	348733	0	21	42915	0	5926841	0	0	0
29	2010	5	586881	2249638	0	43671	1015483	0	2550	195611	0	674	340308	0	21	43407	0	6187620	0	0	0
30	2010	6	586752	2631401	0	43693	1136425	0	2560	217038	0	654	382515	0	21	47769	0	6203765	0	0	0
31	2010	7	586952	2800080	0	43701	1248292	0	2566	230428	0	653	430937	0	21	51761	0	6913912	0	0	0
32	2010	8	587454	2638351	0	43814	1230538	0	2577	234245	0	645	432784	0	21	51357	0	6761184	0	0	0
33	2010	9	587623	2647376	0	43873	1278440	0	2552	246721	0	633	413505	0	21	51409	0	6395070	0	0	0
34	2010	10	587530	2372625	0	43683	1140391	0	2475	219969	0	625	387036	0	21	44413	0	6103778	0	0	0
35	2010	11	587440	2147926	0	43530	1000427	0	2378	180401	0	622	344908	0	21	41718	0	5828126	0	0	0
36	2010	12	587386	2371303	0	43385	1039150	0	2362	181502	0	618	341460	0	21	53383	0	6318149	0	0	0
37	2011	1	587484	2425037	0	43418	1001877	0	2358	164299	0	618	322510	0	22	47113	0	6465805	0	0	0
38	2011	2	587848	2216258	0	43473	960045	0	2361	163655	0	619	343897	0	22	44013	0	5849485	0	0	0
39	2011	3	588189	2268045	0	43486	994168	0	2405	173241	0	616	356029	0	22	33348	0	6204788	0	0	0
40	2011	4	588540	2178101	0	43672	972402	0	2531	170091	0	616	348628	0	22	62849	0	5867241	0	0	0
41	2011	5	588252	2264481	0	43907	1003179	0	2560	176663	0	616	337072	0	22	38318	0	6215843	0	0	0
42	2011	6	588060	2655332	0	43972	1165958	0	2584	203346	0	617	389572	0	22	52153	0	6330499	0	0	0
43	2011	7	588071	2573253	0	44231	1187348	0	2465	202579	0	531	390917	0	22	51307	0	6891526	0	0	0
44	2011	8	588566	2702485	0	44282	1275601	0	2469	221253	0	532	427654	0	24	56780	0	6443606	0	0	0
45	2011	9	588430	2428060	0	44304	1219229	0	2457	204603	0	532	393004	0	24	44438	0	5927751	0	0	0
46	2011	10	588423	2220599	0	44111	1074957	0	2381	184136	0	534	349589	0	23	47116	0	5987956	0	0	0
47	2011	11	588386	2114682	0	43925	982710	0	2306	170667	0	527	341162	0	23	46021	0	5713879	0	0	0
48	2011	12	588325	2281348	0	43870	1070460	0	2287	159891	0	522	316788	0	23	50425	0	5953578	0	0	0
49	2012	1	588478	2373058	0	43823	991217	0	2275	156467	0	525	301755	0	23	54887	0	6059895	0	0	0
50	2012	2	588917	2139219	0	43845	950543	0	2273	153319	0	525	334179	0	24	46476	0	5530920	0	0	0
51	2012	3	589346	2178692	0	44040	1008589	0	2379	155438	0	524	332606	0	23	54709	0	5804740	0	0	0
52	2012	4	589823	2156937	0	44210	998665	0	2439	158829	0	523	359374	0	23	52288	0	5587528	0	0	0

PENNSYLVANIA SALES-USAGE DATA

Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust		COVID	COVID	COVID
53	2012	5	589334	2311424	0	44393	1066179	0	2463	174726	0	523	345813	0	23	51671	0	6040320	0	0	0
54	2012	6	589419	2549736	0	44452	1173183	0	2473	193956	0	524	351995	0	24	64471	0	6140070	0	0	0
55	2012	7	589443	2773942	0	44516	1293051	0	2475	225565	0	521	366602	0	24	73914	0	6481278	0	0	0
56	2012	8	590100	2449467	0	44583	1255261	0	2475	200785	0	519	385328	0	24	66278	0	6223900	0	0	0
57	2012	9	590129	2416762	0	44549	1246222	0	2465	219678	0	519	389690	0	24	70987	0	5740033	0	0	0
58	2012	10	590545	2204784	0	44462	1174272	0	2384	177588	0	520	330064	0	24	62298	0	5740995	0	0	0
59	2012	11	590508	2170799	0	44339	1060476	0	2286	162920	0	520	311824	0	25	69898	0	5546140	0	0	0
60	2012	12	590808	2227324	0	44302	1001751	0	2271	147316	0	517	269665	0	25	66299	0	5737818	0	0	0
61	2013	1	590977	2332430	0	44221	1026353	0	2271	145747	0	515	307466	0	25	63673	0	6006753	0	0	0
62	2013	2	591470	2170196	0	44227	994205	0	2274	156201	0	515	336955	0	24	63704	0	5444808	0	0	0
63	2013	3	592105	2117255	0	44310	992308	0	2303	148579	0	516	307125	0	24	68006	0	5828003	0	0	0
64	2013	4	592264	2153601	0	44509	993196	0	2440	156419	0	516	325419	0	24	62345	0	5658900	0	0	0
65	2013	5	591781	2262238	0	44697	1062781	0	2455	176010	0	515	359257	0	24	70195	0	6135744	0	0	0
66	2013	6	591733	2505865	0	44728	1169406	0	2463	192267	0	515	320471	0	24	63309	0	6038812	0	0	0
67	2013	7	591888	2372267	0	44780	1167967	0	2465	170229	0	515	365797	0	24	69761	0	6264270	0	0	0
68	2013	8	592369	2414428	0	44820	1212792	0	2464	191285	0	512	383426	0	24	72715	0	6056784	0	0	0
69	2013	9	592245	2323869	0	44760	1228046	0	2464	180458	0	513	424502	0	24	60609	0	5801582	0	0	0
70	2013	10	597092	2153860	0	44973	1094491	0	2406	176954	0	513	308519	0	24	68659	0	5854564	0	0	0
71	2013	11	596889	2143493	0	44816	1001988	0	2302	147394	0	528	302969	0	24	50226	0	5488085	0	0	0
72	2013	12	596793	2157024	0	44800	928260	0	2299	65298	80000	528	116300	160000	24	6126	50000	5825969	0	0	0
73	2014	1	597327	2364109	0	44757	1075158	0	2300	230114	-80000	528	473761	-160000	25	115081	-50000	6322281	0	0	0
74	2014	2	596962	2283430	0	44735	1056146	0	2300	163740	0	528	381299	-50000	24	73370	0	5802555	0	0	0
75	2014	3	597062	2048745	0	44743	1050009	0	2344	159285	0	528	369841	-40000	24	55893	0	6107581	0	0	0
76	2014	4	596881	2190953	0	44826	1035595	0	2421	192262	-30000	529	504466	-140000	24	69313	0	5681926	0	0	0
77	2014	5	596409	2154777	0	44935	1032792	0	2449	132861	30000	528	428443	-40000	24	60641	0	6001100	0	0	0
78	2014	6	596756	2291459	0	44934	1073051	0	2454	183940	0	529	225625	140000	24	58216	0	5951353	0	0	0
79	2014	7	597147	2444625	0	44926	1201938	0	2455	187139	0	528	429447	-30000	24	79139	0	6243420	0	0	0
80	2014	8	597203	2371306	0	44971	1202098	0	2454	182785	0	528	193069	160000	24	64054	0	6147136	0	0	0
81	2014	9	597462	2349630	0	44955	1174634	0	2445	195962	0	528	382440	0	24	66766	0	5920775	0	0	0
82	2014	10	597524	2164563	0	44813	1143875	0	2397	186890	0	525	355703	0	24	58487	0	5835349	0	0	0
83	2014	11	597335	2081455	0	44628	1039125	0	2298	165255	0	524	331209	0	24	63192	0	5576026	0	0	0
84	2014	12	597479	2159590	0	44599	1027776	0	2278	147993	0	525	342136	0	24	57826	0	5819770	0	0	0
85	2015	1	597621	2254798	0	44515	979228	0	2262	140413	0	524	288163	0	24	59803	0	6056894	0	0	0
86	2015	2	597822	2037073	0	44477	958041	0	2260	150902	0	524	348566	0	24	57242	0	5691028	0	0	0
87	2015	3	598207	2155256	0	44543	1039817	0	2322	157555	0	525	328631	0	25	48632	0	6334397	0	0	0
88	2015	4	598625	2134677	0	44714	1053328	0	2412	159030	0	524	287682	0	24	72477	0	5730349	0	0	0
89	2015	5	597986	2155022	0	44854	1040192	0	2423	168230	0	523	331956	0	24	51663	0	6192238	0	0	0
90	2015	6	598123	2374625	0	44904	1149823	0	2424	180068	0	522	348705	0	24	68471	0	5815290	0	0	0
91	2015	7	598212	2282829	0	44963	1189309	0	2439	172289	0	522	360843	0	23	74446	0	6093272	0	0	0
92	2015	8	598580	2492964	0	44962	1285547	0	2444	192705	0	521	369747	0	23	44793	0	6355915	0	0	0
93	2015	9	598960	2360954	0	44944	1378537	0	2444	195650	0	522	407499	0	23	62859	0	5964960	0	0	0
94	2015	10	598874	2194453	0	44830	1138523	0	2381	172193	0	523	338968	0	22	61975	0	5771601	0	0	0
95	2015	11	599240	2069520	0	44667	1023543	0	2274	160003	0	521	324588	0	22	55431	0	5448471	0	0	0
96	2015	12	599380	2258024	0	44603	1110894	0	2254	156651	-10000	520	320615	0	22	62038	0	5617996	0	0	0
97	2016	1	599524	2151324	0	44615	968680	0	2252	154782	-10000	519	284548	0	22	59839	0	5878329	0	0	0
98	2016	2	600159	1947744	0	44655	973578	0	2245	105794	40000	520	238145	20000	22	49258	0	5555033	0	0	0
99	2016	3	600642	2031663	0	44775	1006630	0	2310	152818	-10000	519	371140	-20000	22	55663	0	5708125	0	0	0
100	2016	4	600940	2203104	0	44858	1055770	0	2409	159961	-10000	520	327022	0	22	59323	0	5526353	0	0	0
101	2016	5	601028	2043971	0	45003	996008	0	2431	145875	0	520	351260	0	22	50962	0	5865651	0	0	0
102	2016	6	601147	2347125	0	45047	1145373	0	2436	168833	0	520	410648	0	22	59998	0	5961033	0	0	0
103	2016	7	601359	2543747	0	45075	1233279	0	2440	172930	0	521	367622	0	22	70256	0	6220756	0	0	0
104	2016	8	602054	2265070	0	45107	1202830	0	2441	174071	0	521	282117	0	22	62736	0	6156705	0	0	0

## PENNSYLVANIA SALES-USAGE DATA

## Not Including Shale Gas

Obs	DU Year	Month	Res	Res	Res	Com	Com	Com	OPA	OPA	OPA	Ind	Ind	Ind	Resale	Resale	Resale	Production	Res	Com	OPA
			Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	Cust	Sales	Adjust	COVID	COVID	COVID	
105	2016	9	602368	2396708	0	45038	1266264	0	2428	194424	0	522	404821	0	22	67138	0	5852848	0	0	0
106	2016	10	602465	2205627	0	44919	1137202	0	2384	175527	0	522	350877	0	22	58709	0	5710839	0	0	0
107	2016	11	602625	1965947	0	44797	978002	0	2259	145357	0	522	308153	0	22	54741	0	5433605	0	0	0
108	2016	12	602856	2072587	0	44788	984376	0	2259	138989	0	522	276562	0	22	58906	0	5728515	0	0	0
109	2017	1	603389	2313944	0	44757	1026720	0	2234	143333	0	522	309438	0	22	66214	0	5739165	0	0	0
110	2017	2	603795	2033582	0	44737	951842	0	2232	148106	0	522	307520	0	22	56046	0	4988547	0	0	0
111	2017	3	604388	1888418	0	44792	946083	0	2303	127833	0	522	284309	0	22	51404	0	5506276	0	0	0
112	2017	4	604497	2176537	0	45033	1024370	0	2391	132929	0	523	282155	0	22	57841	0	5529878	0	0	0
113	2017	5	604466	2035704	0	45147	1056532	0	2424	159216	0	523	341843	0	22	47322	0	5759405	0	0	0
114	2017	6	604646	2381865	0	45183	1129991	0	2428	172979	0	522	328432	0	22	65138	0	5746987	0	0	0
115	2017	7	604712	2331325	0	45215	1148907	0	2424	173017	0	522	365190	0	22	64021	0	5965476	0	0	0
116	2017	8	605210	2115991	0	45253	1133146	0	2427	172017	0	523	356493	0	22	54737	0	5908649	0	0	0
117	2017	9	605274	2294462	0	45254	1185156	0	2417	177470	0	523	370340	0	22	66547	0	5678537	0	0	0
118	2017	10	605542	2070079	0	45186	1112129	0	2373	164114	0	525	347764	0	22	55117	0	5705670	0	0	0
119	2017	11	605539	2041047	0	45030	989904	0	2240	146403	0	525	272098	0	22	48919	0	5312470	0	0	0
120	2017	12	605770	2154098	0	44995	1050636	0	2225	143072	0	525	338672	0	22	68029	0	5635817	0	0	0
121	2018	1	605987	2261765	0	44995	1023824	0	2218	142275	0	523	290352	0	22	63920	0	6357897	0	0	0
122	2018	2	606288	2143648	0	45017	1039240	0	2219	162647	0	523	334453	0	22	58971	0	5389598	0	0	0
123	2018	3	606729	1903550	0	45026	939563	0	2247	132711	0	522	308866	0	22	46989	0	5868848	0	0	0
124	2018	4	607071	2038092	0	45211	986816	0	2381	135346	0	522	323474	0	22	50101	0	5647760	0	0	0
125	2018	5	606742	2067698	0	45307	919600	0	2399	153806	0	521	318389	0	22	60058	0	6026165	0	0	0
126	2018	6	606877	2308300	0	45315	1246948	0	2401	175766	0	521	377843	0	22	60059	0	5921493	0	0	0
127	2018	7	607090	2281037	0	45329	1154181	0	2400	176090	0	521	356276	0	22	58795	0	6312397	0	0	0
128	2018	8	607391	2164390	0	45357	1145609	0	2398	172395	0	521	370693	0	22	56269	0	6007767	0	0	0
129	2018	9	607368	2273197	0	45319	1210549	0	2391	207208	0	522	376437	0	22	57845	0	5749749	0	0	0
130	2018	10	607602	2012343	0	45159	1078514	0	2340	158181	0	523	382073	0	23	59437	0	5731371	0	0	0
131	2018	11	607787	2063613	0	45035	1024229	0	2244	150619	0	521	306185	0	22	54011	0	5472280	0	0	0
132	2018	12	607947	2036897	0	44989	979257	0	2234	139876	0	523	269540	0	23	62366	0	5733739	0	0	0
133	2019	1	608339	2158382	0	45063	956835	0	2231	141030	0	522	296514	0	22	55756	0	5830681	0	0	0
134	2019	2	608788	2091242	0	45067	978793	0	2232	148737	0	521	294523	0	22	54291	0	5537762	0	0	0
135	2019	3	609106	1953107	0	45113	950982	0	2259	151516	0	521	322251	0	22	57165	0	5834470	0	0	0
136	2019	4	609423	1948955	0	45230	944298	0	2351	166277	0	522	292449	0	22	54847	0	5566284	0	0	0
137	2019	5	609341	2028709	0	45363	1002505	0	2380	152948	0	522	313134	0	22	51023	0	5925671	0	0	0
138	2019	6	609185	2278534	0	45392	1076783	0	2381	168441	0	523	331235	0	22	56415	0	5810436	0	0	0
139	2019	7	609916	2185039	0	45464	1107107	0	2384	160889	0	523	331421	0	22	57814	0	6225171	0	0	0
140	2019	8	610054	2250213	0	45493	1194214	0	2386	187993	0	523	347492	0	23	64476	0	6273923	0	0	0
141	2019	9	610572	2269703	0	45493	1173426	0	2376	190054	0	523	363806	0	22	62909	0	6058410	0	0	0
142	2019	10	613052	2024240	0	45489	1098226	0	2318	164815	0	534	317578	0	22	57221	0	5974121	0	0	0
143	2019	11	613091	2075722	0	45317	1033986	0	2212	144694	0	533	306507	0	23	56045	0	5773307	0	0	0
144	2019	12	613460	2023445	0	45299	989151	0	2198	138263	0	532	314518	0	22	65878	0	5896591	0	0	0
145	2020	1	613855	2126416	0	45311	931230	0	2197	131397	0	531	280100	0	22	58314	0	5866351	0	0	0
146	2020	2	614148	2074991	0	45334	978886	0	2197	154003	0	530	332124	0	22	56644	0	5356535	0	0	0
147	2020	3	614940	1912268	0	45361	920067	0	2277	131943	0	525	310569	0	22	52197	0	5484517	0	0	0
148	2020	4	615330	2192496	0	45484	818423	0	2320	87429	0	528	328264	0	22	52250	0	5255666	1	1	1
149	2020	5	615811	2220773	0	45635	800388	0	2350	79860	0	530	293525	0	23	53057	0	5713103	1	1	1
150	2020	6	616730	2461502	0	45742	910797	0	2366	115467	0	530	322201	0	25	62755	0	5903511	1	1	1
151	2020	7	617571	2585941	0	45786	1108774	0	2370	151492	0	529	339776	0	25	62795	0	6478120	1	1	1
152	2020	8	618309	2656758	0	45852	1134650	0	2375	158517	0	532	383558	0	24	65049	0	6318650	1	1	1
153	2020	9	618810	2393470	0	45848	1113708	0	2378	158350	0	534	345805	0	24	73057	0	5845487	1	1	1
154	2020	10	619258	2204669	0	45692	1014772	0	2305	136532	0	534	300435	0	24	55056	0	5785603	1	1	1
155	2020	11	619675	2171382	0	45639	1012584	0	2217	121935	0	533	294749	0	24	63389	0	5506322	1	1	1
156	2020	12	620045	2099373	0	45623	890783	0	2207	88308	20000	535	309933	0	24	49631	0	5674935	0.4	0.4	0.4





Pennsylvania-American Water Company  
Revenue Decoupling Mechanism Cost Component Calculations

Water Service

		Total	Residential	Commercial	Industrial	Pub. Auth.	OWU-A	OWU-B	Total	Reference
Source of Supply	Purchased Water	\$ 3,099,741	\$ 1,762,200	\$ 914,845	\$ 262,507	\$ 133,427	\$ 53	\$ 949	\$ 3,073,981	Water Cost of Service
	Purchased Power	\$ 2,955,902	\$ 1,680,428	\$ 872,393	\$ 250,326	\$ 127,236	\$ 50	\$ 905	\$ 2,931,337	Water Cost of Service
	Purchased Fuel	\$ 67,006	\$ 38,093	\$ 19,776	\$ 5,675	\$ 2,884	\$ 1	\$ 21	\$ 66,449	Water Cost of Service
Water Treatment	Purchased Power	\$ 12,368,422	\$ 7,031,439	\$ 3,650,365	\$ 1,047,443	\$ 532,394	\$ 210	\$ 3,785	\$ 12,265,636	Water Cost of Service
	Chemicals	\$ 23,183,305	\$ 13,179,693	\$ 6,842,224	\$ 1,963,322	\$ 997,916	\$ 393	\$ 7,095	\$ 22,990,643	Water Cost of Service
	Waste Disposal	\$ 2,797,872	\$ 1,590,588	\$ 825,752	\$ 236,943	\$ 120,433	\$ 47	\$ 856	\$ 2,774,621	Water Cost of Service
Production Cost	Total	\$ 44,472,248	\$ 25,282,442	\$ 13,125,355	\$ 3,766,217	\$ 1,914,289	\$ 754	\$ 13,611	\$ 44,102,668	
Revenue			\$ 657,085,231	\$ 254,604,000	\$ 48,143,685	\$ 26,209,929	\$ 53,666	\$ 277,021	\$ 986,373,532	Exhibit 10-A Water Operations
Usage			244,720,725	127,063,605	36,459,701	18,531,842	7,251	131,893	426,915,017	Exhibit 10-A Water Operations
Customers			632,960	47,285	549	2,310	1	1	683,106	FR II.09 Average of customer counts for 12-months ended June 2024 and June 2025
			Volumetric Charge (VC):						\$ 0.1033	
Variable Revenues		\$ 25,280,996	\$ 13,126,369	\$ 3,766,487	\$ 1,914,441	\$ 749	\$ 13,625	\$ 44,102,668		
Fixed Revenue		\$ 631,804,235	\$ 241,477,631	\$ 44,377,198	\$ 24,295,488	\$ 52,917	\$ 263,396	\$ 942,270,864		
Fixed Charge per Month		\$ 83.18	\$ 425.57	\$ 6,736.07	\$ 876.46	\$ 4,409.74	\$ 21,949.64			
Fixed Charge Revenue		\$ 147,703,375	\$ 41,188,559	\$ 4,113,325	\$ 3,973,974	\$ 44,892	\$ 48,846	\$ 197,072,971	Exhibit 10-A Water Operations	
Variable Charge Revenue		\$ 509,381,856	\$ 213,415,441	\$ 44,030,360	\$ 22,235,955	\$ 8,774	\$ 228,175	\$ 789,300,561		
				\$ 1,999,839	industrial contract fixed revenue				Exhibit 10-A Water Operations	
				\$ 2,482,260	industrial contract variable revenue				Exhibit 10-A Water Operations	
				\$ 153,596	resale contract fixed revenue				Exhibit 10-A Water Operations	
				\$ 3,162,494	resale contract variable revenue				Exhibit 10-A Water Operations	
				\$ 18,151,353	fire revenue				Exhibit 10-A Water Operations	
				\$ 11,031,091	other				Exhibit 10-A Water Operations	
				\$ 1,023,354,165	total					

Pennsylvania-American Water Company  
Revenue Decoupling Mechanism Cost Component Calculations

Wastewater Service - SSS

		Total	Residential	Non-Residential	Large Industrial	Bulk VA/Hosp	Bulk - Contract	Total	Reference
Sewage Treatment	Purchased Power	\$ 3,234,166	\$ 1,525,959	\$ 636,810	\$ 39,244	\$ 92,452	\$ 939,702	\$ 3,234,166	SSS Wastewater Cost of Service
	Chemicals	\$ 1,810,725	\$ 854,345	\$ 356,534	\$ 21,972	\$ 51,761	\$ 526,114	\$ 1,810,725	SSS Wastewater Cost of Service
	Misc. Operating Expense - Waste Disposal	\$ 2,572,562	\$ 1,213,798	\$ 506,540	\$ 31,216	\$ 73,539	\$ 747,469	\$ 2,572,562	SSS Wastewater Cost of Service
Collection	Purchased Power	\$ 92,962	\$ 66,629	\$ 24,238	\$ 974	\$ 1,121	\$ -	\$ 92,962	SSS Wastewater Cost of Service
Production Cost	Total	\$ 7,710,415	\$ 3,660,730	\$ 1,524,122	\$ 93,405	\$ 218,873	\$ 2,213,286	\$ 7,710,415	
Revenue			\$ 60,277,357	\$ 20,704,933	\$ 1,299,305	\$ 2,076,363	\$ 9,778,961	\$ 94,136,919	Exhibit 10-B WW SSS Operations
Usage			19,261,924	8,923,126	631,588	1,665,419	18,684,743	49,166,800	Exhibit 10-B WW SSS Operations
Customers			52,485	3,616	6	8	1	56,116	FR II.09 Average of customer counts for 12-months ended June 2024 and June 2025
			Volumetric Charge (VC):					\$ 0.1568	
Variable Revenues		\$ 3,020,685	\$ 1,399,339	\$ 99,047	\$ 261,174	\$ 2,930,171	\$ 7,710,415		
Fixed Revenue		\$ 57,256,672	\$ 19,305,594	\$ 1,200,258	\$ 1,815,189	\$ 6,848,790	\$ 86,426,504		
Fixed Charge per Month		\$ 90.91	\$ 444.91	\$ 16,670.26	\$ 18,908.22	\$ 570,732.51			
Fixed Charge Revenue		\$ 12,055,084	\$ 3,759,373	\$ 364,554	\$ 107,144	\$ -	\$ 16,286,155	Exhibit 10-B WW SSS Operations	
Variable Charge Revenue		\$ 48,222,273	\$ 16,945,560	\$ 934,751	\$ 1,969,219	\$ 9,778,961	\$ 77,850,764		
			Customers	Usage	Total Revenue	Fixed Revenue			
commercial		3,423	\$ 8,000,281	\$ 18,219,315	\$ 3,057,425			Exhibit 10-B WW SSS Operations / FR II.09	
industrial		28	\$ 916,639	\$ 2,333,791	\$ 856,103			Exhibit 10-B WW SSS Operations / FR II.09	
municipal		145	\$ 637,795	\$ 1,451,132	\$ 210,399			Exhibit 10-B WW SSS Operations / FR II.09	
bulk		35	\$ 20,350,161	\$ 9,778,961	\$ 107,144			Exhibit 10-B WW SSS Operations / FR II.09	
large industrial		6	\$ 631,588	\$ 1,299,305	\$ 364,554			Exhibit 10-B WW SSS Operations / FR II.09	
bulk VA/Hosp		8	\$ 1,665,419	\$ 2,076,363	\$ 107,144			Exhibit 10-B WW SSS Operations / FR II.09	
Bulk - Contract		1	\$ 18,684,743	\$ 7,702,598	\$ -			Exhibit 10-B WW SSS Operations / FR II.09	

Pennsylvania-American Water Company  
Revenue Decoupling Mechanism Cost Component Calculations

Wastewater Service - CSS

		Total	Residential	Non-Residential	Industrial	Bulk	CSO Stormwater	Total	Reference
Sewage Treatment	Purchased Power	\$ 1,408,498	\$ 331,417	\$ 203,028	\$ 27,658	\$ 76,478	\$ 769,917	\$ 1,408,498	CSS Wastewater Cost of Service
	Chemicals	\$ 2,105,466	\$ 1,092,714	\$ 669,405	\$ 91,190	\$ 252,156	\$ -	\$ 2,105,466	CSS Wastewater Cost of Service
	Waste Disposal	\$ 1,344,100	\$ 697,573	\$ 427,339	\$ 58,215	\$ 160,973	\$ -	\$ 1,344,100	CSS Wastewater Cost of Service
Collection	Purchased Power	\$ 44,450	\$ 10,459	\$ 6,407	\$ 873	\$ 2,414	\$ 24,297	\$ 44,450	CSS Wastewater Cost of Service
Production Cost	Total	\$ 4,902,514	\$ 2,132,164	\$ 1,306,179	\$ 177,936	\$ 492,021	\$ 794,214	\$ 4,902,514	
Reallocation			\$ 450,637	\$ 252,401	\$ 40,505	\$ 50,671	\$ (794,214)	\$ -	
Revenue			\$ 46,347,480	\$ 20,866,852	\$ 2,267,854	\$ 8,253,737		\$ 77,735,923	Exhibit 10-B WW CSS Operations
Usage			15,320,595	10,064,528	1,269,373	4,724,512		31,379,008	Exhibit 10-B WW CSS Operations
Customers			38,394	3,960	35	9		42,398	FR II.09 Average of customer counts for 12-months ended June 2024 and June 2025
			Volumetric Charge (VC):					\$ 0.1562	
Variable Revenues		\$ 2,393,620	\$ 1,572,436	\$ 198,321	\$ 738,136			\$ 4,902,514	
Fixed Revenue		\$ 43,953,860	\$ 19,294,416	\$ 2,069,533	\$ 7,515,601			\$ 72,833,409	
Fixed Charge per Month		\$ 95.40	\$ 406.03	\$ 4,927.46	\$ 69,588.90				
Fixed Charge Revenue		\$ 9,385,905	\$ 2,984,537	\$ 49,762	\$ 180,110			\$ 12,600,314	Exhibit 10-B WW CSS Operations
Variable Charge Revenue		\$ 36,961,575	\$ 17,882,315	\$ 2,218,092	\$ 8,073,627			\$ 65,135,609	



Pennsylvania-American Water Company  
Revenue Decoupling Mechanism Cost Component Calculations

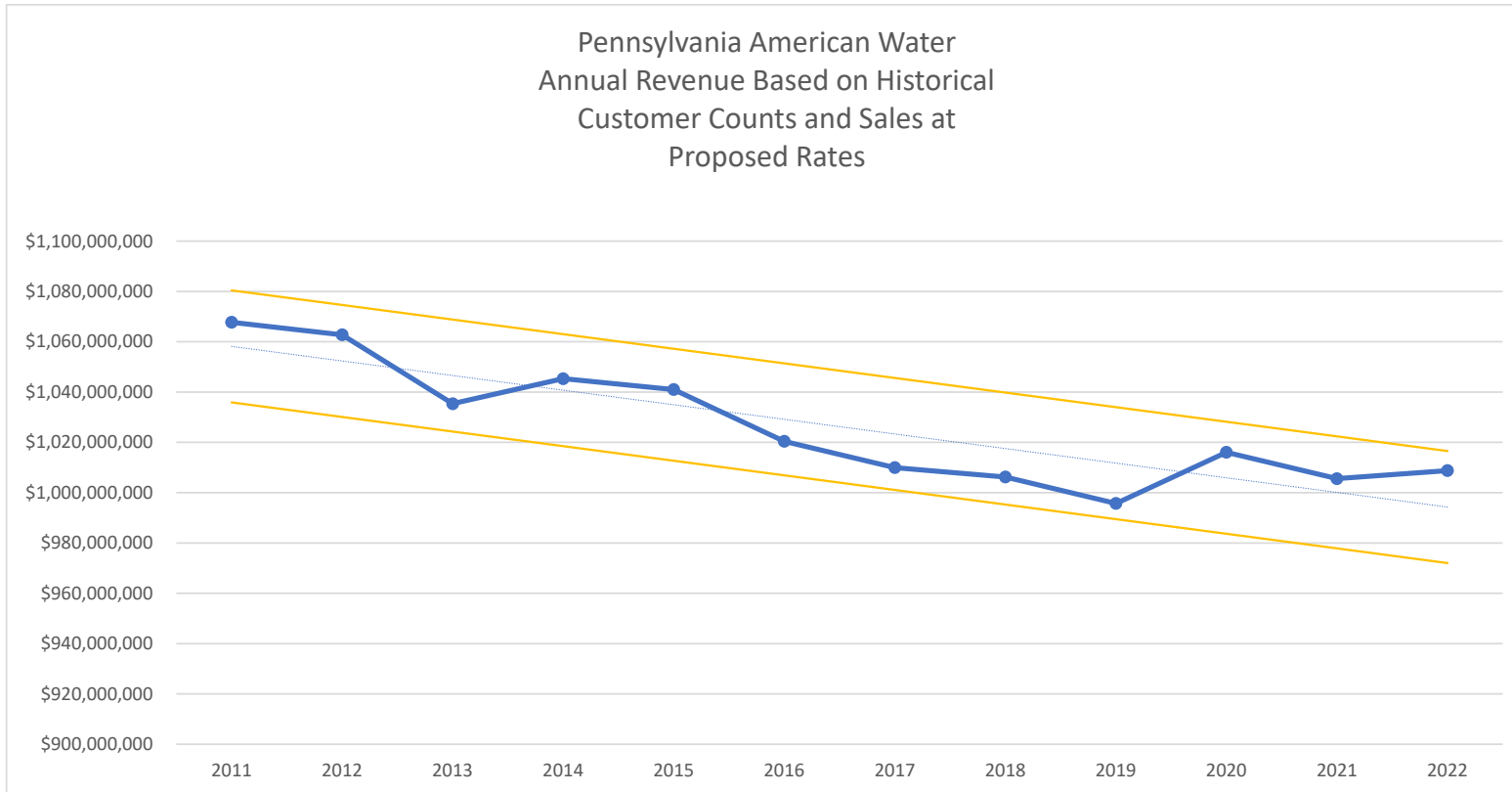
Wastewater Service - BASA

		Total	Residential	Non-Residential	Total	Reference
Sewage Treatment	Purchased Power	\$ 368,561	\$ 286,926	\$ 81,635	\$ 368,561	BASA Wastewater Cost of Service
	Chemicals	\$ 221,550	\$ 172,478	\$ 49,072	\$ 221,550	BASA Wastewater Cost of Service
	Waste Disposal	\$ 59,515	\$ 46,333	\$ 13,182	\$ 59,515	BASA Wastewater Cost of Service
Collection	Purchased Power	\$ 10,594	\$ 8,544	\$ 2,050	\$ 10,594	BASA Wastewater Cost of Service
Production Cost	Total	\$ 660,220	\$ 514,281	\$ 145,939	\$ 660,220	
Revenue			\$ 12,170,706	\$ 4,320,902	\$ 16,491,608	Exhibit 10-B WW BASA Operations
Usage			5,146,601	2,753,537	7,900,138	Exhibit 10-B WW BASA Operations
Customers			13,688	1,067	14,755	FR II.09 Average of customer counts for 12-months ended June 2024 and June 2025
			Volumetric Charge (VC):		\$ 0.0836	
Variable Revenues		\$ 430,105	\$ 230,115	\$ 660,220		
Fixed Revenue		\$ 11,740,601	\$ 4,090,787	\$ 15,831,388		
Fixed Charge per Month		\$ 71.48	\$ 319.49			
Fixed Charge Revenue		\$ 1,701,082	\$ 640,800	\$ 2,341,882		Exhibit 10-B WW BASA Operations
Variable Charge Revenue		\$ 10,469,624	\$ 3,680,102	\$ 14,149,726		

Pennsylvania-American Water Company  
Revenue Decoupling Mechanism Cost Component Calculations

Wastewater Service - Brentwood

		Total	Residential	Non-Residential	Total	Reference
Sewage Treatment	Purchased Power	\$ -	\$ -	\$ -	\$ -	Brentwood Wastewater Cost of Service
	Chemicals	\$ -	\$ -	\$ -	\$ -	Brentwood Wastewater Cost of Service
	Waste Disposal	\$ -	\$ -	\$ -	\$ -	Brentwood Wastewater Cost of Service
Collection	Purchased Power	\$ -	\$ -	\$ -	\$ -	Brentwood Wastewater Cost of Service
Production Cost	Total	\$ -	\$ -	\$ -	\$ -	
Revenue			\$ 1,713,458	\$ 469,166	\$ 2,182,624	Exhibit 10-B WW Brentwood Operations
Usage			1,311,259	409,996	1,721,255	Exhibit 10-B WW Brentwood Operations
Customers			3,695	279	3,974	FR II.09 Average of customer counts for 12-months ended June 2024 and June 2025
			Volumetric Charge (VC):		\$ -	
Variable Revenues		\$ -	\$ -	\$ -	\$ -	
Fixed Revenue		\$ 1,713,458	\$ 469,166	\$ 2,182,624		
Fixed Charge per Month		\$ 38.64	\$ 140.13			
Fixed Charge Revenue		\$ 439,387	\$ 66,960	\$ 506,347		Exhibit 10-B WW Brentwood Operations
Variable Charge Revenue		\$ 1,274,071	\$ 402,206	\$ 1,676,277		



Annual Revenue Decline (Forecast):           \$ (5,806,896)  
 Annual Uncertainty:                               \$ 11,128,798 +/- 1 standard deviation above or below the trend line  
 80/20   \$ 14,267,119

Total revenue does not include revenue for fire service or Sales for Resale customers and is not adjusted for acquisitions

**Pennsylvania-American Water Company  
Response to Distribution Rates – Statement of Policy  
Proposed Revenue Stabilization Mechanism**

**52 Pa. Code § 69.3302. Distribution rate considerations.**

(a) In determining just and reasonable alternative distribution ratemaking mechanisms and rate designs that promote the purpose and scope of this statement of policy and the objectives of 66 Pa.C.S. § 1330 (relating to alternative ratemaking for utilities), the Commission may consider, among other relevant factors, the following:

- (1) How the ratemaking mechanism and rate design align revenues with cost causation principles as to both fixed and variable costs.

**The RDM better aligns actual revenue collection with authorized revenues for all customer classes. The RDM specifically treats fixed and variable costs separately by customer class using rate design concepts associated with Straight-Fixed Variable (“SFV”) pricing. The RDM is calculated and administered separately for residential and non-residential customer classes and treats fixed cost and variable cost separately so that fixed cost recovery is aligned with approved fixed costs (per customer) and variable cost recovery is aligned with approved variable costs (per hundred gallons of water). The recovery mechanism is on a volumetric basis.**

- (2) How the ratemaking mechanism and rate design impact the fixed utility’s capacity utilization.

**The Company’s proposed RDM is not expected to impact the fixed utility’s capacity utilization.**

- (3) Whether the ratemaking mechanism and rate design reflect the level of demand associated with the customer’s anticipated consumption levels.

**The Company’s proposed RDM directly reflects changing consumption levels in variable cost recovery. As consumption levels increase, the Company’s variable cost recovery increases, but only by the approved level of production cost per unit delivered or billed. The opposite is true whereas consumption levels decrease, the Company’s variable cost recovery decreases, but only by the approved level of production cost per unit delivered or billed.**

- (4) How the ratemaking mechanism and rate design limit or eliminate interclass and intraclass cost shifting.

**The proposed RDM would apply to both water and wastewater service with separate tariffs and separate recovery/credit mechanisms for residential and**

**nonresidential customers. The proposed RDM will not affect interclass or intraclass cost shifting between residential and non-residential customer classes.**

- (5) How the ratemaking mechanism and rate design limit or eliminate disincentives for the promotion of efficiency programs.

**The proposed RDM reduces the throughput incentive, which gives the Company an incentive to collect more revenue when customers increase consumption. By connecting variable cost recovery directly to approved levels of production cost but not to fixed cost, the RDM removes this incentive from the Company and therefore eliminates any disincentives for the promotion of water efficiency efforts.**

- (6) How the ratemaking mechanism and rate design impact customer incentives to employ efficiency measures and distributed energy resources.

**See response to item (5). The proposed mechanism encourages water efficiency by reducing the throughput incentive. In addition, if customers employ efficiency measures, those measures will far outweigh any surcharges that may result from the proposed RDM.**

- (7) How the ratemaking mechanism and rate design impact low-income customers and support consumer assistance programs.

**The proposed RDM does not have any specific impacts on low-income customers that do not apply to residential customers generally. Because the recovery mechanism is volumetric in nature, lower-use low-income customers will not be adversely impacted.**

- (8) How the ratemaking mechanism and rate design impact customer rate stability principles.

**The proposed RDM will, by definition, improve rate stability. In years where revenues are relatively low relative to SFV pricing and fixed costs are under recovered, rates would increase slightly in the next year to bring actual revenues back up. The opposite would be true in years where usage resulted in revenues that were higher than that implied by SFV pricing, which represents a scenario where fixed costs are over-recovered. In higher revenue years, the RDM will reduce rates which would offset higher revenues from the year before and “smooth out” revenues over the longer term.**

- (9) How weather impacts utility revenue under the ratemaking mechanism and rate design.

**Weather will still have an impact on revenues but only to the extent that variable costs are impacted. Under the proposed RDM, volatility of utility revenue and**

**customer bills would be reduced over the long term. Increases in fixed cost recovery revenue due to abnormal weather variations (e.g., drought conditions) would be returned to customers in the following year, and reductions in fixed cost recovery due to abnormal weather variations (e.g., excessive rainfall) would be collected from customers in the following year.**

- (10) How the ratemaking mechanism and rate design impact the frequency of rate case filings and affect regulatory lag.

**To the extent that future rate cases are driven by lower-than-expected usage, the RDM likely would result in fewer rate cases, or at least rate cases seeking lower rate increases. However, the RDM does not affect future revenue requirements and does not recover fixed costs that are incurred after a rate case that are over and above those approved by the Commission. Therefore, if future rate cases are driven by future investment needs and associated cost recovery, the RDM would not reduce the need for such cases.**

- (11) If or how the ratemaking mechanism and rate design interact with other revenue sources, such as Section 1307 automatic adjustment surcharges, 66 Pa.C.S. § 1307 (relating to sliding scale of rates; adjustments), riders such as 66 Pa.C.S. § 2804(9) (relating to standards for restructuring of electric industry) or system improvement charges, 66 Pa.C.S. § 1353 (relating to distribution system improvement charge).

**The Company's proposed RDM does not interact with other revenue sources.**

- (12) Whether the alternative ratemaking mechanism and rate design include appropriate consumer protections.

**The RDM proposal includes consumer protections through the formal reconciliation process which includes audits and external stakeholder review. Tariff administration of the mechanism will contain consumer protections to make sure that the appropriate levels of revenue are being collected. Customers still can control their bill through controlling usage because the standard rate design still applies.**

- (13) Whether the alternative ratemaking mechanism and rate design are understandable to consumers.

**The Company does not anticipate that there would be any issues related to customer confusion over the proposed RDM. Revenue reconciliation riders are not new to the utility industry. There is no reason to think that customers would be more confused about an RDM surcharge or credit on their bill than they would be for any other rate design element that makes up a part of the customer's bill.**

- (14) How the ratemaking mechanism and rate design will support improvements in utility reliability.

**The proposed RDM will support improvements in utility reliability by permitting the Company to more reliably recover fixed costs that can't be avoided by customers using less water, and will therefore enhance the Company's ability to prudently invest in and manage the business.**

***Resolution Endorsing Consideration of Alternative Regulation that Supports Capital Investment in the 21<sup>st</sup> Century for Water and Wastewater Utilities***

**WHEREAS**, Through the *Resolution Supporting Consideration of Regulatory Policies Deemed as “Best Practices”* (2005), the National Association of Regulatory Utility Commissioners (NARUC) has previously recognized the important role of innovative regulatory policies and mechanisms in facilitating the efforts of water and wastewater utilities to address their significant infrastructure investment challenges; *and*

**WHEREAS**, Traditional cost of service ratemaking, which has worked reasonably well in the past for water and wastewater utilities, no longer adequately addresses the challenges of today and tomorrow. Revenue, driven by declining use per customer, is flat to decreasing, while the nature of investment (rate base) has shifted largely from plant needed for serving new customers to non-revenue producing infrastructure replacement and compliance with new drinking water standards; *and*

**WHEREAS**, The traditional cost of service model is not well adapted to a no/low growth, high investment utility environment and is unlikely to encourage the necessary future investment in infrastructure replacement; *and*

**WHEREAS**, Compared to the water and wastewater industry, the electric and natural gas delivery industries have in place a larger number and a greater variety of alternative regulation policies, such as multiyear rate plans and rate stabilization programs, and those set forth in the 2005 Resolution; *and*

**WHEREAS**, The U.S. water industry is the most capital intensive sector of regulated utilities and faces critical investment needs that are expected to total \$335 billion to \$1 trillion over the next quarter century, as noted in the *American Society of Civil Engineers 2013 Report Card for America’s Infrastructure*; *and*

**WHEREAS**, Tap water is physically ingested and the quality of the service must be maintained to protect the health and economic well-being of communities across our Nation and comply with current and future regulations covering the control of a number of contaminants from nitrosamines to chromium, at a cost estimated at \$42 billion by the EPA as part of their April 2013 Report to Congress; *and*

**WHEREAS**, Alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs and maintains that access at all times; *now, therefore be it*

**RESOLVED**, That the National Association of Regulatory Utility Commissioners, convened at its 125<sup>th</sup> Annual Meeting in Orlando, Florida, supports consideration of alternative regulation plans and mechanisms along with and in addition to the policies and mechanisms outlined in the



*Resolution Supporting Consideration of Regulatory Policies Deemed as “Best Practices”*  
adopted by the NARUC Board of Directors on July 27, 2005; *and be it further*

**RESOLVED**, That the Committee on Water stands ready to assist economic regulators with implementation of alternative regulatory approaches that support water companies’ capital investment needs of the 21<sup>st</sup> century.

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*Sponsored by the Committee on Water*

*Recommended by the NARUC Board of Directors November 19, 2013*

*Adopted by the NARUC Committee of the Whole November 20, 2013.*

**PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
SUMMARY OF APPLICATION OF PRESENT RATES AND PROPOSED RATES  
12 MONTHS ENDING JUNE 30, 2025**

Rate Zone	Residential	Commercial	Municipal	Industrial		Other Water Utilities			Total
				Industrial	Demand-Base (DIS)	Group A	Group B	Demand Base (DRS)	
<b><u>Present Rate Application</u></b>									
Zone 1 - Most Areas	\$522,999,786	\$200,907,426	\$22,435,668	\$36,410,605	\$4,482,099	\$51,822	\$202,436	\$3,316,086	\$790,805,928
Zone 2 - Valley	1,043,121	29,411	75,767	1,113					1,149,412
Zone 3 - SLIBCO		91,756							91,756
Zone 4 - Turbotville	204,873	78,140	462						283,475
Zone 5 - Steelton	1,989,568	528,625	28,265	1,162,540					3,708,998
Zone XX - Audubon	1,704,395	1,082,718	16,137						2,803,250
Zone XX - Farmington	348,300	61,560	3,240	6,480					419,580
	<u>\$528,290,043</u>	<u>\$202,779,636</u>	<u>\$22,559,539</u>	<u>\$37,580,738</u>	<u>\$4,482,099</u>	<u>\$51,822</u>	<u>\$202,436</u>	<u>\$3,316,086</u>	<u>\$799,262,399</u>
Private Fire Services									\$5,301,032
Public Fire Services									9,519,368
Other Operating Revenues									10,034,383
<b>Total @ Present Rate</b>	<b><u>\$528,290,043</u></b>	<b><u>\$202,779,636</u></b>	<b><u>\$22,559,539</u></b>	<b><u>\$37,580,738</u></b>	<b><u>\$4,482,099</u></b>	<b><u>\$51,822</u></b>	<b><u>\$202,436</u></b>	<b><u>\$3,316,086</u></b>	<b><u>\$824,117,182</u></b>
<b><u>Proposed Rate Application</u></b>									
Zone 1 - Most Areas	\$650,135,557	\$251,893,124	\$26,076,480	\$46,851,860	\$4,482,099	\$53,666	\$277,021	\$3,316,086	\$983,085,893
Zone 2 - Valley	1,702,506	38,644	80,459	1,841					1,823,450
Zone 3 - SLIBCO		127,997							127,997
Zone 4 - Turbotville	254,523	109,665	516						364,704
Zone 5 - Steelton	2,497,937	620,944	29,349	1,282,213					4,430,443
Zone XX - Audubon	2,079,612	1,754,433	19,213						3,853,258
Zone XX - Farmington	415,097	59,193	3,912	7,870					486,072
	<u>\$657,085,231</u>	<u>\$254,604,000</u>	<u>\$26,209,929</u>	<u>\$48,143,784</u>	<u>\$4,482,099</u>	<u>\$53,666</u>	<u>\$277,021</u>	<u>\$3,316,086</u>	<u>\$994,171,817</u>
Private Fire Services									\$6,304,285
Public Fire Services									11,847,068
Other Operating Revenues									11,031,091
<b>Total @ Proposed Rate</b>	<b><u>\$657,085,231</u></b>	<b><u>\$254,604,000</u></b>	<b><u>\$26,209,929</u></b>	<b><u>\$48,143,784</u></b>	<b><u>\$4,482,099</u></b>	<b><u>\$53,666</u></b>	<b><u>\$277,021</u></b>	<b><u>\$3,316,086</u></b>	<b><u>\$1,023,354,261</u></b>
Change in Revenues	<u>\$128,795,188</u>	<u>\$51,824,364</u>	<u>\$3,650,390</u>	<u>\$10,563,046</u>	<u>\$0</u>	<u>\$1,844</u>	<u>\$74,585</u>	<u>\$0</u>	<u>\$199,237,079</u>
% Change in Revenues	24.38%	25.56%	16.18%	28.11%	0.00%	3.56%	36.84%	0.00%	24.18%

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Residential Class	6/30/2023	6/30/2023	6/30/2023	6/30/2024	6/30/2024	6/30/2024	6/30/2025	6/30/2025	Proforma	6/30/2025	6/30/2025	6/30/2025
	Usage (in 100 Gallons)	Number of Bills	Annualized Revenues	Usage (in 100 Gallons)	Number of Bills	Proforma Revenues	Usage (in 100 Gallons)	Number of Bills	DSIC Revenues	Proforma @ Present Rate	Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most Areas	249,208,709	7,481,320	\$522,362,856	244,766,574	7,494,100	\$515,579,067	241,716,468	7,520,140	\$11,758,549	\$522,999,786	\$650,135,557	24.00%
Zone 2 - Valley	616,689	19,625	657,814	616,689	19,625	1,019,668	616,689	19,625	23,453	1,043,121	1,702,506	63.00%
Zone 4 - Turbotville	90,738	3,177	200,266	90,738	3,177	200,266	90,738	3,177	4,607	204,873	254,523	24.00%
Zone 5 - Steelton	952,450	25,908	1,944,835	952,450	25,908	1,944,835	952,450	25,908	44,733	1,989,568	2,497,937	26.00%
Zone XX - Audubon				1,344,380	31,812	1,704,395	1,344,380	31,812	0	1,704,395	2,079,612	22.00%
Zone XX - Farmington				146,750	5,160	348,300	146,750	5,160	0	348,300	415,097	19.00%
<b>Total Residential</b>	<b>250,868,586</b>	<b>7,530,031</b>	<b>\$525,165,771</b>	<b>247,770,830</b>	<b>7,579,783</b>	<b>\$520,796,531</b>	<b>244,720,725</b>	<b>7,605,823</b>	<b>\$11,831,342</b>	<b>\$528,290,043</b>	<b>\$657,085,231</b>	<b>24.00%</b>

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Rate Zone 1	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	Billing Determinants	Current Rate	6/30/2024 Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	6/30/2025 Proforma @ Present Rate	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	5,872,690	\$17.50	\$102,772,077	5,887,750	\$17.50	\$103,035,627	5,900,530	\$17.50	\$2,374,963	\$105,634,240	\$20.00	\$118,010,602	12.00%
3/4 - Meter	10,260	17.50	179,550	11,244	17.50	196,770	11,244	17.50	4,526	201,296	20.00	224,881	12.00%
1 - Meter	83,487	17.50	1,461,019	83,487	17.50	1,461,019	83,487	17.50	33,603	1,494,622	20.00	1,669,735	12.00%
1 1/2 - Meter	672	17.50	11,768	672	17.50	11,768	672	17.50	271	12,039	20.00	13,449	12.00%
2 - Meter	1,144	121.80	139,315	1,144	121.80	139,315	1,144	121.80	3,204	142,519	132.00	150,982	6.00%
3 - Meter	0	227.20	0	0	227.20	0	0	227.20	0	0	246.00	0	0.00%
4 - Meter	159	285.10	45,363	159	285.10	45,363	159	285.10	1,043	46,406	308.00	49,007	6.00%
6 - Meter	76	426.80	32,473	76	426.80	32,473	76	426.80	747	33,220	461.00	35,075	6.00%
8 - Meter	4	826.30	3,441	4	826.30	3,441	4	826.30	79	3,520	893.00	3,719	6.00%
Subtotal	5,968,493		\$104,645,006	5,984,537		\$104,925,776	5,997,317		\$2,418,436	\$107,567,862		\$120,157,450	12.00%
<b>Sprinkler Customer Charge</b>													
5/8-METER	1,398,759	\$17.50	\$24,478,288	1,398,759	\$17.50	\$24,478,288	1,398,759	\$17.50	\$563,001	\$25,041,289	\$20.00	\$27,975,187	12.00%
3/4-METER	587	17.50	10,264	587	17.50	10,264	587	17.50	236	10,500	20.00	11,730	12.00%
1-METER	94,581	17.50	1,655,172	94,581	17.50	1,655,172	94,581	17.50	38,069	1,693,241	20.00	1,891,626	12.00%
1.5-METER	1,638	17.50	28,672	1,638	17.50	28,672	1,638	17.50	659	29,331	20.00	32,768	12.00%
2-METER	203	17.50	3,548	203	17.50	3,548	203	17.50	82	3,630	20.00	4,055	12.00%
8-METER	6	17.50	112	6	17.50	112	6	17.50	3	115	20.00	128	11.00%
Subtotal	1,495,775		\$26,176,056	1,495,775		\$26,176,056	1,495,775		\$602,050	\$26,778,106		\$29,915,494	12.00%
Unmetered Customers	1,009	\$70.00	\$70,636	1,009	\$70.00	\$70,636	1,009	\$70.00	\$1,625	\$72,261	\$90.00	\$90,817	26.00%
Usage (in 100 Gallons)													
All Usage	257,369,377	\$1.6108	\$414,570,592	249,208,709	\$1.6108	\$401,425,389	244,766,574	\$1.6108	\$9,068,210	\$403,338,207	\$2.1319	\$521,817,859	29.00%
Low Income:													
Low Income Discount Tier 1			(\$3,362,130)			(\$3,271,202)			(\$74,066)	(\$3,294,311)		(\$4,143,045)	
Low Income Discount Tier 2			(3,383,060)			(3,298,181)			(74,764)	(3,325,378)		(\$4,149,160)	
Low Income Discount Tier 3			(3,753,818)			(3,665,618)			(83,172)	(3,699,361)		(\$4,585,986)	
Low Income Discount Tier 4												(\$2,986,152)	
<b>Adjustment (1):</b>													
5/8 - Meter	15,060	\$17.50	\$263,550	12,780	\$17.50	\$223,650	25,560	\$17.50	\$10,288	\$457,588	\$20.00	\$511,200	12.00%
All Usage	518,926	\$1.6108	835,887	440,364	\$1.6108	709,338	880,728	\$1.6108	32,630	1,451,306	\$2.1319	\$1,877,623	29.00%
<b>Adjustment (2):</b>													
All Usage	(8,712,299)	\$1.6108	(\$14,033,772)	(4,882,499)	\$1.6108	(7,864,730)	(3,946,197)	\$1.6108	(\$146,200)	(\$6,502,733)	\$2.1319	(\$8,412,897)	29.00%
All Usage Low Income Tier 1	(70,563)	(1.2886)	90,928	(39,545)	(1.2886)	50,957	(31,961)	(1.2886)	947	42,132	0	0	-100.00%
All Usage Low Income Tier 2	(105,387)	(0.8054)	84,879	(59,060)	(0.8054)	47,567	(47,735)	(0.8054)	884	39,329	0	0	-100.00%
All Usage Low Income Tier 3	(219,022)	(0.4027)	88,200	(122,743)	(0.4027)	49,429	(99,205)	(0.4027)	919	40,869	0	0	-100.00%
<b>Adjustment (3):</b>													
3/4 - Meter	984	\$17.50	\$17,220				480	\$17.50	\$193	\$8,593	20.00	\$9,600	12.00%
All Usage	32,706	\$1.6108	52,682				15,363	\$1.6108	569	25,316	\$2.1319	32,753	29.00%
RZ 1 Residential Usage	249,208,709			244,766,574			241,716,468						
<b>RZ 1 Residential Revenues</b>			<b>\$522,362,856</b>			<b>\$515,579,067</b>			<b>\$11,758,549</b>	<b>\$522,999,786</b>		<b>\$650,135,557</b>	<b>24.00%</b>

Note (1) Adjustment to account for the growth (loss) in customers.

Note (2) Adjustment to account for normalization in usage trend including the impact of declining usage

Note (3) Adjustment to add revenues from Creekside Homeowner's Association

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<b>Rate Zone 2 Valley</b>	Billing Determinants	Current Rate	Annualized Annualized Revenue	Billing Determinants	Current Rate	Proforma Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Proforma @ Present Rate	Proposed Rate	Proforma Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	19,373	\$28.12	\$544,768	19,373	\$17.50	\$339,027	19,373	\$17.50	\$7,798	\$346,825	\$20.00	\$387,459	12.00%
3/4 - Meter													
1 - Meter	252	28.12	7,086	252	17.50	4,410	252	17.50	101	4,511	20.00	5,040	12.00%
1 1/2 - Meter													
Subtotal	19,625		\$551,854	19,625		\$343,437	19,625		\$7,899	\$351,336		\$392,499	
<b>Usage (in 100 Gallons)</b>													
First 3,400 Gal	487,769	\$0.0000	\$0	487,769	\$1.1000	\$536,546	487,769	\$1.1000	\$12,341	\$548,887	\$2.1319	\$1,039,876	89.00%
All Over 3,400 Gal	128,919	0.8400	108,292	128,919	1.1000	141,811	128,919	1.1000	3,262	145,073	2.1319	274,843	89.00%
Subtotal	616,689		\$108,292	616,689		\$678,357	616,689		\$15,603	\$693,960		\$1,314,719	
<b>Low Income:</b>													
Low Income Discount Tier 1			(\$1,047)			(\$1,000)			(23)	(\$1,023)		(\$1,670)	
Low Income Discount Tier 2			-			-			0	-		\$0	
Low Income Discount Tier 3			(1,285)			(1,126)			(26)	(1,152)		(\$1,782)	
Low Income Discount Tier 4			-			-						(\$1,259)	
<b>RZ 2 Residential Usage</b>	616,689			616,689			616,689						
<b>RZ 2 Residential Revenues</b>			<b>\$657,814</b>			<b>\$1,019,668</b>			<b>\$23,453</b>	<b>\$1,043,121</b>		<b>\$1,702,506</b>	<b>63.00%</b>

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Rate Zone 4 Turbotville	Billing	Current	Annualized	Billing	Current	Proforma	Billing	Current	Proforma	Proforma	Proposed	Proforma	% Percent
	Determinants	Rate	Annualized Revenue	Determinants	Rate	Annualized Revenue	Determinants	Rate	DSIC Revenues	Proforma @ Present Rate	Rate	@ Proposed Rate	Change
<u>Customer Charge</u>													
5/8 - Meter	3,177	\$17.50	\$55,603	3,177	\$17.50	\$55,603	3,177	\$17.50	\$1,279	\$56,882	\$20.00	\$63,546	12.00%
3/4 - Meter	0	17.50	0	0	17.50	0	0	17.50	0	0	20.00	0	0.00%
1 - Meter	0	17.50	0	0	17.50	0	0	17.50	0	0	20.00	0	0.00%
1 1/2 - Meter	0	17.50	0	0	17.50	0	0	17.50	0	0	20.00	0	0.00%
2 - Meter	0	121.80	0	0	121.80	0	0	121.80	0	0	132.00	0	0.00%
3 - Meter	0	227.20	0	0	227.20	0	0	227.20	0	0	246.00	0	0.00%
4 - Meter	0	285.10	0	0	285.10	0	0	285.10	0	0	308.00	0	0.00%
Subtotal	3,177		\$55,603	3,177		\$55,603	3,177		\$1,279	\$56,882		\$63,546	12.00%
<u>Usage (in 100 Gallons)</u>													
All Usage	90,738	\$1.6108	\$146,161	90,738	\$1.6108	\$146,161	90,738	\$1.6108	\$3,362	\$149,523	\$2.1319	\$193,444	29.00%
<u>Low Income:</u>													
Low Income Discount Tier 1			(\$610)			(\$610)			(14)	(\$624)		(\$777)	
Low Income Discount Tier 2			-			-			0	-		\$0	
Low Income Discount Tier 3			(888)			(888)			(20)	(908)		(\$1,115)	
Low Income Discount Tier 4												(\$576)	
RZ 4 Residential Usage	90,738			90,738			90,738						
<b>RZ 4 Residential Revenues</b>			<b>\$200,266</b>			<b>\$200,266</b>			<b>\$4,607</b>	<b>\$204,873</b>		<b>\$254,523</b>	<b>24.00%</b>

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Rate Zone 5 Steelton	Billing	Current	Annualized	Billing	Current	Proforma	Billing	Current	Proforma	Proforma	Proposed	Proforma	% Percent
	Determinants	Rate	Annualized Revenue	Determinants	Rate	Annualized Revenue	Determinants	Rate	DSIC Revenues	Proforma @ Present Rate	Rate	@ Proposed Rate	Change
<b>Customer Charge</b>													
5/8 - Meter	25,716	\$17.50	\$450,029	25,716	\$17.50	\$450,029	25,716	\$17.50	\$10,351	\$460,380	\$20.00	\$514,319	12.00%
3/4 - Meter	0	17.50	0	0	17.50	0	0	17.50	0	0	20.00	0	0.00%
1 - Meter	180	17.50	3,155	180	17.50	3,155	180	17.50	73	3,228	20.00	3,606	12.00%
1 1/2 - Meter	0	17.50	0	0	17.50	0	0	17.50	0	0	20.00	0	0.00%
2 - Meter	12	121.80	1,462	12	121.80	1,462	12	121.80	34	1,496	132.00	1,584	6.00%
3 - Meter	0	227.20	0	0	227.20	0	0	227.20	0	0	246.00	0	0.00%
4 - Meter	0	285.10	0	0	285.10	0	0	285.10	0	0	308.00	0	0.00%
Subtotal	25,908		\$454,646	25,908		\$454,646	25,908		\$10,458	\$465,104		\$519,509	12.00%
<b>Usage (in 100 Gallons)</b>													
First 1,700 Gal	375,303	\$1.6108	\$604,538	375,303	\$1.6108	\$604,538	375,303	\$1.6108	\$13,904	\$618,442	\$2.1319	\$800,108	29.00%
Next 18,300 Gal	541,283	1.6108	871,898	541,283	1.6108	871,898	541,283	1.6108	20,054	891,952	2.1319	1,153,960	29.00%
Next 30,000 Gal	23,011	1.2500	28,764	23,011	1.2500	28,764	23,011	1.2500	662	29,426	2.1319	49,057	67.00%
All Over 50,000 Gal	12,854	1.2500	16,067	12,854	1.2500	16,067	12,854	1.2500	370	16,437	2.1319	27,403	67.00%
Subtotal	952,450		\$1,521,267	952,450		\$1,521,267	952,450		\$34,990	\$1,556,257		\$2,030,528	30.00%
<b>Low Income:</b>													
Low Income Discount Tier 1			(\$11,047)			(\$11,047)			(254)	(\$11,301)		(\$14,166)	
Low Income Discount Tier 2			(5,902)			(5,902)			(136)	(6,038)		(\$7,515)	
Low Income Discount Tier 3			(14,129)			(14,129)			(325)	(14,454)		(\$17,881)	
Low Income Discount Tier 4												(\$12,539)	
RZ 5 Residential Usage	952,450			952,450			952,450						
<b>RZ 5 Residential Revenues</b>			<u>\$1,944,835</u>			<u>\$1,944,835</u>			<u>\$44,733</u>	<u>\$1,989,568</u>		<u>\$2,497,937</u>	26.00%

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Rate Zone XX Audubon	Billing	Current	Annualized	Billing	Current	Proforma	Billing	Current	Proforma	Proforma	Proposed	Proforma	% Percent
	Determinants	Rate	Annualized Revenue	Determinants	Rate	Annualized Revenue	Determinants	Rate	DSIC Revenues	Proforma @ Present Rate	Rate	@ Proposed Rate	Change
<b>Customer Charge</b>													
5/8 - Meter		\$16.80	\$0	31,380	\$16.80	\$527,184	31,380	\$16.80		\$527,184	\$16.80	\$527,184	0.00%
3/4 - Meter		16.80	0		16.80	0		16.80		0	16.80	0	0.00%
1 - Meter		42.80	0	432	42.80	18,490	432	42.80		18,490	42.80	18,490	0.00%
1 1/2 - Meter		72.90	0		72.90	0		72.90		0	72.90	0	
2 - Meter		116.40	0		116.40	0		116.40		0	116.40	0	
3 - Meter		218.60	0		218.60	0		218.60		0	218.60	0	
4 - Meter		363.90	0		363.90	0		363.90		0	363.90	0	
6 - Meter		727.80	0		727.80	0		727.80		0	727.80	0	
8 - Meter		1,164.60	0		1,164.60	0		1,164.60		0	1,164.60	0	
10 - Meter		1,410.60	0		1,410.60	0		1,410.60		0	1,410.60	0	
Flat Rate		170.92	0	0	170.92	0	0	170.92		0			
Subtotal		0	\$0	31,812		\$545,674	31,812		\$0	\$545,674		\$545,674	0.00%
<b>Usage (in 100 Gallons)</b>													
All Usage		\$0.8619	\$0	1,344,380	\$0.8619	\$1,158,721	1,344,380	\$0.8619		\$1,158,721	\$1.1410	\$1,533,938	32.00%
<b>Low Income:</b>													
Low Income Discount Tier 1			\$0			\$0			0	\$0			
Low Income Discount Tier 2			0			0			0	0			
Low Income Discount Tier 3			0			0			0	0			
RZ XX Residential Usage		0		1,344,380			1,344,380						
<b>RZ XX Residential Revenues</b>			<b>\$0</b>			<b>\$1,704,395</b>			<b>\$0</b>	<b>\$1,704,395</b>		<b>\$2,079,612</b>	<b>22.00%</b>



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<b>Rate Zone XX Farmington</b>	Billing Determinants	Current Rate	Annualized Annualized Revenue	Billing Determinants	Current Rate	Proforma Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Proforma @ Present Rate	Proposed Rate	Proforma Proforma @ Proposed Rate	% Percent Change
<u>Customer Charge</u>													
Service Charge per EDU		\$67.50	\$0	5,160	\$67.50	\$348,300	5,160	\$67.50		\$348,300			
Service Charge per Customer							5,112				20.00	\$102,240	0.00%
<u>Usage (in 100 Gallons)</u>													
First 5,000 Gallons		\$0.0000	\$0	146,750	\$0.0000	\$0	146,750	\$0.0000		\$0	\$2.1319	\$312,857	0.00%
All Over 5,000 Gallons		1.5000	0	0	1.5000	0	0	1.5000		0	2.1319	0	0.00%
<u>Low Income:</u>													
Low Income Discount Tier 1						\$0				\$0			
Low Income Discount Tier 2						0				0			
Low Income Discount Tier 3						0				0			
RZ XX Residential Usage				146,750			146,750						
<b>RZ XX Residential Revenues</b>			<b>\$0</b>			<b>\$348,300</b>			<b>\$0</b>	<b>\$348,300</b>		<b>\$415,097</b>	<b>19.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
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<b>Commercial Class</b>	6/30/2023 Usage (in 100 Gallons)	6/30/2023 Number of Bills	6/30/2023 Annualized Revenues	6/30/2024 Usage (in 100 Gallons)	6/30/2024 Number of Bills	6/30/2024 Proforma Revenues	6/30/2025 Usage (in 100 Gallons)	6/30/2025 Number of Bills	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most Areas	125,842,666	564,628	\$196,846,090	125,349,560	566,683	\$196,149,874	125,442,677	570,793	\$4,516,980	\$200,907,426	\$251,893,124	25.00%
Zone 2 - Valley	15,016	84	13,995	15,016	84	28,750	15,016	84	661	29,411	38,644	31.00%
Zone 3 - SLIBCO	40,574	96	89,693	40,574	96	89,693	40,574	96	2,063	91,756	127,997	39.00%
Zone 4 - Turbotville	50,655	620	76,383	50,655	620	76,383	50,655	620	1,757	78,140	109,665	40.00%
Zone 5 - Steelton	300,602	1,930	516,741	300,602	1,930	516,741	300,602	1,930	11,884	528,625	620,944	17.00%
Zone XX - Audubon	0	0	0	1,214,080	2,352	1,082,718	1,214,080	2,352	0	1,082,718	1,754,433	62.00%
Zone XX - Farmington				25,554	912	61,560	25,554	912	0	61,560	59,193	-4.00%
<b>Total Commercial</b>	<b>126,249,513</b>	<b>567,358</b>	<b>\$197,542,902</b>	<b>126,970,488</b>	<b>572,677</b>	<b>\$198,005,719</b>	<b>127,063,605</b>	<b>576,787</b>	<b>\$4,533,345</b>	<b>\$202,779,636</b>	<b>\$254,604,000</b>	<b>26.00%</b>

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Rate Zone 1 Most Areas	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	Billing Determinants	Current Rate	6/30/2024 Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	347,539	\$18.50	\$6,429,469	352,111	\$18.50	\$6,514,051	354,166	\$18.50	\$150,698	\$6,702,767	\$20.00	\$7,083,318	6.00%
3/4 - Meter	21,009	28.00	588,262	21,009	28.00	588,262	21,009	28.00	13,530	601,792	30.00	630,281	5.00%
1 - Meter	83,049	46.60	3,870,087	83,049	46.60	3,870,087	83,049	46.60	89,012	3,959,099	50.00	4,152,454	5.00%
1 1/2 - Meter	16,305	76.10	1,240,791	16,305	76.10	1,240,791	16,305	76.10	28,538	1,269,329	82.00	1,336,990	5.00%
2 - Meter	46,226	121.80	5,630,369	46,226	121.80	5,630,369	46,226	121.80	129,498	5,759,867	132.00	6,101,878	6.00%
3 - Meter	1,369	227.20	310,986	1,369	227.20	310,986	1,369	227.20	7,153	318,139	246.00	336,719	6.00%
4 - Meter	19,443	285.10	5,543,212	19,443	285.10	5,543,212	19,443	285.10	127,494	5,670,706	308.00	5,988,458	6.00%
6 - Meter	17,805	426.80	7,599,204	17,805	426.80	7,599,204	17,805	426.80	174,782	7,773,986	461.00	8,208,137	6.00%
8 - Meter	6,519	826.30	5,386,573	6,519	826.30	5,386,573	6,519	826.30	123,891	5,510,464	893.00	5,821,384	6.00%
10 - Meter	791	1,196.60	946,887	791	1,196.60	946,887	791	1,196.60	21,778	968,665	1,294.00	1,023,961	6.00%
Subtotal	560,056		\$37,545,840	564,628		\$37,630,422	566,683		\$866,374	\$38,534,814		\$40,683,580	6.00%
<b>Usage (in 100 Gallons)</b>													
First 16,000 Gal	33,706,360	\$1.5613	\$52,625,741	35,399,738	\$1.5613	\$55,269,611	34,993,171	\$1.5613	\$1,256,601	\$55,891,438	\$2.0346	\$71,197,105	27.00%
All Over 16,000	89,596,122	1.1493	102,972,823	90,442,927	1.1493	103,946,056	90,356,389	1.1493	2,388,472	106,235,070	1.5463	139,718,085	32.00%
Subtotal	123,302,482		\$155,598,564	125,842,666		\$159,215,667	125,349,560		\$3,645,073	\$162,126,508		\$210,915,190	30.00%
<b>Adjustment (1):</b>													
5/8 - Meter	4,572	\$18.50	\$84,582	2,055	\$18.50	\$38,018	4,110	\$18.50	\$1,749	\$77,784	\$20.00	\$82,200	6.00%
<b>Usage (in 100 Gallons)</b>													
First 16,000 Gal	731,520	\$1.5613	\$1,142,122	328,800	\$1.5613	\$513,355	657,600	\$1.5613	\$23,614	\$1,050,325	\$2.0346	\$1,337,953	27.00%
All Over 16,000	284,907	1.1493	327,444	128,059	1.1493	147,178	256,117	1.1493	6,770	301,126	1.5463	396,034	32.00%
Subtotal	1,016,427		\$1,469,566	456,859		\$660,533	913,717		\$30,384	\$1,351,451		\$1,733,987	28.00%
<b>Adjustment (2):</b>													
First 16,000 Gal	961,858	\$1.5613	\$1,501,749	(737,316)	\$1.5613	(\$1,151,171)	(517,997)	\$1.5613	(\$18,601)	(\$827,350)	\$2.0346	(\$1,053,917)	27.00%
All Over 16,000	561,898	1.1493	645,789	(430,725)	1.1493	(495,032)	(302,603)	1.1493	(7,999)	(355,781)	1.5463	(467,916)	32.00%
Subtotal	1,523,756		\$2,147,538	(1,168,041)		(\$1,646,203)	(820,600)		(\$26,600)	(\$1,183,131)		(\$1,521,833)	29.00%
<b>Adjustment (3):</b>													
First 16,000 Gal				1,948	\$1.5613	\$3,041							
All Over 16,000				216,128	1.1493	248,396							
Subtotal				218,076		\$251,437							
<b>RZ 1 Commercial Usage</b>	125,842,666			125,349,560			125,442,677						
<b>RZ 1 Commercial Revenues</b>			<b>\$196,846,090</b>			<b>\$196,149,874</b>			<b>\$4,516,980</b>	<b>\$200,907,426</b>		<b>\$251,893,124</b>	<b>25.00%</b>

Note (1) Adjustment to account for the growth (loss) in customers.

Note (2) Adjustment to account for normalization in usage trend including the impact of declining usage.

Note (3) Adjustment to account for the change in usage of shale gas commercial customers

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Rate Zone 2 Valley	6/30/2023			6/30/2024			6/30/2025		Proforma	Proforma	6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	2023 Revenues @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<u>Customer Charge</u>													
5/8 - Meter	84	\$28.12	\$2,362	84	\$18.50	\$1,554	84	\$18.50	\$36	\$1,590	\$20.00	\$1,680	6.00%
3/4 - Meter		28.12	0		28.00	0		28.00	0	0	30.00	0	0.00%
1 - Meter		28.12	0		46.60	0		46.60	0	0	50.00	0	0.00%
1 1/2 - Meter	12	28.12	337	12	76.10	913	12	76.10	21	934	82.00	984	5.00%
2 - Meter	24	28.12	675	24	121.80	2,923	24	121.80	67	2,990	132.00	3,168	6.00%
3 - Meter		28.12	0		227.20	0		227.20	0	0	246.00	0	0.00%
4 - Meter	24	28.12	675	24	285.10	6,842	24	285.10	157	6,999	308.00	7,392	6.00%
Subtotal	144		\$4,049	144		\$12,232	144		281	\$12,513		13,224	6.00%
Usage (in 100 Gallons)													
First 3,400 Gal	3,175	\$0.0000	\$0	3,175	\$1.1000	\$3,493	3,175	\$1.1000	\$80	\$3,573			
All Over 3,400 Gal	11,841	0.8400	9,946	11,841	1.1000	13,025	11,841	1.1000	300	13,325			
Subtotal	15,016		\$9,946	15,016		\$16,518	15,016		\$380	\$16,898			
First 16,000 Gal							4,505	0.30			\$2.0346	\$9,166	
All Over 16,000 Gal							10,511	0.70			1.5463	16,254	
												\$25,420	
RZ 2 Commercial Usage	15,016			15,016			15,016						
<b>RZ 2 Commercial Revenues</b>			<b>\$13,995</b>			<b>\$28,750</b>			<b>\$661</b>	<b>\$29,411</b>		<b>\$38,644</b>	<b>31.00%</b>

Note (1) Adjustment to annualize Valley Township Water acquired in November 2021.

Note (2) The Company is proposing to convert Service Charge to Meter size charges.

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Rate Zone 3 SLIBCO	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma 2023 Revenues @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
2 - Meter	12	\$63.55	\$763	12	\$63.55	\$763	12	\$63.55	\$18	\$781	\$132.00	\$1,584	103.00%
4 - Meter	12	136.30	1,636	12	136.30	1,636	12	136.30	38	1,674	308.00	3,696	121.00%
6 - Meter	24	136.30	3,271	24	136.30	3,271	24	136.30	75	3,346	461.00	11,064	231.00%
8 - Meter	48	309.30	14,883	48	309.30	14,883	48	309.30	342	15,225	893.00	42,969	182.00%
Subtotal	96		\$20,553	96		\$20,553	96		\$473	\$21,026		\$59,313	182.00%
<b>Usage (in 100 Gallons)*</b>													
First 20,000 Gal	12,888	\$1.8940	\$24,410	12,888	\$1.8940	\$24,410	12,888	\$1.8940	\$561	\$24,971			
Next 80,000 Gal	21,868	1.6780	36,695	21,868	1.6780	36,695	21,868	1.6780	844	37,539			
All Over 100,000 Gal	5,818	1.3810	8,035	5,818	1.3810	8,035	5,818	1.3810	185	8,220			
Subtotal	40,574		\$69,140	40,574		\$69,140	40,574		\$1,590	\$70,730			
First 16,000 Gal							12,172	0.30			\$2.0346	\$24,766	
All Over 16,000 Gal							28,402	0.70			1.5463	43,918	
												68,684	
RZ 3 Commercial Usage	40,574			40,574			40,574						
<b>RZ 3 Commercial Revenues</b>			<b>\$89,693</b>			<b>\$89,693</b>			<b>\$2,063</b>	<b>\$91,756</b>		<b>\$127,997</b>	<b>39.00%</b>

\* All usage rate conversion to two blocks.

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Rate Zone 4 Turbotville	6/30/2023			6/30/2024			6/30/2025		Proforma	Proforma	6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	2023 Revenues @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	504	\$18.50	\$9,324	504	\$18.50	\$9,324	504	\$18.50	\$214	\$9,538	\$20.00	\$10,080	6.00%
3/4 - Meter	0	28.00	0	0	28.00	0	0	28.00	0	0	30.00	0	0.00%
1 - Meter	68	46.60	3,154	68	46.60	3,154	68	46.60	73	3,227	50.00	3,385	5.00%
1 1/2 - Meter	24	76.10	1,826	24	76.10	1,826	24	76.10	42	1,868	82.00	1,968	5.00%
2 - Meter	0	121.80	0	0	121.80	0	0	121.80	0	0	132.00	0	0.00%
3 - Meter	12	227.20	2,726	12	227.20	2,726	12	227.20	63	2,789	246.00	2,952	6.00%
4 - Meter	0	285.10	0	0	285.10	0	0	285.10	0	0	308.00	0	0.00%
6 - Meter	12	426.80	5,122	12	426.80	5,122	12	426.80	118	5,240	461.00	5,532	6.00%
Subtotal	620		\$22,152	620		\$22,152	620		\$510	\$22,662		\$23,917	6.00%
<b>Usage (in 100 Gallons)</b>													
All Usage	50,655	\$1.0706	\$54,231	50,655	\$1.0706	\$54,231	50,655	\$1.0706	\$1,247	\$55,478			
Subtotal	50,655		\$54,231	50,655		\$54,231	50,655		\$1,247	\$55,478			
First 16,000 Gal							15,197	0.30			\$2.0346	\$30,919	
All Over 16,000 Gal							35,459	0.70			\$1.5463	54,829	
												85,748	
RZ 4 Commercial Usage	50,655			50,655			50,655						
<b>RZ 4 Commercial Revenues</b>			<b>\$76,383</b>			<b>\$76,383</b>			<b>\$1,757</b>	<b>\$78,140</b>		<b>\$109,665</b>	<b>40.00%</b>

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Rate Zone 5 Steelton	6/30/2023		6/30/2023		6/30/2024		6/30/2024		6/30/2025		Proforma	Proforma	6/30/2025	
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	2023 Revenues @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change	
<u>Customer Charge</u>														
5/8 - Meter	1,227	\$18.50	\$22,693	1,227	\$18.50	\$22,693	1,227	\$18.50	\$522	\$23,215	\$20.00	\$24,533	6.00%	
3/4 - Meter	0	28.00	0	0	28.00	0	0	28.00	0	0	30.00	0	0.00%	
1 - Meter	405	46.60	18,877	405	46.60	18,877	405	46.60	434	19,311	50.00	20,254	5.00%	
1 1/2 - Meter	108	76.10	8,256	108	76.10	8,256	108	76.10	190	8,446	82.00	8,896	5.00%	
2 - Meter	60	121.80	7,308	60	121.80	7,308	60	121.80	168	7,476	132.00	7,920	6.00%	
3 - Meter	58	227.20	13,178	58	227.20	13,178	58	227.20	303	13,481	246.00	14,268	6.00%	
4 - Meter	48	285.10	13,685	48	285.10	13,685	48	285.10	315	14,000	308.00	14,784	6.00%	
6 - Meter	0	426.80	0	0	426.80	0	0	426.80	0	0	461.00	0	0.00%	
8 - Meter	24	826.30	19,831	24	826.30	19,831	24	826.30	456	20,287	893.00	21,432	6.00%	
Subtotal	1,930		\$103,828	1,930		\$103,828	1,930		\$2,388	\$106,216		\$112,087	6.00%	
Usage (in 100 Gallons)														
First 1,700 Gal	22,442	\$1.6108	\$36,150	22,442	\$1.6108	\$36,150	22,442	\$1.6108	\$831	\$36,981				
Next 18,300 Gal	80,548	1.6108	129,748	80,548	1.6108	129,748	80,548	1.6108	2,984	132,732				
Next 30,000 Gal	34,120	1.2500	42,650	34,120	1.2500	42,650	34,120	1.2500	981	43,631				
All Over 50,000 Gal	163,492	1.2500	204,365	163,492	1.2500	204,365	163,492	1.2500	4,700	209,065				
Subtotal	300,602		\$412,913	300,602		\$412,913	300,602		\$9,496	\$422,409				
First 16,000 Gal							90,181	0.30			\$2.0346	\$183,482		
All Over 16,000 Gal							210,422	0.70			\$1.5463	325,375		
												508,857		
RZ 5 Commercial Usage	300,602			300,602			300,602							
<b>RZ 5 Commercial Revenues</b>			<b>\$516,741</b>			<b>\$516,741</b>			<b>\$11,884</b>	<b>\$528,625</b>		<b>\$620,944</b>	<b>17.00%</b>	

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	6/30/2023		6/30/2023		6/30/2024		6/30/2024		6/30/2025		Proforma	Proforma	6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	2023 Revenues @ Present Rate	Proposed Rate	@ Proposed Rate	% Percent Change			
<b>Rate Zone XX Audubon</b>																
<u>Customer Charge</u>																
5/8 - Meter		\$16.80	\$0	936	\$16.80	\$15,725	936	\$16.80		\$15,725	\$16.80	\$15,725	0.00%			
3/4 - Meter		16.80	0	72	16.80	1,210	72	16.80		1,210	16.80	1,210	0.00%			
1 - Meter		42.80	0	180	42.80	7,704	180	42.80		7,704	42.80	7,704	0.00%			
1 1/2 - Meter		72.90	0	516	72.90	37,616	516	72.90		37,616	72.90	37,616	0.00%			
2 - Meter		116.40	0	468	116.40	54,475	468	116.40		54,475	116.40	54,475	0.00%			
3 - Meter		218.60	0	72	218.60	15,739	72	218.60		15,739	218.60	15,739	0.00%			
4 - Meter		363.90	0	48	363.90	17,467	48	363.90		17,467	363.90	17,467	0.00%			
6 - Meter		727.80		36	727.80	26,201	36	727.80		26,201	727.80	26,201	0.00%			
8 - Meter		1,164.60		12	1,164.60	13,975	12	1,164.60		13,975	1,164.60	13,975	0.00%			
10 - Meter				12	1,410.60	16,927	12	1,410.60		16,927	1,410.60	16,927	0.00%			
Flat Rate				0	170.92	0	0	170.92		0	-	0	0.00%			
Subtotal	0		\$0	2,352		\$207,039	2,352		\$0	207,039						
Usage (in 100 Gallons)																
First 100,000 Gal		\$0.8619	\$0	624,520	\$0.8619	\$538,274	624,520	\$0.8619		\$538,274	\$1.1410	\$712,577	32.00%			
All Over 100,000 Gal		0.5723	0	589,560	0.5723	337,405	589,560	0.5723		337,405	1.4160	834,817	147.00%			
Subtotal	0		\$0	1,214,080		\$875,679	1,214,080		\$0	\$875,679		\$1,547,394				
RZ XX Commercial Usage	0			1,214,080			1,214,080									
<b>RZ XX Commercial Revenues</b>			<b>\$0</b>			<b>\$1,082,718</b>			<b>\$0</b>	<b>\$1,082,718</b>		<b>\$1,754,433</b>	<b>62.00%</b>			



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Rate Zone XX Farmington	6/30/2023	Current	Annualized	6/30/2024	Current	Proforma	6/30/2025	Current	Proforma	Proforma	Proforma			
	Determinants	Rate	6/30/2023 Revenue	Determinants	Rate	6/30/2024 Revenue	Determinants	Rate	Proforma Revenues	6/30/2025 @ Present Rate	Proposed Rate	6/30/2025 @ Proposed Rate	% Percent Change	
<u>Customer Charge</u>														
Service Charge per EDU		\$67.50	\$0	912	\$67.50	\$61,560	912	\$67.50		\$61,560				
Service Charge per Customer							360				20.00	\$7,200	0.00%	
Usage (in 100 Gallons)														
First 5,000 Gallons		\$0.0000	\$0	25,554	\$0.0000	\$0	25,554	\$0.0000		\$0	\$2.0346	\$51,993	0.00%	
All Over 5,000 Gallons		1.5000	0	0	1.6700	0	0	1.6700		0	2.0346	0	0.00%	
RZ XX Commercial Usage				25,554			25,554							
<b>RZ XX Commercial Revenues</b>			<u><u>\$0</u></u>			<u><u>\$61,560</u></u>			<u><u>\$0</u></u>	<u><u>\$61,560</u></u>	<u><u>\$59,193</u></u>		<u><u>-4.00%</u></u>	

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
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Industrial Class	6/30/2023	6/30/2023	6/30/2023	6/30/2024	6/30/2024	6/30/2024	6/30/2025	6/30/2025	Proforma	6/30/2025	6/30/2025	% Percent
	Usage (in 100 Gallons)	Number of Bills	Annualized Revenues	Usage (in 100 Gallons)	Number of Bills	Proforma Revenues	Usage (in 100 Gallons)	Number of Bills	DSIC Revenues	Proforma @ Present Rate	Proforma @ Proposed Rate	
Zone 1 - Most Areas	35,600,133	6,615	\$35,591,988	35,600,133	6,615	\$35,591,988	35,600,133	6,615	\$818,617	\$36,410,605	\$46,851,860	29.00%
Demand Based (DIS)	8,318,938	36	4,209,083	8,318,938	36	4,314,851	8,318,938	36	0	4,482,099	4,482,099	0.00%
Zone 2 - Valley	787	12	655	787	12	1,088	787	12	25	1,113	1,841	65.00%
Zone 5 - Steelton	858,781	132	1,136,403	858,781	132	1,136,403	858,781	132	26,137	1,162,540	1,282,213	10.00%
Zone XX - Farmington				3,588	96	6,480	3,588	96	0	6,480	7,870	21.00%
<b>Total Industrial</b>	<b>44,778,639</b>	<b>6,795</b>	<b>\$40,938,129</b>	<b>44,778,639</b>	<b>6,891</b>	<b>\$41,050,810</b>	<b>44,778,639</b>	<b>6,891</b>	<b>\$844,779</b>	<b>\$42,062,837</b>	<b>\$52,625,883</b>	<b>25.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone 1 Most Areas	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	612	\$28.00	\$17,125	612	\$28.00	\$17,125	612	\$28.00	\$394	\$17,519	\$28.00	\$17,125	-2.00%
3/4 - Meter	96	42.00	4,032	96	42.00	4,032	96	42.00	93	4,125	42.00	4,032	-2.00%
1 - Meter	1,032	70.00	72,222	1,032	70.00	72,222	1,032	70.00	1,661	73,883	70.00	72,222	-2.00%
1 1/2 - Meter	495	140.00	69,291	495	140.00	69,291	495	140.00	1,594	70,885	140.00	69,291	-2.00%
2 - Meter	1,937	224.00	433,810	1,937	224.00	433,810	1,937	224.00	9,978	443,788	224.00	433,810	-2.00%
3 - Meter	168	420.00	70,560	168	420.00	70,560	168	420.00	1,623	72,183	420.00	70,560	-2.00%
4 - Meter	772	701.00	540,979	772	701.00	540,979	772	701.00	12,443	553,422	701.00	540,979	-2.00%
6 - Meter	846	1,401.00	1,185,262	846	1,401.00	1,185,262	846	1,401.00	27,261	1,212,523	1,401.00	1,185,262	-2.00%
8 - Meter	526	2,243.00	1,179,390	526	2,243.00	1,179,390	526	2,243.00	27,126	1,206,516	2,243.00	1,179,390	-2.00%
10 - Meter	133	3,223.00	428,659	133	3,223.00	428,659	133	3,223.00	9,859	438,518	3,223.00	428,659	-2.00%
Subtotal	6,615		\$4,001,330	6,615		\$4,001,330	6,615		\$92,032	\$4,093,362		\$4,001,330	-2.00%
<b>Usage (in 100 Gallons)</b>													
First 16,000 Gal	730,036	\$1.4200	\$1,036,652	730,036	\$1.4200	\$1,036,652	730,036	\$1.4200	\$23,843	\$1,060,495	\$1.9128	\$1,396,414	32.00%
Next 584,000 Gal	8,921,842	1.0804	9,639,158	8,921,842	1.0804	9,639,158	8,921,842	1.0804	221,701	9,860,859	1.4824	13,225,739	34.00%
All over 600,000	20,737,744	0.8499	17,625,009	20,737,744	0.8499	17,625,009	20,737,744	0.8499	405,375	18,030,384	1.1477	23,800,709	32.00%
Subtotal	30,389,623		\$28,300,819	30,389,623		\$28,300,819	30,389,623		\$650,919	\$28,951,738		\$38,422,862	33.00%
<b>Usage Curtailment (in 100 Gallons)</b>													
First 16,000 Gal	1,920	\$1.4200	\$2,726	1,920	\$1.4200	\$2,726	1,920	\$1.4200	\$63	\$2,789	\$1.9128	\$3,673	32.00%
Next 584,000 Gal	70,081	1.0804	75,716	70,081	1.0804	75,716	70,081	1.0804	1,741	77,457	1.4824	103,888	34.00%
Next 14,400,000 Gal	1,728,000	0.8499	1,468,627	1,728,000	0.8499	1,468,627	1,728,000	0.8499	33,778	1,502,405	1.1477	1,983,226	32.00%
All Over 15,000,000	3,410,509	0.5110	1,742,770	3,410,509	0.5110	1,742,770	3,410,509	0.5110	40,084	1,782,854	0.6852	2,336,881	31.00%
Subtotal	5,210,510		\$3,289,839	5,210,510		\$3,289,839	5,210,510		\$75,666	\$3,365,505		\$4,427,668	32.00%
<b>Demand Based Industrial Service (DIS)</b>													
DIS-1 Demand													
DIS-1 Commodity													
DIS-2 Commodity													
DIS-3 Commodity													
RZ 1 Industrial Usage	43,919,071			43,919,071			43,919,071						
<b>RZ 1 Industrial Revenues</b>			<u>\$39,801,071</u>			<u>\$39,906,839</u>			<u>\$818,617</u>	<u>\$40,892,704</u>		<u>\$51,333,959</u>	26.00%

Redacted - Refer to Confidential Volume 6d

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
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	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Rate Zone 2 Valley</b>													
<u>Customer Charge</u>													
5/8 - Meter	12	\$28.12	\$337	12	\$18.50	\$222	12	\$18.50	\$5	\$227	\$28.00	\$336	48.00%
3/4 - Meter													
1 - Meter													
1 1/2 - Meter													
2 - Meter													
3 - Meter													
4 - Meter													
Subtotal	12		\$337	12		\$222	12		\$5	\$227		\$336	
<u>Usage (in 100 Gallons)</u>													
First 3,400 Gal	408	\$0.0000	\$0	408	\$1.1000	\$449	408	\$1.1000	\$10	\$459			
All Over 3,400 Gal	379	0.8400	318	379	1.1000	417	379	1.1000	10	427			
Subtotal	787		\$318	787		\$866	787		\$20	\$886			
First 16,000 Gal							787				\$1.9128	\$1,505	
Next 584,000 Gal											\$1.4824		
All over 600,000											\$1.1477		
												1,505	
RZ 2 Industrial Usage	787			787			787						
<b>RZ 2 Industrial Revenues</b>			<b>\$655</b>			<b>\$1,088</b>			<b>\$25</b>	<b>\$1,113</b>		<b>\$1,841</b>	<b>65.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone 5 Steelton	6/30/2023			6/30/2024			6/30/2025		Proforma		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	12	\$24.83	\$298	12	\$24.83	\$298	12	\$24.83	\$7	\$305	\$28.00	\$336	10.00%
3/4 - Meter	0	24.83	0	0	24.83	0	0	24.83	0	0	42.00	0	0.00%
1 - Meter	0	54.38	0	0	54.38	0	0	54.38	0	0	70.00	0	0.00%
1 1/2 - Meter	0	97.93	0	0	97.93	0	0	97.93	0	0	140.00	0	0.00%
2 - Meter	36	141.46	5,093	36	141.46	5,093	36	141.46	117	5,210	224.00	8,064	55.00%
3 - Meter	0	320.98	0	0	320.98	0	0	320.98	0	0	420.00	0	0.00%
4 - Meter	36	419.20	15,091	36	419.20	15,091	36	419.20	347	15,438	701.00	25,236	63.00%
6 - Meter	36	670.70	24,145	36	670.70	24,145	36	670.70	555	24,700	1,401.00	50,436	104.00%
8 - Meter	12	974.35	11,692	12	974.35	11,692	12	974.35	269	11,961	2,243.00	26,916	125.00%
Subtotal	132		\$56,319	132		\$56,319	132		\$1,295	\$57,614		\$110,988	93.00%
<b>Usage (in 100 Gallons)</b>													
First 1,700 Gal	2,104	\$1.6108	\$3,389	2,104	\$1.6108	\$3,389	2,104	\$1.6108	\$78	\$3,467			
Next 18,300 Gal	16,212	1.6108	26,114	16,212	1.6108	26,114	16,212	1.6108	601	26,715			
Next 30,000 Gal	22,508	1.2500	28,135	22,508	1.2500	28,135	22,508	1.2500	647	28,782			
All Over 50,000 Gal	817,957	1.2500	1,022,446	817,957	1.2500	1,022,446	817,957	1.2500	23,516	1,045,962			
Subtotal	858,781		\$1,080,084	858,781		\$1,080,084	858,781		\$24,842	\$1,104,926			
First 16,000 Gal							17,176	0.02			1.9128	\$32,854	
Next 584,000 Gal							515,269	0.60			1.4824	\$763,834	
All over 600,000							326,337				1.1477	\$374,537	
												1,171,225	
RZ 5 Industrial Usage	858,781			858,781			858,781						
<b>RZ 5 Industrial Revenues</b>			<b>\$1,136,403</b>			<b>\$1,136,403</b>			<b>\$26,137</b>	<b>\$1,162,540</b>		<b>\$1,282,213</b>	<b>10.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
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<b>Rate Zone XX Farmington</b>	Billing Determinants	Current Rate	Annualized Annualized Revenue	Billing Determinants	Current Rate	Proforma Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Proforma @ Present Rate	Proposed Rate	Proforma Proforma @ Proposed Rate	% Percent Change
<u>Customer Charge</u>													
Service Charge per EDU		\$67.50	\$0	96	\$67.50	\$6,480	96	\$67.50		\$6,480			
Service Charge per Customer							36				\$ 28.00	\$1,008	0.00%
<u>Usage (in 100 Gallons)</u>													
First 5,000 Gallons		\$0.0000	\$0	3,588	\$0.0000	\$0	3,588	\$0.0000		\$0	\$1.9128	\$6,862	0.00%
All Over 5,000 Gallons		1.5000	0	0	1.5000	0	0	1.5000		0	1.9128	0	0.00%
RZ XX Industrial Usage				3,588			3,588						
<b>RZ XX Industrial Revenues</b>			<u><u>\$0</u></u>			<u><u>\$6,480</u></u>			<u><u>\$0</u></u>	<u><u>\$6,480</u></u>		<u><u>\$7,870</u></u>	<b>21.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
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<b>Municipal Class</b>	6/30/2023 Usage (in 100 Gallons)	6/30/2023 Number of Bills	6/30/2023 Annualized Revenues	6/30/2024 Usage (in 100 Gallons)	6/30/2024 Number of Bills	6/30/2024 Proforma Revenues	6/30/2025 Usage (in 100 Gallons)	6/30/2025 Number of Bills	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most Areas	19,179,402	28,468	\$22,649,096	18,526,458	28,468	\$21,998,039	18,459,474	28,468	\$504,419	\$22,435,668	\$26,076,480	16.00%
Zone 2 - Valley	44,863	48	37,957	44,863	48	74,063	44,863	48	1,704	75,767	80,459	6.00%
Zone 4 - Turbotville	138	12	452	138	12	452	138	12	10	462	516	12.00%
Zone 5 - Steelton	16,347	124	27,630	16,347	124	27,630	16,347	124	635	28,265	29,349	4.00%
Zone XX - Audubon				11,020	36	16,137	11,020	36	0	16,137	19,213	19.00%
Zone XX - Farmington				1,477	48	3,240	1,477	48	0	3,240	3,912	21.00%
<b>Total Municipal</b>	<b>19,240,750</b>	<b>28,652</b>	<b>\$22,715,135</b>	<b>18,598,826</b>	<b>28,736</b>	<b>\$22,119,561</b>	<b>18,531,842</b>	<b>28,736</b>	<b>\$506,768</b>	<b>\$22,559,539</b>	<b>\$26,209,929</b>	<b>16.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
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Rate Zone 1	6/30/2023			6/30/2024			6/30/2025		Proforma	6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change	
<b>Customer Charge</b>													
5/8 - Meter	9,258	\$18.50	\$171,274	9,258	\$18.50	\$171,274	9,258	\$18.50	\$3,939	\$175,213	\$20.00	\$185,161	6.00%
3/4 - Meter	639	28.00	17,892	639	28.00	17,892	639	28.00	412	18,304	30.00	19,170	5.00%
1 - Meter	5,406	46.60	251,919	5,406	46.60	251,919	5,406	46.60	5,794	257,713	50.00	270,299	5.00%
1 1/2 - Meter	1,002	76.10	76,221	1,002	76.10	76,221	1,002	76.10	1,753	77,974	82.00	82,131	5.00%
2 - Meter	6,867	121.80	836,384	6,867	121.80	836,384	6,867	121.80	19,237	855,621	132.00	906,426	6.00%
3 - Meter	324	227.20	73,549	324	227.20	73,549	324	227.20	1,692	75,241	246.00	79,635	6.00%
4 - Meter	1,737	285.10	495,154	1,737	285.10	495,154	1,737	285.10	11,389	506,543	308.00	534,926	6.00%
6 - Meter	2,489	426.80	1,062,346	2,489	426.80	1,062,346	2,489	426.80	24,434	1,086,780	461.00	1,147,473	6.00%
8 - Meter	647	826.30	534,777	647	826.30	534,777	647	826.30	12,300	547,077	893.00	577,945	6.00%
10 - Meter	100	1,196.60	119,660	100	1,196.60	119,660	100	1,196.60	2,752	122,412	1,294.00	129,400	6.00%
Subtotal	28,468		\$3,639,176	28,468		\$3,639,176	28,468		\$83,702	\$3,722,878		\$3,932,566	6.00%
<b>Usage (in 100 Gallons)</b>													
First 16,000 Gal	1,789,908	\$1.6700	\$2,989,146	1,957,603	\$1.6700	\$3,269,197	1,885,820	\$1.6700	\$72,434	\$3,221,754	\$1.9984	\$3,768,623	17.00%
All Over 16,000	15,864,118	0.9140	14,499,803	17,221,799	0.9140	15,740,724	16,640,637	0.9140	349,819	15,559,362	1.1091	18,456,131	19.00%
Subtotal	17,654,025		\$17,488,949	19,179,402		\$19,009,921	18,526,458		\$422,253	\$18,781,116		\$22,224,754	18.00%
<b>Adjustment (1):</b>													
First 16,000 Gal	167,695	\$1.6700	\$280,051	(71,783)	\$1.6700	(\$119,877)	(7,364)	\$1.6700	(\$283)	(\$12,581)	\$1.9984	(\$14,716)	17.00%
All Over 16,000	1,357,681	0.9140	1,240,920	(581,161)	0.9140	(531,181)	(59,619)	0.9140	(1,253)	(55,745)	1.1091	(66,124)	19.00%
Subtotal	1,525,376		\$1,520,971	(652,944)		(\$651,058)	(66,983)		(\$1,536)	(\$68,326)		(\$80,840)	18.00%
RZ 1 Municipal Usage	19,179,402			18,526,458			18,459,474						
<b>RZ 1 Municipal Revenues</b>			<b>\$22,649,096</b>			<b>\$21,998,039</b>			<b>\$504,419</b>	<b>\$22,435,668</b>		<b>\$26,076,480</b>	<b>16.00%</b>

Note (1) Adjustment to account for normalization in usage trend including the impact of declining usage.



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Rate Zone 2 Valley	6/30/2023		6/30/2023		6/30/2024		6/30/2024		6/30/2025		6/30/2025		6/30/2025	
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	Proforma	Proposed Rate	Proforma @ Proposed Rate	% Percent Change	
<b>Customer Charge</b>														
5/8 - Meter		\$28.12	\$0		\$18.50	\$0	0	\$18.50	\$0	\$0	\$20.00	\$0	0.00%	
3/4 - Meter		28.12	-		28.00	-	0	28.00	0	0	30.00	0	0.00%	
1 - Meter		28.12	-		46.60	-	0	46.60	0	0	50.00	0	0.00%	
1 1/2 - Meter		28.12	-		76.10	-	0	76.10	0	0	82.00	0	0.00%	
2 - Meter	12	28.12	337	12	121.80	1,462	12	121.80	34	1,496	132.00	1,584	6.00%	
3 - Meter		28.12	-		227.20	-	0	227.20	0	0	246.00	0	0.00%	
4 - Meter	12	28.12	337	12	285.10	3,421	12	285.10	79	3,500	308.00	3,696	6.00%	
6 - Meter		28.12	-		426.80	-	0	426.80	0	0	461.00	0	0.00%	
8 - Meter	24	28.12	675	24	826.30	19,831	24	826.30	456	20,287	893.00	21,432	6.00%	
<b>Subtotal</b>	<b>48</b>		<b>\$1,349</b>	<b>48</b>		<b>\$24,714</b>	<b>48</b>		<b>\$569</b>	<b>\$25,283</b>		<b>\$26,712</b>		
<b>Usage (in 100 Gallons)</b>														
First 3,400 Gal	1,282	\$0.0000	\$0	1,282	\$1.1000	\$1,410	1,282	\$1.1000	\$32	\$1,442				
All Over 3,400 Gal	43,581	0.8400	36,608	43,581	1.1000	47,939	43,581	1.1000	1,103	49,042				
<b>Subtotal</b>	<b>44,863</b>		<b>\$36,608</b>	<b>44,863</b>		<b>\$49,349</b>	<b>44,863</b>		<b>\$1,135</b>	<b>\$50,484</b>				
First 16,000 Gal							4,486	0.10			\$1,9984	\$8,965		
All Over 16,000							40,377	0.90			\$1,1091	44,782		
												\$53,747		
<b>RZ 2 Municipal Usage</b>	<b>44,863</b>			<b>44,863</b>			<b>44,863</b>							
<b>RZ 2 Municipal Revenues</b>			<b>\$37,957</b>			<b>\$74,063</b>			<b>\$1,704</b>	<b>\$75,767</b>		<b>\$80,459</b>	<b>6.00%</b>	

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone 3 SLIBCO	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter		\$63.55	\$0	0	\$63.55	\$0	0	\$63.55	\$0	\$0	\$20.00	\$0	0.00%
3/4 - Meter		63.55	0	0	63.55	0	0	63.55	0	0	30.00	0	0.00%
1 - Meter		63.55	0	0	63.55	0	0	63.55	0	0	50.00	0	0.00%
1 1/2 - Meter		63.55	0	0	63.55	0	0	63.55	0	0	82.00	0	0.00%
2 - Meter		63.55	0	0	63.55	0	0	63.55	0	0	132.00	0	0.00%
3 - Meter		63.55	0	0	63.55	0	0	63.55	0	0	246.00	0	0.00%
4 - Meter		136.30	0	0	136.30	0	0	136.30	0	0	308.00	0	0.00%
Subtotal	0		\$0	0		\$0	0		\$0	\$0		\$0	0.00%
<b>Usage (in 100 Gallons) *</b>													
First 20,000 Gal		\$1.8940	\$0	0	\$1.8940	\$0	0	\$1.8940	\$0	\$0	\$2.1319	\$0	0.00%
Next 80,000 Gal		1.67800	0	0	1.67800	0	0	1.89400	0	0	1.54630	0	0.00%
All Over 100,000 Gal		1.38100	0	0	1.38100	0	0	1.89400	0	0	0.00000	0	
Subtotal	0		0	0		0	0		\$0	\$0		0	
RZ 3 Municipal Usage	0			0			0						
<b>RZ 3 Municipal Revenues</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	<b>\$0</b>		<b>\$0</b>	<b>0.00%</b>

\* All usage rate conversion to two blocks.

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Rate Zone 4 Turbotville</b>													
<u>Customer Charge</u>													
5/8 - Meter	12	\$18.50	\$222	12	\$18.50	\$222	12	\$18.50	\$5	\$227	\$20.00	\$240	6.00%
Subtotal	12		\$222	12		\$222	12		\$5	\$227		\$240	6.00%
<u>Usage (in 100 Gallons)</u>													
First 16,000 Gal	138	\$1.6700	\$230	138	\$1.6700	\$230	138	\$1.6700	\$5	\$235	\$1.9984	\$276	17.00%
All Over 16,000 Gal		\$0.9861	0	0	\$0.9861	0	0	\$0.9861	0	0	\$1.1091	0	0.00%
Subtotal	138		\$230	138		\$230	138		\$5	\$235		\$276	17.00%
RZ 4 Municipal Usage	138			138			138						
<b>RZ 4 Municipal Revenues</b>			<b>\$452</b>			<b>\$452</b>			<b>\$10</b>	<b>\$462</b>		<b>\$516</b>	<b>12.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone 5 Steelton	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	6/30/2025 Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge</b>													
5/8 - Meter	63	\$18.50	\$1,166	63	\$18.50	\$1,166	63	\$18.50	\$27	\$1,193	\$20.00	\$1,260	6.00%
3/4 - Meter	0	28.00	0	0	28.00	0	0	28.00	0	0	30.00	0	0.00%
1 - Meter	24	46.60	1,118	24	46.60	1,118	24	46.60	26	1,144	50.00	1,200	5.00%
1 1/2 - Meter	12	76.10	913	12	76.10	913	12	76.10	21	934	82.00	984	5.00%
2 - Meter	24	121.80	2,923	24	121.80	2,923	24	121.80	67	2,990	132.00	3,168	6.00%
3 - Meter	1	227.20	227	1	227.20	227	1	227.20	5	232	246.00	246	6.00%
4 - Meter	0	285.10	0	0	285.10	0	0	285.10	0	0	308.00	0	0.00%
Subtotal	124		\$6,347	124		\$6,347	124		\$146	\$6,493		\$6,858	6.00%
<b>Usage (in 100 Gallons)</b>													
First 1,700 Gal	709	\$1.6108	\$1,142	709	\$1.6108	\$1,142	709	\$1.6108	\$26	\$1,168			
Next 18,300 Gal	1,642	1.6108	2,645	1,642	1.6108	2,645	1,642	1.6108	61	2,706			
Next 30,000 Gal	942	1.2500	1,178	942	1.2500	1,178	942	1.2500	27	1,205			
All Over 50,000 Gal	13,054	1.2500	16,318	13,054	1.2500	16,318	13,054	1.2500	375	16,693			
Subtotal	16,347		\$21,283	16,347		\$21,283	16,347		\$489	\$21,772			
First 16,000 Gal							4,904	0.30			\$1,9984	\$9,800	
All Over 16,000 Gal							11,443	0.70			\$1,1091	12,691	
												22,491	
RZ 5 Municipal Usage	16,347			16,347			16,347						
<b>RZ 5 Municipal Revenues</b>			<b>\$27,630</b>			<b>\$27,630</b>			<b>\$635</b>	<b>\$28,265</b>		<b>\$29,349</b>	<b>4.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone XX Audubon	6/30/2023		6/30/2023		6/30/2024		6/30/2024		6/30/2025		6/30/2025		6/30/2025	
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change	
<b>Customer Charge</b>														
5/8 - Meter		\$16.80	\$0		\$16.80	\$0	0	\$16.80	\$0	\$16.80	\$0	0.00%		
3/4 - Meter		16.80	0		16.80	0	0	16.80	0	16.80	0	0.00%		
1 - Meter		42.80	0		42.80	0	0	42.80	0	42.80	0	0.00%		
1 1/2 - Meter		72.90	0	12	72.90	875	12	72.90	875	72.90	875	0.00%		
2 - Meter		116.40	0	12	116.40	1,397	12	116.40	1,397	116.40	1,397	0.00%		
3 - Meter		218.60	0		218.60	0	0	218.60	0	218.60	0	0.00%		
4 - Meter		363.90	0	12	363.90	4,367	12	363.90	4,367	363.90	4,367	0.00%		
6 - Meter		727.80	0		727.80	0	0	727.80	0	727.80	0	0.00%		
8 - Meter		1,164.60	0		1,164.60	0	0	1,164.60	0	1,164.60	0	0.00%		
<b>Subtotal</b>	0		\$0	36		\$6,639	36		\$0	\$6,639		\$6,639	0.00%	
<b>Usage (in 100 Gallons)</b>														
First 100,000 Gal		\$0.8619	\$0	11,020	\$0.8619	\$9,498	11,020	\$0.8619	\$9,498	\$1,1410	\$12,574	32.00%		
All Over 100,000 Gal		0.5723	0	0	0.5723	0	0	0.5723	0	1.4160	0	0.00%		
<b>Subtotal</b>	0		\$0	11,020		\$9,498	11,020		\$0	\$9,498		\$12,574		
<b>RZ XX Municipal Usage</b>	0			11,020			11,020							
<b>RZ XX Municipal Revenues</b>			<b>\$0</b>			<b>\$16,137</b>			<b>\$0</b>	<b>\$16,137</b>		<b>\$19,213</b>	<b>19.00%</b>	

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone XX Farmington	6/30/2023	Current	Annualized	6/30/2024	Current	Proforma	6/30/2025	Current	Proforma	Proforma	Proposed	Proforma	% Percent
	Determinants	Rate	6/30/2023		Determinants	Rate		6/30/2024	Determinants	Rate		Revenues	
<u>Customer Charge</u>													
Service Charge per EDU		\$67.50	\$0	48	\$67.50	\$3,240	48	\$67.50		\$3,240			
Service Charge per Customer							48				20.00	\$960	0.00%
<u>Usage (in 100 Gallons)</u>													
First 5,000 Gallons		\$0.0000	\$0	1,477	\$0.0000	\$0	1,477	\$0.0000		\$0	\$1.9984	\$2,952	0.00%
All Over 5,000 Gallons		1.5000	0	0	1.5000	0	0	1.5000		0	1.9984	0	0.00%
RZ XX Municipal Usage				1,477			1,477						
<b>RZ XX Municipal Revenues</b>			<b>\$0</b>			<b>\$3,240</b>			<b>\$0</b>	<b>\$3,240</b>		<b>\$3,912</b>	<b>21.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

<b>Other Water Utilities Class</b>	6/30/2023	6/30/2023	6/30/2023	6/30/2024	6/30/2024	6/30/2024	6/30/2025	6/30/2025	Proforma	6/30/2025	6/30/2025	
	Usage (in 100 Gallons)	Number of Bills	Annualized Revenues	Usage (in 100 Gallons)	Number of Bills	Proforma Revenues	Usage (in 100 Gallons)	Number of Bills	DSIC Revenues	Proforma @ Present Rate	Proforma @ Proposed Rate	% Percent Change
Group A	199,499	59	\$220,918	7,251	59	\$50,657	7,251	47	\$1,165	\$51,822	\$53,666	4.00%
Group B	131,893	96	203,453	131,893	96	197,885	131,893	72	4,551	202,436	277,021	37.00%
Demand-Based (DRS)	7,479,835	60	2,560,401	9,126,835	60	3,195,027	9,122,335	60	0	3,316,086	3,316,086	0.00%
<b>Total Other Water Utilities</b>	<b>7,811,227</b>	<b>215</b>	<b>\$2,984,772</b>	<b>9,265,979</b>	<b>215</b>	<b>\$3,443,569</b>	<b>9,261,479</b>	<b>179</b>	<b>\$5,716</b>	<b>\$3,570,344</b>	<b>\$3,646,773</b>	<b>2.00%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone 1	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge - Group A</b>													
5/8 - Meter	0	\$29.10	\$0	0	\$29.10	\$0	0	\$29.10	\$0	\$0	\$29.10	\$0	0.00%
3/4 - Meter	0	44.00	0	0	44.00	0	0	44.00	0	0	44.00	0	0.00%
1 - Meter	0	73.00	0	0	73.00	0	0	73.00	0	0	73.00	0	0.00%
1 1/2 - Meter	0	145.00	0	0	145.00	0	0	145.00	0	0	145.00	0	0.00%
2 - Meter	12	232.00	2,784	12	232.00	2,784	12	232.00	64	2,848	232.00	2,784	-2.00%
3 - Meter	0	436.00	0	0	436.00	0	0	436.00	0	0	436.00	0	0.00%
4 - Meter	12	726.00	8,712	12	726.00	8,712	12	726.00	200	8,912	726.00	8,712	-2.00%
6 - Meter	35	1,452.00	50,820	35	1,452.00	50,820	23	1,452.00	768	34,164	1,452.00	33,396	-2.00%
8 - Meter	0	2,325.00	0	0	2,325.00	0	0	2,325.00	0	0	2,325.00	0	0.00%
10 - Meter	0	3,340.00	0	0	3,340.00	0	0	3,340.00	0	0	3,340.00	0	0.00%
Subtotal	59		\$62,316	59		\$62,316	47		\$1,033	\$45,925		\$44,892	-2.00%
Usage (in 100 Gallons)													
All Usage (Group A)	199,499	\$0.7950	\$158,602	199,499	\$0.7950	\$158,602	7,251	\$0.7950	\$133	\$5,898	\$1,2100	\$8,774	49.00%
<b>Adjustment (1):</b>													
6 - Meter				(12)	\$1,452.00	(\$17,424)							
Usage (in 100 Gallons)				(192,248)	\$0.7950	(\$152,837)							
<b>Total OWU - Group A</b>	<b>199,499</b>		<b>\$220,918</b>	<b>7,251</b>		<b>\$50,657</b>	<b>7,251</b>		<b>\$1,165</b>	<b>\$51,822</b>		<b>\$53,666</b>	<b>4.00%</b>

Note (1) Adjustment for Farmington Township change from bulk water customer to direct services to customers



PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

Rate Zone 1	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Customer Charge - Group B</b>													
5/8 - Meter	0	\$29.10	\$0	0	\$29.10	\$0	0	\$29.10	\$0	\$0	\$29.10	\$0	0.00%
3/4 - Meter	0	44.00	0	0	44.00	0	0	44.00	0	0	44.00	0	0.00%
1 - Meter	0	73.00	0	0	73.00	0	0	73.00	0	0	73.00	0	0.00%
1 1/2 - Meter	0	145.00	0	0	145.00	0	0	145.00	0	0	145.00	0	0.00%
2 - Meter	48	232.00	11,136	48	232.00	11,136	24	232.00	128	5,696	232.00	5,568	-2.00%
3 - Meter	0	436.00	0	0	436.00	0	0	436.00	0	0	436.00	0	0.00%
4 - Meter	36	726.00	25,854	36	726.00	25,854	36	726.00	595	26,449	726.00	25,854	-2.00%
6 - Meter	12	1,452.00	17,424	12	1,452.00	17,424	12	1,452.00	401	17,825	1,452.00	17,424	-2.00%
8 - Meter	0	2,325.00	0	0	2,325.00	0	0	2,325.00	0	0	2,325.00	0	0.00%
10 - Meter	0	3,340.00	0	0	3,340.00	0	0	3,340.00	0	0	3,340.00	0	0.00%
Subtotal	96		\$54,414	96		\$54,414	72		\$1,123	\$49,969		\$48,846	-2.00%
Usage (in 100 Gallons)													
All Usage (Group B)	131,893	\$1.1300	\$149,039	131,893	\$1.1300	\$149,039	131,893	\$1.1300	3,428	\$152,467	\$1.7300	\$228,175	50.00%
<i>Adjustment (1):</i>													
2 - Meter				(24)	232.00	(\$5,568)							
All Usage (Group B)													
<b>Total OWU - Group B</b>	<b>131,893</b>		<b>\$203,453</b>	<b>131,893</b>		<b>\$197,885</b>	<b>131,893</b>		<b>\$4,551</b>	<b>\$202,436</b>		<b>\$277,021</b>	<b>37.00%</b>

Note (1) Adjustment for Audubon Township change from bulk water customer to direct services to customers

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BILL ANALYSIS  
YEAR ENDING JUNE 30, 2023, 2024, AND 2025

	6/30/2023 Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	6/30/2024 Billing Determinants	Current Rate	6/30/2024 Annualized Revenue	6/30/2025 Billing Determinants	Current Rate	Proforma DSIC Revenues @ Present Rate	6/30/2025 Proforma @ Present Rate	6/30/2025 Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Demand-Based Resale Service (DRS)													
DRS-1 Demand Charge	Redacted - Refer to Confidential Volume 6d												
DRS-1 Commodity													
DRS -2 Commodity													
DRS -3 Commodity													
DRS -4 Commodity													
DRS-5 Demand Charge													
DRS-5 Commodity													
DRS -6 Commodity													
DRS -7 Demand Charge													
DRS -7 Commodity													
<i>Adjustment (1):</i>													
DRS -7 Demand Charge													
DRS -7 Commodity													
<i>Adjustment (2):</i>													
DRS -8 Commodity													
RZ 1 Other Water Utilities Usage	7,479,835			9,126,835			9,122,335						
<b>Total Demand-Based Service</b>			<u>\$2,560,401</u>			<u>\$3,195,027</u>			<u>\$0</u>	<u>\$3,316,086</u>		<u>\$3,316,086</u>	0.00%

Note (1) Adjustment for adding in June activity that was billed in July 2023

Note (2) Adjustment for new contract account

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER  
APPLICATION OF PRESENT AND PROPOSED RATES  
PUBLIC FIRE HYDRANTS

Service Area	12 ME June 2023	Current	Annualized	12 ME June 2024	Monthly	12 ME June 2024	12 ME June 2025	Monthly	12 ME June 2025	Monthly	Pro Forma
	Billed Number of Hydrants	Monthly Rate		Revenues		Number of Hydrants	Present Rate		Revenues		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Hydrants (Most Areas)	38,617	\$20.30	\$9,407,101	38,617	\$20.30	\$9,407,101	38,617	\$20.30	\$9,407,101	\$25.30	\$11,724,121
Bradford Township	47	6.25	3,525	47	6.25	3,525	47	6.25	3,525	6.25	3,525
Valley District	108	20.30	26,309	108	20.30	26,309	108	20.30	26,309	25.30	32,789
Audubon				212	25.70	65,381	212	25.70	65,381	25.70	65,381
Farmington				70	20.30	17,052	70	20.30	17,052	25.30	21,252
Total Public Fire Revenue	<u>38,772</u>		<u>\$9,436,935</u>	<u>39,054</u>		<u>\$9,519,368</u>	<u>39,054</u>		<u>\$9,519,368</u>		<u>\$11,847,068</u>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
APPLICATION OF PRESENT AND PROPOSED RATES  
PRIVATE FIRE SERVICE

Service Connection Size	2023 Rates			2024 Present Rates			2025 Present Rates			2025 Proposed Rates	
	Number	Rate	Revenue	Number	Rate	Revenue	Number	Rate	Revenue	Rate	Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1" or 1 1/4"	388	\$5.34	\$2,071	480	\$5.34	\$2,563	480	\$5.34	\$2,563	\$6.62	\$3,178
1 1/2"	0	7.69	0	0	7.69	0	0	7.69	0	9.53	0
2"	635	13.68	8,687	780	13.68	10,670	780	13.68	10,670	16.96	13,229
3"	184	31.11	5,724	180	31.11	5,600	180	31.11	5,600	38.57	6,943
4"	3,940	54.78	215,822	3,852	54.78	211,013	3,852	54.78	211,013	67.91	261,589
6"	13,898	124.47	1,729,928	13,824	124.47	1,720,673	13,824	124.47	1,720,673	154.61	2,137,329
8"	7,113	221.56	1,575,890	7,104	221.56	1,573,962	7,104	221.56	1,573,962	274.67	1,951,256
10"	626	346.02	216,599	624	346.02	215,916	624	346.02	215,916	429.08	267,746
12"	232	497.88	115,508	228	497.88	113,517	228	497.88	113,517	617.22	140,726
1" Metered	168	43.75	7,350	180	43.75	7,875	180	43.75	7,875	54.25	9,765
1-1/2" Metered	36	62.48	2,264	36	62.48	2,249	36	62.48	2,249	77.46	2,789
2" Metered	232	100.00	23,189	264	100.00	26,400	264	100.00	26,400	123.97	32,728
3" Metered	50	187.49	9,349	132	187.49	24,749	132	187.49	24,749	232.43	30,681
4" Metered	412	234.36	96,549	660	234.36	154,678	660	234.36	154,678	290.54	191,756
6" Metered	614	351.54	215,999	768	351.54	269,983	768	351.54	269,983	435.80	334,694
8" Metered	189	539.03	101,976	228	539.03	122,899	228	539.03	122,899	668.24	152,359
10" Metered	77	757.77	58,348	96	757.77	72,746	96	757.77	72,746	939.42	90,184
Hydrants	19,683	26.87	528,872	19,740	\$26.87	530,414	19,740	\$26.87	530,414	\$26.90	531,006
Hydrants (Valley)	36	-	0	36	26.87	967	36	26.87	967	26.90	968
Sprinkler first 200	84	65.22	5,478	84	65.22	5,478	84	65.22	5,478	80.85	6,791
Sprinkler over 200	22,020	0.17	3,743	22,020	0.17	3,743	22,020	0.17	3,743	0.21	4,624
Standpipes	120	50.71	6,085	120	50.71	6,085	120	50.71	6,085	62.87	7,544
<u>Audubon</u>											
1" (Unmetered)				588	30.80	18,110	588	30.80	18,110	38.18	22,450
4" Metered				36	69.40	2,498	36	69.40	2,498	86.04	3,097
6" Metered				492	102.75	50,553	492	102.75	50,553	127.38	62,671
8" Metered				168	167.00	28,056	168	167.00	28,056	207.03	34,781
10" Metered				12	228.60	2,743	12	228.60	2,743	283.40	3,401
DSIC @ 2.3%									\$116,890		
Total Private Fire	<u>70,737</u>		<u>\$4,929,433</u>	<u>72,732</u>		<u>\$5,184,142</u>	<u>72,732</u>		<u>\$5,301,032</u>		<u>\$6,304,285</u>

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS  
Miscellaneous & Other Operating Revenues  
YEAR ENDING JUNE 30, 2023, 2024, 2025

	Per Books		Adjusted				Proposed		
	12 ME JUNE 2023	Adjustments	12 ME JUNE 2023	Adjustments	12 ME JUNE 2024	Adjustments	12 ME JUNE 2025	2025	
469	Guaranteed Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
470	Late Payment Fees	4,419,511	(379,378)	4,040,133	(17,932)	4,022,202	70,192	4,092,394	5,089,103
471	Miscellaneous Services	4,828,286	(4,439)	4,823,847	16,325	4,840,172	16,947	4,857,120	4,857,120
472	Rents From Property	1,186,476		1,186,476	(397,369)	789,106	7,148	796,254	796,254
473	Intercompany Rent	516,719		516,719	(228,104)	288,615	0	288,615	288,615
474	Other Water Revenues	(27)	27	0		0	0	0	0
	<b>Total Other Revenues</b>	<b>\$10,950,965</b>	<b>(\$383,790)</b>	<b>\$10,567,175</b>	<b>(\$627,080)</b>	<b>\$9,940,095</b>	<b>\$94,287</b>	<b>\$10,034,383</b>	<b>\$11,031,091</b>

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	6/30/2023 Billing Units	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants	FR II.02e Annualized Revenue Current Rate	Change in Customers FR II.02h	Usage Normalization FR II.02i	Creekside Annualization FR II.02m	Quarryville 12th bill adj FR II.02u	6/30/2023 Revenues Incl All adj
Rate Zone 1 - Most Areas	(a)	(b)	(c)	(d) = (a)*(b)*©	(a)	(e) = (a)*(c)	(f)	(g)	(h)	(i)	j=(a+f+g+h+i)*c
<b>Water Srvice Charge @ Old Rate</b>											
5/8-METER	812	\$17.00		\$13,807							
Winola unmetered	50	\$33.23		1,661							
3/4-METER	22	17.00		382							
1-METER	1	17.00		21							
1.5-METER	0	17.00		0							
2-METER	827	115.20		95,328							
3-METER	0	214.90		0							
4-METER	112	269.70		30,276							
6-METER	56	403.70		22,680							
8-METER	1	781.60		1,022							
<b>Water Srvice Charge @ Current Rate</b>											
5/8-METER	5,871,828		\$17.50	\$102,756,988	5,872,690	\$102,772,077	15,060				\$103,035,627
3/4-METER	10,238		17.50	179,158	10,260	179,550			984		196,770
1-METER	83,486		17.50	1,460,997	83,487	1,461,019					1,461,019
1.5-METER	672		17.50	11,768	672	11,768					11,768
2-METER	316		121.80	38,526	1,144	139,315					139,315
3-METER	0			0	0	0					0
4-METER	47		285.10	13,359	159	45,363					45,363
6-METER	20		426.80	8,495	76	32,473					32,473
8-METER	3		826.30	2,361	4	3,441					3,441
UnMetered	647	\$62.78		\$40,647							
UnMetered	362		\$70.00	\$25,314	1,009	\$70,636					\$70,636
<b>Sprinkler</b>											
5/8-METER	214	\$17.00		\$3,645							
3/4-METER	0	17.00		0							
1-METER	2	17.00		32							
<b>Sprinkler</b>											
5/8-METER	1,398,545	\$17.50	\$24,474,536	1,398,759	\$24,478,288						\$24,478,288
3/4-METER	587	17.50	10,264	587	10,264						10,264
1-METER	94,579	17.50	1,655,139	94,581	1,655,172						1,655,172
1.5-METER	1,638	17.50	28,672	1,638	28,672						28,672
2-METER	203	17.50	3,548	203	3,548						3,548
8-METER	6	17.50	112	6	112						112
<b>Usage in Hundred Gallons</b>											
Usage @ 2022 RZ1 Rate	163,814,790	\$1.3100		\$214,597,374							
Usage (Winola)	101,348	0.0000		0							
Usage (McEwensville)	24,759	0.8983		22,241							
All Usage	93,428,481		1.6108	150,494,597	257,369,377	\$414,570,592	518,926.44	(8,712,299)	32,706		\$401,425,389
	257,369,377										
<b>Low Income (30% Discount - 2022)</b>	<b>(\$4,127,205)</b>			<b>(4,127,205)</b>							
# of Customers											
<b>Low Income (80% Discount) Tier 1</b>	<b>(\$1,480,385)</b>		(\$14.00)	<b>(1,480,385)</b>	57,540	<b>(\$805,560)</b>					<b>(\$805,560)</b>
# of Customers			(\$1.2886)	0	1,983,990	(2,556,570)		(70,563)			(2,465,641)
<b>Low Income (65% Discount service &amp; 50% Disc</b>	<b>(\$1,355,103)</b>		(\$11.38)	<b>(1,355,103)</b>	86,412	<b>(\$983,369)</b>					<b>(\$983,369)</b>
# of Customers			(\$0.8054)	0	2,979,502	(2,399,691)		(105,387)			(2,314,812)
<b>Low Income (40% Discount service &amp; 25% Disc</b>	<b>(\$1,603,831)</b>		(\$7.00)	<b>(1,603,831)</b>	179,736	<b>(\$1,258,152)</b>					<b>(\$1,258,152)</b>
# of Customers			(\$0.4027)	0	6,197,332	(2,495,666)		(219,022)			(2,407,466)

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	2024 Rates	FR II.02j Valley Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Findlay Township FR II.02w	Audubon from SFR to reg FR II.02x	Farmington from SFR to reg FR II.02y	Shale Gas Com Usage FR II.02l	Present Rate 6/30/2024 Revenues
Rate Zone 1 - Most Areas	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	s=(a+f+g+h+i+m+n+o+p+q+r)*k
<b>Water Service Charge @ Old Rate</b>									
5/8-METER									
Winola unmetered									
3/4-METER									
1-METER									
1.5-METER									
2-METER									
3-METER									
4-METER									
6-METER									
8-METER									
<b>Water Service Charge @ Current Rate</b>									
5/8-METER	\$17.50		12,780						\$103,259,277
3/4-METER	17.50								196,770
1-METER	17.50								1,461,019
1.5-METER	17.50								11,768
2-METER	121.80								139,315
3-METER									0
4-METER	285.10								45,363
6-METER	426.80								32,473
8-METER	826.30								3,441
UnMetered									
UnMetered	\$70.00								\$70,636
<b>Sprinkler</b>									
5/8-METER									
3/4-METER									
1-METER									
<b>Sprinkler</b>									
5/8-METER	\$17.50								\$24,478,288
3/4-METER	17.50								10,264
1-METER	17.50								1,655,172
1.5-METER	17.50								28,672
2-METER	17.50								3,548
8-METER	17.50								112
<b>Usage in Hundred Gallons</b>									
Usage @ 2022 RZ1 Rate									
Usage (Winola)									
Usage (McEwensville)									
All Usage	1.6108		440,363.87	(4,882,499)					\$394,269,997
<b>Low Income (30% Discount - 2022)</b>									
# of Customers									
Low Income (80% Discount) Tier 1	(\$14.00)								(\$805,560)
# of Customers	(\$1,288.6)			(39,545)					(2,414,684)
Low Income (65% Discount service & 50% Disc	(\$11.38)								(\$983,369)
# of Customers	(\$0.81)			(59,060)					(2,267,245)
Low Income (40% Discount service & 25% Disc	(\$7.00)								(\$1,258,152)
# of Customers	(\$0.40)			(122,743)					(2,358,037)

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	2025 Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Creekside Annualization FR II.02m	Findlay Township FR II.02w	Present Rate 6/30/2025 Revenues
Rate Zone 1 - Most Areas	(t)	(u)	(v)	(w)	(x)	y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t
<b>Water Srvice Charge @ Old Rate</b>						
5/8-METER						
Winola unmetered						
3/4-METER						
1-METER						
1.5-METER						
2-METER						
3-METER						
4-METER						
6-METER						
8-METER						
<b>Water Srvice Charge @ Current Rate</b>						
5/8-METER	\$17.50	25,560				\$103,706,577
3/4-METER	17.50			480		205,170
1-METER	17.50					1,461,019
1.5-METER	17.50					11,768
2-METER	121.80					139,315
3-METER						0
4-METER	285.10					45,363
6-METER	426.80					32,473
8-METER	826.30					3,441
						0
UnMetered						
UnMetered	\$70.00					\$70,636
<b>Sprinkler</b>						
5/8-METER						
3/4-METER						
1-METER						
<b>Sprinkler</b>						
5/8-METER	\$17.50					\$24,478,288
3/4-METER	17.50					10,264
1-METER	17.50					1,655,172
1.5-METER	17.50					28,672
2-METER	17.50					3,548
8-METER	17.50					112
<b>Usage in Hundred Gallons</b>						
Usage @ 2022 RZ1 Rate						
Usage (Winola)						
Usage (McEwensville)						
All Usage	1.6108	880,728	(3,946,197)	15,363		\$389,356,887
<b>Low Income (30% Discount - 2022)</b>						
# of Customers						
Low Income (80% Discount) Tier 1	(\$14.00)					(\$805,560)
# of Customers	(\$1.2886)		(31,961)			(2,373,499)
Low Income (65% Discount service & 50% Discr	(\$11.38)					(\$983,369)
# of Customers	(\$0.81)		(47,735)			(2,228,800)
Low Income (40% Discount service & 25% Disc	(\$7.00)			0		(\$1,258,152)
# of Customers	(\$0.40)		(99,205)	0		(2,318,087)



Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	6/30/2023 Billing Units	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants	FR II.02e	Change in Customers FR II.02h	Usage Normalization FR II.02i	Creekside Annualization FR II.02m	Quarryville 12th bill adj FR II.02u	6/30/2023 Revenues Incl All adj
						Annualized Revenue Current Rate					
<b>Rate Zone 2 - Valley Township</b>											
<b>Total Billed Count</b>											
5/8-METER	19,373		\$28.12	\$544,768	19,373	\$544,768					\$544,768
1-METER	252		\$28.12	7,086	252	7,086					7,086
Usage in Hundred Gallons											
First 3,400 Gal	487,769		\$0.0000	\$0	487,769	\$0					\$0
All Over 3,400 Gal	128,919		0.8400	108,292	128,919	108,292					108,292
	616,689										
Low Income (30% Discount - 2022) # of Customers	(\$1,235)			(1,235)							
Low Income (80% Discount) Tier 1 # of Customers	(\$190)		(\$22.50) (\$0.6720)	(190)	24 754	(\$540) (507)					(\$540) (507)
Low Income (65% Discount service & 50% Disc # of Customers	\$0		(\$18.28) (\$0.4200)	0	0 0	\$0 0					\$0 0
Low Income (40% Discount service & 25% Disc # of Customers	(\$316)		(\$11.25) (\$0.2100)	(316)	72 2,263	(\$810) (475)					(\$810) (475)
<b>Rate Zone 4 - Turbotville</b>											
<b>Total Billed Count</b>											
5/8-METER	3,177		\$17.50	\$55,603	3,177	\$55,603					\$55,603
3/4-METER	0		17.50	0							
1-METER	0		17.00	0							
1.5-METER	0		17.00	0							
2-METER	0		121.80	0							
3-METER	0		227.20	0							
4-METER	0		285.10	0							
Usage in Hundred Gallons											
All Usage	55,350	1.3100		\$72,508							
All Usage	35,388		1.6108	57,003	90,738	\$146,161					\$146,161
	90,738										
Low Income (30% Discount - 2022) # of Customers	(\$665)			(665)							
Low Income (80% Discount) Tier 1 # of Customers	(\$330)		(\$14.00) (\$1.2886)	(330)		(\$168) (442)					(\$168) (442)
Low Income (65% Discount service & 50% Disc # of Customers	\$0		(\$11.38) (\$0.8054)	0		\$0 0					\$0 0
Low Income (40% Discount service & 25% Disc # of Customers	(\$300)		(\$7.00) (\$0.4027)	(300)		(\$336) (552)					(\$336) (552)

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	2024 Rates	FR II.02j Valley Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Findlay Township FR II.02w	Audubon from SFR to reg FR II.02x	Farmington from SFR to reg FR II.02y	Shale Gas Com Usage FR II.02l	Present Rate 6/30/2024 Revenues
<b>Rate Zone 2 - Valley Township</b>									
<b>Total Billed Count</b>									
5/8-METER		\$17.50							\$339,027
1-METER		\$17.50							4,410
Usage in Hundred Gallons									
First 3,400 Gal		\$1.1000							\$536,546
All Over 3,400 Gal		1.1000							141,811
Low Income (30% Discount - 2022) # of Customers									
Low Income (80% Discount) Tier 1 # of Customers		(\$14.00) (\$0.8800)							(\$336) (664)
Low Income (65% Discount service & 50% Disc # of Customers		(\$11.38) (\$0.5500)							\$0 0
Low Income (40% Discount service & 25% Disc # of Customers		(\$7.00) (\$0.2750)							(\$504) (622)
<b>Rate Zone 4 - Turbotville</b>									
<b>Total Billed Count</b>									
5/8-METER	\$17.50								\$55,603
3/4-METER	17.50								
1-METER	17.00								
1.5-METER	17.00								
2-METER	121.80								
3-METER	227.20								
4-METER	285.10								
Usage in Hundred Gallons									
All Usage									
All Usage	1.6108								\$146,161
Low Income (30% Discount - 2022) # of Customers									
Low Income (80% Discount) Tier 1 # of Customers	(\$14.00) (\$1.2886)								(\$168) (442)
Low Income (65% Discount service & 50% Disc # of Customers	(\$11.38) (\$0.8054)								\$0 0
Low Income (40% Discount service & 25% Disc # of Customers	(\$7.00) (\$0.4027)								(\$336) (552)

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	2025 Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Creekside Annualization FR II.02m	Findlay Township FR II.02w	Present Rate 6/30/2025 Revenues
<b>Rate Zone 2 - Valley Township</b>						
<b>Total Billed Count</b>						
5/8-METER	\$17.50					\$339,027
1-METER	\$17.50					4,410
Usage in Hundred Gallons						
First 3,400 Gal	\$1.1000					\$536,546
All Over 3,400 Gal	1.1000					141,811
Low Income (30% Discount - 2022) # of Customers						
Low Income (80% Discount) Tier 1 # of Customers	(\$14.00) (\$0.8800)					(\$336) (664)
Low Income (65% Discount service & 50% Disc # of Customers	(\$11.38) (\$0.5500)					\$0 0
Low Income (40% Discount service & 25% Disc # of Customers	(\$7.00) (\$0.2750)					(\$504) (622)
<b>Rate Zone 4 - Turbotville</b>						
<b>Total Billed Count</b>						
5/8-METER	\$17.50					\$55,603
3/4-METER	17.50					0
1-METER	17.00					0
1.5-METER	17.00					0
2-METER	121.80					0
3-METER	227.20					0
4-METER	285.10					0
Usage in Hundred Gallons						
All Usage						
All Usage	1.6108					\$146,161
Low Income (30% Discount - 2022) # of Customers						
Low Income (80% Discount) Tier 1 # of Customers	(\$14.00) (\$1.2886)					(\$168) (442)
Low Income (65% Discount service & 50% Disc # of Customers	(\$11.38) (\$0.8054)					\$0 0
Low Income (40% Discount service & 25% Disc # of Customers	(\$7.00) (\$0.4027)					(\$336) (552)



Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	2024	FR II.02j	Change in	Usage	Findlay	Audubon	Farmington	Shale Gas	Present Rate
	Rates	Valley Rates	Customers FR II.02h	Trend adj FR II.02i	Township FR II.02w	from SFR to reg FR II.02x	from SFR to reg FR II.02y	Com Usage FR II.02l	6/30/2024 Revenues
<b>Rate Zone 5 - Steelton</b>									
<b>Total Billed Count</b>									
5/8-METER									\$450,029
3/4-METER									0
1-METER									3,155
1.5-METER									0
2-METER									1,462
3-METER									0
4-METER									0
<b>Total Billed Count</b>									
5/8-METER	\$17.50								\$450,029
3/4-METER	17.50								0
1-METER	17.50								3,155
1.5-METER	17.50								0
2-METER	121.80								1,462
3-METER	227.20								0
4-METER	285.10								0
<b>Usage in Hundred Gallons</b>									
First 1,700 Gal									
First 1,700 Gal	1.6108								\$604,538
Next 18,300 Gal									
Next 18,300 Gal	1.6108								871,898
Next 30,000 Gal									
Next 30,000 Gal	1.2500								28,764
All Over 50,000 Gal									
All Over 50,000 Gal	1.2500								16,067
<b>Low Income (30% Discount - 2022)</b>									
# of Customers									
Low Income (80% Discount) Tier 1	(\$14.00)								(\$2,520)
# of Customers	(\$1.29)								(8,527)
Low Income (65% Discount service & 50% Disc	(\$11.38)								(\$1,638)
# of Customers	(\$0.81)								(4,264)
Low Income (40% Discount service & 25% Disc	(\$7.00)								(\$4,536)
# of Customers	(\$0.40)								(9,593)
<b>Rate Zone XX - Audubon Water</b>									
<b>Meter Sizes Single Unit</b>									
5/8-METER	\$16.80					31,380			\$527,184
1-METER	42.80					432			18,490
Flat Rate	170.92					0			0
All Usage	\$0.8619					1,344,380			\$1,158,721
<b>Rate Zone XX - Farmington Water</b>									
Service Charge	\$67.50						5,160		348,300
First 5,000 Gallons	\$0.0000						146,750		0
All Over 5,000 Gallons	\$1.5000						0		0
AMP Program									
<b>RESIDENTIAL REVENUES</b>									<b>\$520,796,532</b>
<b>TOTAL RESIDENTIAL USAGE</b>									
<b>RES CUSTOMER COUNT</b>									
<b>Average Use Per Customer</b>									

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	2025 Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Creekside Annualization FR II.02m	Findlay Township FR II.02w	Present Rate 6/30/2025 Revenues
<b>Rate Zone 5 - Steelton</b>						
<b>Total Billed Count</b>						
5/8-METER						
3/4-METER						
1-METER						
1.5-METER						
2-METER						
3-METER						
4-METER						
<b>Total Billed Count</b>						
5/8-METER	\$17.50					\$450,029
3/4-METER	17.50					0
1-METER	17.50					3,155
1.5-METER	17.50					0
2-METER	121.80					1,462
3-METER	227.20					0
4-METER	285.10					0
<b>Usage in Hundred Gallons</b>						
First 1,700 Gal						
First 1,700 Gal	1.6108					\$604,538
Next 18,300 Gal						
Next 18,300 Gal	1.6108					871,898
Next 30,000 Gal						
Next 30,000 Gal	1.2500					28,764
All Over 50,000 Gal						
All Over 50,000 Gal	1.2500					16,067
<b>Low Income (30% Discount - 2022)</b>						
# of Customers						
Low Income (80% Discount) Tier 1	(\$14.00)					(\$2,520)
# of Customers	(\$1.29)					(8,527)
Low Income (65% Discount service & 50% Disc	(\$11.38)					(\$1,638)
# of Customers	(\$0.81)					(4,264)
Low Income (40% Discount service & 25% Disc	(\$7.00)					(\$4,536)
# of Customers	(\$0.40)					(9,593)
<b>Rate Zone XX - Audubon Water</b>						
<b>Meter Sizes Single Unit</b>						
5/8-METER	\$16.80					\$527,184
1-METER	42.80					18,490
Flat Rate	170.92					0
All Usage	\$0.8619					\$1,158,721
<b>Rate Zone XX - Farmington Water</b>						
Service Charge	\$67.50					348,300
First 5,000 Gallons	\$0.0000					0
All Over 5,000 Gallons	\$1.5000					0
AMP Program						
<b>RESIDENTIAL REVENUES</b>						<b>\$516,458,702</b>
<b>TOTAL RESIDENTIAL USAGE</b>						
<b>RES CUSTOMER COUNT</b>						
<b>Average Use Per Customer</b>						







Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025 Rates	2025 Change in Customers FR II.02h	2025 Usage Trend adj FR II.02i	2025 Creekside Annualization FR II.02m	2024 Findlay Township FR II.02w	Present Rate 6/30/2025 Revenues
	(t)	(u)	(v)	(w)	(x)	y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t
<b>COMMERCIAL CLASS</b>						
<b>Rate Zone 1 - Most Areas</b>						
<b>Total Billed Count</b>						
5/8-METER						
3/4-METER						
1-METER						
1.5-METER						
2-METER						
3-METER						
4-METER						
6-METER						
8-METER						
10-METER						
<b>Total Billed Count</b>						
5/8-METER	\$18.50	4,110				\$6,628,104
3/4-METER	28.00					588,262
1-METER	46.60					3,870,087
1.5-METER	76.10					1,240,791
2-METER	121.80					5,630,369
3-METER	227.20					310,986
4-METER	285.10					5,543,212
6-METER	426.80					7,599,204
8-METER	826.30					5,386,573
10-METER	1,196.60					946,887
Usage in Hundred Gallons						
First 16,000 Gal						
McEwensville						
First 16,000 Gal	1.5613	657,600.00	(517,997)			\$54,852,799
All Over 16,000						
All Over 16,000	1.1493	256,117.39	(302,603)			103,793,172
<b>Rate Zone 2 - Valley Township</b>						
<b>Total Billed Count</b>						
5/8-METER	\$18.50					\$1,554
1.5-METER	76.10					913
2-METER	121.80					2,923
4-METER	285.10					6,842
Usage in Hundred Gallons						
First 3,400 Gal	\$1.1000					\$3,493
All Over 3,400 Gal	1.1000					13,025

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	6/30/2023 Billing Units (a)	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants (a)	FR II.02e Annualized Revenue Current Rate (e) = (a)*(c)	Change in Customers FR II.02h (f)	Usage Normalization FR II.02i (g)	Creekside Annualization FR II.02m (h)	Quarryville 12th bill adj FR II.02u (i)	6/30/2023 Revenues Incl All adj j=(a+f+g+h+i)*c
<b>COMMERCIAL CLASS</b>											
<b>Rate Zone 1 - Most Areas</b>											
<b>Rate Zone 3 - SLIBCO</b>											
<b>Total Billed Count</b>											
2-METER	12		\$63.55	\$763	12	\$763					\$763
4-METER	12		136.30	1,636	12	1,636					1,636
6-METER	24		136.30	3,271	24	3,271					3,271
8-METER	48		309.30	14,883	48	14,883					14,883
Usage in Hundred Gallons											
First 20,000 Gal	12,888		\$1.8940	\$24,410	12,888	\$24,410					\$24,410
Next 80,000 Gal	21,868		1.6780	36,695	21,868	36,695					36,695
All Over 100,000 Gal	5,818		1.3810	8,035	5,818	8,035					8,035
	40,574										
		70.2685005									
<b>Rate Zone 4 - Turbotville</b>											
<b>Total Billed Count</b>											
5/8-METER	304	\$17.50		\$5,328							
3/4-METER	0			0							
1-METER	39	44.10		1,728							
1.5-METER	15	72.00		1,044							
2-METER	0			0							
3-METER	7	214.90		1,558							
4-METER	0	349.33		0							
6-METER	7	403.70		2,927							
<b>Total Billed Count</b>											
5/8-METER	200		\$18.50	\$3,691	504	\$9,324					\$9,324
3/4-METER	0		28.00	0	0	0					0
1-METER	29		46.60	1,328	68	3,154					3,154
1.5-METER	10		76.10	723	24	1,826					1,826
2-METER	0		121.20	0	0	0					0
3-METER	5		227.20	1,079	12	2,726					2,726
4-METER	0		285.10	0	0	0					0
6-METER	5		426.80	2,027	12	5,122					5,122
Usage in Hundred Gallons											
All Usage	30,456	\$0.8983		\$27,358							
All Usage	20,199		\$1.0706	\$21,625	50,655	\$54,231					\$54,231



Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025	2025	2025	2024	Present Rate
	Change in	Usage	Creekside	Findlay	6/30/2025
COMMERCIAL CLASS	Customers	Trend adj	Annualization	Township	Revenues
	FR II.02h	FR II.02i	FR II.02m	FR II.02w	
	(t)	(u)	(v)	(x)	$y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t$
<b>Rate Zone 1 - Most Areas</b>					
<b>Rate Zone 3 - SLIBCO</b>					
<b>Total Billed Count</b>					
2-METER	\$63.55				\$763
4-METER	136.30				1,636
6-METER	136.30				3,271
8-METER	309.30				14,883
Usage in Hundred Gallons					
First 20,000 Gal	\$1.8940				\$24,410
Next 80,000 Gal	1.6780				36,695
All Over 100,000 Gal	1.3810				8,035
<b>Rate Zone 4 - Turbotville</b>					
<b>Total Billed Count</b>					
5/8-METER					
3/4-METER					
1-METER					
1.5-METER					
2-METER					
3-METER					
4-METER					
6-METER					
<b>Total Billed Count</b>					
5/8-METER	\$18.50				\$9,324
3/4-METER	28.00				0
1-METER	46.60				3,154
1.5-METER	76.10				1,826
2-METER	121.20				0
3-METER	227.20				2,726
4-METER	285.10				0
6-METER	426.80				5,122
Usage in Hundred Gallons					
All Usage	\$1.0706				\$54,231





Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025	2025	2025	2024	Present Rate
	Change in	Usage	Creekside	Findlay	6/30/2025
COMMERCIAL CLASS	Customers	Trend adj	Annualization	Township	Revenues
<u>Rate Zone 1 - Most Areas</u>	FR II.02h	FR II.02i	FR II.02m	FR II.02w	
<u>Rate Zone 5 - Steelton</u>	(t)	(u)	(v)	(w)	(x)
					y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t
<b>Total Billed Count</b>					
5/8-METER					\$22,693
3/4-METER					0
1-METER					18,877
1.5-METER					8,256
2-METER					7,308
3-METER					13,178
4-METER					13,685
6-METER					0
8-METER					19,831
<b>Total Billed Count</b>					
5/8-METER	\$18.50				
3/4-METER	28.00				
1-METER	46.60				
1.5-METER	76.10				
2-METER	121.80				
3-METER	227.20				
4-METER	285.10				
6-METER	426.80				
8-METER	826.30				
<b>Usage in Hundred Gallons</b>					
First 1,700 Gal					\$36,150
First 1,700 Gal	\$1.6108				
Next 18,300 Gal					129,748
Next 18,300 Gal	1.6108				
Next 30,000 Gal					42,650
Next 30,000 Gal	1.2500				
All Over 50,000 Gal					204,365
All Over 50,000 Gal	1.2500				







Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025	2025	2025	2024	Present Rate
	Change in	Usage	Creekside	Findlay	6/30/2025
COMMERCIAL CLASS	Customers	Trend adj	Annualization	Township	Revenues
	FR II.02h	FR II.02i	FR II.02m	FR II.02w	
	(t)	(u)	(v)	(x)	y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t
<b>Rate Zone 1 - Most Areas</b>					
<b>Rate Zone XX - Audubon Water</b>					
<b>Audubon Multi-Family</b>					
1"	\$42.80				\$514
1 1/2"	72.90				19,246
2"	116.40				4,190
3"	218.60				5,246
10"	1,410.60				16,927
First 100,000 Gal	0.8619				299,941
All Over 100,000 Gal	0.5723				337,405
<b>Audubon Commercial</b>					
5/8"	\$16.80				\$15,725
3/4"	16.80				1,210
1"	42.80				7,190
1 1/2"	72.90				18,371
2"	116.40				50,285
3"	218.60				10,493
4"	363.90				17,467
6"	727.80				26,201
8"	1,164.60				13,975
Flat Rate	170.92				0
First 100,000 Gal	0.8619				\$238,333
All Over 100,000 Gal	0.5723				0
<b>Rate Zone XX - Farmington Water</b>					
Service Charge	\$67.50				\$61,560
First 5,000 Gallons	\$0.0000				0
All Over 5,000 Gallons	\$0.0000				0
<b>COMMERCIAL REVENUES</b>					<b>\$198,246,292</b>
<b>TOTALCOMMERCIAL USAGE</b>					
<b>COM CUSTOMER COUNT</b>					
<b>Average Use Per Customer</b>					

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	6/30/2023 Billing Units (a)	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants (a)	FR II.02e Annualized Revenue Current Rate (e) = (a)*(c)	Change in Customers FR II.02h (f)	Usage Normalization FR II.02i (g)	Creekside Annualization FR II.02m (h)	Quarryville 12th bill adj FR II.02u (i)	6/30/2023 Revenues Incl All adj j=(a+f+g+h+i)*c
<b>INDUSTRIAL CLASS</b>											
<b>Rate Zone 1 - Most Areas</b>											
<b>Total Billed Count</b>											
5/8-METER	379	\$25.40		\$9,623							
3/4-METER	60	38.10		2,273							
1-METER	644	63.60		40,975							
1.5-METER	308	127.10		39,132							
2-METER	1,210	203.40		246,046							
3-METER	105	381.40		40,167							
4-METER	480	635.60		304,840							
6-METER	530	1,271.20		673,318							
8-METER	323	2,034.30		656,260							
10-METER	82	2,923.40		240,975							
12-METER	0	4,625.00		0							
<b>Total Billed Count</b>											
5/8-METER	233		\$28.00	\$6,517	612	\$17,125					\$17,125
3/4-METER	36		42.00	1,527	96	4,032					4,032
1-METER	387		70.00	27,124	1,032	72,222					72,222
1.5-METER	187		140.00	26,187	495	69,291					69,291
2-METER	727		224.00	162,845	1,937	433,810					433,810
3-METER	63		420.00	26,328	168	70,560					70,560
4-METER	292		701.00	204,772	772	540,979					540,979
6-METER	316		1,401.00	443,193	846	1,185,262					1,185,262
8-METER	203		2,243.00	455,804	526	1,179,390					1,179,390
10-METER	51		3,223.00	162,988	133	428,659					428,659
12-METER	0		4,625.00	0	0	0					0
Farmington Water											
Farmington First 5000 Gal											
Usage in Hundred Gallons											
First 16,000 Gal	458,001	\$1.2277		\$562,288							
First 16,000 Gal	272,036		\$1.4200	386,291	730,036	\$1,036,652					\$1,036,652
Next 584,000 Gal	5,665,016	0.9341		5,291,691							
Next 584,000 Gal	3,256,826		1.0804	3,518,675	8,921,842	9,639,158					9,639,158
All over 600,001	13,614,675	0.7348		10,004,064							
All over 600,000	7,123,069		0.8499	6,053,896	20,737,744	17,625,009					17,625,009
	30,389,623										
Usage in Hundred Gallons (Curtailment)											
First 16,000 Gal	1,195	\$1.2277		\$1,467							
First 16,000 Gal	725		1.4200	1,030	1,920	\$2,726					\$2,726
Next 584,000 Gal	43,618	0.9341		40,744							
Next 584,000 Gal	26,463		1.0804	28,591	70,081	75,716					75,716
Next 14,400,000 Gal	1,075,500	0.7348		790,277							
Next 14,400,000 Gal	652,500		0.8499	554,560	1,728,000	1,468,627					1,468,627
All Over 15,000,000	2,323,751	0.4487		1,042,667							
All Over 15,000,000	1,086,758		0.5110	555,333	3,410,509	1,742,770					1,742,770
	5,210,510										

SPECIAL CONTRACTS

Redacted - Refer to Confidential Volume 6d	Redacted - Refer to Confidential Volume 6d
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Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

INDUSTRIAL CLASS	2024 Rates	FR II.02j Valley Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Findlay Township FR II.02w	Audubon from SFR to reg FR II.02x	Farmington from SFR to reg FR II.02y	Shale Gas Com Usage FR II.02l	Present Rate 6/30/2024 Revenues
Rate Zone 1 - Most Areas	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	s=(a+f+g+h+i+m+n+o+p+q+r)*k
<b>Total Billed Count</b>									
5/8-METER									\$17,125
3/4-METER									4,032
1-METER									72,222
1.5-METER									69,291
2-METER									433,810
3-METER									70,560
4-METER									540,979
6-METER									1,185,262
8-METER									1,179,390
10-METER									428,659
12-METER									0
Farmington Water							96		\$6,480
Farmington First 5000 Gal							3,588		\$0
<b>Usage in Hundred Gallons</b>									
First 16,000 Gal									\$1,036,652
Next 584,000 Gal									9,639,158
All over 600,001									17,625,009
<b>Usage in Hundred Gallons (Curtailment)</b>									
First 16,000 Gal									\$2,726
Next 584,000 Gal									75,716
Next 14,400,000 Gal									1,468,627
All Over 15,000,000									1,742,770

SPECIAL CONTRACTS

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Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

INDUSTRIAL CLASS	2025 Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Creekside Annualization FR II.02m	Findlay Township FR II.02w	Present Rate 6/30/2025 Revenues
Rate Zone 1 - Most Areas	(t)	(u)	(v)	(w)	(x)	y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t
<b>Total Billed Count</b>						
5/8-METER						
3/4-METER						
1-METER						
1.5-METER						
2-METER						
3-METER						
4-METER						
6-METER						
8-METER						
10-METER						
12-METER						
<b>Total Billed Count</b>						
5/8-METER	\$28.00					\$17,125
3/4-METER	42.00					4,032
1-METER	70.00					72,222
1.5-METER	140.00					69,291
2-METER	224.00					433,810
3-METER	420.00					70,560
4-METER	701.00					540,979
6-METER	1,401.00					1,185,262
8-METER	2,243.00					1,179,390
10-METER	3,223.00					428,659
12-METER	4,625.00					0
Farmington Water	\$0.00					\$0
Farmington First 5000 Gal	\$0.00					\$0
<b>Usage in Hundred Gallons</b>						
First 16,000 Gal						
First 16,000 Gal	\$1.4200					\$1,036,652
Next 584,000 Gal						
Next 584,000 Gal	1.0804					9,639,158
All over 600,001						
All over 600,000	0.8499					17,625,009
<b>Usage in Hundred Gallons (Curtailment)</b>						
First 16,000 Gal						
First 16,000 Gal	\$1.4200					\$2,726
Next 584,000 Gal						
Next 584,000 Gal	1.0804					75,716
Next 14,400,000 Gal						
Next 14,400,000 Gal	0.8499					1,468,627
All Over 15,000,000						
All Over 15,000,000	0.5110					1,742,770

SPECIAL CONTRACTS

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Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2024 Rates	FR II.02j Valley Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Findlay Township FR II.02w	Audubon from SFR to reg FR II.02x	Farmington from SFR to reg FR II.02y	Shale Gas Com Usage FR II.02l	Present Rate 6/30/2024 Revenues
<b>INDUSTRIAL CLASS</b>									
<u><b>Rate Zone 2 - Valley Township</b></u>									
<b>Total Billed Count</b>									
5/8-METER		\$18.50							\$222
Usage in Hundred Gallons									
First 3,400 Gal		\$1.1000							\$449
All Over 3,400 Gal		1.1000							417
<u><b>Rate Zone 5 - Steelton</b></u>									
<b>Total Billed Count</b>									
5/8-METER									
3/4-METER									
1-METER									
1.5-METER									
2-METER									
3-METER									
4-METER									
6-METER									
8-METER									
<b>Total Billed Count</b>									
5/8-METER		\$24.83							\$298
3/4-METER		24.83							0
1-METER		54.38							0
1.5-METER		97.93							0
2-METER		141.46							5,093
3-METER		320.98							0
4-METER		419.20							15,091
6-METER		670.70							24,145
8-METER		974.35							11,692
Usage in Hundred Gallons									
First 1,700 Gal									
First 1,700 Gal		\$1.6108							\$3,389
Next 18,300 Gal									
Next 18,300 Gal		1.6108							26,114
Next 30,000 Gal									
Next 30,000 Gal		1.2500							28,135
All Over 50,000 Gal									
All Over 50,000 Gal		1.2500							1,022,446
<b>INDUSTRIAL REVENUES</b>									<b>\$41,050,810</b>
<b>TOTAL INDUSTRIAL USAGE</b>									
<b>IND CUSTOMER COUNT</b>									
<b>Average Use Per Customer</b>									

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025 Rates	2025 Change in Customers FR II.02h	2025 Usage Trend adj FR II.02i	2025 Creekside Annualization FR II.02m	2024 Findlay Township FR II.02w	Present Rate 6/30/2025 Revenues
<b>INDUSTRIAL CLASS</b>						
<u>Rate Zone 2 - Valley Township</u>						
<b>Total Billed Count</b>						
5/8-METER	\$18.50					\$222
Usage in Hundred Gallons						
First 3,400 Gal	\$1.1000					\$449
All Over 3,400 Gal	1.1000					417
<u>Rate Zone 5 - Steelton</u>						
<b>Total Billed Count</b>						
5/8-METER						
3/4-METER						
1-METER						
1.5-METER						
2-METER						
3-METER						
4-METER						
6-METER						
8-METER						
<b>Total Billed Count</b>						
5/8-METER	\$24.83					\$298
3/4-METER	24.83					0
1-METER	54.38					0
1.5-METER	97.93					0
2-METER	141.46					5,093
3-METER	320.98					0
4-METER	419.20					15,091
6-METER	670.70					24,145
8-METER	974.35					11,692
Usage in Hundred Gallons						
First 1,700 Gal						
First 1,700 Gal	\$1.6108					\$3,389
Next 18,300 Gal						
Next 18,300 Gal	1.6108					26,114
Next 30,000 Gal						
Next 30,000 Gal	1.2500					28,135
All Over 50,000 Gal						
All Over 50,000 Gal	1.2500					1,022,446
<b>INDUSTRIAL REVENUES</b>					<b>\$41,211,578</b>	
<b>TOTAL INDUSTRIAL USAGE</b>						
<b>IND CUSTOMER COUNT</b>						
<b>Average Use Per Customer</b>						







Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025	2025	2025	2024	Present Rate
	Change in	Usage	Creekside	Findlay	6/30/2025
	Customers	Trend adj	Annualization	Township	Revenues
	FR II.02h	FR II.02i	FR II.02m	FR II.02w	
MUNICIPAL CLASS	2025				
	Rates				
<u>Rate Zone 1 - Most Areas</u>	(t)	(u)	(v)	(w)	(x)
	y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t				
<b>Total Billed Count</b>					
5/8-METER					
3/4-METER					
1-METER					
1.5-METER					
2-METER					
3-METER					
4-METER					
6-METER					
8-METER					
10-METER					
<b>Total Billed Count</b>					
5/8-METER	\$18.50				\$171,274
3/4-METER	28.00				17,892
1-METER	46.60				251,919
1.5-METER	76.10				76,221
2-METER	121.80				836,384
3-METER	227.20				73,549
4-METER	285.10				495,154
6-METER	426.80				1,062,346
8-METER	826.30				534,777
10-METER	1,196.60				119,660
Usage in Hundred Gallons					
First 16,000 Gal					
McEwensville					
First 16,000 Gal					
First 16,000 Gal					
First 16,000 Gal	1.6700		(7,364)		\$3,137,022
All Over 16,000					
All Over 16,000	0.9140		(59,619)		15,155,050
<b>Rate Zone 2 - Valley Township</b>					
<b>Total Billed Count</b>					
2-METER	\$121.80				\$1,462
4-METER	\$285.10				3,421
8-METER	\$826.30				19,831
Usage in Hundred Gallons					
First 3,400 Gal	\$1.1000				\$1,410
All Over 3,400 Gal	1.1000				47,939
<b>Rate Zone 4 - Turbotville</b>					
<b>Total Billed Count</b>					
5/8-METER	\$18.50				\$222
Flat Rate					
Usage in Hundred Gallons					
All Usage					
All Usage	\$1.6700				230

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	6/30/2023 Billing Units	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants	FR II.02e Annualized Revenue Current Rate	Change in Customers FR II.02h	Usage Normalization FR II.02i	Creekside Annualization FR II.02m	Quarryville 12th bill adj FR II.02u	6/30/2023 Revenues Incl All adj
<b>MUNICIPAL CLASS</b>											
<b><u>Rate Zone 5 - Steelton</u></b>											
<b>Total Billed Count</b>											
5/8-METER	42	\$20.69		\$876							
3/4-METER	0	20.69		0							
1-METER	16	45.32		709							
1.5-METER	8	81.61		638							
2-METER	16	117.88		1,829							
3-METER	0	227.20		0							
4-METER	0	285.10		0							
<b>Total Billed Count</b>											
5/8-METER	21		\$18.50	\$382	63	\$1,166					\$1,166
3/4-METER	0		28.00	0	0	0					0
1-METER	8		46.60	389	24	1,118					1,118
1.5-METER	4		76.10	318	12	913					913
2-METER	8		121.80	1,033	24	2,923					2,923
3-METER	1		227.20	227	1	227					227
4-METER	0		285.10	0	0	0					0
<b>Usage in Hundred Gallons</b>											
First 1,700 Gal	445	\$0.0000		\$0							
First 1,700 Gal	264		\$1.6108	425	709	\$1,142					\$1,142
Next 18,300 Gal	1,236	1.1564		1,429							
Next 18,300 Gal	406		1.6108	654	1,642	2,645					2,645
Next 30,000 Gal	515	1.2768		657							
Next 30,000 Gal	427		1.2500	534	942	1,178					1,178
All Over 50,000 Gal	835	1.1032		921							
All Over 50,000 Gal	12,219		1.2500	15,274	13,054	16,318					16,318
	16,347										
<b><u>Rate Zone XX - Audubon Water</u></b>											
<b>Meter Sizes Single Unit</b>											
1.5-METER			\$0.00								
2-METER			0.00								
4-METER			0.00								
<b>Usage in Hundred Gallons</b>											
First 100,000 Gal			\$0.0000								
All Over 100,000 Gal											
<b><u>Rate Zone XX - Farmington Water</u></b>											
<b>Service Charge</b>											
First 5000 Gallons											
<b>MUNICIPAL REVENUES</b>				<b>\$20,404,383</b>	<b>\$21,194,164</b>		<b>\$22,715,137</b>				
<b>TOTAL MUNICIPAL USAGE</b>		<b>17,715,373</b>									
<b>OPA CUSTOMER COUNT</b>		<b>2,265</b>									
<b>Average Use Per Customer</b>		<b>651.76</b>									

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2024	FR II.02j Valley Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Findlay Township FR II.02w	Audubon from SFR to reg FR II.02x	Farmington from SFR to reg FR II.02y	Shale Gas Com Usage FR II.02l	Present Rate 6/30/2024 Revenues
<b>MUNICIPAL CLASS</b>									
<b><u>Rate Zone 5 - Steelton</u></b>									
<b>Total Billed Count</b>									
5/8-METER									
3/4-METER									
1-METER									
1.5-METER									
2-METER									
3-METER									
4-METER									
<b>Total Billed Count</b>									
5/8-METER									\$1,166
3/4-METER									0
1-METER									1,118
1.5-METER									913
2-METER									2,923
3-METER									227
4-METER									0
<b>Usage in Hundred Gallons</b>									
First 1,700 Gal									
First 1,700 Gal									\$1,142
Next 18,300 Gal									
Next 18,300 Gal									2,645
Next 30,000 Gal									
Next 30,000 Gal									1,178
All Over 50,000 Gal									
All Over 50,000 Gal									16,318
<b><u>Rate Zone XX - Audubon Water</u></b>									
<b>Meter Sizes Single Unit</b>									
1.5-METER						12			\$875
2-METER						12			1,397
4-METER						12			4,367
<b>Usage in Hundred Gallons</b>									
First 100,000 Gal						11,020			\$9,498
All Over 100,000 Gal						0			0
<b><u>Rate Zone XX - Farmington Water</u></b>									
Service Charge							48		\$3,240
First 5000 Gallons							1,477		0
<b>MUNICIPAL REVENUES</b>									<b>\$22,119,561</b>
<b>TOTAL MUNICIPAL USAGE</b>									
<b>OPA CUSTOMER COUNT</b>									
<b>Average Use Per Customer</b>									

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025	2025	2025	2024	Present Rate
	Change in	Usage	Creekside	Findlay	
	Customers	Trend adj	Annualization	Township	6/30/2025
	FR II.02h	FR II.02i	FR II.02m	FR II.02w	Revenues
2025					
Rates					
<b>MUNICIPAL CLASS</b>					
<b><u>Rate Zone 5 - Steelton</u></b>					
<b>Total Billed Count</b>					
5/8-METER					\$1,166
3/4-METER					0
1-METER					1,118
1.5-METER					913
2-METER					2,923
3-METER					227
4-METER					0
<b>Total Billed Count</b>					
5/8-METER	\$18.50				\$1,166
3/4-METER	28.00				0
1-METER	46.60				1,118
1.5-METER	76.10				913
2-METER	121.80				2,923
3-METER	227.20				227
4-METER	285.10				0
<b>Usage in Hundred Gallons</b>					
First 1,700 Gal					
First 1,700 Gal	\$1.6108				\$1,142
Next 18,300 Gal					
Next 18,300 Gal	1.6108				2,645
Next 30,000 Gal					
Next 30,000 Gal	1.2500				1,178
All Over 50,000 Gal					
All Over 50,000 Gal	1.2500				16,318
<b><u>Rate Zone XX - Audubon Water</u></b>					
<b>Meter Sizes Single Unit</b>					
1.5-METER	\$72.90				\$875
2-METER	116.40				1,397
4-METER	363.90				4,367
<b>Usage in Hundred Gallons</b>					
First 100,000 Gal	\$0.8619				\$9,498
All Over 100,000 Gal	0.5723				0
<b><u>Rate Zone XX - Farmington Water</u></b>					
Service Charge	\$67.50				\$3,240
First 5000 Gallons	0.00				0
<b>MUNICIPAL REVENUES</b>					<b>\$22,052,770</b>
<b>TOTAL MUNICIPAL USAGE</b>					
<b>OPA CUSTOMER COUNT</b>					
<b>Average Use Per Customer</b>					

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	6/30/2023 Billing Units (a)	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants (a)	FR II.02e Annualized Revenue Current Rate (e) = (a)*(c)	Change in Customers FR II.02h (f)	Usage Normalization FR II.02i (g)	Creekside Annualization FR II.02m (h)	Quarryville 12th bill adj FR II.02u (i)	6/30/2023 Revenues Incl All adj j=(a+f+g+h+i)*c
<b>OTHER WATER UTILITIES</b>											
<b>Group A</b>											
<b>Total Billed Count</b>											
5/8-METER	0	\$28.12		\$0							
3/4-METER	0	38.10		0							
1-METER	0	63.60		0							
1.5-METER	0	127.10		0							
2-METER	8	203.70		1,580							
3-METER	0	381.40		0							
4-METER	7	636.50		4,668							
6-METER	22	1,272.70		27,590							
8-METER	0	2,034.30		0							
10-METER	0	2,923.40		0							
<b>Total Billed Count</b>											
5/8-METER	0		\$29.10	\$0	0	\$0					\$0
3/4-METER	0		44.00	0	0	0					0
1-METER	0		73.00	0	0	0					0
1.5-METER	0		145.00	0	0	0					0
2-METER	4		232.00	984	12	2,784					2,784
3-METER	0		436.00	0	0	0					0
4-METER	5		726.00	3,388	12	8,712					8,712
6-METER	13		1,452.00	19,343	35	50,820					50,820
8-METER	0		2,325.00	0	0	0					0
10-METER	0		3,340.00	0	0	0					0
Usage in Hundred Gallons											
All Group A Usage	133,691	\$0.7219		\$96,512							
All Group A Usage	65,808		\$0.7950	52,317	199,499	\$158,602					\$158,602
<b>Group B</b>											
<b>Total Billed Count</b>											
5/8-METER	0	\$28.12		\$0							
3/4-METER	0	38.10		0							
1-METER	0	63.60		0							
1.5-METER	0	127.10		0							
2-METER	29	203.70		5,869							
3-METER	0	381.40		0							
4-METER	21	636.50		13,632							
6-METER	7	1,272.70		9,079							
8-METER	0	2,034.30		0							
10-METER	0	2,923.40		0							
<b>Total Billed Count</b>											
5/8-METER	0		\$29.10	\$0	0	\$0					\$0
3/4-METER	0		44.00	0	0	0					0
1-METER	0		73.00	0	0	0					0
1.5-METER	0		145.00	0	0	0					0
2-METER	19		232.00	4,452	48	11,136					11,136
3-METER	0		436.00	0	0	0					0
4-METER	14		726.00	10,305	36	25,854					25,854
6-METER	5		1,452.00	7,066	12	17,424					17,424
8-METER	0		2,325.00	0	0	0					0
10-METER	0		3,340.00	0	0	0					0
Usage in Hundred Gallons											
All Group B Usage	131,893		\$1.1300	\$149,039	131,893	\$149,039					\$149,039





Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2025	2025	2025	2024	Present Rate
	Change in	Usage	Creekside	Findlay	6/30/2025
	Customers	Trend adj	Annualization	Township	Revenues
	FR II.02h	FR II.02i	FR II.02m	FR II.02w	
OTHER WATER UTILITIES	2025				
Group A	(t)	(u)	(v)	(w)	(x)
	y=(a+f+g+h+i+m+n+o+p+q+r+t+u+v+w+x)*t				
<b>Total Billed Count</b>					
5/8-METER					\$0
3/4-METER					0
1-METER					0
1.5-METER					0
2-METER					2,784
3-METER					0
4-METER					8,712
6-METER					33,396
8-METER					0
10-METER					0
<b>Total Billed Count</b>					
5/8-METER	\$29.10				\$0
3/4-METER	44.00				0
1-METER	73.00				0
1.5-METER	145.00				0
2-METER	232.00				2,784
3-METER	436.00				0
4-METER	726.00				8,712
6-METER	1,452.00				33,396
8-METER	2,325.00				0
10-METER	3,340.00				0
Usage in Hundred Gallons					
All Group A Usage					
All Group A Usage	\$0.7950				\$5,765
<b>Group B</b>					
<b>Total Billed Count</b>					
5/8-METER					\$0
3/4-METER					0
1-METER					0
1.5-METER					0
2-METER					5,568
3-METER					0
4-METER					25,854
6-METER					17,424
8-METER					0
10-METER					0
<b>Total Billed Count</b>					
5/8-METER	\$29.10				\$0
3/4-METER	44.00				0
1-METER	73.00				0
1.5-METER	145.00				0
2-METER	232.00				5,568
3-METER	436.00				0
4-METER	726.00				25,854
6-METER	1,452.00				17,424
8-METER	2,325.00				0
10-METER	3,340.00				0
Usage in Hundred Gallons					
All Group B Usage	\$1.1300				\$149,039

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	6/30/2023 Billing Units	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants	FR II.02e Annualized Revenue Current Rate	Change in Customers FR II.02h	Usage Normalization FR II.02i	Creekside Annualization FR II.02m	Quarryville 12th bill adj FR II.02u	6/30/2023 Revenues Incl All adj
<b>OTHER WATER UTILITIES</b>											
<b>SPECIAL CONTRACTS</b>											
Redacted - Refer to Confidential Volume 6d		Redacted - Refer to Confidential Volume 6d									
<b>OWU REVENUES</b>				<u>\$2,881,095</u>		<u>\$2,974,845</u>					<u>\$2,984,771</u>
TOTAL OWU USAGE	7,803,727										
OWU CUSTOMER COUNT	20										
Average Use Per Customer	32,380.61										
Take or Pay usage	58,625.00										
TOTAL OWU METERED USAGE adjusted for Take o	7,745,102										

Pennsylvania American Water Company  
Water Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

	2024 Rates	FR II.02j Valley Rates	Change in Customers FR II.02h	Usage Trend adj FR II.02i	Findlay Township FR II.02w	Audubon from SFR to reg FR II.02x	Farmington from SFR to reg FR II.02y	Shale Gas Com Usage FR II.02l	Present Rate 6/30/2024 Revenues
<b>OTHER WATER UTILITIES</b>									
<b>SPECIAL CONTRACTS</b>									
Redacted - Refer to Confidential Volume 6d									
<b>OWU REVENUES</b>									<u>\$3,443,569</u>
<b>TOTAL OWU USAGE</b>									
<b>OWU CUSTOMER COUNT</b>									
<b>Average Use Per Customer</b>									
<b>Take or Pay usage</b>									
<b>TOTAL OWU METERED USAGE adjusted for Take or Pay usage</b>									



PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 1 - PAWC

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$17.90	\$20.00	\$2.10	11.72%
100	19.55	22.13	2.58	13.20%
500	26.14	30.66	4.52	17.28%
1,000	34.38	41.32	6.94	20.18%
2,000	50.86	62.64	11.78	23.16%
3,000	67.34	83.96	16.62	24.68%
3,201	* 70.65	88.24	17.59	24.90%
3,500	75.58	94.62	19.04	25.19%
4,000	83.82	105.28	21.46	25.60%
5,000	100.29	126.60	26.30	26.22%
6,000	116.77	147.91	31.14	26.67%
7,000	133.25	169.23	35.98	27.00%
8,000	149.73	190.55	40.82	27.26%
9,000	166.21	211.87	45.66	27.47%
10,000	182.69	233.19	50.50	27.64%
11,000	199.17	254.51	55.34	27.79%
12,000	215.64	275.83	60.18	27.91%
13,000	232.12	297.15	65.02	28.01%
14,000	248.60	318.47	69.86	28.10%
15,000	265.08	339.79	74.71	28.18%
16,000	281.56	361.10	79.55	28.25%
17,000	298.04	382.42	84.39	28.31%
18,000	314.52	403.74	89.23	28.37%
19,000	330.99	425.06	94.07	28.42%
20,000	347.47	446.38	98.91	28.46%
21,000	363.95	467.70	103.75	28.51%
22,000	380.43	489.02	108.59	28.54%
23,000	396.91	510.34	113.43	28.58%
24,000	413.39	531.66	118.27	28.61%
25,000	429.86	552.98	123.11	28.64%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 2 - VALLEY WATER

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
	0	\$17.90	\$20.00	\$2.10
100	19.03	22.13	3.10	16.31%
500	23.53	30.66	7.13	30.31%
1,000	29.16	41.32	12.16	41.72%
2,000	40.41	62.64	22.23	55.01%
3,000	51.66	83.96	32.30	62.51%
3,201 *	53.92	88.24	34.32	63.64%
3,500	57.29	94.62	37.33	65.16%
4,000	62.91	105.28	42.36	67.33%
5,000	74.17	126.60	52.43	70.69%
6,000	85.42	147.91	62.49	73.16%
7,000	96.67	169.23	72.56	75.06%
8,000	107.93	190.55	82.63	76.56%
9,000	119.18	211.87	92.69	77.77%
10,000	130.43	233.19	102.76	78.78%
11,000	141.69	254.51	112.82	79.63%
12,000	152.94	275.83	122.89	80.35%
13,000	164.19	297.15	132.96	80.98%
14,000	175.44	318.47	143.02	81.52%
15,000	186.70	339.79	153.09	82.00%
16,000	197.95	361.10	163.15	82.42%
17,000	209.20	382.42	173.22	82.80%
18,000	220.46	403.74	183.29	83.14%
19,000	231.71	425.06	193.35	83.45%
20,000	242.96	446.38	203.42	83.72%
21,000	254.22	467.70	213.48	83.98%
22,000	265.47	489.02	223.55	84.21%
23,000	276.72	510.34	233.62	84.42%
24,000	287.97	531.66	243.68	84.62%
25,000	299.23	552.98	253.75	84.80%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 4 - TURBOTVILLE

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
	0	\$17.90	\$20.00	\$2.10
100	19.55	22.13	2.58	13.20%
500	26.14	30.66	4.52	17.28%
1,000	34.38	41.32	6.94	20.18%
2,000	50.86	62.64	11.78	23.16%
3,000	67.34	83.96	16.62	24.68%
3,201	* 70.65	88.24	17.59	24.90%
3,500	75.58	94.62	19.04	25.19%
4,000	83.82	105.28	21.46	25.60%
5,000	100.29	126.60	26.30	26.22%
6,000	116.77	147.91	31.14	26.67%
7,000	133.25	169.23	35.98	27.00%
8,000	149.73	190.55	40.82	27.26%
9,000	166.21	211.87	45.66	27.47%
10,000	182.69	233.19	50.50	27.64%
11,000	199.17	254.51	55.34	27.79%
12,000	215.64	275.83	60.18	27.91%
13,000	232.12	297.15	65.02	28.01%
14,000	248.60	318.47	69.86	28.10%
15,000	265.08	339.79	74.71	28.18%
16,000	281.56	361.10	79.55	28.25%
17,000	298.04	382.42	84.39	28.31%
18,000	314.52	403.74	89.23	28.37%
19,000	330.99	425.06	94.07	28.42%
20,000	347.47	446.38	98.91	28.46%
21,000	363.95	467.70	103.75	28.51%
22,000	380.43	489.02	108.59	28.54%
23,000	396.91	510.34	113.43	28.58%
24,000	413.39	531.66	118.27	28.61%
25,000	429.86	552.98	123.11	28.64%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 5 - STEELTON

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
	0	\$17.90	\$20.00	\$2.10
100	19.55	22.13	2.58	13.20%
500	26.14	30.66	4.52	17.28%
1,000	34.38	41.32	6.94	20.18%
2,000	50.86	62.64	11.78	23.16%
3,000	67.34	83.96	16.62	24.68%
3,201 *	70.65	88.24	17.59	24.90%
3,500	75.58	94.62	19.04	25.19%
4,000	83.82	105.28	21.46	25.60%
5,000	100.29	126.60	26.30	26.22%
6,000	116.77	147.91	31.14	26.67%
7,000	133.25	169.23	35.98	27.00%
8,000	149.73	190.55	40.82	27.26%
9,000	166.21	211.87	45.66	27.47%
10,000	182.69	233.19	50.50	27.64%
11,000	199.17	254.51	55.34	27.79%
12,000	215.64	275.83	60.18	27.91%
13,000	232.12	297.15	65.02	28.01%
14,000	248.60	318.47	69.86	28.10%
15,000	265.08	339.79	74.71	28.18%
16,000	281.56	361.10	79.55	28.25%
17,000	298.04	382.42	84.39	28.31%
18,000	314.52	403.74	89.23	28.37%
19,000	330.99	425.06	94.07	28.42%
20,000	347.47	446.38	98.91	28.46%
21,000	360.26	467.70	107.44	29.82%
22,000	373.05	489.02	115.97	31.09%
23,000	385.83	510.34	124.50	32.27%
24,000	398.62	531.66	133.03	33.37%
25,000	411.41	552.98	141.57	34.41%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE XX - AUDUBON

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
	0	\$16.80	\$16.80	\$0.00
100	17.66	17.94	0.28	1.58%
500	21.11	22.51	1.40	6.61%
1,000	25.42	28.21	2.79	10.98%
2,000	34.04	39.62	5.58	16.40%
3,000	42.66	51.03	8.37	19.63%
3,201	* 44.39	53.32	8.93	20.13%
3,500	46.97	56.74	9.77	20.80%
4,000	51.28	62.44	11.16	21.77%
5,000	59.90	73.85	13.96	23.30%
6,000	68.51	85.26	16.75	24.44%
7,000	77.13	96.67	19.54	25.33%
8,000	85.75	108.08	22.33	26.04%
9,000	94.37	119.49	25.12	26.62%
10,000	102.99	130.90	27.91	27.10%
11,000	111.61	142.31	30.70	27.51%
12,000	120.23	153.72	33.49	27.86%
13,000	128.85	165.13	36.28	28.16%
14,000	137.47	176.54	39.07	28.42%
15,000	146.09	187.95	41.87	28.66%
16,000	154.70	199.36	44.66	28.87%
17,000	163.32	210.77	47.45	29.05%
18,000	171.94	222.18	50.24	29.22%
19,000	180.56	233.59	53.03	29.37%
20,000	189.18	245.00	55.82	29.51%
21,000	197.80	256.41	58.61	29.63%
22,000	206.42	267.82	61.40	29.75%
23,000	215.04	279.23	64.19	29.85%
24,000	223.66	290.64	66.98	29.95%
25,000	232.28	302.05	69.78	30.04%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE XX - FARMINGTON

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
SERVICE CHARGE PER EDU FOR PRESENT & SERVICE CHARGE PER CUSTOMER FOR PROPOSED

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$67.50	\$20.00	(\$47.50)	-70.37%
100	67.50	22.13	(45.37)	-67.21%
500	67.50	30.66	(36.84)	-54.58%
1,000	67.50	41.32	(26.18)	-38.79%
2,000	67.50	62.64	(4.86)	-7.20%
3,000	67.50	83.96	16.46	24.38%
3,201	* 67.50	88.24	20.74	30.73%
3,500	67.50	94.62	27.12	40.17%
4,000	67.50	105.28	37.78	55.96%
5,000	67.50	126.60	59.10	87.55%
6,000	82.50	147.91	65.41	79.29%
7,000	97.50	169.23	71.73	73.57%
8,000	112.50	190.55	78.05	69.38%
9,000	127.50	211.87	84.37	66.17%
10,000	142.50	233.19	90.69	63.64%
11,000	157.50	254.51	97.01	61.59%
12,000	172.50	275.83	103.33	59.90%
13,000	187.50	297.15	109.65	58.48%
14,000	202.50	318.47	115.97	57.27%
15,000	217.50	339.79	122.29	56.22%
16,000	232.50	361.10	128.60	55.31%
17,000	247.50	382.42	134.92	54.51%
18,000	262.50	403.74	141.24	53.81%
19,000	277.50	425.06	147.56	53.18%
20,000	292.50	446.38	153.88	52.61%
21,000	307.50	467.70	160.20	52.10%
22,000	322.50	489.02	166.52	51.63%
23,000	337.50	510.34	172.84	51.21%
24,000	352.50	531.66	179.16	50.82%
25,000	367.50	552.98	185.48	50.47%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 1 - PAWC

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE		
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)	
0	\$18.93	\$20.00	\$1.07	5.68%	
100	20.52	22.03	1.51	7.37%	
500	26.91	30.17	3.26	12.12%	
1,000	34.90	40.35	5.45	15.61%	
2,000	50.87	60.69	9.82	19.31%	
3,000	66.84	81.04	14.20	21.24%	
3,500	74.83	91.21	16.38	21.89%	
4,000	82.81	101.38	18.57	22.42%	
5,000	98.79	121.73	22.94	23.23%	
6,000	114.76	142.08	27.32	23.80%	
7,000	130.73	162.42	31.69	24.24%	
8,000	146.70	182.77	36.07	24.58%	
9,000	162.67	203.11	40.44	24.86%	
10,000	178.65	223.46	44.81	25.09%	
16,000	274.48	345.54	71.06	25.89%	
20,000	321.51	407.39	85.88	26.71%	
21,000	333.27	422.85	89.59	26.88%	
22,000	345.02	438.31	93.29	27.04%	
22,094	*	346.13	439.77	93.64	27.05%
23,000	356.78	453.78	97.00	27.19%	
24,000	368.54	469.24	100.70	27.32%	
25,000	380.30	484.70	104.41	27.45%	
26,000	392.05	500.17	108.11	27.58%	
27,000	403.81	515.63	111.82	27.69%	
28,000	415.57	531.09	115.52	27.80%	
29,000	427.32	546.56	119.23	27.90%	
30,000	439.08	562.02	122.94	28.00%	
40,000	556.66	716.65	159.99	28.74%	
50,000	674.23	871.28	197.05	29.23%	
60,000	791.80	1,025.91	234.11	29.57%	
70,000	909.38	1,180.54	271.16	29.82%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.3%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 2 - VALLEY WATER

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE		
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)	
	0	\$18.93	\$20.00	\$1.07	5.68%
100	20.05	22.03	1.98	9.89%	
500	24.55	30.17	5.62	22.89%	
1,000	30.18	40.35	10.17	33.69%	
2,000	41.43	60.69	19.26	46.49%	
3,000	52.68	81.04	28.35	53.82%	
3,500	58.31	91.21	32.90	56.42%	
4,000	63.94	101.38	37.45	58.57%	
5,000	75.19	121.73	46.54	61.90%	
6,000	86.44	142.08	55.63	64.36%	
7,000	97.70	162.42	64.73	66.25%	
8,000	108.95	182.77	73.82	67.75%	
9,000	120.20	203.11	82.91	68.98%	
10,000	131.46	223.46	92.00	69.99%	
16,000	198.97	345.54	146.56	73.66%	
20,000	243.99	407.39	163.40	66.97%	
21,000	255.24	422.85	167.61	65.67%	
22,000	266.49	438.31	171.82	64.48%	
22,094	*	267.55	439.77	172.22	64.37%
23,000	277.74	453.78	176.03	63.38%	
24,000	289.00	469.24	180.24	62.37%	
25,000	300.25	484.70	184.45	61.43%	
26,000	311.50	500.17	188.66	60.57%	
27,000	322.76	515.63	192.87	59.76%	
28,000	334.01	531.09	197.08	59.01%	
29,000	345.26	546.56	201.29	58.30%	
30,000	356.52	562.02	205.50	57.64%	
40,000	469.05	716.65	247.60	52.79%	
50,000	581.58	871.28	289.70	49.81%	
60,000	694.11	1,025.91	331.80	47.80%	
70,000	806.64	1,180.54	373.90	46.35%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.3%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 3 - SLIBCO

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$65.01	\$20.00	(\$45.01)	-69.24%
100	66.95	22.03	(44.91)	-67.09%
500	74.70	30.17	(44.53)	-59.61%
1,000	84.39	40.35	(44.04)	-52.19%
2,000	103.76	60.69	(43.07)	-41.51%
3,000	123.14	81.04	(42.10)	-34.19%
3,500	132.83	91.21	(41.62)	-31.33%
4,000	142.51	101.38	(41.13)	-28.86%
5,000	161.89	121.73	(40.16)	-24.81%
6,000	181.27	142.08	(39.19)	-21.62%
7,000	200.64	162.42	(38.22)	-19.05%
7,027	201.16	162.97	(38.19)	-18.99%
9,000	239.39	203.11	(36.28)	-15.15%
10,000	258.77	223.46	(35.31)	-13.64%
16,000	375.02	345.54	(29.49)	-7.86%
20,000	452.52	407.39	(45.14)	-9.97%
21,000	469.69	422.85	(46.84)	-9.97%
22,000	486.86	438.31	(48.54)	-9.97%
22,094	* 488.47	439.77	(48.70)	-9.97%
23,000	504.02	453.78	(50.24)	-9.97%
24,000	521.19	469.24	(51.95)	-9.97%
25,000	538.35	484.70	(53.65)	-9.97%
26,000	555.52	500.17	(55.35)	-9.96%
27,000	572.69	515.63	(57.06)	-9.96%
28,000	589.85	531.09	(58.76)	-9.96%
29,000	607.02	546.56	(60.46)	-9.96%
30,000	624.18	562.02	(62.17)	-9.96%
40,000	795.84	716.65	(79.19)	-9.95%
50,000	967.50	871.28	(96.22)	-9.95%
60,000	1,139.16	1,025.91	(113.25)	-9.94%
70,000	1,310.82	1,180.54	(130.28)	-9.94%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.3%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 4 - TURBOTVILLE

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE		
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)	
0	\$18.93	\$20.00	\$1.07	5.68%	
100	20.02	22.03	2.01	10.06%	
500	24.40	30.17	5.77	23.65%	
1,000	29.88	40.35	10.47	35.04%	
2,000	40.83	60.69	19.86	48.65%	
3,000	51.78	81.04	29.26	56.50%	
3,500	57.26	91.21	33.95	59.30%	
4,000	62.73	101.38	38.65	61.61%	
5,000	73.69	121.73	48.04	65.20%	
6,000	84.64	142.08	57.44	67.86%	
7,000	95.59	162.42	66.83	69.91%	
8,000	106.54	182.77	76.22	71.54%	
9,000	117.50	203.11	85.62	72.87%	
10,000	128.45	223.46	95.01	73.97%	
16,000	194.16	345.54	151.37	77.96%	
20,000	237.97	407.39	169.42	71.19%	
21,000	248.92	422.85	173.93	69.87%	
22,000	259.87	438.31	178.44	68.66%	
22,094	*	260.90	439.77	178.86	68.56%
23,000	270.83	453.78	182.95	67.55%	
24,000	281.78	469.24	187.46	66.53%	
25,000	292.73	484.70	191.97	65.58%	
26,000	303.68	500.17	196.48	64.70%	
27,000	314.64	515.63	200.99	63.88%	
28,000	325.59	531.09	205.50	63.12%	
29,000	336.54	546.56	210.01	62.40%	
30,000	347.49	562.02	214.53	61.74%	
40,000	457.02	716.65	259.63	56.81%	
50,000	566.54	871.28	304.74	53.79%	
60,000	676.06	1,025.91	349.85	51.75%	
70,000	785.58	1,180.54	394.96	50.28%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.3%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 5 - STEELTON

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE		
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)	
0	\$18.93	\$20.00	\$1.07	5.68%	
100	20.57	22.03	1.46	7.10%	
500	27.16	30.17	3.01	11.07%	
1,000	35.40	40.35	4.94	13.96%	
2,000	51.88	60.69	8.81	16.98%	
3,000	68.36	81.04	12.68	18.54%	
3,500	76.60	91.21	14.61	19.07%	
4,000	84.84	101.38	16.54	19.50%	
5,000	101.32	121.73	20.41	20.15%	
6,000	117.80	142.08	24.28	20.61%	
7,000	134.27	162.42	28.15	20.96%	
8,000	150.75	182.77	32.01	21.24%	
9,000	167.23	203.11	35.88	21.46%	
10,000	183.71	223.46	39.75	21.64%	
16,000	282.58	345.54	62.95	22.28%	
20,000	348.50	407.39	58.89	16.90%	
21,000	361.28	422.85	61.57	17.04%	
22,000	374.07	438.31	64.24	17.17%	
22,094	*	375.27	439.77	64.50	17.19%
23,000	386.86	453.78	66.92	17.30%	
24,000	399.65	469.24	69.59	17.41%	
25,000	412.43	484.70	72.27	17.52%	
26,000	425.22	500.17	74.95	17.63%	
27,000	438.01	515.63	77.62	17.72%	
28,000	450.80	531.09	80.30	17.81%	
29,000	463.58	546.56	82.97	17.90%	
30,000	476.37	562.02	85.65	17.98%	
40,000	604.25	716.65	112.40	18.60%	
50,000	732.12	871.28	139.16	19.01%	
60,000	860.00	1,025.91	165.91	19.29%	
70,000	987.87	1,180.54	192.67	19.50%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.3%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE XX - AUDUBON

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE		
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)	
0	\$16.80	\$16.80	\$0.00	0.00%	
100	17.66	17.94	0.28	1.58%	
500	21.11	22.51	1.40	6.61%	
1,000	25.42	28.21	2.79	10.98%	
2,000	34.04	39.62	5.58	16.40%	
3,000	42.66	51.03	8.37	19.63%	
3,500	46.97	56.74	9.77	20.80%	
4,000	51.28	62.44	11.16	21.77%	
5,000	59.90	73.85	13.96	23.30%	
6,000	68.51	85.26	16.75	24.44%	
7,000	77.13	96.67	19.54	25.33%	
8,000	85.75	108.08	22.33	26.04%	
9,000	94.37	119.49	25.12	26.62%	
10,000	102.99	130.90	27.91	27.10%	
16,000	154.70	199.36	44.66	28.87%	
20,000	189.18	245.00	55.82	29.51%	
21,000	197.80	256.41	58.61	29.63%	
22,000	206.42	267.82	61.40	29.75%	
22,094	*	207.23	268.89	61.66	29.76%
23,000	215.04	279.23	64.19	29.85%	
24,000	223.66	290.64	66.98	29.95%	
25,000	232.28	302.05	69.78	30.04%	
26,000	240.89	313.46	72.57	30.12%	
27,000	249.51	324.87	75.36	30.20%	
28,000	258.13	336.28	78.15	30.27%	
29,000	266.75	347.69	80.94	30.34%	
30,000	275.37	359.10	83.73	30.41%	
40,000	361.56	473.20	111.64	30.88%	
50,000	447.75	587.30	139.55	31.17%	
60,000	533.94	701.40	167.46	31.36%	
70,000	620.13	815.50	195.37	31.50%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%

Bill at proposed rate was calculated using DSIC rate @ 0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE XX - FARMINGTON

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
COMMERCIAL - MONTHLY  
SERVICE CHARGE PER EDU FOR PRESENT & SERVICE CHARGE PER CUSTOMER FOR PROPOSED

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$67.50	\$20.00	(\$47.50)	-70.37%
100	67.50	22.03	(45.47)	-67.36%
500	67.50	30.17	(37.33)	-55.30%
1,000	67.50	40.35	(27.15)	-40.23%
2,000	67.50	60.69	(6.81)	-10.09%
3,000	67.50	81.04	13.54	20.06%
3,500	67.50	91.21	23.71	35.13%
4,000	67.50	101.38	33.88	50.20%
5,000	67.50	121.73	54.23	80.34%
6,000	82.50	142.08	59.58	72.21%
7,000	97.50	162.42	64.92	66.59%
7,098	* 98.97	164.42	65.45	66.13%
9,000	127.50	203.11	75.61	59.31%
10,000	142.50	223.46	80.96	56.81%
16,000	232.50	345.54	113.04	48.62%
20,000	292.50	426.92	134.42	45.96%
21,000	307.50	447.27	139.77	45.45%
22,000	322.50	467.61	145.11	45.00%
22,094	323.91	469.52	145.61	44.96%
23,000	337.50	487.96	150.46	44.58%
24,000	352.50	508.30	155.80	44.20%
25,000	367.50	528.65	161.15	43.85%
26,000	382.50	549.00	166.50	43.53%
27,000	397.50	569.34	171.84	43.23%
28,000	412.50	589.69	177.19	42.95%
29,000	427.50	610.03	182.53	42.70%
30,000	442.50	630.38	187.88	42.46%
40,000	592.50	833.84	241.34	40.73%
50,000	742.50	1,037.30	294.80	39.70%
60,000	892.50	1,240.76	348.26	39.02%
70,000	1,042.50	1,444.22	401.72	38.53%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 1 - PAWC

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$229.15	\$224.00	(\$5.15)	-2.25%
1,000	243.68	243.13	(0.55)	-0.23%
2,000	258.21	262.26	4.05	1.57%
3,000	272.73	281.38	8.65	3.17%
4,000	287.26	300.51	13.25	4.61%
5,000	301.79	319.64	17.86	5.92%
10,000	374.42	415.28	40.86	10.91%
16,000	461.58	530.05	68.47	14.83%
20,000	505.79	589.34	83.56	16.52%
30,000	616.31	737.58	121.27	19.68%
40,000	726.84	885.82	158.99	21.87%
50,000	837.36	1,034.06	196.70	23.49%
60,000	947.89	1,182.30	234.42	24.73%
70,000	1,058.41	1,330.54	272.13	25.71%
80,000	1,168.94	1,478.78	309.85	26.51%
90,000	1,279.46	1,627.02	347.56	27.16%
100,000	1,389.99	1,775.26	385.28	27.72%
200,000	2,495.24	3,257.66	762.43	30.56%
300,000	3,600.49	4,740.06	1,139.58	31.65%
400,000	4,705.73	6,222.46	1,516.73	32.23%
500,000	5,810.98	7,704.86	1,893.88	32.59%
600,000	6,916.23	9,187.26	2,271.03	32.84%
685,947	* 7,663.50	10,173.68	2,510.18	32.76%
700,000	7,785.68	10,334.96	2,549.28	32.74%
800,000	8,655.13	11,482.66	2,827.54	32.67%
900,000	9,524.58	12,630.36	3,105.79	32.61%
1,000,000	10,394.02	13,778.06	3,384.04	32.56%
1,100,000	11,263.47	14,925.76	3,662.29	32.51%
1,200,000	12,132.92	16,073.46	3,940.54	32.48%
1,300,000	13,002.37	17,221.16	4,218.80	32.45%
1,400,000	13,871.81	18,368.86	4,497.05	32.42%
1,500,000	14,741.26	19,516.56	4,775.30	32.39%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 2 - VALLEY

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$124.60	\$224.00	\$99.40	79.77%
1,000	135.85	243.13	107.27	78.96%
2,000	147.11	262.26	115.15	78.28%
3,000	158.36	281.38	123.02	77.69%
4,000	169.61	300.51	130.90	77.17%
5,000	180.87	319.64	138.77	76.73%
10,000	237.13	415.28	178.15	75.13%
16,000	304.65	530.05	225.40	73.99%
20,000	349.66	589.34	239.68	68.55%
30,000	462.19	737.58	275.39	59.58%
40,000	574.72	885.82	311.10	54.13%
50,000	687.25	1,034.06	346.81	50.46%
60,000	799.78	1,182.30	382.52	47.83%
70,000	912.31	1,330.54	418.23	45.84%
80,000	1,024.84	1,478.78	453.94	44.29%
90,000	1,137.37	1,627.02	489.65	43.05%
100,000	1,249.90	1,775.26	525.36	42.03%
200,000	2,375.20	3,257.66	882.46	37.15%
300,000	3,500.50	4,740.06	1,239.56	35.41%
400,000	4,625.80	6,222.46	1,596.66	34.52%
500,000	5,751.10	7,704.86	1,953.76	33.97%
600,000	6,876.40	9,187.26	2,310.86	33.61%
685,947	* 7,843.57	10,173.68	2,330.11	29.71%
700,000	8,001.70	10,334.96	2,333.26	29.16%
800,000	9,127.00	11,482.66	2,355.66	25.81%
900,000	10,252.30	12,630.36	2,378.06	23.20%
1,000,000	11,377.60	13,778.06	2,400.46	21.10%
1,100,000	12,502.90	14,925.76	2,422.86	19.38%
1,200,000	13,628.20	16,073.46	2,445.26	17.94%
1,300,000	14,753.50	17,221.16	2,467.66	16.73%
1,400,000	15,878.80	18,368.86	2,490.06	15.68%
1,500,000	17,004.10	19,516.56	2,512.46	14.78%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE 5 - STEELTON

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$144.71	\$224.00	\$79.29	54.79%
1,000	161.19	243.13	81.94	50.83%
2,000	177.67	262.26	84.59	47.61%
3,000	194.15	281.38	87.23	44.93%
4,000	210.63	300.51	89.88	42.67%
5,000	227.11	319.64	92.53	40.74%
10,000	309.50	415.28	105.78	34.18%
16,000	408.37	530.05	121.68	29.80%
20,000	474.28	589.34	115.06	24.26%
30,000	602.16	737.58	135.43	22.49%
40,000	730.03	885.82	155.79	21.34%
50,000	857.91	1,034.06	176.16	20.53%
60,000	985.78	1,182.30	196.52	19.94%
70,000	1,113.66	1,330.54	216.89	19.48%
80,000	1,241.53	1,478.78	237.25	19.11%
90,000	1,369.41	1,627.02	257.62	18.81%
100,000	1,497.28	1,775.26	277.98	18.57%
200,000	2,776.03	3,257.66	481.63	17.35%
300,000	4,054.78	4,740.06	685.28	16.90%
400,000	5,333.53	6,222.46	888.93	16.67%
500,000	6,612.28	7,704.86	1,092.58	16.52%
600,000	7,891.03	9,187.26	1,296.23	16.43%
685,947	* 8,990.08	10,173.68	1,183.60	13.17%
700,000	9,169.78	10,334.96	1,165.18	12.71%
800,000	10,448.53	11,482.66	1,034.13	9.90%
900,000	11,727.28	12,630.36	903.08	7.70%
1,000,000	13,006.03	13,778.06	772.03	5.94%
1,100,000	14,284.78	14,925.76	640.98	4.49%
1,200,000	15,563.53	16,073.46	509.93	3.28%
1,300,000	16,842.28	17,221.16	378.88	2.25%
1,400,000	18,121.03	18,368.86	247.83	1.37%
1,500,000	19,399.78	19,516.56	116.78	0.60%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 2.30%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
ZONE XX - FARMINGTON

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
INDUSTRIAL - MONTHLY  
SERVICE CHARGE PER EDU FOR PRESENT & SERVICE CHARGE PER CUSTOMER FOR PROPOSED

CONSUMPTION GALLONS (1)	BILLS UNDER		INCREASE	
	PRESENT RATES (2)	PROPOSED RATES (3)	AMOUNT (4)	PERCENT (5)
0	\$67.50	\$28.00	(\$39.50)	-58.52%
1,000	67.50	47.13	(20.37)	-30.18%
2,000	67.50	66.26	(1.24)	-1.84%
3,000	67.50	85.38	17.88	26.49%
4,000	67.50	104.51	37.01	54.83%
5,000	67.50	123.64	56.14	83.17%
9,965 *	141.98	218.61	76.64	53.98%
16,000	232.50	334.05	101.55	43.68%
20,000	292.50	410.56	118.06	40.36%
30,000	442.50	601.84	159.34	36.01%
40,000	592.50	793.12	200.62	33.86%
50,000	742.50	984.40	241.90	32.58%
60,000	892.50	1,175.68	283.18	31.73%
70,000	1,042.50	1,366.96	324.46	31.12%
80,000	1,192.50	1,558.24	365.74	30.67%
90,000	1,342.50	1,749.52	407.02	30.32%
100,000	1,492.50	1,940.80	448.30	30.04%
200,000	2,992.50	3,853.60	861.10	28.78%
300,000	4,492.50	5,766.40	1,273.90	28.36%
400,000	5,992.50	7,679.20	1,686.70	28.15%
500,000	7,492.50	9,592.00	2,099.50	28.02%
600,000	8,992.50	11,504.80	2,512.30	27.94%
685,947	10,281.71	13,148.80	2,867.09	27.89%
700,000	10,492.50	13,417.60	2,925.10	27.88%
800,000	11,992.50	15,330.40	3,337.90	27.83%
900,000	13,492.50	17,243.20	3,750.70	27.80%
1,000,000	14,992.50	19,156.00	4,163.50	27.77%
1,100,000	16,492.50	21,068.80	4,576.30	27.75%
1,200,000	17,992.50	22,981.60	4,989.10	27.73%
1,300,000	19,492.50	24,894.40	5,401.90	27.71%
1,400,000	20,992.50	26,807.20	5,814.70	27.70%
1,500,000	22,492.50	28,720.00	6,227.50	27.69%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
SUMMARY OF APPLICATION OF PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

<u>Rate Zone</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Municipal</u>	<u>Bulk</u>	<u>Total Revenues</u>
<b><u>Present Rate Application</u></b>						
Zone 1 - Most WW Areas	\$39,323,052	\$10,183,912	\$1,830,201	\$931,880	\$1,938,536	\$54,207,581
Zone 2 - New Cumberland	2,880,248	514,850	0	26,451		3,421,549
Zone 5 - Valley WW	3,729,117	378,045	0	93,482		4,200,644
Zone 7 - York WW	14,076,537	5,221,440	10,087	315,566	7,425,108	27,048,738
Zone 8 - Foster Township	646,340	45,001	493,723	13,646		1,198,710
Zone 9 -Royersford WW	792,301	456,488	17,883	19,208	80,885	1,366,765
Zone XX - Farmington WW	265,788	49,434	5,136	2,568		322,926
Zone XX - Sadsbury WW	348,031	123,197	0	0		471,228
	\$62,061,414	\$16,972,367	\$2,357,030	\$1,402,801	\$9,444,529	\$92,238,141
IPP Surcharge						\$1,835,040
Other Revenues						\$1,397,685
<b>Total WW SSS</b>	<b>\$62,061,414</b>	<b>\$16,972,367</b>	<b>\$2,357,030</b>	<b>\$1,402,801</b>	<b>\$9,444,529</b>	<b>\$95,470,866</b>
<b><u>Proposed Rate Application</u></b>						
Zone 1 - Most WW Areas	\$36,383,506	\$9,976,867	\$1,835,449	\$898,416	\$1,971,503	\$51,065,741
Zone 2 - New Cumberland	3,030,014	580,072	0	29,126		3,639,212
Zone 5 - Valley WW	3,454,856	356,556	0	88,756		3,900,168
Zone 7 - York WW	15,191,887	6,594,717	12,184	391,338	7,702,598	29,892,724
Zone 8 - Foster Township	603,240	42,000	460,800	22,500		1,128,540
Zone 9 -Royersford WW	968,350	481,818	18,047	17,562	104,860	1,590,637
Zone XX - Farmington WW	297,473	64,088	7,311	3,434		372,306
Zone XX - Sadsbury WW	348,031	123,197	0	0		471,228
	\$60,277,357	\$18,219,315	\$2,333,791	\$1,451,132	\$9,778,961	\$92,060,556
IPP Surcharge						\$1,835,040
Other Revenues						\$1,406,017
<b>Total WW SSS</b>	<b>\$60,277,357</b>	<b>\$18,219,315</b>	<b>\$2,333,791</b>	<b>\$1,451,132</b>	<b>\$9,778,961</b>	<b>\$95,301,613</b>
Change in Revenues	(\$1,784,057)	\$1,246,948	(\$23,239)	\$48,331	\$334,432	(\$169,253)
% Change in Revenues	-2.87%	7.35%	-0.99%	3.45%	3.54%	-0.18%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO RESIDENTIAL CLASS BILL ANALYSIS

<b>Residential Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most WW Areas	10,967,060	\$39,740,205	10,774,958	\$39,203,742	10,659,306	\$420,150	\$39,323,052	\$36,383,506	-7.48%
Zone 2 - New Cumberland	1,012,280	2,941,268	991,528	2,890,426	974,813	30,774	2,880,248	3,030,014	5.20%
Zone 5 - Valley WW	615,075	2,490,643	602,466	3,718,473	592,309	39,845	3,729,117	3,454,856	-7.35%
Zone 7 - York WW	6,807,190	6,592,965	6,667,643	14,121,627	6,555,238	150,402	14,076,537	15,191,887	7.92%
Zone 8 - Foster Township		512,754		639,434		6,906	646,340	603,240	-6.67%
Zone 9 -Royersford WW	498,716	785,880	488,493	784,748	480,258	8,465	792,301	968,350	22.22%
Zone XX - Farmington WW				265,788			265,788	297,473	11.92%
Zone XX - Sadsbury WW				348,031			348,031	348,031	0.00%
<b>Total Residential</b>	<u>19,900,321</u>	<u>\$53,063,715</u>	<u>19,525,088</u>	<u>\$61,972,269</u>	<u>19,261,924</u>	<u>\$656,542</u>	<u>\$62,061,414</u>	<u>\$60,277,357</u>	-2.87%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO RESIDENTIAL CLASS BILL ANALYSIS

	6/30/2023 Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	6/30/2024 Billing Determinants	6/30/2024 Rate	6/30/2024 Annualized Revenue	6/30/2025 Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone 1 - Most WW Areas</b>													
Service Charge Per EDU	350,748	\$14.30	\$5,015,700	352,068	\$14.30	\$5,034,576	353,175	\$14.30	\$54,544	\$5,104,950	\$20.00	\$7,063,505	38.37%
Consumption Charges Usage (100 Gallons)	10,928,042	\$2.8750	31,418,121	10,967,060	\$2.8750	31,530,298	10,774,958	\$2.8750	334,562	31,312,567			
Flat (Unmetered)	36,989	\$106.00	3,920,785	38,529	\$106.00	4,084,025	38,529	\$106.00	44,107	4,128,132	\$100.00	3,852,854	-6.67%
<u>Low Income:</u>													
Low Income Discount Tier 1			(350,015)			(350,015)			(3,780)	(353,795)		(329,587)	
Low Income Discount Tier 2			(259,147)			(259,147)			(2,799)	(261,946)		(244,021)	
Low Income Discount Tier 3			(299,532)			(299,532)			(3,235)	(302,767)		(282,050)	
Low Income Discount Tier 4												(292,887)	
<u>Adjustment (1):</u>													
Service Charge Per EDU	1,320	\$14.30	18,876	1,107	\$14.30	15,830	2,214	\$14.30	342	32,002	\$20.00	44,280	38.37%
Consumption Charges Usage (100 Gallons)	39,018	\$2.8750	112,177	32,722	\$2.8750	94,076	65,444	\$2.8750	2,032	190,183			
<u>Adjustment (2):</u>													
Flat (Unmetered)	1,540	\$106.00	163,240										
<u>Adjustment (3):</u>													
Usage (100 Gallons)				(224,824)	\$2.8750	(646,369)	(181,096)	\$2.8750	(5,623)	(526,274)			
Total Usage	10,967,060			10,774,958			10,659,306				\$2.5650	26,571,412	
Annualized Winter Usage(4)							10,359,225						
<b>Total Zone 1 Residential</b>			<b>\$39,740,205</b>			<b>\$39,203,742</b>			<b>\$420,150</b>	<b>\$39,323,052</b>		<b>\$36,383,506</b>	-7.48%

Note (1) Adjustment to account revenues brought about by customer growth  
Note (2) Adjustment to annualized Upper Pottsgrove which started billing August 2022  
Note (3) Adjustment to normalize usage  
Note (4) Annualized Winter Usage is from average winter usage multiplied by 12



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO RESIDENTIAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025		6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 2 - New Cumberland</b>													
Service Charge Per EDU	33,821	\$14.30	\$483,634	33,821	\$14.30	\$483,634	33,821	\$14.30	\$5,223	\$488,857	\$20.00	\$676,412	38.37%
Consumption Charges													
Usage (100 Gallons)	1,012,280	\$2.4500	2,480,085	1,012,280	\$2.4500	2,480,085	991,528	\$2.4500	26,236	2,455,479			
<u>Low Income:</u>													
Low Income Discount Tier 1			(5,889)			(5,889)			(64)	(5,953)		(6,334)	6.40%
Low Income Discount Tier 2			(5,205)			(5,205)			(56)	(5,261)		(5,599)	6.42%
Low Income Discount Tier 3			(11,357)			(11,357)			(123)	(11,480)		(12,216)	6.41%
Low Income Discount Tier 4												(13,332)	
<u>Adjustment (1):</u>													
Usage (100 Gallons)				(20,752)	\$2.4500	(50,842)	(16,715)	\$2.4500	(442)	(41,394)			
Total Usage	1,012,280			991,528			974,813						
Annualized Winter Usage(2)	979,571			947,702			932,196				\$2.5650	2,391,083	-0.95%
<b>Total Zone 2 Residential</b>			<b>\$2,941,268</b>			<b>\$2,890,426</b>			<b>\$30,774</b>	<b>\$2,880,248</b>		<b>\$3,030,014</b>	5.20%

Note (1) Adjustment to normalize usage

Note (2) Annualized Winter Usage is from average winter usage multiplied by 12

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	6/30/2023 Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	6/30/2024 Billing Determinants	6/30/2024 Rate	6/30/2024 Annualized Revenue (1)	6/30/2025 Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone 5 - Valley WW</b>													
Service Charge	19,577	\$59.67	\$1,168,135	19,577	\$14.30	\$279,945	19,577	\$14.30	\$3,023	\$282,968	\$20.00	\$391,532	38.37%
Consumption Charges													
First 3400 Gallons	486,676	\$0.0000	0	615,075	\$2.8750	1,768,341	602,466	\$2.8750	18,707	1,750,797	\$2.5650		
All Over 3400 Gallons	128,398	\$1.1200	143,806										
Flat (Unmetered)	16,190	\$73.33	1,187,245	16,190	\$106.00	1,716,186	16,190	\$106.00	18,535	1,734,721	\$100.00	1,619,043	-6.67%
<i>Low Income:</i>													
Low Income Discount Tier 1			(2,695)			(2,672)			(29)	(2,701)		(3,794)	
Low Income Discount Tier 2			(968)			(1,399)			(15)	(1,414)		(1,320)	
Low Income Discount Tier 3			(4,880)			(5,677)			(61)	(5,738)		(6,787)	
												(7,394)	
<i>Adjustment (2):</i>													
Usage (100 Gallons)				(12,609)	\$2.8750	(36,251)	(10,157)	\$2.8750	(315)	(29,516)	\$2.5650		
Total Usage	615,075			602,466			592,309						
Annualized Winter Usage(3)							570,595				\$2.5650	1,463,576	-14.97%
<b>Total Zone 5 Residential</b>			<b>\$2,490,643</b>			<b>\$3,718,473</b>			<b>\$39,845</b>	<b>\$3,729,117</b>		<b>\$3,454,856</b>	-7.35%

Note (1) The annualized revenue for 12 months ending June 2024 is using rates effective 11/19/2023.

Note (2) Adjustment to normalize usage

Note (3) Annualized Winter Usage is from average winter usage multiplied by 12

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	6/30/2023 Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	6/30/2024 Billing Determinants	6/30/2024 Rate	6/30/2024 Annualized Revenue (1)	6/30/2025 Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone 7 - York WW</b>													
Service Charge	141,871	\$18.00	\$2,553,686	141,871	\$18.00	\$2,553,686	141,871	\$18.00	\$27,580	\$2,581,266	\$20.00	\$2,837,429	9.92%
Consumption Charges													
First 2000 Gallons	2,482,462	\$0.0000	0	2,482,462	\$0.0000	0	2,431,572	\$0.0000	0	0			
All Over 2000 Gallons	4,324,728	\$0.9370	4,052,270	4,324,728	\$2.7375	11,838,943	4,236,071	\$2.7375	125,239	11,721,484			
<i>Low Income:</i>													
Low Income Discount Tier 1			(5,811)			(12,660)			(137)	(12,797)		(13,470)	
Low Income Discount Tier 2			(3,995)			(8,704)			(94)	(8,798)		(9,261)	
Low Income Discount Tier 3			(3,185)			(6,939)			(75)	(7,014)		(7,383)	
												(6,733)	
<i>Adjustment (2):</i>													
First 2000 Gallons				(50,890)	\$0.0000	0	(40,992)	\$0.0000	0	0			
All Over 2000 Gallons				(88,657)	\$2.7375	(242,699)	(71,413)	\$2.7375	(2,111)	(197,604)			
Total Usage	6,807,190			6,667,643			6,555,238						
Annualized Winter Usage(3)							2,390,580				\$0.7500	1,792,935	0.00%
First 2000 Gallons							4,131,918				\$2.5650	10,598,370	-8.03%
All Over 2000 Gallons							6,522,498						
<b>Total Zone 7 Residential</b>			<b>\$6,592,965</b>			<b>\$14,121,627</b>			<b>\$150,402</b>	<b>\$14,076,537</b>		<b>\$15,191,887</b>	7.92%

Note (1) The annualized revenue for 12 months ending June 2024 is using authorized rates from Docket No. R-2022-3031673.

Note (2) Adjustment to normalize usage

Note (3) Annualized Winter Usage is from average winter usage multiplied by 12

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	6/30/2023			6/30/2024			6/30/2025		6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 8 - Foster Township</b>													
Flat Rate Per EDU	4,030	\$85.00	\$342,523	6,036	\$106.00	\$639,816	6,036	\$106.00	\$6,910	\$646,726	\$100.00	\$603,600	-6.67%
<i>Low Income:</i>													
Low Income Discount Tier 1			0			0			0	0		0	0.00%
Low Income Discount Tier 2			0			0			0	0		0	0.00%
Low Income Discount Tier 3			(306)			(382)			(4)	(386)		(360)	-6.74%
Low Income Discount Tier 4												0	
<i>Adjustment (1):</i>													
Flat Rate Per EDU	2,006	\$85.00	170,537										
<b>Total Zone 8 Residential</b>			<b>\$512,754</b>			<b>\$639,434</b>			<b>\$6,906</b>	<b>\$646,340</b>		<b>\$603,240</b>	-6.67%

Note (1) Foster Township was acquired October 2022. Adjustment (1) is to annualized the revenue for full 12 months of billing.

Note (2) The annualized revenue for 12 months ending June 2024 is applying the approved rates in Docket No. R-2022-3031673.

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	6/30/2023			6/30/2024			6/30/2025		6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 9 - Royersford WW</b>													
Service Charge	15,216	\$48.00	\$730,375	15,216	\$48.00	\$730,375	15,216	\$48.00	\$7,888	\$738,263	\$20.00	\$304,323	-58.78%
Consumption Charges													
First 3000 Gallons	439,975	\$0.0000	0	439,975	\$0.0000	0	430,956	\$0.0000	0	0			
All Over 3000 Gallons	58,741	\$0.9400	55,216	58,741	\$0.9400	55,216	57,537	\$0.9400	584	54,668			
Flat (Unmetered)	108	\$50.00	5,400	108	\$50.00	5,400	108	\$50.00	58	5,458	\$65.00	7,020	28.62%
<u>Low Income:</u>													
Low Income Discount Tier 1			(1,982)			(1,982)			(21)	(2,003)		(2,480)	
Low Income Discount Tier 2			(341)			(341)			(4)	(345)		(425)	
Low Income Discount Tier 3			(2,788)			(2,788)			(30)	(2,818)		(3,492)	
Low Income Discount Tier 4												(4,656)	
<u>Adjustment (1):</u>													
First 3000 Gallons				(9,019)	\$0.0000	0	(7,265)	\$0.0000	0	0			
All Over 3000 Gallons				(1,204)	\$0.9400	(1,132)	(970)	\$0.9400	(10)	(922)			
Total Usage	498,716			488,493			480,258						
Annualized Winter Usage(2)													
First 3000 Gallons							397,422				\$1.4150	562,353	0.00%
All Over 3000 Gallons							74,705				\$1.4150	105,707	96.68%
							472,127						
<b>Total Zone 9 Residential</b>			<b>\$785,880</b>			<b>\$784,748</b>			<b>\$8,465</b>	<b>\$792,301</b>		<b>\$968,350</b>	22.22%

Note (1) Adjustment to normalize usage

Note (2) Annualized Winter Usage is from average winter usage multiplied by 12

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	6/30/2023 Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	6/30/2024 Billing Determinants	Rate	6/30/2024 Annualized Revenue(2)	6/30/2025 Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone XX - Farmington WW</b>													
Service Charge Per EDU				4,968	\$53.50	\$265,788	4,968	\$53.50		\$265,788	\$20.00	\$99,360	-62.62%
Annualized Winter Usage				146,750	\$0.0000	0	146,750	\$0.0000		0	\$1.3500	198,113	0.00%
<b>Total Zone XX Residential</b>			<u>\$0</u>			<u>\$265,788</u>			<u>\$0</u>	<u>\$265,788</u>		<u>\$297,473</u>	11.92%

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	6/30/2023 Billing Determinants	Current Rate	6/30/2023 Annualized Revenue	6/30/2024 Billing Determinants	Rate	6/30/2024 Annualized Revenue(2)	6/30/2025 Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone XX - Sadsbury WW</b>													
Flat Rate Per EDU				2,712	\$128.33	\$348,031	2,712	\$128.33		\$348,031	\$128.33	\$348,031	0.00%
<b>Total Zone XX Residential</b>			<u>\$0</u>			<u>\$348,031</u>			<u>\$0</u>	<u>\$348,031</u>		<u>\$348,031</u>	0.00%

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<b>Commercial Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most WW Areas	4,375,352	\$10,230,122	4,319,952	\$10,115,507	4,298,941	\$108,811	\$10,183,912	\$9,976,867	-2.03%
Zone 2 - New Cumberland	212,277	520,136	208,933	513,782	206,600	5,501	514,850	580,072	12.67%
Zone 5 - Valley WW	36,022	256,998	35,803	374,326	35,650	4,040	378,045	356,556	-5.68%
Zone 7 - York WW	3,175,535	3,041,701	3,125,504	5,218,857	3,090,610	55,789	5,221,440	6,594,717	26.30%
Zone 8 - Foster Township		35,700		44,520		481	45,001	42,000	-6.67%
Zone 9 - Royersford WW	378,605	458,895	372,640	454,604	368,480	4,877	456,488	481,818	5.55%
Zone XX - Farmington WW				49,434		0	49,434	64,088	29.64%
Zone XX - Sadsbury WW				123,197		0	123,197	123,197	0.00%
<b>Total Commercial</b>	<u>8,177,791</u>	<u>\$14,543,552</u>	<u>8,062,832</u>	<u>\$16,894,227</u>	<u>8,000,281</u>	<u>\$179,499</u>	<u>\$16,972,367</u>	<u>\$18,219,315</u>	7.35%



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Zone 1 - Most WW Areas	6/30/2023		6/30/2023	6/30/2024		6/30/2024	6/30/2025		Proforma	6/30/2025	Proposed Rate	6/30/2025	
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	DSIC Revenues	Proforma Revenues		Proforma @ Proposed Rate	% Percent Change
Service Charge Per EDU	23,395	\$35.00	\$818,830	23,455	\$35.00	\$820,930	23,509	\$35.00	\$8,886	\$831,706	\$50.00	\$1,175,457	41.33%
Consumption Charges													
Usage per 100 Gallons:	4,343,407	\$2.1030	9,134,184	4,358,444	\$2.1030	9,165,809	4,303,044	\$2.1030	97,732	9,147,035	\$2.0000	8,606,089	-5.91%
Flat Rate (Unmetered)	1,769	\$106.00	187,538	1,820	\$106.00	192,944	1,820	\$106.00	2,084	195,028	\$100.00	182,022	-6.67%
Upper Pottsgrove													
Service Charge Per EDU	504	\$63.60	32,067	550	\$63.60	34,992	550	\$63.60	378	35,370	\$50.00	27,510	-22.22%
Consumption Charges													
Usage per 100 Gallons:	14,579	\$0.5653	8,241	15,818	\$0.5653	8,942	15,818	\$0.5653	97	9,039	\$1.0000	15,818	75.00%
Cleveland-Cliffs													
Service Charge	12	\$415.00	4,980	12	\$415.00	4,980	12	\$415.00	54	5,034	\$415.00	4,980	-1.07%
Consumption Charges													
Usage per 100 Gallons:	1,090	\$1.4000	1,526	1,090	\$1.4000	1,526	1,090	\$1.4000	16	1,542	\$1.4800	1,613	4.60%
Adjustment (1):													
Service Charge Per EDU	60	\$35.00	2,100	54	\$35.00	1,890	108	\$35.00	41	3,821	\$50.00	5,400	41.32%
Consumption Charges													
Usage (100 Gallons)	15,038	\$2.1030	31,624	13,534	\$2.1030	28,462	27,068	\$2.1030	615	57,539	\$2.0000	54,136	-5.91%
Adjustment (2):													
Service Charge (Unmetered)	51	\$106.00	5,406										
Service Charge (Metered)	46	\$63.60	2,926										
Consumption Charges													
Usage per 100 Gallons:	1,239	\$0.5653	700										
Adjustment (3):													
Usage (100 Gallons)				(68,934)	\$2.1030	(144,968)	(48,079)	\$2.1030	(1,092)	(102,202)	\$2.0000	(96,158)	-5.91%
<b>Total Zone 1 Commercial</b>			<b>\$10,230,122</b>			<b>\$10,115,507</b>			<b>\$108,811</b>	<b>\$10,183,912</b>		<b>\$9,976,867</b>	-2.03%

Note (1) Adjustment to account revenues brought about by customer growth.

Note (2) Adjustment to annualized Upper Pottsgrove which started billing August 2022

Note (3) Adjustment to normalize usage

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Zone 2 - New Cumberland	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Service Charge Per EDU	3,337	\$35.00	\$116,809	3,337	\$35.00	\$116,809	3,337	\$35.00	\$1,262	\$118,071	\$50.00	\$166,871	41.33%
Consumption Charges Usage per 100 Gallons:	212,277	\$1.9000	403,327	212,277	\$1.9000	403,327	208,933	\$1.9000	4,287	401,260	\$2.0000	417,867	4.14%
<i>Adjustment (1):</i> Usage (100 Gallons)				(3,344)	\$1.9000	(6,354)	(2,333)	\$1.9000	(48)	(4,481)	\$2.0000	(4,666)	4.13%
<b>Total Zone 2 Commercial</b>			<u><u>\$520,136</u></u>			<u><u>\$513,782</u></u>			<u><u>\$5,501</u></u>	<u><u>\$514,850</u></u>		<u><u>\$580,072</u></u>	12.67%

Note (1) Adjustment to normalize usage

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	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(1)	Billing Determinants	Present Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 5 - Valley WW</b>													
Service Charge	131	\$59.67	\$7,794	131	\$35.00	\$4,572	131	\$35.00	\$49	\$4,621	\$50.00	\$6,531	41.33%
Consumption Charges													
First 3400 Gallons	2,237	\$0.0000	0	13,914	\$2.1030	29,261	13,695	\$2.1030	311	29,112	\$2.0000	27,390	-5.92%
All Over 3400 Gallons	11,677	\$1.1200	13,078										
Flat Rate (Unmetered)	3,149	\$73.33	230,904	3,149	\$106.00	333,777	3,149	\$106.00	3,605	337,382	\$100.00	314,884	-6.67%
Westwood Fire Company													
Service Charge	12	\$0.00	0	12	\$0.00	0	12	\$0.00	0	0	\$50.00	600	0.00%
Consumption Charges													
First 3400 Gallons	408	\$0.0000	0	890	\$2.1030	1,872	890	\$2.1030	20	1,892	\$2.0000	1,780	-5.92%
All Over 3400 Gallons	482	\$0.0000	0										
Rainbow Washhouse													
Service Charge	12	\$73.33	880	12	\$75.00	900	12	\$75.00	10	910	\$79.50	954	4.84%
Consumption Charges													
First 2000 Gallons	240	\$0.0000	0	240	\$0.0000	0	240	\$0.0000	0	0	\$0.2226	53	0.00%
All Over 2000 Gallons	20,978	\$0.2070	4,342	20,978	\$0.2100	4,405	20,978	\$0.2100	48	4,453	\$0.2226	4,670	4.87%
<i>Adjustment (2):</i>													
Usage (100 Gallons)				(219)	\$2.1030	(461)	(153)	\$2.1030	(3)	(325)	\$2.0000	(306)	-5.85%
<b>Total Zone 5 Commercial</b>			<u><u>\$256,998</u></u>			<u><u>\$374,326</u></u>			<u><u>\$4,040</u></u>	<u><u>\$378,045</u></u>		<u><u>\$356,556</u></u>	-5.68%

Note (1) The annualized revenue for 12 months ending June 2024 is using rates effective 11/19/2023.

Note (2) Adjustment to normalize usage

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	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 7 - York WW</b>													
Service Charge	15,107	\$18.00	\$271,930	15,107	\$30.00	\$453,217	15,107	\$30.00	\$4,895	\$458,112	\$50.00	\$755,362	64.89%
Consumption Charges													
First 2000 Gallons	219,536	\$0.0000	0	219,536	\$0.0000	0	216,077	\$0.0000	0	0	\$0.4000	86,431	0.00%
All Over 2000 Gallons	2,955,998	\$0.9370	2,769,771	2,955,998	\$1.6380	4,841,925	2,909,426	\$1.6380	51,469	4,817,109	\$2.0000	5,818,853	20.80%
<i>Adjustment (2):</i>													
First 2000 Gallons				(3,459)	\$0.0000	0	(2,412)	\$0.0000	0	0	\$0.4000	(965)	0.00%
All Over 2000 Gallons				(46,572)	\$1.6380	(76,285)	(32,482)	\$1.6380	(575)	(53,781)	\$2.0000	(64,964)	20.79%
<b>Total Zone 7 Commercial</b>			<b>\$3,041,701</b>			<b>\$5,218,857</b>			<b>\$55,789</b>	<b>\$5,221,440</b>		<b>\$6,594,717</b>	26.30%

Note (1) The annualized revenue for 12 months ending June 2024 is using authorized rates from Docket No. R-2022-3031673.

Note (2) Adjustment to normalize usage

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	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 8 - Foster Township</b>													
Flat Rate Per EDU	276	\$85.00	\$23,456	420	\$106.00	\$44,520	420	\$106.00	\$481	\$45,001	\$100.00	\$42,000	-6.67%
<i>Adjustment (1):</i> Flat Rate Per EDU	144	\$85.00	12,244										
<b>Total Zone 8 Commercial</b>			<b>\$35,700</b>			<b>\$44,520</b>			<b>\$481</b>	<b>\$45,001</b>		<b>\$42,000</b>	-6.67%

Note (1) Foster Township was acquired October 2022. Adjustment (1) is to annualized the revenue for full 12 months of billing.

Note (2) The annualized revenue for 12 months ending June 2024 is applying the approved rates in Docket No. R-2022-3031673.

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 9 - Royersford WW</b>													
Service Charge	2,362	\$48.00	\$113,374	2,362	\$48.00	\$113,374	2,362	\$48.00	\$1,224	\$114,598	\$50.00	\$118,098	3.05%
Consumption Charges													
First 3000 Gallons	88,863	\$0.0000	0	88,863	\$0.0000	0	87,463	\$0.0000	0	0	\$0.7500	65,598	0.00%
All Over 3000 Gallons	289,741	\$0.9400	272,357	289,741	\$0.9400	272,357	285,176	\$0.9400	2,895	270,961	\$0.7500	213,882	-21.07%
Flat Rate (Unmetered)	1,092	\$67.00	73,164	1,092	\$67.00	73,164	1,092	\$67.00	790	73,954	\$80.00	87,360	18.13%
<i>Adjustment (1):</i>													
First 3000 Gallons				(1,400)	\$0.0000	0	(976)	\$0.0000	0	0	\$0.7500	(732)	0.00%
All Over 3000 Gallons				(4,565)	\$0.9400	(4,291)	(3,184)	\$0.9400	(32)	(3,025)	\$0.7500	(2,388)	-21.06%
<b>Total Zone 9 Commercial</b>			<b>\$458,895</b>			<b>\$454,604</b>			<b>\$4,877</b>	<b>\$456,488</b>		<b>\$481,818</b>	5.55%

Note (1) Adjustment to normalize usage

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO COMMERCIAL CLASS BILL ANALYSIS

	6/30/2023		6/30/2023	6/30/2024		6/30/2025		Proforma	6/30/2025	6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone XX - Farmington WW</b>													
Service Charge Per EDU				924	\$53.50	\$49,434	924	\$53.50		\$49,434	\$50.00	\$46,200	-6.54%
Annualized Winter Usage				25,554	\$0.0000	0	25,554	\$0.0000		0	\$0.7000	17,888	0.00%
<b>Total Zone XX Commercial</b>			<u>\$0</u>			<u>\$49,434</u>			<u>\$0</u>	<u>\$49,434</u>		<u>\$64,088</u>	29.64%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO COMMERCIAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change	
<b>Zone XX - Sadsbury WW</b>													
Flat Rate Per EDU				960	\$128.33	\$123,197	960	\$128.33		\$123,197	\$128.33	\$123,197	0.00%
<b>Total Zone XX Commercial</b>			<u>\$0</u>			<u>\$123,197</u>			<u>\$0</u>	<u>\$123,197</u>		<u>\$123,197</u>	0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO INDUSTRIAL CLASS BILL ANALYSIS

<b>Industrial Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most WW Areas	896,360	\$1,810,645	896,360	\$1,810,645	896,360	\$19,556	\$1,830,201	\$1,835,449	0.29%
Zone 2 - New Cumberland									
Zone 5 - Valley WW									
Zone 7 - York WW	6,092	5,708	6,092	9,979	6,092	108	10,087	12,184	20.79%
Zone 8 - Foster Township		391,680		488,448		5,275	493,723	460,800	-6.67%
Zone 9 - Royersford WW	14,487	17,692	14,487	17,692	14,487	191	17,883	18,047	0.92%
Zone XX - Farmington WW				5,136			5,136	7,311	42.35%
Zone XX - Sadsbury WW									
<b>Total Industrial</b>	<u>916,939</u>	<u>\$2,225,725</u>	<u>916,939</u>	<u>\$2,331,900</u>	<u>916,939</u>	<u>\$25,130</u>	<u>\$2,357,030</u>	<u>\$2,333,791</u>	-0.99%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO INDUSTRIAL CLASS BILL ANALYSIS

Zone 1 - Most WW Areas	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Service Charge Per EDU	108	\$35.00	\$3,780	108	\$35.00	\$3,780	108	\$35.00	\$41	\$3,821	\$50.00	\$5,400	41.32%
Consumption Charges Usage per 100 Gallons:	264,772	\$2.1030	556,816	264,772	\$2.1030	556,816	264,772	\$2.1030	6,014	562,830	\$2.0000	529,544	-5.91%
Flat Rate (Unmetered)	12	\$106.00	1,272	12	\$106.00	1,272	12	\$106.00	14	1,286	\$100.00	1,200	-6.69%
Special Rate: Cleveland Cliff Plate													
Service Charge	12	\$415.00	4,980	12	\$415.00	4,980	12	\$415.00	54	5,034	\$415.00	4,980	
Usage (100 Gallons)	357,318	\$1.4000	500,245	357,318	\$1.4000	500,245	357,318	\$1.4000	5,403	505,648	\$1.4800	528,831	
Special Rate: Victory Bewing													
Service Charge	12	\$415.00	4,854	12	\$415.00	4,854	12	\$415.00	52	4,906	\$415.00	4,854	
Usage (100 Gallons)	274,270	\$1.4000	383,978	274,270	\$1.4000	383,978	274,270	\$1.4000	4,147	388,125	\$1.4800	405,920	
Special Rate (Flat): Knouse Foods	12	\$8,340.00	100,080	12	\$8,340.00	100,080	12	\$8,340.00	1,081	101,161	\$8,340.00	100,080	
Penn State Special Metals	12	\$2,870.00	34,440	12	\$2,870.00	34,440	12	\$2,870.00	372	34,812	\$2,870.00	34,440	
PSC Metals	12	\$1,110.00	13,320	12	\$1,110.00	13,320	12	\$1,110.00	144	13,464	\$1,110.00	13,320	
Ipsco Kopper Tubilers	12	\$17,240.00	206,880	12	\$17,240.00	206,880	12	\$17,240.00	2,234	209,114	\$17,240.00	206,880	
<b>Total Zone 1 Industrial</b>			<b>\$1,810,645</b>			<b>\$1,810,645</b>			<b>\$19,556</b>	<b>\$1,830,201</b>		<b>\$1,835,449</b>	0.29%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO INDUSTRIAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(1)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 7 - York WW</b>													
Consumption Charges Usage per 100 Gallons:	6,092	\$0.9370	\$5,708	6,092	\$1.6380	\$9,979	6,092	\$1.6380	\$108	\$10,087	\$2.0000	\$12,184	20.79%
<b>Total Zone 7 Industrial</b>			<u>\$5,708</u>			<u>\$9,979</u>			<u>\$108</u>	<u>\$10,087</u>		<u>\$12,184</u>	20.79%

Note (1) The annualized revenue for 12 months ending June 2024 is using authorized rates from Docket No. R-2022-3031673.

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 8 - Foster Township</b>													
Flat Rate Per EDU	2,522	\$85.00	\$214,381	4,608	\$106.00	\$488,448	4,608	\$106.00	\$5,275	\$493,723	\$100.00	\$460,800	-6.67%
<i>Adjustment (1):</i> Flat Rate Per EDU	2,086	\$85.00	177,299										
<b>Total Zone 8 Commercial</b>			<u>\$391,680</u>			<u>\$488,448</u>			<u>\$5,275</u>	<u>\$493,723</u>		<u>\$460,800</u>	-6.67%

Note (1) Foster Township was acquired October 2022. Adjustment (1) is to annualized the revenue for full 12 months of billing.

Note (2) The annualized revenue for 12 months ending June 2024 is applying the approved rates in Docket No. R-2022-3031673.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO INDUSTRIAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 9 - Royersford WW</b>													
Service Charge	143	\$48.00	\$6,879	143	\$48.00	\$6,879	143	\$48.00	\$74	\$6,953	\$50.00	\$7,166	3.06%
Consumption Charges													
First 3000 Gallons	2,998	\$0.0000	0	2,998	\$0.0000	0	2,998	\$0.0000	0	0	\$0.7500	2,248	0.00%
All Over 3000 Gallons	11,490	\$0.9400	10,800	11,490	\$0.9400	10,800	11,490	\$0.9400	117	10,917	\$0.7500	8,617	-21.07%
Flat Rate (Unmetered)	0	\$67.00	13	0	\$67.00	13	0	\$67.00	0	13	\$80.00	16	23.08%
<b>Total Zone 9 Industrial</b>			<u><u>\$17,692</u></u>			<u><u>\$17,692</u></u>			<u><u>\$191</u></u>	<u><u>\$17,883</u></u>		<u><u>\$18,047</u></u>	0.92%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO INDUSTRIAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone XX - Farmington WW</b>													
Service Charge Per EDU				96	\$53.50	\$5,136	96	\$53.50		\$5,136	\$50.00	\$4,800	-6.54%
Annualized Winter Usage				3,588	\$0.0000	0	3,588	\$0.0000		0	\$0.7000	2,511	0.00%
<b>Total Zone XX Industrial</b>			<u><u>\$0</u></u>			<u><u>\$5,136</u></u>			<u><u>\$0</u></u>	<u><u>\$5,136</u></u>		<u><u>\$7,311</u></u>	42.35%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

<b>Municipal Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most WW Areas	390,360	\$952,753	377,064	\$924,792	375,700	\$9,957	\$931,880	\$898,416	-3.59%
Zone 2 - New Cumberland	12,012	27,026	11,603	26,249	11,561	282	26,451	29,126	10.11%
Zone 5 - Valley WW	44,863	51,675	43,335	92,814	43,178	998	93,482	88,756	-5.06%
Zone 7 - York WW	195,274	185,648	188,623	313,270	187,941	3,371	315,566	391,338	24.01%
Zone 8 - Foster Township		13,500		13,500		146	13,646	22,500	64.88%
Zone 9 -Royersford WW	20,173	19,632	19,486	19,061	19,416	205	19,208	17,562	-8.57%
Zone XX - Farmington WW				2,568		0	2,568	3,434	33.72%
Zone XX - Sadsbury WW									
<b>Total Municipal</b>	<b>662,681</b>	<b>\$1,250,234</b>	<b>640,110</b>	<b>\$1,392,254</b>	<b>637,795</b>	<b>\$14,959</b>	<b>\$1,402,801</b>	<b>\$1,451,132</b>	<b>3.45%</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 1 - Most WW Areas</b>													
Service Charge Per EDU	823	\$35.00	\$28,806	823	\$35.00	\$28,806	823	\$35.00	\$311	\$29,117	\$50.00	\$41,152	41.33%
Consumption Charges Usage per 100 Gallons:	390,360	\$2.1030	820,927	390,360	\$2.1030	820,927	377,064	\$2.1030	8,564	801,529	\$2.0000	754,128	-5.91%
Flat Rate (Unmetered)	270	\$106.00	28,620	270	\$106.00	28,620	270	\$106.00	309	28,929	\$100.00	27,000	-6.67%
Special Rate: Strattanville Borough	11	\$6,200.00	68,200	12	\$6,200.00	74,400	12	\$6,200.00	804	75,204	\$6,572.00	78,864	4.87%
Adjustment (1): Strattanville Borough	1	\$6,200.00	6,200										
Adjustment (2): Usage (100 Gallons)				(13,296)	\$2.1030	(27,961)	(1,364)	\$2.1030	(31)	(2,899)	\$2.0000	(2,728)	-5.90%
<b>Total Zone 1 Municipal</b>			<b>\$952,753</b>			<b>\$924,792</b>			<b>\$9,957</b>	<b>\$931,880</b>		<b>\$898,416</b>	-3.59%

Note (1) Adjustment to reflect 12 months bill for Strattanville Borough

Note (2) Adjustment to normalize usage

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 2 - New Cumberland</b>													
Service Charge Per EDU	120	\$35.00	\$4,203	120	\$35.00	\$4,203	120	\$35.00	\$45	\$4,248	\$50.00	\$6,004	41.34%
Consumption Charges Usage per 100 Gallons:	12,012	\$1.9000	22,823	12,012	\$1.9000	22,823	11,603	\$1.9000	238	22,284	\$2.0000	23,206	4.14%
<i>Adjustment (1):</i> Usage (100 Gallons)				(409)	\$1.9000	(777)	(42)	\$1.9000	(1)	(81)	\$2.0000	(84)	3.70%
<b>Total Zone 2 Municipal</b>			<u><u>\$27,026</u></u>			<u><u>\$26,249</u></u>			<u><u>\$282</u></u>	<u><u>\$26,451</u></u>		<u><u>\$29,126</u></u>	10.11%

Note (1) Adjustment to normalize usage

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(1)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 5 - Valley WW</b>													
Service Charge	48	\$59.67	\$2,864	48	\$35.00	\$1,680	48	\$35.00	\$18	\$1,698	\$50.00	\$2,400	41.34%
Consumption Charges													
First 3400 Gallons	1,282	\$0.0000	0	44,863	\$2.1030	94,347	43,335	\$2.1030	984	92,118	\$2.0000	86,670	-5.91%
All Over 3400 Gallons	43,581	\$1.1200	48,811										
Flat Rate (Unmetered)	-	\$73.33	0	-	\$106.00	0	-	\$106.00	0	0	\$100.00	0	0.00%
<i>Adjustment (2):</i>													
Usage (100 Gallons)				(1,528)	\$2.1030	(3,213)	(157)	\$2.1030	(4)	(334)	\$2.0000	(314)	-5.99%
<b>Total Zone 5 Municipal</b>			<b>\$51,675</b>			<b>\$92,814</b>			<b>\$998</b>	<b>\$93,482</b>		<b>\$88,756</b>	-5.06%

Note (1) The annualized revenue for 12 months ending June 2024 is using rates effective 11/19/2023.

Note (2) Adjustment to normalize usage

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(1)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 7 - York WW</b>													
Service Charge	542	\$18.00	\$9,748	542	\$30.00	\$16,247	542	\$30.00	\$175	\$16,422	\$50.00	\$27,079	64.89%
Consumption Charges													
First 2000 Gallons	7,547	\$0.0000	0	7,547	\$0.0000	0	7,290	\$0.0000	0	0	\$0.4000	2,916	0.00%
All Over 2000 Gallons	187,727	\$0.9370	175,900	187,727	\$1.6380	307,496	181,333	\$1.6380	3,208	300,231	\$2.0000	362,665	20.80%
<i>Adjustment (2):</i>													
First 2000 Gallons				(257)	\$0.0000	0	(26)	\$0.0000	0	0	\$0.4000	(10)	0.00%
All Over 2000 Gallons				(6,394)	\$1.6380	(10,473)	(656)	\$1.6380	(12)	(1,087)	\$2.0000	(1,312)	20.70%
<b>Total Zone 7 Municipal</b>			<b>\$185,648</b>			<b>\$313,270</b>			<b>\$3,371</b>	<b>\$315,566</b>		<b>\$391,338</b>	24.01%

Note (1) The annualized revenue for 12 months ending June 2024 is using authorized rates from Docket No. R-2022-3031673.

Note (2) Adjustment to normalize usage



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 8 - Foster Township</b>													
Butler Township Flat Rate Per EDU	603	\$15.00	\$9,051	900	\$15.00	\$13,500	900	\$15.00	\$146	\$13,646	\$25.00	\$22,500	64.88%
<i>Adjustment (1):</i> Flat Rate Per EDU	297	\$15.00	4,449										
<b>Total Zone 8 Municipal</b>			<u>\$13,500</u>			<u>\$13,500</u>			<u>\$146</u>	<u>\$13,646</u>		<u>\$22,500</u>	64.88%

Note (1) The annualized revenue for 12 months ending June 2024 is applying the approved rates in Docket No. R-2022-3031673.

	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 9 - Royersford WW</b>													
Service Charge	60	\$48.00	\$2,880	60	\$48.00	\$2,880	60	\$48.00	\$31	\$2,911	\$50.00	\$3,000	3.06%
Consumption Charges													
First 3000 Gallons	2,352	\$0.0000	0	2,352	\$0.0000	0	2,272	\$0.0000	0	0	\$0.7500	1,704	0.00%
All Over 3000 Gallons	17,821	\$0.9400	16,752	17,821	\$0.9400	16,752	17,214	\$0.9400	175	16,356	\$0.7500	12,911	-21.06%
Flat Rate (Unmetered)	-	\$67.00	0	-	\$67.00	0	-	\$67.00	0	0	\$80.00	0	0.00%
<i>Adjustment (1):</i>													
First 3000 Gallons				(80)	\$0.0000	0	(8)	\$0.0000	0	0	\$0.7500	(6)	0.00%
All Over 3000 Gallons				(607)	\$0.9400	(571)	(62)	\$0.9400	(1)	(59)	\$0.7500	(47)	-20.34%
<b>Total Zone 9 Municipal</b>			<u>\$19,632</u>			<u>\$19,061</u>			<u>\$205</u>	<u>\$19,208</u>		<u>\$17,562</u>	-8.57%

Note (1) Adjustment to normalize usage

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025		6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue(2)	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone XX - Farmington WW</b>													
Service Charge Per EDU				48	\$53.50	\$2,568	48	\$53.50		\$2,568	\$50.00	\$2,400	-6.54%
Annualized Winter Usage				1,477	\$0.0000	0	1,477	\$0.0000		0	\$0.7000	1,034	0.00%
<b>Total Zone XX Municipal</b>			<b>\$0</b>			<b>\$2,568</b>			<b>\$0</b>	<b>\$2,568</b>		<b>\$3,434</b>	33.72%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

<b>Bulk WW Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 1 - Most WW Areas	1,639,475	\$1,917,824	1,639,475	\$1,917,824	1,639,475	\$20,712	\$1,938,536	\$1,971,503	1.70%
Zone 2 - New Cumberland									
Zone 5 - Valley WW									
Zone 7 - York WW	18,684,743	7,005,759	18,684,743	7,345,773	18,684,743	79,335	7,425,108	7,702,598	3.74%
Zone 8 - Foster Township									
Zone 9 -Royersford WW	25,944	80,021	25,944	80,021	25,944	864	80,885	104,860	29.64%
<b>Total Bulk WW</b>	<u>20,350,161</u>	<u>\$9,003,604</u>	<u>20,350,161</u>	<u>\$9,343,618</u>	<u>20,350,161</u>	<u>\$100,911</u>	<u>\$9,444,529</u>	<u>\$9,778,961</u>	3.54%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

Zone 1 - Most WW Areas	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge	125	\$35.00	\$4,362	125	\$35.00	\$4,362	125	\$35.00	\$47	\$4,409	\$50.00	\$6,232	41.35%
Consumption Charges													
Usage per 100 Gallons:	9,625	\$2.1030	20,242	9,625	\$2.1030	20,242	9,625	\$2.1030	219	20,461	\$2.0000	19,250	-5.92%
Special Rate (Caln, West Brandywine, VA Med)													
Service Charge	36	\$415.00	14,940	36	\$415.00	14,940	36	\$415.00	161	15,101	\$430.00	15,480	2.51%
Consumption Charges													
Usage per 100 Gallons:	1,167,943	\$1.4500	1,693,517	1,167,943	\$1.4500	1,693,517	1,167,943	\$1.4500	18,290	1,711,807	\$1.4900	1,740,235	1.66%
St Lawrence Borough													
Usage per 100 Gallons:	461,907	\$0.4000	184,763	461,907	\$0.4000	184,763	461,907	\$0.4000	1,995	186,758	\$0.4120	190,306	1.90%
<b>Total Zone 1 Bulk WW</b>			<b>1,917,824</b>			<b>1,917,824</b>			<b>20,712</b>	<b>1,938,536</b>		<b>1,971,503</b>	1.70%

Zone 7 - York WW	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Special Bulk WW Rate													
Consumption Charges													
Usage per 100 Gallons:	18,676,652	\$0.3750	\$7,003,744	18,676,652	\$0.3932	\$7,343,660	18,676,652	\$0.3932	\$79,312	\$7,422,972	\$0.4123	\$7,700,384	3.74%
Usage per 100 Gallons:	8,091	\$0.2490	2,015	8,091	\$0.2611	2,113	8,091	\$0.2611	23	2,136	\$0.2737	2,214	3.65%
<b>Total Zone 7 Bulk WW</b>			<b>\$7,005,759</b>			<b>\$7,345,773</b>			<b>\$79,335</b>	<b>\$7,425,108</b>		<b>\$7,702,598</b>	3.74%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

Zone 9 - Royersford WW	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Rate	Annualized Revenue	Billing Determinants	Present Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge	1,094	\$48.00	\$52,494	1,094	\$48.00	\$52,494	1,094	\$48.00	\$567	\$53,061	\$50.00	\$54,682	3.05%
Consumption Charges													
First 3000 Gallons	24,031	\$0.0000	0	24,031	\$0.0000	0	24,031	\$0.0000	0	0	\$0.7500	18,023	0.00%
All Over 3000 Gallons	1,913	\$0.9400	1,799	1,913	\$0.9400	1,799	1,913	\$0.9400	19	1,818	\$0.7500	1,435	-21.07%
Flat Rate (Unmetered)	384	\$67.00	25,728	384	\$67.00	25,728	384	\$67.00	278	26,006	\$80.00	30,720	18.13%
<b>Total Zone 9 Bulk WW</b>			<b>\$80,021</b>			<b>\$80,021</b>			<b>\$864</b>	<b>\$80,885</b>		<b>\$104,860</b>	29.64%

PENNSYLVANIA-AMERICAN WATER COMPANY  
MISCELLANEOUS AND OTHER OPERATING REVENUES  
WASTEWATER SSS OPERATIONS  
TWELVE MONTHS ENDING JUNE 2023, 2024, AND 2025

	Per Books 06/30/2023	Adjustments	Adjusted 06/30/2023	Adjustments	06/30/2024	Adjustments	06/30/2025	Proposed 06/30/2025
523 Other WW Revenues								
IPP Revenue	\$58,897	\$1,776,143	\$1,835,040	\$0	\$1,835,040	\$0	\$1,835,040	\$1,835,040
536 Guaranteed Revenues	0		0		0		0	0
532 Late Payment Fees	292,939	109,657	402,597	59,557	462,154	1,528	463,681	472,013
536 Miscellaneous Services	934,004		934,004		934,004		934,004	934,004
472 Rents From Property	0		0		0		0	0
473 Intercompany Rent	0		0		0		0	0
	<u>\$1,226,943</u>	<u>\$109,657</u>	<u>\$1,336,600</u>	<u>\$59,557</u>	<u>\$1,396,157</u>	<u>\$1,528</u>	<u>\$1,397,685</u>	<u>\$1,406,017</u>
<b>Total Other Revenues</b>	<u>\$1,285,840</u>	<u>\$1,885,800</u>	<u>\$3,171,640</u>	<u>\$59,557</u>	<u>\$3,231,197</u>	<u>\$1,528</u>	<u>\$3,232,725</u>	<u>\$3,241,057</u>

Pennsylvania American Water Company  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2022, 2023

RESIDENTIAL CLASS	12 Mo-Ended	Old Rates	Current Rates	Base Year Revenue
	06/30/2023 Billing Units			
	(a)	(b)	(b)	(a) x (b)
<b>Rate Zone 1 - Most WW Areas</b>				
<u>Old Rate (Most Areas)</u>				
Service Charge (Most Areas)	223,841	\$11.00		\$2,462,256
Service Charge (Sadsbury WW)	(51)	\$25.00		(1,272)
Flat Rate (Most Areas)	8,667	\$78.41		679,600
Flat Rate (Upper Pottsgrove WW)	10,453	\$65.00		679,458
Flat Rate (Exeter WW)	4,307	\$77.07		331,931
Usage (100 Gallons)	5,169,385	\$1.9494		10,077,199
Usage Charge (Turbotville WW)	52,831	\$1.8000		95,096
Usage Charge (Exeter WW)	1,889,986	\$1.9107		3,611,197
<u>Current Rate</u>				
Service Charge	126,958		\$14.30	\$1,815,494
Usage (100 Gallons)	3,815,840		\$2.8750	10,970,540
Flat Rate (Unmetered)	13,561		\$106.00	1,437,488
Farmington Per EDU			\$53.50	
Sadsbury Per EDU			\$128.33	
Low Income (30% Discount - 202)	(\$568,288)			(\$568,288)
<u>Low Income (80% Discount) Tier</u>	(\$86,807)		(\$11.44)	(\$86,807)
# of Customers			(\$2.3000)	
<u>Low Income (55% Discount) Tier</u>	(\$63,273)		(\$7.87)	(\$63,273)
# of Customers			(\$1.5813)	
<u>Low Income (30% Discount) Tier</u>	(\$70,031)		(\$4.29)	(\$70,031)
# of Customers			(\$0.8625)	
<b>Rate Zone 2 - New Cumberland</b>				
<u>Old Rate</u>				
Service Charge	22,166	\$11.00		\$243,823
Usage (100 Gallons)	674,583	\$1.2300		829,737
<u>Current Rate</u>				
Service Charge	11,655		\$14.30	\$166,664
Usage (100 Gallons)	337,697		\$2.4500	827,357
Low Income (30% Discount - 202)	(\$11,146)			(\$11,146)
<u>Low Income (80% Discount) Tier</u>	(\$981)		(\$11.44)	(\$981)
# of Customers			(\$1.9600)	
<u>Low Income (55% Discount) Tier</u>	(\$1,489)		(\$7.87)	(\$1,489)
# of Customers			(\$1.3475)	
<u>Low Income (30% Discount) Tier</u>	(\$2,599)		(\$4.29)	(\$2,599)
# of Customers			(\$0.7350)	

Pennsylvania American Water Company  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2022, 2023

	Billing Units	Old Rates	Current Rates	Base Year Revenue
<b>Rate Zone 5 - Valley WW</b>				
<u>Current Rate</u>				
Service Charge	19,577	\$59.67	(b)	(a) x (b) \$1,168,135
Unmetered (Flat Rate)	16,190	\$73.33		1,187,245
<u>Usage (100 Gallons)</u>				
First 3400 Gallons	486,676	\$0.0000		\$0
All Over 3400 Gallons	128,398	\$1.1200		143,806
<u>Authorized Rate</u>				
Service Charge	0		\$14.30	\$0
Unmetered (Flat Rate)			\$106.00	0
<u>Usage (100 Gallons)</u>				
All Usage	0		\$2.8750	\$0
Low Income (30% Discount - 202)	(\$4,158)			(\$4,158)
<u>Low Income (80% Discount) Tier</u>				
# of Customers	2	(\$0.90)	(\$2.30)	(\$550)
	2	(\$58.66)	(\$84.80)	
<u>Low Income (55% Discount) Tier</u>				
# of Customers	2	(\$40.33)	(\$58.30)	(\$282)
<u>Low Income (30% Discount) Tier</u>				
# of Customers	6	(\$0.34)	(\$0.86)	(\$1,223)
	13	(\$22.00)	(\$31.80)	
<b>Rate Zone 7 - York WW</b>				
<u>Current Rate</u>				
Minimum Charge	141,871	\$18.00		\$2,553,686
<u>Usage (100 Gallons)</u>				
First 2000 Gallons	2,482,462	\$0.0000		\$0
All Over 2000 Gallons	4,324,728	\$0.9370		4,052,270
<u>Authorized Rate</u>				
Minimum Charge	0		\$18.00	\$0
<u>Usage (100 Gallons)</u>				
First 2000 Gallons	0		\$0.0000	\$0
All Over 2000 Gallons	0		\$2.7375	0
Low Income (30% Discount - 202)	(\$1,661)			(\$1,661)
<u>Low Income (80% Discount) Tier</u>				
# of Customers	13	(\$0.7496)	(\$2.1900)	(\$1,060)
<u>Low Income (55% Discount) Tier</u>				
# of Customers	13	(\$0.5154)	(\$1.5056)	(\$884)
<u>Low Income (30% Discount) Tier</u>				
# of Customers	19	(\$0.2811)	(\$0.8213)	(\$319)
<b>Rate Zone 8 - Foster Township W</b>				
<u>Billing Units</u>				
Flat Rate Per EDU	4,030	\$85.00	\$106.00	\$342,523
Low Income (30% Discount - 202)	\$0			\$0
<u>Low Income (80% Discount) Tier</u>				
# of Customers	0	(\$68.00)	(\$84.80)	\$0
<u>Low Income (55% Discount) Tier</u>				
# of Customers	0	(\$46.75)	(\$58.30)	\$0
<u>Low Income (30% Discount) Tier</u>				
# of Customers	1	(\$25.50)	(\$31.80)	(\$26)



Pennsylvania American Water Company  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2022, 2023

<u>Rate Zone 9 - Roversford WW</u>	<u>Billing Units</u>	<u>Old Rates</u>	<u>Current Rates</u>	<u>Base Year Revenue</u>
<u>Old Rate</u>		(b)	(b)	(a) x (b)
Service Charge	14,289	\$30.00		\$428,681
Flat (Unmetered)	102	\$43.50		4,418
Usage (100 Gallons)				
First 5400 Gal	439,975	\$0.0000		\$0
All Over 5400 Gal	48,779	\$0.5615		27,389
<u>Current Rate</u>				
Service Charge	927		\$48.00	\$44,486
Flat (Unmetered)	6		\$50.00	321
Usage (100 Gallons)				
First 3000 Gal	0		\$0.0000	\$0
All Over 3000 Gal	9,962		\$0.9400	9,364
Low Income (30% Discount - 202	(\$2,322)			(\$2,322)
<u>Low Income (80% Discount) Tier</u>	(\$436)		(\$38.40)	(\$436)
# of Customers	4		(\$0.7520)	
<u>Low Income (55% Discount) Tier</u>	(\$91)		(\$26.40)	(\$91)
# of Customers	1		(\$0.5170)	
<u>Low Income (30% Discount) Tier</u>	(\$526)		(\$14.40)	(\$526)
# of Customers	15		(\$0.2820)	
AMP Program	(\$106,230)			(\$106,230)
<b>RESIDENTIAL REVENUES</b>				<u><u>\$43,264,510</u></u>
<b>Customer Count</b>	<b>51,543</b>			
<b>Water Sales/Flow</b>	<b>19,861,303</b>			

Pennsylvania American Water Company  
Wastewater Bill Analysis Summary

12 Months Ending December 2021, 2022, 2023

COMMERCIAL CLASS	12 Mo-Ended	Old Rates	Current Rates	Base Year Revenue
	06/30/2023 Billing Units			
	(a)	(b)	(b)	(a)*(b)
<b>Rate Zone 1 - Most Areas</b>				
<u>Old Rate (Most Areas)</u>				
Service Charge	15,663	\$27.50		\$430,734
Flat Rate (Most Areas)	653	\$78.41		51,237
Flat Rate (Exeter Old Rate)	144	\$77.07		11,079
Usage (100 Gallons)	1,790,923	\$1.4374		2,574,272
Usage (Exeter Old Rate)	1,007,400	\$1.4361		1,446,727
<u>Current Rate</u>				
Service Charge	7,732		\$35.00	\$270,623
Usage (100 Gallons)	1,545,084		\$2.1030	3,249,312
Flat (Unmetered)	419		\$106.00	44,429
Farmington Per EDU			\$53.50	
Sadsbury Per EDU			\$128.33	
<u>Upper Pottsgrove WW</u>				
<u>OldRate</u>				
Service Charge	318	\$39.00		\$12,390
Flat Rate (Unmetered)	342	\$65.00		22,208
Usage (100 Gallons)	9,808	\$0.3467		3,400
<u>Current Rate</u>				
Service Charge	187		\$63.60	\$11,862
Flat Rate (Unmetered)	211		\$106.00	22,390
Usage (100 Gallons)	4,771		\$0.5653	2,697
<u>Cleveland-Cliffs (Old Rate)</u>				
<u>OldRate</u>				
Service Charge	8	\$275.00		\$2,081
Usage (100 Gallons)	441	\$0.9300		410
<u>Current Rate</u>				
Service Charge	4		\$415.00	\$1,840
Usage (100 Gallons)	649		\$1.4000	908
<b>Rate Zone 2 - New Cumberland</b>				
<u>OldRate</u>				
Service Charge	2,185	\$27.50		\$60,078
Usage (100 Gallons)	138,172	\$1.0400		143,699
<u>Current Rate</u>				
Service Charge	1,153		\$35.00	\$40,346
Usage (100 Gallons)	74,106		\$1.9000	140,801

Pennsylvania American Water Company  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2022, 2023

	Billing Units	Old Rates	Current Rates	Base Year Revenue
<b>Rate Zone 5 - Valley WW</b>				
<u>Current Rate</u>				
		(b)	(b)	(a) x (b)
Service Charge	131	\$59.67		\$7,794
Unmetered (Flat Rate)	3,149	\$73.33		230,904
Usage (100 Gallons)				
First 3400 Gallons	2,237	\$0.0000		\$0
All Over 3400 Gallons	11,677	\$1.1200		13,078
<u>Current Rate (Westwood Fire Company)</u>				
Service Charge	12	\$0.00		\$0
Usage (100 Gallons)				
First 3400 Gallons	408	\$0.0000		\$0
All Over 3400 Gallons	482	\$0.0000		0
<u>Current Rate (Rainbow Washhouse Inc)</u>				
Service Charge	12	\$73.33		\$880
Usage (100 Gallons)				
First 2000 Gallons	240	\$0.0000		\$0
All Over 2000 Gallons	20,978	\$0.2070		4,342
<u>Authorized Rate</u>				
Service Charge	0		\$35.00	\$0
Unmetered (Flat Rate)			\$106.00	0
Usage (100 Gallons)				
All Usage	0		\$2.1030	\$0
<u>Authorized Rate (Westwood Fire Company)</u>				
Service Charge	0		\$0.00	\$0
Usage (100 Gallons)				
All Usage	0		\$2.1030	\$0
<u>Authorized Rate (Rainbow Washhouse Inc)</u>				
Service Charge	0		\$75.00	\$0
Usage (100 Gallons)				
First 2000	0		\$0.00	\$0
All Over 2000 Gallons	0		\$0.2100	0
<b>Rate Zone 7 - York WW</b>				
Minimum Charge	15,107	\$18.00		\$271,930
Usage (100 Gallons)				
First 2000 Gal	219,536	\$0.0000		\$0
All Over 2000 Gal	2,955,998	\$0.9370		2,769,771
<u>Authorized Rate</u>				
Minimum Charge	0		\$30.00	\$0
Usage (100 Gallons)				
First 2000 Gallons	0		\$0.0000	\$0
All Over 2000 Gallons	0		\$1.6380	0
<b>Rate Zone 8 - Foster Township W/</b>				
<u>Billing Units</u>				
Flat Rate @ Current Rate	276	\$85.00		\$23,456
Flat Rate @ Authorized Rate			\$106.00	\$0

Pennsylvania American Water Company  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2022, 2023

Rate Zone 9 - Roversford WW	Billing Units	Old Rates	Current Rates	Base Year Revenue
<u>Old Rate</u>		(b)	(b)	(a) x (b)
Service Charge	2,203	\$30.00		\$66,080
Flat (Unmetered)	1,024	\$43.50		44,544
Usage (100 Gallons)				
First 5400 Gal	83,704	\$0.0000		\$0
All Over 5400 Gal	267,850	\$0.5615		150,398
<u>Current Rate</u>				
Service Charge	159		\$48.00	\$7,645
Flat (Unmetered)	68		\$67.00	4,556
Usage (100 Gallons)				
First 3000 Gal	5,159	\$0.0000		\$0
All Over 3000 Gal	21,891	\$0.9400		20,577
<b>COMMERCIAL REVENUES</b>				<u>\$12,159,478</u>
Customer Count	3,314			
Water Sales/Flow	8,161,514			

Pennsylvania American Water Company  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2022, 2023

INDUSTRIAL CLASS	12 Mo-Ended	Old Rates	Current Rates	Base Year Revenue
	06/30/2023 Billing Units			
	(a)	(b)		(a)*(b)
<b>Rate Zone 1</b>				
<u>Old Rate (Exeter)</u>				
Service Charge	69	\$27.50		\$1,886
Flat Rate	8	\$77.07		603
Usage (100 Gallons)	169,267	\$1.4361		243,085
<u>Current Rate</u>				
Service Charge	39		\$35.00	\$1,380
Usage (100 Gallons)	95,505		\$2.1030	200,846
Flat Rate (Unmetered)	4		\$106.00	443
Farmington Per EDU			\$53.50	
Sadsbury Per EDU			\$128.33	
<u>Special Rate (Old Rate)</u>				
Cleveland Cliff Plate				
Service Charge	8	\$275.00		\$2,081
Usage (100 Gallons)	252,729	\$0.9300		235,038
Victory Bewing				
Service Charge	8	\$275.00		\$2,165
Usage (100 Gallons)	181,816	\$0.9300		169,089
Knouse Foods				
Penn State Special Metals	8	\$5,558.41		\$43,772
PSC Metals	8	\$1,912.95		15,064
PSC Metals	8	\$740.61		5,832
Koppel Steel	7	\$11,492.09		82,086
<u>Special Rate (Current Rate)</u>				
Cleveland Cliff Plate				
Service Charge	4		\$415.00	\$1,840
Usage (100 Gallons)	104,589		\$1.4000	146,424
Victory Bewing				
Service Charge	4		\$415.00	\$1,714
Usage (100 Gallons)	92,454		\$1.4000	129,435
Knouse Foods				
Penn State Special Metals	4		\$8,340.00	\$34,403
PSC Metals	4		\$2,870.00	11,839
PSC Metals	4		\$1,110.00	4,579
Koppel Steel	5		\$17,240.00	83,737
<b>Rate Zone 7 - York WW</b>				
<u>Billing Units</u>				
Usage (100 Gallons)	6,092	\$0.9370		\$5,708
<u>Authorized Rate</u>				
Usage (100 Gallons)	0		\$1.6380	\$0
<b>Rate Zone 8 - Foster Township</b>				
<u>Billing Units</u>				
Flat (Unmetered)	2,522	\$85.00		\$214,381
			\$106.00	

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Rate Zone 9 - Roversford WW	Billing Units	Old Rates	Current Rates	Base Year Revenue
<u>Old Rate</u>		(b)	(b)	(a) x (b)
Service Charge	133	\$30.00		\$3,981
Flat (Unmetered)	0	\$43.50		9
Usage (100 Gallons)				
First 5400 Gal	2,795	\$0.0000		\$0
All Over 5400 Gal	10,728	\$0.5615		6,024
<u>Current Rate</u>				
Service Charge	11		\$48.00	\$509
Flat (Unmetered)	0		\$67.00	0
Usage (100 Gallons)				
First 3000 Gal	203		\$0.0000	\$0
All Over 3000 Gal	761		\$0.9400	716
<b>INDUSTRIAL REVENUES</b>				<u>\$1,648,669</u>
Customer Count	24			
Water Sales/Flow	916,939			

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MUNICIPAL CLASS	12 Mo-Ended	Old Rates	Current Rates	Base Year Revenue
	06/30/2023 Billing Units			
	(a)	(b)		(a)*(b)
<b>Rate Zone 1 - Most Areas</b>				
<u>Old Rate (Most Areas)</u>				
Service Charge	527	\$27.50		\$14,499
Flat Rate (Most Areas)	160	\$78.41		12,562
Flat Rate (Exeter Old Rate)	0	\$77.07		0
Usage (100 Gallons)	236,998	\$1,4374		340,661
Usage (Exeter Old Rate)	7,745	\$1,4361		11,123
<u>Current Rate</u>				
Service Charge	296		\$35.00	\$10,353
Usage (100 Gallons)	145,616		\$2,1030	306,231
Flat (Unmetered)	110		\$106.00	11,637
Farmington Per EDU			\$53.50	
Sadsbury Per EDU			\$128.33	
<u>Strattanville Borough</u>				
Old Rate	7	\$4,137.00		\$29,893
Current Rate	4		\$6,200.00	23,400
<b>Rate Zone 2 - New Cumberland</b>				
<u>OldRate</u>				
Service Charge	79	\$27.50		\$2,161
Usage (100 Gallons)	6,931	\$1,0400		7,208
<u>Current Rate</u>				
Service Charge	42		\$35.00	\$1,453
Usage (100 Gallons)	5,081		\$1,9000	9,654
<b>Rate Zone 5 - Valley WW</b>				
<u>Current Rate</u>				
Service Charge	48	\$59.67		\$2,864
Unmetered (Flat Rate)	0	\$73.33		0
Usage (100 Gallons)				
First 3400 Gallons	1,282	\$0.0000		\$0
All Over 3400 Gallons	43,581	\$1.1200		48,811
<u>Authorized Rate</u>				
Service Charge	0		\$35.00	\$0
Unmetered (Flat Rate)			\$106.00	0
Usage (100 Gallons)				
All Usage	0		\$2,1030	0
<b>Rate Zone 7 - York WW</b>				
<u>Billing Units</u>				
Minimum Charge	542	\$18.00		\$9,748
Usage (100 Gallons)				
First 2000 Gal	7,547	\$0.0000		\$0
All Over 2000 Gal	187,727	\$0.9370		175,900
<u>Authorized Rate</u>				
Minimum Charge	0		\$30.00	\$0
Usage (100 Gallons)				
First 2000 Gallons	0		\$0.0000	\$0
All Over 2000 Gallons	0		\$1.6380	0

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<b>Rate Zone 8 - Foster Township</b>		<b>Old Rates</b>	<b>Current Rates</b>	<b>Base Year Revenue</b>
<b>Butler Township</b>	<b>Billing Units</b>	(b)	(b)	(a) x (b)
Flat Rate	603	\$15.00	\$15.00	\$9,051
<b>Rate Zone 9 - Roversford WW</b>				
<b>Old Rate</b>				
Service Charge	55	\$30.00		\$1,655
Flat (Unmetered)	0	\$43.50		0
Usage (100 Gallons)				
First 5400 Gal	2,031	\$0.0000		\$0
All Over 5400 Gal	16,569	\$0.5615		\$9,303
<b>Current Rate</b>				
Service Charge	5		\$48.00	\$231
Flat (Unmetered)	0		\$67.00	0
Usage (100 Gallons)				
First 3000 Gal	320		\$0.0000	\$0
All Over 3000 Gal	1,252		\$0.9400	1,177
<b>MUNICIPAL REVENUES</b>				<b>\$1,039,575</b>
Customer Count	140			
Water Sales/Flow	662,681			



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BULK WW CLASS	12 Mo-Ended	Old Rates	Current Rates	Base Year Revenue
	06/30/2023 Billing Units			
	(a)	(b)		(a)*(b)
<b>Rate Zone 1 - Most Areas</b>				
<b>Cain Township</b>				
<u>Old Rate</u>				
Service Charge	8	\$275.00		\$2,165
Usage (100 Gallons)	259,588	\$0.9639		250,216
<u>Current Rate</u>				
Service Charge	4		\$415.00	\$1,714
Usage (100 Gallons)	60,435		\$1.4500	87,631
<b>West Brandywine Twp</b>				
<u>Old Rate</u>				
Service Charge	8	\$275.00		\$2,165
Usage (100 Gallons)	408,881	\$0.9639		394,121
<u>Current Rate</u>				
Service Charge	4		\$415.00	\$1,714
Usage (100 Gallons)	210,409		\$1.4500	305,093
<b>VA Medical Center</b>				
<u>Old Rate</u>				
Service Charge	8	\$275.00		\$2,165
Usage (100 Gallons)	167,723	\$0.9639		161,668
<u>Current Rate</u>				
Service Charge	4		\$415.00	\$1,714
Usage (100 Gallons)	60,907		\$1.4500	88,315
<b>St. Lawrence Borough</b>				
<u>Old Rate</u>				
Usage (100 Gallons)	461,907	\$0.3332		\$153,907
<u>Current Rate</u>				
Usage (100 Gallons)	0		\$0.4000	\$0
<b>Other Bulk Account</b>				
<u>Old Rate</u>				
Service Charge	35	\$27.50		\$973
Usage (100 Gallons)	3,153	\$1.4374		4,532
<u>Current Rate</u>				
Service Charge	89		\$35.00	\$3,123
Usage (100 Gallons)	6,472		\$2.1030	13,611
<b>Rate Zone 7 - York WW</b>				
<u>Billing Units</u>				
Usage (100 Gallons)	18,676,652	\$0.3750	\$0.3932	\$7,003,744
Usage (100 Gallons)	8,091	0.2490	\$0.2610	2,015
<b>Rate Zone 9 - Roversford WW</b>				
<u>Billing Units</u>				
<u>Old Rate</u>				
Service Charge	1,094	\$30.00		\$32,809
Flat (Unmetered)	384	\$43.50		16,704
Usage (100 Gallons)				
First 5400 Gal	24,031	\$0.0000		\$0
All Over 5400 Gal	1,913	\$0.5615		1,074
<u>Current Rate</u>				
Service Charge	0		\$48.00	\$0
Flat (Unmetered)	0		\$67.00	0
Usage (100 Gallons)				
First 3000 Gal	0		\$0.0000	\$0
All Over 3000 Gal	0		\$0.9400	0
<b>BULK WW REVENUES</b>				<u>\$8,531,173</u>
Customer Count	32			
Water Sales/Flow	20,350,161			





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Rate Zone 9 - Roversford WW	Base Year Billing Determinants	Annualized Revenue at Current Rate	Annualized Customer Growth	Annualized Upper Pottsgrove	Annualized Foster Township	Stratanville Borough Adjustment	Annualized 06/30/2023 Revenue	Annualized Customer Growth	Normalized Usage	Annualized Valley Revenue	Annualized York Revenue	Annualized Foster (New Rate)	Findlay Township Sales	Acquisition Farmington WW	Acquisition Sadsbury WW	Annualized 06/30/2024 Revenue
<u>Old Rate</u>																
Service Charge																
Flat (Unmetered)																
Usage (100 Gallons)																
First 5400 Gal																
All Over 5400 Gal																
<u>Current Rate</u>																
Service Charge	15,216	\$730,375					\$730,375									\$730,375
Flat (Unmetered)	108	5,400					5,400									5,400
Usage (100 Gallons)																
First 3000 Gal	439,975	\$0					\$0		(9,019)							\$0
All Over 3000 Gal	58,741	55,216					55,216		(1,204)							54,084
Low Income (30% Discount - 202																
<u>Low Income (80% Discount) Tier</u>	48	(\$1,843)					(\$1,843)									(\$1,843)
# of Customers	185	(139)					(139)									(139)
<u>Low Income (55% Discount) Tier</u>	12	(\$317)					(\$317)									(\$317)
# of Customers	46	(24)					(24)									(24)
<u>Low Income (30% Discount) Tier</u>	180	(\$2,592)					(\$2,592)									(\$2,592)
# of Customers	695	(196)					(196)									(196)
AMP Program																
<b>RESIDENTIAL REVENUES</b>		<u>\$52,598,885</u>					<u>\$53,063,715</u>									<u>\$61,972,270</u>
Customer Count																
Water Sales/Flow																



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	Base Year Billing Determinants	Annualized Revenue at Current Rate	Annualized Customer Growth	Annualized Upper Pottsgrove	Annualized Foster Township	Stratanville Borough Adjustment	Annualized 06/30/2023 Revenue	Annualized Customer Growth	Normalized Usage	Annualized Valley Revenue	Annualized York Revenue	Annualized Foster (New Rate)	Findlay Township Sales	Acquisition Farmington WW	Acquisition Sadsbury WW	Annualized 06/30/2024 Revenue
<b>Rate Zone 5 - Valley WW</b>																
<u>Current Rate</u>																
Service Charge	131	\$7,794					\$7,794									
Unmetered (Flat Rate)	3,149	230,904					230,904									
Usage (100 Gallons)																
First 3400 Gallons	2,237	\$0					\$0									
All Over 3400 Gallons	11,677	13,078					13,078									
<u>Current Rate (Westwood Fire Com</u>																
Service Charge	12	\$0					\$0									
Usage (100 Gallons)																
First 3400 Gallons	408	\$0					\$0									
All Over 3400 Gallons	482	0					0									
<u>Current Rate (Rainbow Washhous</u>																
Service Charge	12	\$880					\$880									
Usage (100 Gallons)																
First 2000 Gallons	240	\$0					\$0									
All Over 2000 Gallons	20,978	4,342					4,342									
<u>Authorized Rate</u>																
Service Charge										\$131						\$4,572
Unmetered (Flat Rate)										3,149						333,777
Usage (100 Gallons)																
All Usage								(219)	\$13,914							\$28,801
<u>Authorized Rate (Westwood Fire C</u>																
Service Charge										\$12						\$0
Usage (100 Gallons)																
All Usage									\$890							\$1,872
<u>Authorized Rate (Rainbow Washh</u>																
Service Charge										\$12						\$900
Usage (100 Gallons)																
First 2000									\$240							\$0
All Over 2000 Gallons									20,978							4,405
<b>Rate Zone 7 - York WW</b>																
Minimum Charge	15,107	\$271,930					\$271,930									
Usage (100 Gallons)																
First 2000 Gal	219,536	\$0					\$0									
All Over 2000 Gal	2,955,998	2,769,771					2,769,771									
<u>Authorized Rate</u>																
Minimum Charge											\$15,107					\$453,217
Usage (100 Gallons)																
First 2000 Gallons								(3,459)	\$219,536							\$0
All Over 2000 Gallons								(46,572)	2,955,998							4,765,640
<b>Rate Zone 8 - Foster Township W)</b>																
Flat Rate @ Current Rate	276	\$23,456			144		\$35,700									
Flat Rate @ Authorized Rate												420				\$44,520









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	Base Year Billing Determinants	Annualized Revenue at Current Rate	Annualized Customer Growth	Annualized Upper Pottsgrove	Annualized Foster Township	Stratanville Borough Adjustment	Annualized 06/30/2023 Revenue	Annualized Customer Growth	Normalized Usage	Annualized Valley Revenue	Annualized York Revenue	Annualized Foster (New Rate)	Findlay Township Sales	Acquisition Farmington WW	Acquisition Sadsbury WW	Annualized 06/30/2024 Revenue
<b>MUNICIPAL CLASS</b>																
<u>Rate Zone 1 - Most Areas</u>																
<u>Old Rate (Most Areas)</u>																
Service Charge																
Flat Rate (Most Areas)																
Flat Rate (Exeter Old Rate)																
Usage (100 Gallons)																
Usage (Exeter Old Rate)																
<u>Current Rate</u>																
Service Charge	823	\$28,806					\$28,806									\$28,806
Usage (100 Gallons)	390,360	820,927					820,927	(13,296)								792,966
Flat (Unmetered)	270	28,620					28,620									28,620
Farmington Per EDU														48		2,568
Sadsbury Per EDU															0	0
<u>Stratanville Borough</u>																
Old Rate																
Current Rate	11	\$68,200				1	\$74,400									\$74,400
<u>Rate Zone 2 - New Cumberland</u>																
<u>Old Rate</u>																
Service Charge																
Usage (100 Gallons)																
<u>Current Rate</u>																
Service Charge	120	\$4,203					\$4,203									\$4,203
Usage (100 Gallons)	12,012	22,823					22,823	(409)								22,046
<u>Rate Zone 5 - Valley WW</u>																
<u>Current Rate</u>																
Service Charge	48	\$2,864					\$2,864									
Unmetered (Flat Rate)	0	0					0									
Usage (100 Gallons)																
First 3400 Gallons	1,282	\$0					\$0									
All Over 3400 Gallons	43,581	48,811					48,811									
<u>Authorized Rate</u>																
Service Charge										\$48						\$1,680
Unmetered (Flat Rate)										0						0
Usage (100 Gallons)																
All Usage								(1,528)	\$44,863							\$91,134
<u>Rate Zone 7 - York WW</u>																
<u>Current Rate</u>																
Minimum Charge	542	\$9,748					\$9,748									
Usage (100 Gallons)																
First 2000 Gal	7,547	\$0					\$0									
All Over 2000 Gal	187,727	175,900					175,900									
<u>Authorized Rate</u>																
Minimum Charge											\$542					\$16,247
Usage (100 Gallons)																
First 2000 Gallons								(5257)		\$7,547						\$0
All Over 2000 Gallons								(6,394)		187,727						297,023



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	Base Year Billing Determinants	Annualized Revenue at Current Rate	Annualized Customer Growth	Annualized Upper Pottsgrove	Annualized Foster Township	Stratanville Borough Adjustment	Annualized 06/30/2023 Revenue	Annualized Customer Growth	Normalized Usage	Annualized Valley Revenue	Annualized York Revenue	Annualized Foster (New Rate)	Findlay Township Sales	Acquisition Farmington WW	Acquisition Sadsbury WW	Annualized 06/30/2024 Revenue
<b>BULK WW CLASS</b>																
<b>Rate Zone 1 - Most Areas</b>																
<b>Cain Township</b>																
<u>Old Rate</u>																
Service Charge																
Usage (100 Gallons)																
<u>Current Rate</u>																
Service Charge																
Usage (100 Gallons)																
	12	\$4,980					\$4,980									\$4,980
	320,023	464,033					464,033									464,033
<b>West Brandywine Twp</b>																
<u>Old Rate</u>																
Service Charge																
Usage (100 Gallons)																
<u>Current Rate</u>																
Service Charge																
Usage (100 Gallons)																
	12	\$4,980					\$4,980									\$4,980
	619,290	897,971					897,971									897,971
<b>VA Medical Center</b>																
<u>Old Rate</u>																
Service Charge																
Usage (100 Gallons)																
<u>Current Rate</u>																
Service Charge																
Usage (100 Gallons)																
	12	\$4,980					\$4,980									\$4,980
	228,630	331,514					331,514									331,514
<b>St. Lawrence Borough</b>																
<u>Old Rate</u>																
Usage (100 Gallons)																
<u>Current Rate</u>																
Usage (100 Gallons)																
	461,907	\$184,763					\$184,763									\$184,763
<b>Other Bulk Account</b>																
<u>Old Rate</u>																
Service Charge																
Usage (100 Gallons)																
<u>Current Rate</u>																
Service Charge																
Usage (100 Gallons)																
	125	\$4,362					\$4,362									\$4,362
	9,625	20,242					20,242									20,242
<b>Rate Zone 7 - York WW</b>																
<u>Old Rate</u>																
Usage (100 Gallons)																
Usage (100 Gallons)																
	18,676,652	\$7,003,744					\$7,003,744									\$7,343,660
	8,091	2,015					2,015									2,112
<b>Rate Zone 9 - Roversford WW</b>																
<u>Old Rate</u>																
Service Charge																
Flat (Unmetered)																
Usage (100 Gallons)																
First 5400 Gal																
All Over 5400 Gal																
<u>Current Rate</u>																
Service Charge																
Flat (Unmetered)																
Usage (100 Gallons)																
First 3000 Gal																
All Over 3000 Gal																
	1,094	\$52,494					\$52,494									
	384	25,728					25,728									
	24,031	\$0					\$0									
	1,913	1,799					1,799									
<b>BULK WW REVENUES</b>		<b>\$9,003,605</b>					<b>\$9,003,605</b>									<b>\$9,263,597</b>
<b>Customer Count</b>																
<b>Water Sales/Flow</b>																

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	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Base Revenue	1.08% Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>RESIDENTIAL CLASS</b>					
<u>Rate Zone 1 - Most WW Areas</u>					
<u>Old Rate (Most Areas)</u>					
Service Charge (Most Areas)					
Service Charge (Sadsbury WW)					
Flat Rate (Most Areas)					
Flat Rate (Upper Pottsgrove WW)					
Flat Rate (Exeter WW)					
Usage (100 Gallons)					
Usage Charge (Turbotville WW)					
Usage Charge (Exeter WW)					
<u>Current Rate</u>					
Service Charge	2,214		\$5,082,066	\$54,886	\$5,136,952
Usage (100 Gallons)	65,444	(181,096)	30,645,505	330,971	30,976,476
Flat Rate (Unmetered)			4,084,025	44,107	4,128,132
Farmington Per EDU			265,788		265,788
Sadsbury Per EDU			348,031		348,031
Low Income (30% Discount) - 202					
<u>Low Income (80% Discount) Tier</u>					
# of Customers			(\$48,185)	(\$520)	(\$48,705)
			(301,830)	(3,260)	(305,090)
<u>Low Income (55% Discount) Tier</u>					
# of Customers			(\$35,676)	(\$385)	(\$36,061)
			(223,471)	(2,413)	(225,884)
<u>Low Income (30% Discount) Tier</u>					
# of Customers			(\$41,235)	(\$445)	(\$41,680)
			(258,297)	(2,790)	(261,087)
<b>Rate Zone 2 - New Cumberland</b>					
<u>Old Rate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$483,634	\$5,223	\$488,857
Usage (100 Gallons)		(16,715)	2,388,291	25,794	2,414,085
Low Income (30% Discount) - 202					
<u>Low Income (80% Discount) Tier</u>					
# of Customers			(\$961)	(\$10)	(\$971)
			(4,928)	(53)	(4,981)
<u>Low Income (55% Discount) Tier</u>					
# of Customers			(\$849)	(\$9)	(\$858)
			(4,356)	(47)	(4,403)
<u>Low Income (30% Discount) Tier</u>					
# of Customers			(\$1,853)	(\$20)	(\$1,873)
			(9,504)	(103)	(9,607)

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	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 5 - Valley WW</b>					
<u>Current Rate</u>					
Service Charge					
Unmetered (Flat Rate)					
Usage (100 Gallons)					
First 3400 Gallons					
All Over 3400 Gallons					
<u>Authorized Rate</u>					
Service Charge					
Unmetered (Flat Rate)					
Usage (100 Gallons)					
All Usage					
Low Income (30% Discount - 202					
<u>Low Income (80% Discount) Tier</u>					
# of Customers					
<u>Low Income (55% Discount) Tier</u>					
# of Customers					
<u>Low Income (30% Discount) Tier</u>					
# of Customers					
Annualized Customer Growth					
Normalized Usage					
Annualized 06/30/2025 Revenue					
Annualized DSIC Revenue					
Annualized 06/30/2025 Revenue					
<b>Rate Zone 7 - York WW</b>					
<u>Current Rate</u>					
Minimum Charge					
Usage (100 Gallons)					
First 2000 Gallons					
All Over 2000 Gallons					
<u>Authorized Rate</u>					
Minimum Charge					
Usage (100 Gallons)					
First 2000 Gallons					
All Over 2000 Gallons					
Low Income (30% Discount - 202					
<u>Low Income (80% Discount) Tier</u>					
# of Customers					
<u>Low Income (55% Discount) Tier</u>					
# of Customers					
<u>Low Income (30% Discount) Tier</u>					
# of Customers					
Annualized Customer Growth					
Normalized Usage					
Annualized 06/30/2025 Revenue					
Annualized DSIC Revenue					
Annualized 06/30/2025 Revenue					
<b>Rate Zone 8 - Foster Township W</b>					
Flat Rate Per EDU					
Low Income (30% Discount - 202					
<u>Low Income (80% Discount) Tier</u>					
# of Customers					
<u>Low Income (55% Discount) Tier</u>					
# of Customers					
<u>Low Income (30% Discount) Tier</u>					
# of Customers					

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	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 9 - Roversford WW</b>					
<u>Old Rate</u>					
Service Charge					
Flat (Unmetered)					
Usage (100 Gallons)					
First 5400 Gal					
All Over 5400 Gal					
<u>Current Rate</u>					
Service Charge			\$730,375	\$7,888	\$738,263
Flat (Unmetered)			5,400	58	5,458
Usage (100 Gallons)					
First 3000 Gal		(7,265)	\$0	\$0	\$0
All Over 3000 Gal		(970)	53,172	574	53,746
Low Income (30% Discount - 202					
<u>Low Income (80% Discount) Tier</u>					
# of Customers			(\$1,843)	(\$20)	(\$1,863)
			(139)	(2)	(141)
<u>Low Income (55% Discount) Tier</u>					
# of Customers			(\$317)	(\$3)	(\$320)
			(24)	0	(24)
<u>Low Income (30% Discount) Tier</u>					
# of Customers			(\$2,592)	(\$28)	(\$2,620)
			(196)	(2)	(198)
AMP Program					
<b>RESIDENTIAL REVENUES</b>			<b>\$61,404,872</b>		<b>\$62,061,416</b>
<b>Customer Count</b>					
<b>Water Sales/Flow</b>					

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2

COMMERCIAL CLASS	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 1 - Most Areas</b>					
<u>Old Rate (Most Areas)</u>					
Service Charge					
Flat Rate (Most Areas)					
Flat Rate (Exeter Old Rate)					
Usage (100 Gallons)					
Usage (Exeter Old Rate)					
<u>Current Rate</u>					
Service Charge	108		\$826,600	\$8,927	\$835,527
Usage (100 Gallons)	27,068	(48,079)	9,005,116	97,255	9,102,371
Flat (Unmetered)			128,932	1,392	130,324
Farmington Per EDU			49,434		49,434
Sadsbury Per EDU			123,197		123,197
<u>Upper Pottsgrove WW</u>					
<u>OldRate</u>					
Service Charge					
Flat Rate (Unmetered)					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$34,993	\$378	\$35,371
Flat Rate (Unmetered)			64,012	691	64,703
Usage (100 Gallons)			8,941	97	9,038
<u>Cleveland-Cliffs (Old Rate)</u>					
<u>OldRate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$4,980	\$54	\$5,034
Usage (100 Gallons)			1,526	16	1,542
<b>Rate Zone 2 - New Cumberland</b>					
<u>OldRate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$116,809	\$1,262	\$118,071
Usage (100 Gallons)		(2,333)	392,540	4,239	396,779



Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 1

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 5 - Valley WW</b>					
<u>Current Rate</u>					
Service Charge					
Unmetered (Flat Rate)					
Usage (100 Gallons)					
First 3400 Gallons					
All Over 3400 Gallons					
<u>Current Rate (Westwood Fire Com)</u>					
Service Charge					
Usage (100 Gallons)					
First 3400 Gallons					
All Over 3400 Gallons					
<u>Current Rate (Rainbow Washhous)</u>					
Service Charge					
Usage (100 Gallons)					
First 2000 Gallons					
All Over 2000 Gallons					
<u>Authorized Rate</u>					
Service Charge					
Unmetered (Flat Rate)					
Usage (100 Gallons)					
All Usage					
		(153)	\$28,479	\$308	\$28,787
<u>Authorized Rate (Westwood Fire C</u>					
Service Charge					
Usage (100 Gallons)					
All Usage					
			\$1,872	\$20	\$1,892
<u>Authorized Rate (Rainbow Washh</u>					
Service Charge					
Usage (100 Gallons)					
First 2000					
All Over 2000 Gallons					
			\$0	\$0	\$0
			4,405	48	4,453
	<b>Annualized Customer Growth</b>	<b>Normalized Usage</b>	<b>Annualized 06/30/2025 Revenue</b>	<b>Annualized DSIC Revenue</b>	<b>Annualized 06/30/2025 Revenue</b>
<b>Rate Zone 7 - York WW</b>					
Minimum Charge					
Usage (100 Gallons)					
First 2000 Gal					
All Over 2000 Gal					
<u>Authorized Rate</u>					
Minimum Charge					
Usage (100 Gallons)					
First 2000 Gallons					
All Over 2000 Gallons					
			\$453,217	\$4,895	\$458,112
		(2,412)	\$0	\$0	\$0
		(32,482)	4,712,434	50,894	4,763,328
	<b>Annualized Customer Growth</b>	<b>Normalized Usage</b>	<b>Annualized 06/30/2025 Revenue</b>	<b>Annualized DSIC Revenue</b>	<b>Annualized 06/30/2025 Revenue</b>
<b>Rate Zone 8 - Foster Township W)</b>					
Flat Rate @ Current Rate					
			\$44,520	\$481	\$45,001

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 9 - Roversford WW</b>					
<u>Old Rate</u>					
Service Charge					
Flat (Unmetered)					
Usage (100 Gallons)					
First 5400 Gal					
All Over 5400 Gal					
<u>Current Rate</u>					
Service Charge			\$113,374	\$1,224	\$114,598
Flat (Unmetered)			73,164	790	73,954
Usage (100 Gallons)					
First 3000 Gal		(976)	\$0	\$0	\$0
All Over 3000 Gal		(3,184)	265,073	2,863	267,936
<b>COMMERCIAL REVENUES</b>			<u>\$16,792,867</u>		<u>\$16,972,365</u>
<b>Customer Count</b>					
<b>Water Sales/Flow</b>					

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>INDUSTRIAL CLASS</b>					
<u>Rate Zone 1</u>					
<u>Old Rate (Exeter)</u>					
Service Charge					
Flat Rate					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$3,780	\$41	\$3,821
Usage (100 Gallons)			556,816	6,014	562,830
Flat Rate (Unmetered)			1,272	14	1,286
Farmington Per EDU			5,136	55	5,191
Sadsbury Per EDU			0	0	0
<u>Special Rate (Old Rate)</u>					
Cleveland Cliff Plate					
Service Charge			\$4,980	\$54	\$5,034
Usage (100 Gallons)			500,245	5,403	505,648
Victory Bewing					
Service Charge			\$4,854	\$52	\$4,906
Usage (100 Gallons)			383,978	4,147	388,125
Knouse Foods					
Penn State Special Metals			\$100,080	\$1,081	\$101,161
PSC Metals			34,440	372	34,812
Koppel Steel			13,320	144	13,464
			206,880	2,234	209,114
<u>Special Rate (Current Rate)</u>					
Cleveland Cliff Plate					
Service Charge			\$4,980	\$54	\$5,034
Usage (100 Gallons)			500,245	5,403	505,648
Victory Bewing					
Service Charge			\$4,854	\$52	\$4,906
Usage (100 Gallons)			383,978	4,147	388,125
Knouse Foods					
Penn State Special Metals			\$100,080	\$1,081	\$101,161
PSC Metals			34,440	372	34,812
Koppel Steel			13,320	144	13,464
			206,880	2,234	209,114
	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<u>Rate Zone 7 - York WW</u>					
Usage (100 Gallons)					
<u>Authorized Rate</u>					
Usage (100 Gallons)			\$9,979	\$108	\$10,087
	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<u>Rate Zone 8 - Foster Township</u>					
Flat (Unmetered)			\$488,448	\$5,275	\$493,723

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 1

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 9 - Roversford WW</b>					
<u>Old Rate</u>					
Service Charge					
Flat (Unmetered)					
Usage (100 Gallons)					
First 5400 Gal					
All Over 5400 Gal					
<u>Current Rate</u>					
Service Charge			\$6,879	\$74	\$6,953
Flat (Unmetered)			13	0	13
Usage (100 Gallons)					
First 3000 Gal			\$0	\$0	\$0
All Over 3000 Gal			10,800	117	10,917
<b>INDUSTRIAL REVENUES</b>			<u>\$2,331,900</u>		<u>\$2,357,085</u>
<b>Customer Count</b>					
<b>Water Sales/Flow</b>					

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>MUNICIPAL CLASS</b>					
<u>Rate Zone 1 - Most Areas</u>					
<u>Old Rate (Most Areas)</u>					
Service Charge					
Flat Rate (Most Areas)					
Flat Rate (Exeter Old Rate)					
Usage (100 Gallons)					
Usage (Exeter Old Rate)					
<u>Current Rate</u>					
Service Charge			\$28,806	\$311	\$29,117
Usage (100 Gallons)		(1,364)	790,098	8,533	798,631
Flat (Unmetered)			28,620	309	28,929
Farmington Per EDU			2,568		2,568
Sadsbury Per EDU			0		0
<u>Strattanville Borough</u>					
Old Rate					
Current Rate			\$74,400	\$804	\$75,204
<u>Rate Zone 2 - New Cumberland</u>					
<u>OldRate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$4,203	\$45	\$4,248
Usage (100 Gallons)		(42)	21,966	237	22,203
<u>Rate Zone 5 - Valley WW</u>					
<u>Current Rate</u>					
Service Charge					
Unmetered (Flat Rate)					
Usage (100 Gallons)					
First 3400 Gallons					
All Over 3400 Gallons					
<u>Authorized Rate</u>					
Service Charge			\$1,680	\$18	\$1,698
Unmetered (Flat Rate)			0	0	0
Usage (100 Gallons)					
All Usage		(157)	\$90,804	\$981	\$91,785
<u>Rate Zone 7 - York WW</u>					
<u>Minimum Charge</u>					
Usage (100 Gallons)					
First 2000 Gal					
All Over 2000 Gal					
<u>Authorized Rate</u>					
Minimum Charge			\$16,247	\$175	\$16,422
Usage (100 Gallons)					
First 2000 Gallons		(26)	\$0	\$0	\$0
All Over 2000 Gallons		(656)	295,948	3,196	299,144

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>Rate Zone 8 - Foster Township</b>					
<u>Butler Township</u>					
Flat Rate			\$13,500	\$146	\$13,646
<b>Rate Zone 9 - Roversford WW</b>					
<u>Old Rate</u>					
Service Charge					
Flat (Unmetered)					
Usage (100 Gallons)					
First 5400 Gal					
All Over 5400 Gal					
<u>Current Rate</u>					
Service Charge			\$2,880	\$31	\$2,911
Flat (Unmetered)			0	0	0
Usage (100 Gallons)					
First 3000 Gal	(8)		\$0	\$0	\$0
All Over 3000 Gal	(62)		16,123	174	16,297
<b>MUNICIPAL REVENUES</b>			<b>\$1,387,843</b>		<b>\$1,402,803</b>
Customer Count					
Water Sales/Flow					

Pennsylvania American Water Comp  
Wastewater Bill Analysis Summary  
12 Months Ending December 2021, 2

	Annualized Customer Growth	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<b>BULK WW CLASS</b>					
<b>Rate Zone 1 - Most Areas</b>					
<b>Cain Township</b>					
<u>Old Rate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$4,980	\$54	\$5,034
Usage (100 Gallons)			464,033	5,012	469,045
<b>West Brandywine Twp</b>					
<u>Old Rate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$4,980	\$54	\$5,034
Usage (100 Gallons)			897,971	9,698	907,669
<b>VA Medical Center</b>					
<u>Old Rate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$4,980	\$54	\$5,034
Usage (100 Gallons)			331,514	3,580	335,094
<b>St. Lawrence Borough</b>					
<u>Old Rate</u>					
Usage (100 Gallons)					
<u>Current Rate</u>					
Usage (100 Gallons)			\$184,763	\$1,995	\$186,758
<b>Other Bulk Account</b>					
<u>Old Rate</u>					
Service Charge					
Usage (100 Gallons)					
<u>Current Rate</u>					
Service Charge			\$4,362	\$47	\$4,409
Usage (100 Gallons)			20,242	219	20,461
<b>Rate Zone 7 - York WW</b>					
<u>Old Rate</u>					
Usage (100 Gallons)			\$7,343,660	\$79,312	\$7,422,972
Usage (100 Gallons)			2,112	23	2,135
<b>Rate Zone 9 - Roversford WW</b>					
<u>Old Rate</u>					
Service Charge					
Flat (Unmetered)					
Usage (100 Gallons)					
First 5400 Gal					
All Over 5400 Gal					
<u>Current Rate</u>					
Service Charge					
Flat (Unmetered)					
Usage (100 Gallons)					
First 3000 Gal					
All Over 3000 Gal					
<b>BULK WW REVENUES</b>					
Customer Count					
Water Sales/Flow					

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 1 RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$14.45	\$20.00	\$5.55	38.37%
100	17.36	22.57	5.20	29.98%
500	28.98	32.83	3.84	13.25%
1,000	43.51	45.65	2.14	4.91%
2,000	72.58	71.30	(1.28)	-1.76%
3,000	101.64	96.95	(4.69)	-4.61%
3,122	* 105.18	100.08	(5.10)	-4.85%
3,500	116.17	109.78	(6.39)	-5.50%
4,000	130.70	122.60	(8.10)	-6.19%
5,000	159.76	148.25	(11.51)	-7.20%
6,000	188.82	173.90	(14.92)	-7.90%
7,000	217.88	199.55	(18.33)	-8.41%
8,000	246.94	225.20	(21.74)	-8.80%
9,000	276.00	250.85	(25.15)	-9.11%
10,000	305.06	276.50	(28.56)	-9.36%
11,000	334.12	302.15	(31.97)	-9.57%
12,000	363.18	327.80	(35.38)	-9.74%
13,000	392.24	353.45	(38.79)	-9.89%
14,000	421.30	379.10	(42.20)	-10.02%
15,000	450.36	404.75	(45.61)	-10.13%
16,000	479.42	430.40	(49.02)	-10.23%
17,000	508.48	456.05	(52.43)	-10.31%
18,000	537.54	481.70	(55.84)	-10.39%
19,000	566.60	507.35	(59.25)	-10.46%
20,000	595.66	533.00	(62.66)	-10.52%
21,000	624.72	558.65	(66.07)	-10.58%
22,000	653.79	584.30	(69.49)	-10.63%
23,000	682.85	609.95	(72.90)	-10.68%
24,000	711.91	635.60	(76.31)	-10.72%
25,000	740.97	661.25	(79.72)	-10.76%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 2 NEW CUMBERLAND RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$14.45	\$20.00	\$5.55	38.37%
100	16.93	22.57	5.63	33.28%
500	26.84	32.83	5.99	22.31%
1,000	39.22	45.65	6.43	16.40%
2,000	63.98	71.30	7.32	11.43%
3,000	88.75	96.95	8.20	9.24%
3,122	* 91.77	100.08	8.31	9.06%
3,500	101.13	109.78	8.64	8.55%
4,000	113.51	122.60	9.09	8.01%
5,000	138.28	148.25	9.97	7.21%
6,000	163.04	173.90	10.86	6.66%
7,000	187.81	199.55	11.74	6.25%
8,000	212.57	225.20	12.63	5.94%
9,000	237.34	250.85	13.51	5.69%
10,000	262.10	276.50	14.40	5.49%
11,000	286.87	302.15	15.28	5.33%
12,000	311.63	327.80	16.17	5.19%
13,000	336.39	353.45	17.06	5.07%
14,000	361.16	379.10	17.94	4.97%
15,000	385.92	404.75	18.83	4.88%
16,000	410.69	430.40	19.71	4.80%
17,000	435.45	456.05	20.60	4.73%
18,000	460.22	481.70	21.48	4.67%
19,000	484.98	507.35	22.37	4.61%
20,000	509.75	533.00	23.25	4.56%
21,000	534.51	558.65	24.14	4.52%
22,000	559.28	584.30	25.02	4.47%
23,000	584.04	609.95	25.91	4.44%
24,000	608.80	635.60	26.80	4.40%
25,000	633.57	661.25	27.68	4.37%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 5 VALLEY WW RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$14.45	\$20.00	\$5.55	38.37%
100	17.36	22.57	5.20	29.98%
500	28.98	32.83	3.84	13.25%
1,000	43.51	45.65	2.14	4.91%
2,000	72.58	71.30	(1.28)	-1.76%
3,000	101.64	96.95	(4.69)	-4.61%
3,122	* 105.18	100.08	(5.10)	-4.85%
3,500	116.17	109.78	(6.39)	-5.50%
4,000	130.70	122.60	(8.10)	-6.19%
5,000	159.76	148.25	(11.51)	-7.20%
6,000	188.82	173.90	(14.92)	-7.90%
7,000	217.88	199.55	(18.33)	-8.41%
8,000	246.94	225.20	(21.74)	-8.80%
9,000	276.00	250.85	(25.15)	-9.11%
10,000	305.06	276.50	(28.56)	-9.36%
11,000	334.12	302.15	(31.97)	-9.57%
12,000	363.18	327.80	(35.38)	-9.74%
13,000	392.24	353.45	(38.79)	-9.89%
14,000	421.30	379.10	(42.20)	-10.02%
15,000	450.36	404.75	(45.61)	-10.13%
16,000	479.42	430.40	(49.02)	-10.23%
17,000	508.48	456.05	(52.43)	-10.31%
18,000	537.54	481.70	(55.84)	-10.39%
19,000	566.60	507.35	(59.25)	-10.46%
20,000	595.66	533.00	(62.66)	-10.52%
21,000	624.72	558.65	(66.07)	-10.58%
22,000	653.79	584.30	(69.49)	-10.63%
23,000	682.85	609.95	(72.90)	-10.68%
24,000	711.91	635.60	(76.31)	-10.72%
25,000	740.97	661.25	(79.72)	-10.76%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 7 YORK TOWNSHIP RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$18.19	\$20.00	\$1.81	9.92%
100	18.19	20.75	2.56	14.05%
500	18.19	23.75	5.56	30.53%
1,000	18.19	27.50	9.31	51.15%
2,000	18.19	35.00	16.81	92.37%
3,000	45.87	60.65	14.78	32.24%
3,122	* 49.24	63.78	14.54	29.53%
3,500	59.70	73.48	13.77	23.07%
4,000	73.54	86.30	12.76	17.36%
5,000	101.21	111.95	10.74	10.62%
6,000	128.88	137.60	8.72	6.77%
7,000	156.55	163.25	6.70	4.28%
8,000	184.22	188.90	4.68	2.54%
9,000	211.89	214.55	2.66	1.26%
10,000	239.56	240.20	0.64	0.27%
11,000	267.23	265.85	(1.38)	-0.52%
12,000	294.90	291.50	(3.40)	-1.15%
13,000	322.57	317.15	(5.42)	-1.68%
14,000	350.24	342.80	(7.44)	-2.12%
15,000	377.91	368.45	(9.46)	-2.50%
16,000	405.58	394.10	(11.48)	-2.83%
17,000	433.25	419.75	(13.50)	-3.12%
18,000	460.92	445.40	(15.52)	-3.37%
19,000	488.60	471.05	(17.55)	-3.59%
20,000	516.27	496.70	(19.57)	-3.79%
21,000	543.94	522.35	(21.59)	-3.97%
22,000	571.61	548.00	(23.61)	-4.13%
23,000	599.28	573.65	(25.63)	-4.28%
24,000	626.95	599.30	(27.65)	-4.41%
25,000	654.62	624.95	(29.67)	-4.53%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 8 FOSTER TOWNSHIP RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$107.14	\$100.00	(\$7.14)	-6.67%
100	107.14	100.00	(7.14)	-6.67%
500	107.14	100.00	(7.14)	-6.67%
1,000	107.14	100.00	(7.14)	-6.67%
2,000	107.14	100.00	(7.14)	-6.67%
3,000	107.14	100.00	(7.14)	-6.67%
3,122	*	107.14	(7.14)	-6.67%
3,500	107.14	100.00	(7.14)	-6.67%
4,000	107.14	100.00	(7.14)	-6.67%
5,000	107.14	100.00	(7.14)	-6.67%
6,000	107.14	100.00	(7.14)	-6.67%
7,000	107.14	100.00	(7.14)	-6.67%
8,000	107.14	100.00	(7.14)	-6.67%
9,000	107.14	100.00	(7.14)	-6.67%
10,000	107.14	100.00	(7.14)	-6.67%
11,000	107.14	100.00	(7.14)	-6.67%
12,000	107.14	100.00	(7.14)	-6.67%
13,000	107.14	100.00	(7.14)	-6.67%
14,000	107.14	100.00	(7.14)	-6.67%
15,000	107.14	100.00	(7.14)	-6.67%
16,000	107.14	100.00	(7.14)	-6.67%
17,000	107.14	100.00	(7.14)	-6.67%
18,000	107.14	100.00	(7.14)	-6.67%
19,000	107.14	100.00	(7.14)	-6.67%
20,000	107.14	100.00	(7.14)	-6.67%
21,000	107.14	100.00	(7.14)	-6.67%
22,000	107.14	100.00	(7.14)	-6.67%
23,000	107.14	100.00	(7.14)	-6.67%
24,000	107.14	100.00	(7.14)	-6.67%
25,000	107.14	100.00	(7.14)	-6.67%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 9 ROYERSFORD TOWNSHIP RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$48.52	\$20.00	(\$28.52)	-58.78%
100	48.52	21.42	(27.10)	-55.86%
500	48.52	27.08	(21.44)	-44.20%
1,000	48.52	34.15	(14.37)	-29.61%
2,000	48.52	48.30	(0.22)	-0.45%
3,000	48.52	62.45	13.93	28.71%
3,122	* 49.68	64.18	14.50	29.19%
3,500	53.27	69.53	16.26	30.52%
4,000	58.02	76.60	18.58	32.02%
5,000	67.52	90.75	23.23	34.40%
6,000	77.02	104.90	27.88	36.19%
7,000	86.52	119.05	32.53	37.59%
8,000	96.03	133.20	37.17	38.71%
9,000	105.53	147.35	41.82	39.63%
10,000	115.03	161.50	46.47	40.40%
11,000	124.53	175.65	51.12	41.05%
12,000	134.03	189.80	55.77	41.61%
13,000	143.53	203.95	60.42	42.09%
14,000	153.04	218.10	65.06	42.52%
15,000	162.54	232.25	69.71	42.89%
16,000	172.04	246.40	74.36	43.22%
17,000	181.54	260.55	79.01	43.52%
18,000	191.04	274.70	83.66	43.79%
19,000	200.54	288.85	88.31	44.03%
20,000	210.04	303.00	92.96	44.26%
21,000	219.55	317.15	97.60	44.46%
22,000	229.05	331.30	102.25	44.64%
23,000	238.55	345.45	106.90	44.81%
24,000	248.05	359.60	111.55	44.97%
25,000	257.55	373.75	116.20	45.12%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE XX FARMINGTON TOWNSHIP RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$53.50	\$20.00	(\$33.50)	-62.62%
100	53.50	21.35	(32.15)	-60.09%
500	53.50	26.75	(26.75)	-50.00%
1,000	53.50	33.50	(20.00)	-37.38%
2,000	53.50	47.00	(6.50)	-12.15%
3,000	53.50	60.50	7.00	13.08%
3,122 *	53.50	62.15	8.65	16.16%
3,500	53.50	67.25	13.75	25.70%
4,000	53.50	74.00	20.50	38.32%
5,000	53.50	87.50	34.00	63.55%
6,000	53.50	101.00	47.50	88.79%
7,000	53.50	114.50	61.00	114.02%
8,000	107.00	128.00	21.00	19.63%
9,000	107.00	141.50	34.50	32.24%
10,000	107.00	155.00	48.00	44.86%
11,000	107.00	168.50	61.50	57.48%
12,000	160.50	182.00	21.50	13.40%
13,000	160.50	195.50	35.00	21.81%
14,000	160.50	209.00	48.50	30.22%
15,000	160.50	222.50	62.00	38.63%
16,000	214.00	236.00	22.00	10.28%
17,000	214.00	249.50	35.50	16.59%
18,000	214.00	263.00	49.00	22.90%
19,000	214.00	276.50	62.50	29.21%
20,000	267.50	290.00	22.50	8.41%
21,000	267.50	303.50	36.00	13.46%
22,000	267.50	317.00	49.50	18.50%
23,000	267.50	330.50	63.00	23.55%
24,000	321.00	344.00	23.00	7.17%
25,000	321.00	357.50	36.50	11.37%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE XX SADSBUURY TOWNSHIP RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$128.33	\$128.33	\$0.00	0.00%
100	128.33	128.33	0.00	0.00%
500	128.33	128.33	0.00	0.00%
1,000	128.33	128.33	0.00	0.00%
2,000	128.33	128.33	0.00	0.00%
3,000	128.33	128.33	0.00	0.00%
3,122	*	128.33	0.00	0.00%
3,500	128.33	128.33	0.00	0.00%
4,000	128.33	128.33	0.00	0.00%
5,000	128.33	128.33	0.00	0.00%
6,000	128.33	128.33	0.00	0.00%
7,000	128.33	128.33	0.00	0.00%
8,000	128.33	128.33	0.00	0.00%
9,000	128.33	128.33	0.00	0.00%
10,000	128.33	128.33	0.00	0.00%
11,000	128.33	128.33	0.00	0.00%
12,000	128.33	128.33	0.00	0.00%
13,000	128.33	128.33	0.00	0.00%
14,000	128.33	128.33	0.00	0.00%
15,000	128.33	128.33	0.00	0.00%
16,000	128.33	128.33	0.00	0.00%
17,000	128.33	128.33	0.00	0.00%
18,000	128.33	128.33	0.00	0.00%
19,000	128.33	128.33	0.00	0.00%
20,000	128.33	128.33	0.00	0.00%
21,000	128.33	128.33	0.00	0.00%
22,000	128.33	128.33	0.00	0.00%
23,000	128.33	128.33	0.00	0.00%
24,000	128.33	128.33	0.00	0.00%
25,000	128.33	128.33	0.00	0.00%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 1 COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$50.00	\$14.62	41.33%
100	37.50	52.00	14.50	38.65%
500	46.01	60.00	13.99	30.42%
1,000	56.64	70.00	13.36	23.60%
2,000	77.89	90.00	12.11	15.54%
3,000	99.15	110.00	10.85	10.94%
3,500	109.78	120.00	10.22	9.31%
4,000	120.41	130.00	9.59	7.97%
5,000	141.66	150.00	8.34	5.88%
6,000	162.92	170.00	7.08	4.35%
7,000	184.18	190.00	5.82	3.16%
8,000	205.43	210.00	4.57	2.22%
9,000	226.69	230.00	3.31	1.46%
10,000	247.95	250.00	2.05	0.83%
16,000	375.49	370.00	(5.49)	-1.46%
20,000	460.52	450.00	(10.52)	-2.28%
21,000	481.78	470.00	(11.78)	-2.44%
22,000	503.03	490.00	(13.03)	-2.59%
22,094	*	491.88	(13.15)	-2.60%
23,000	524.29	510.00	(14.29)	-2.73%
24,000	545.55	530.00	(15.55)	-2.85%
25,000	566.81	550.00	(16.81)	-2.97%
26,000	588.06	570.00	(18.06)	-3.07%
27,000	609.32	590.00	(19.32)	-3.17%
28,000	630.58	610.00	(20.58)	-3.26%
29,000	651.83	630.00	(21.83)	-3.35%
30,000	673.09	650.00	(23.09)	-3.43%
35,000	779.38	750.00	(29.38)	-3.77%
45,000	991.95	950.00	(41.95)	-4.23%
55,000	1,204.52	1,150.00	(54.52)	-4.53%
65,000	1,417.09	1,350.00	(67.09)	-4.73%
75,000	1,629.66	1,550.00	(79.66)	-4.89%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 2 NEW CUMBERLAND COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE		
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT	
0	\$35.38	\$50.00	\$14.62	41.33%	
100	37.30	52.00	14.70	39.42%	
500	44.98	60.00	15.02	33.39%	
1,000	54.58	70.00	15.42	28.24%	
2,000	73.79	90.00	16.21	21.97%	
3,000	92.99	110.00	17.01	18.29%	
3,500	102.60	120.00	17.40	16.96%	
4,000	112.20	130.00	17.80	15.87%	
5,000	131.40	150.00	18.60	14.15%	
6,000	150.61	170.00	19.39	12.87%	
7,000	169.81	190.00	20.19	11.89%	
8,000	189.02	210.00	20.98	11.10%	
9,000	208.22	230.00	21.78	10.46%	
10,000	227.43	250.00	22.57	9.92%	
16,000	342.66	370.00	27.34	7.98%	
20,000	419.48	450.00	30.52	7.28%	
21,000	438.69	470.00	31.31	7.14%	
22,000	457.89	490.00	32.11	7.01%	
22,094	*	459.70	491.88	32.18	7.00%
23,000	477.10	510.00	32.90	6.90%	
24,000	496.30	530.00	33.70	6.79%	
25,000	515.51	550.00	34.49	6.69%	
26,000	534.71	570.00	35.29	6.60%	
27,000	553.92	590.00	36.08	6.51%	
28,000	573.12	610.00	36.88	6.43%	
29,000	592.33	630.00	37.67	6.36%	
30,000	611.53	650.00	38.47	6.29%	
35,000	707.56	750.00	42.44	6.00%	
45,000	899.61	950.00	50.39	5.60%	
55,000	1,091.66	1,150.00	58.34	5.34%	
65,000	1,283.72	1,350.00	66.28	5.16%	
75,000	1,475.77	1,550.00	74.23	5.03%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 5 VALLEY WW RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$50.00	\$14.62	41.33%
100	37.50	52.00	14.50	38.65%
500	46.01	60.00	13.99	30.42%
1,000	56.64	70.00	13.36	23.60%
2,000	77.89	90.00	12.11	15.54%
3,000	99.15	110.00	10.85	10.94%
3,500	109.78	120.00	10.22	9.31%
4,000	120.41	130.00	9.59	7.97%
5,000	141.66	150.00	8.34	5.88%
6,000	162.92	170.00	7.08	4.35%
7,000	184.18	190.00	5.82	3.16%
8,000	205.43	210.00	4.57	2.22%
9,000	226.69	230.00	3.31	1.46%
10,000	247.95	250.00	2.05	0.83%
16,000	375.49	370.00	(5.49)	-1.46%
20,000	460.52	450.00	(10.52)	-2.28%
21,000	481.78	470.00	(11.78)	-2.44%
22,000	503.03	490.00	(13.03)	-2.59%
22,094	* 505.03	491.88	(13.15)	-2.60%
23,000	524.29	510.00	(14.29)	-2.73%
24,000	545.55	530.00	(15.55)	-2.85%
25,000	566.81	550.00	(16.81)	-2.97%
26,000	588.06	570.00	(18.06)	-3.07%
27,000	609.32	590.00	(19.32)	-3.17%
28,000	630.58	610.00	(20.58)	-3.26%
29,000	651.83	630.00	(21.83)	-3.35%
30,000	673.09	650.00	(23.09)	-3.43%
35,000	779.38	750.00	(29.38)	-3.77%
45,000	991.95	950.00	(41.95)	-4.23%
55,000	1,204.52	1,150.00	(54.52)	-4.53%
65,000	1,417.09	1,350.00	(67.09)	-4.73%
75,000	1,629.66	1,550.00	(79.66)	-4.89%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 7 YORK TOWNSHIP COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE		
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT	
0	\$30.32	\$50.00	\$19.68	64.89%	
100	30.32	50.40	20.08	66.20%	
500	30.32	52.00	21.68	71.48%	
1,000	30.32	54.00	23.68	78.08%	
2,000	30.32	58.00	27.68	91.27%	
3,000	46.88	78.00	31.12	66.38%	
3,500	55.16	88.00	32.84	59.54%	
4,000	63.44	98.00	34.56	54.48%	
5,000	79.99	118.00	38.01	47.51%	
6,000	96.55	138.00	41.45	42.93%	
7,000	113.11	158.00	44.89	39.69%	
8,000	129.67	178.00	48.33	37.28%	
9,000	146.22	198.00	51.78	35.41%	
10,000	162.78	218.00	55.22	33.92%	
16,000	262.12	338.00	75.88	28.95%	
20,000	328.35	418.00	89.65	27.30%	
21,000	344.91	438.00	93.09	26.99%	
22,000	361.46	458.00	96.54	26.71%	
22,094	*	363.02	459.88	96.86	26.68%
23,000		378.02	478.00	99.98	26.45%
24,000		394.58	498.00	103.42	26.21%
25,000		411.13	518.00	106.87	25.99%
26,000		427.69	538.00	110.31	25.79%
27,000		444.25	558.00	113.75	25.61%
28,000		460.80	578.00	117.20	25.43%
29,000		477.36	598.00	120.64	25.27%
30,000		493.92	618.00	124.08	25.12%
35,000		576.70	718.00	141.30	24.50%
45,000		742.27	918.00	175.73	23.67%
55,000		907.84	1,118.00	210.16	23.15%
65,000		1,073.41	1,318.00	244.59	22.79%
75,000		1,238.98	1,518.00	279.02	22.52%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 8 FOSTER TOWNSHIP COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE		
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT	
0	\$107.14	\$100.00	(\$7.14)	-6.67%	
100	107.14	100.00	(7.14)	-6.67%	
500	107.14	100.00	(7.14)	-6.67%	
1,000	107.14	100.00	(7.14)	-6.67%	
2,000	107.14	100.00	(7.14)	-6.67%	
3,000	107.14	100.00	(7.14)	-6.67%	
3,500	107.14	100.00	(7.14)	-6.67%	
4,000	107.14	100.00	(7.14)	-6.67%	
5,000	107.14	100.00	(7.14)	-6.67%	
6,000	107.14	100.00	(7.14)	-6.67%	
7,000	107.14	100.00	(7.14)	-6.67%	
8,000	107.14	100.00	(7.14)	-6.67%	
9,000	107.14	100.00	(7.14)	-6.67%	
10,000	107.14	100.00	(7.14)	-6.67%	
16,000	107.14	100.00	(7.14)	-6.67%	
20,000	107.14	100.00	(7.14)	-6.67%	
21,000	107.14	100.00	(7.14)	-6.67%	
22,000	107.14	100.00	(7.14)	-6.67%	
22,094	*	107.14	100.00	(7.14)	-6.67%
23,000	107.14	100.00	(7.14)	-6.67%	
24,000	107.14	100.00	(7.14)	-6.67%	
25,000	107.14	100.00	(7.14)	-6.67%	
26,000	107.14	100.00	(7.14)	-6.67%	
27,000	107.14	100.00	(7.14)	-6.67%	
28,000	107.14	100.00	(7.14)	-6.67%	
29,000	107.14	100.00	(7.14)	-6.67%	
30,000	107.14	100.00	(7.14)	-6.67%	
35,000	107.14	100.00	(7.14)	-6.67%	
45,000	107.14	100.00	(7.14)	-6.67%	
55,000	107.14	100.00	(7.14)	-6.67%	
65,000	107.14	100.00	(7.14)	-6.67%	
75,000	107.14	100.00	(7.14)	-6.67%	

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 9 ROYERSFORD TOWNSHIP COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$48.52	\$50.00	\$1.48	3.05%
100	48.52	50.75	2.23	4.60%
500	48.52	53.75	5.23	10.78%
1,000	48.52	57.50	8.98	18.51%
2,000	48.52	65.00	16.48	33.97%
3,000	48.52	72.50	23.98	49.43%
3,500	53.27	76.25	22.98	43.14%
4,000	58.02	80.00	21.98	37.88%
5,000	67.52	87.50	19.98	29.59%
6,000	77.02	95.00	17.98	23.34%
7,000	86.52	102.50	15.98	18.46%
8,000	96.03	110.00	13.97	14.55%
9,000	105.53	117.50	11.97	11.35%
10,000	115.03	125.00	9.97	8.67%
16,000	172.04	170.00	(2.04)	-1.18%
20,000	210.04	200.00	(10.04)	-4.78%
21,000	219.55	207.50	(12.05)	-5.49%
22,000	229.05	215.00	(14.05)	-6.13%
22,094	*	215.71	(14.24)	-6.19%
23,000	238.55	222.50	(16.05)	-6.73%
24,000	248.05	230.00	(18.05)	-7.28%
25,000	257.55	237.50	(20.05)	-7.79%
26,000	267.05	245.00	(22.05)	-8.26%
27,000	276.55	252.50	(24.05)	-8.70%
28,000	286.06	260.00	(26.06)	-9.11%
29,000	295.56	267.50	(28.06)	-9.49%
30,000	305.06	275.00	(30.06)	-9.85%
35,000	352.57	312.50	(40.07)	-11.36%
45,000	447.58	387.50	(60.08)	-13.42%
55,000	542.60	462.50	(80.10)	-14.76%
65,000	637.61	537.50	(100.11)	-15.70%
75,000	732.63	612.50	(120.13)	-16.40%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE XX FARMINGTON TOWNSHIP COMMERCIAL - MONTHLY  
PER EDU

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$53.50	\$50.00	(\$3.50)	-6.54%
100	53.50	50.70	(2.80)	-5.23%
500	53.50	53.50	0.00	0.00%
1,000	53.50	57.00	3.50	6.54%
2,000	53.50	64.00	10.50	19.63%
3,000	53.50	71.00	17.50	32.71%
3,500	53.50	74.50	21.00	39.25%
4,000	53.50	78.00	24.50	45.79%
5,000	53.50	85.00	31.50	58.88%
6,000	53.50	92.00	38.50	71.96%
7,000	53.50	99.00	45.50	85.05%
7,098	* 53.50	99.69	46.19	86.33%
9,000	107.00	113.00	6.00	5.61%
10,000	107.00	120.00	13.00	12.15%
16,000	214.00	162.00	(52.00)	-24.30%
20,000	267.50	190.00	(77.50)	-28.97%
21,000	267.50	197.00	(70.50)	-26.36%
22,000	267.50	204.00	(63.50)	-23.74%
22,094	267.50	204.66	(62.84)	-23.49%
23,000	267.50	211.00	(56.50)	-21.12%
24,000	321.00	218.00	(103.00)	-32.09%
25,000	321.00	225.00	(96.00)	-29.91%
26,000	321.00	232.00	(89.00)	-27.73%
27,000	321.00	239.00	(82.00)	-25.55%
28,000	374.50	246.00	(128.50)	-34.31%
29,000	374.50	253.00	(121.50)	-32.44%
30,000	374.50	260.00	(114.50)	-30.57%
35,000	428.00	295.00	(133.00)	-31.07%
45,000	588.50	365.00	(223.50)	-37.98%
55,000	695.50	435.00	(260.50)	-37.46%
65,000	856.00	505.00	(351.00)	-41.00%
75,000	963.00	575.00	(388.00)	-40.29%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE XX SADBURY TOWNSHIP COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$128.33	\$128.33	\$0.00	0.00%
100	128.33	128.33	0.00	0.00%
500	128.33	128.33	0.00	0.00%
1,000	128.33	128.33	0.00	0.00%
2,000	128.33	128.33	0.00	0.00%
3,000	128.33	128.33	0.00	0.00%
3,500	128.33	128.33	0.00	0.00%
4,000	128.33	128.33	0.00	0.00%
5,000	128.33	128.33	0.00	0.00%
6,000	128.33	128.33	0.00	0.00%
7,000	128.33	128.33	0.00	0.00%
8,000	128.33	128.33	0.00	0.00%
9,000	128.33	128.33	0.00	0.00%
10,000	128.33	128.33	0.00	0.00%
16,000	128.33	128.33	0.00	0.00%
20,000	128.33	128.33	0.00	0.00%
21,000	128.33	128.33	0.00	0.00%
22,000	128.33	128.33	0.00	0.00%
22,094	*	128.33	0.00	0.00%
23,000	128.33	128.33	0.00	0.00%
24,000	128.33	128.33	0.00	0.00%
25,000	128.33	128.33	0.00	0.00%
26,000	128.33	128.33	0.00	0.00%
27,000	128.33	128.33	0.00	0.00%
28,000	128.33	128.33	0.00	0.00%
29,000	128.33	128.33	0.00	0.00%
30,000	128.33	128.33	0.00	0.00%
35,000	128.33	128.33	0.00	0.00%
45,000	128.33	128.33	0.00	0.00%
55,000	128.33	128.33	0.00	0.00%
65,000	128.33	128.33	0.00	0.00%
75,000	128.33	128.33	0.00	0.00%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 1 INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$50.00	\$14.62	41.33%
1,000	56.64	70.00	13.36	23.60%
2,000	77.89	90.00	12.11	15.54%
3,000	99.15	110.00	10.85	10.94%
4,000	120.41	130.00	9.59	7.97%
5,000	141.66	150.00	8.34	5.88%
10,000	247.95	250.00	2.05	0.83%
16,000	375.49	370.00	(5.49)	-1.46%
20,000	460.52	450.00	(10.52)	-2.28%
30,000	673.09	650.00	(23.09)	-3.43%
40,000	885.66	850.00	(35.66)	-4.03%
50,000	1,098.23	1,050.00	(48.23)	-4.39%
60,000	1,310.81	1,250.00	(60.81)	-4.64%
70,000	1,523.38	1,450.00	(73.38)	-4.82%
80,000	1,735.95	1,650.00	(85.95)	-4.95%
90,000	1,948.52	1,850.00	(98.52)	-5.06%
100,000	2,161.09	2,050.00	(111.09)	-5.14%
200,000	4,286.80	4,050.00	(236.80)	-5.52%
300,000	6,412.52	6,050.00	(362.52)	-5.65%
400,000	8,538.23	8,050.00	(488.23)	-5.72%
500,000	10,663.94	10,050.00	(613.94)	-5.76%
600,000	12,789.65	12,050.00	(739.65)	-5.78%
685,947	* 14,616.64	13,768.94	(847.70)	-5.80%
700,000	14,915.36	14,050.00	(865.36)	-5.80%
800,000	17,041.08	16,050.00	(991.08)	-5.82%
900,000	19,166.79	18,050.00	(1,116.79)	-5.83%
1,000,000	21,292.50	20,050.00	(1,242.50)	-5.84%
1,100,000	23,418.21	22,050.00	(1,368.21)	-5.84%
1,200,000	25,543.93	24,050.00	(1,493.93)	-5.85%
1,300,000	27,669.64	26,050.00	(1,619.64)	-5.85%
1,400,000	29,795.35	28,050.00	(1,745.35)	-5.86%
1,500,000	31,921.06	30,050.00	(1,871.06)	-5.86%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 7 YORK TOWNSHIP INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$0.00	\$0.00	\$0.00	0.00%
1,000	16.56	20.00	3.44	20.80%
2,000	33.11	40.00	6.89	20.80%
3,000	49.67	60.00	10.33	20.80%
4,000	66.23	80.00	13.77	20.80%
5,000	82.78	100.00	17.22	20.80%
10,000	165.57	200.00	34.43	20.80%
16,000	264.91	320.00	55.09	20.80%
20,000	331.14	400.00	68.86	20.80%
30,000	496.71	600.00	103.29	20.80%
40,000	662.28	800.00	137.72	20.80%
50,000	827.85	1,000.00	172.15	20.80%
60,000	993.41	1,200.00	206.59	20.80%
70,000	1,158.98	1,400.00	241.02	20.80%
80,000	1,324.55	1,600.00	275.45	20.80%
90,000	1,490.12	1,800.00	309.88	20.80%
100,000	1,655.69	2,000.00	344.31	20.80%
200,000	3,311.38	4,000.00	688.62	20.80%
300,000	4,967.07	6,000.00	1,032.93	20.80%
400,000	6,622.76	8,000.00	1,377.24	20.80%
500,000	8,278.45	10,000.00	1,721.55	20.80%
600,000	9,934.14	12,000.00	2,065.86	20.80%
685,947	* 11,357.16	13,718.94	2,361.78	20.80%
700,000	11,589.83	14,000.00	2,410.17	20.80%
800,000	13,245.52	16,000.00	2,754.48	20.80%
900,000	14,901.21	18,000.00	3,098.79	20.80%
1,000,000	16,556.90	20,000.00	3,443.10	20.80%
1,100,000	18,212.59	22,000.00	3,787.41	20.80%
1,200,000	19,868.28	24,000.00	4,131.72	20.80%
1,300,000	21,523.98	26,000.00	4,476.02	20.80%
1,400,000	23,179.67	28,000.00	4,820.33	20.80%
1,500,000	24,835.36	30,000.00	5,164.64	20.80%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 8 FOSTER TOWNSHIP INDUSTRIAL - MONTHLY  
PER EDU

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$107.14	\$100.00	(\$7.14)	-6.67%
1,000	107.14	100.00	(7.14)	-6.67%
2,000	107.14	100.00	(7.14)	-6.67%
3,000	107.14	100.00	(7.14)	-6.67%
4,000	107.14	100.00	(7.14)	-6.67%
5,000	107.14	100.00	(7.14)	-6.67%
10,000	107.14	100.00	(7.14)	-6.67%
16,000	107.14	100.00	(7.14)	-6.67%
20,000	107.14	100.00	(7.14)	-6.67%
30,000	107.14	100.00	(7.14)	-6.67%
40,000	107.14	100.00	(7.14)	-6.67%
50,000	107.14	100.00	(7.14)	-6.67%
60,000	107.14	100.00	(7.14)	-6.67%
70,000	107.14	100.00	(7.14)	-6.67%
80,000	107.14	100.00	(7.14)	-6.67%
90,000	107.14	100.00	(7.14)	-6.67%
100,000	107.14	100.00	(7.14)	-6.67%
200,000	107.14	100.00	(7.14)	-6.67%
300,000	107.14	100.00	(7.14)	-6.67%
400,000	107.14	100.00	(7.14)	-6.67%
500,000	107.14	100.00	(7.14)	-6.67%
600,000	107.14	100.00	(7.14)	-6.67%
685,947	* 107.14	100.00	(7.14)	-6.67%
700,000	107.14	100.00	(7.14)	-6.67%
800,000	107.14	100.00	(7.14)	-6.67%
900,000	107.14	100.00	(7.14)	-6.67%
1,000,000	107.14	100.00	(7.14)	-6.67%
1,100,000	107.14	100.00	(7.14)	-6.67%
1,200,000	107.14	100.00	(7.14)	-6.67%
1,300,000	107.14	100.00	(7.14)	-6.67%
1,400,000	107.14	100.00	(7.14)	-6.67%
1,500,000	107.14	100.00	(7.14)	-6.67%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 9 ROYERSFORD TOWNSHIP INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$48.52	\$50.00	\$1.48	3.05%
1,000	48.52	57.50	8.98	18.51%
2,000	48.52	65.00	16.48	33.97%
3,000	48.52	72.50	23.98	49.43%
4,000	58.02	80.00	21.98	37.88%
5,000	67.52	87.50	19.98	29.59%
10,000	115.03	125.00	9.97	8.67%
16,000	172.04	170.00	(2.04)	-1.18%
20,000	210.04	200.00	(10.04)	-4.78%
30,000	305.06	275.00	(30.06)	-9.85%
40,000	400.07	350.00	(50.07)	-12.52%
50,000	495.09	425.00	(70.09)	-14.16%
60,000	590.11	500.00	(90.11)	-15.27%
70,000	685.12	575.00	(110.12)	-16.07%
80,000	780.14	650.00	(130.14)	-16.68%
90,000	875.15	725.00	(150.15)	-17.16%
100,000	970.17	800.00	(170.17)	-17.54%
200,000	1,920.32	1,550.00	(370.32)	-19.28%
300,000	2,870.47	2,300.00	(570.47)	-19.87%
400,000	3,820.62	3,050.00	(770.62)	-20.17%
500,000	4,770.77	3,800.00	(970.77)	-20.35%
600,000	5,720.93	4,550.00	(1,170.93)	-20.47%
685,947	* 6,537.55	5,194.60	(1,342.95)	-20.54%
700,000	6,671.08	5,300.00	(1,371.08)	-20.55%
800,000	7,621.23	6,050.00	(1,571.23)	-20.62%
900,000	8,571.38	6,800.00	(1,771.38)	-20.67%
1,000,000	9,521.53	7,550.00	(1,971.53)	-20.71%
1,100,000	10,471.69	8,300.00	(2,171.69)	-20.74%
1,200,000	11,421.84	9,050.00	(2,371.84)	-20.77%
1,300,000	12,371.99	9,800.00	(2,571.99)	-20.79%
1,400,000	13,322.14	10,550.00	(2,772.14)	-20.81%
1,500,000	14,272.29	11,300.00	(2,972.29)	-20.83%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RATE ZONE XX FARMINGTON TOWNSHIP COMMERCIAL - MONTHLY  
PER EDU

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$53.50	\$50.00	(\$3.50)	-6.54%
1,000	53.50	57.00	3.50	6.54%
2,000	53.50	64.00	10.50	19.63%
3,000	53.50	71.00	17.50	32.71%
4,000	53.50	78.00	24.50	45.79%
5,000	53.50	85.00	31.50	58.88%
9,965	* 53.50	119.76	66.26	123.84%
16,000	53.50	162.00	108.50	202.80%
20,000	53.50	190.00	136.50	255.14%
30,000	53.50	260.00	206.50	385.98%
40,000	53.50	330.00	276.50	516.82%
50,000	53.50	400.00	346.50	647.66%
60,000	53.50	470.00	416.50	778.50%
70,000	53.50	540.00	486.50	909.35%
80,000	53.50	610.00	556.50	1040.19%
90,000	53.50	680.00	626.50	1171.03%
100,000	53.50	750.00	696.50	1301.87%
200,000	53.50	1,450.00	1,396.50	2610.28%
300,000	53.50	2,150.00	2,096.50	3918.69%
400,000	53.50	2,850.00	2,796.50	5227.10%
500,000	53.50	3,550.00	3,496.50	6535.51%
600,000	53.50	4,250.00	4,196.50	7843.93%
685,947	53.50	4,851.63	4,798.13	8968.47%
700,000	53.50	4,950.00	4,896.50	9152.34%
800,000	53.50	5,650.00	5,596.50	10460.75%
900,000	53.50	6,350.00	6,296.50	11769.16%
1,000,000	53.50	7,050.00	6,996.50	13077.57%
1,100,000	53.50	7,750.00	7,696.50	14385.98%
1,200,000	53.50	8,450.00	8,396.50	15694.39%
1,300,000	53.50	9,150.00	9,096.50	17002.80%
1,400,000	53.50	9,850.00	9,796.50	18311.21%
1,500,000	53.50	10,550.00	10,496.50	19619.63%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 0.00%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
SUMMARY OF APPLICATION OF PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

<b>Rate Zone</b>	Residential	Commercial	Industrial	Municipal	Bulk	Total Revenues
<u>Present Rate Application</u>						
Zone 3 - Scranton WW	\$33,227,937	\$15,900,531	\$2,240,339	\$488,104	\$1,207,931	\$53,064,842
Zone 4 - Kane WW	2,108,564	507,998	20,255	115,789	0	2,752,606
Zone 6 - McKeesport WW	10,838,789	3,788,874	8,194	387,658	7,121,888	22,145,403
	<u>\$46,175,290</u>	<u>\$20,197,403</u>	<u>\$2,268,788</u>	<u>\$991,551</u>	<u>\$8,329,819</u>	<u>\$77,962,851</u>
IPP Surcharge						226,040
Other Revenues						447,331
<b>Total WW CSS</b>	<u>\$46,175,290</u>	<u>\$20,197,403</u>	<u>\$2,268,788</u>	<u>\$991,551</u>	<u>\$8,329,819</u>	<u>\$78,636,222</u>
<u>Proposed Rate Application</u>						
Zone 3 - Scranton WW	\$33,040,534	\$15,901,039	\$2,240,403	\$488,119	\$1,207,944	\$52,878,039
Zone 4 - Kane WW	2,096,710	508,322	20,108	116,622	0	2,741,762
Zone 6 - McKeesport WW	11,210,239	3,501,107	7,343	351,645	7,045,793	22,116,127
<b>Total WW CSS</b>	<u>\$46,347,482</u>	<u>\$19,910,468</u>	<u>\$2,267,854</u>	<u>\$956,386</u>	<u>\$8,253,737</u>	<u>\$77,735,927</u>
IPP Surcharge						226,040
Other Revenues						447,326
<b>Total WW CSS</b>	<u>\$46,347,482</u>	<u>\$19,910,468</u>	<u>\$2,267,854</u>	<u>\$956,386</u>	<u>\$8,253,737</u>	<u>\$78,409,294</u>
Change in Revenues	\$172,192	(\$286,935)	(\$934)	(\$35,165)	(\$76,082)	(\$226,928)
% Change in Revenues	0.37%	-1.42%	-0.04%	-3.55%	-0.91%	-0.29%

PENNSYLVANIA-AMERICAN WATER COMPANY  
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<b>Residential Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 3 - Scranton WW	11,845,091	\$33,781,109	11,616,430	\$33,251,074	11,449,159	\$355,026	\$33,227,937	\$33,040,534	-0.56%
Zone 4 - Kane WW	620,849	2,149,350	606,682	2,117,632	593,551	22,528	2,108,564	2,096,710	-0.56%
Zone 6 - McKeesport WW	3,429,733	11,173,055	3,351,122	10,942,545	3,277,885	115,809	10,838,789	11,210,239	3.43%
<b>Total Residential</b>	<u>15,895,672</u>	<u>\$47,103,514</u>	<u>15,574,234</u>	<u>\$46,311,251</u>	<u>15,320,595</u>	<u>\$493,363</u>	<u>\$46,175,290</u>	<u>\$46,347,482</u>	0.37%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
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Zone 3 - Scranton WW	6/30/2023			6/30/2024			6/30/2025		6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge Per EDU	350,342	\$19.50	\$6,831,666	351,314	\$19.50	\$6,850,620	351,701	\$19.50	\$74,068	\$6,932,234	\$19.71	\$6,932,024	0.00%
Consumption Charges:													
Usage (in 100 Gallons)	11,809,521	\$2.3510	27,764,184	11,845,091	\$2.3510	27,847,808	11,616,430	\$2.3510	294,950	27,605,176	\$2.3764	27,605,284	0.00%
Flat Rate (Unmetered)	132	\$95.00	12,540	132	\$95.00	12,540	132	\$95.00	135	12,675	\$96.03	12,676	0.01%
<u>Low Income:</u>													
Low Income Discount Tier 1			(307,149)			(307,149)			(3,317)	(310,466)		(302,374)	-2.61%
Low Income Discount Tier 2			(263,304)			(263,304)			(2,844)	(266,148)		(259,211)	-2.61%
Low Income Discount Tier 3			(359,406)			(359,406)			(3,882)	(363,288)		(353,820)	-2.61%
Low Income Discount Tier 4												(211,798)	0.00%
<u>Adjustment (1):</u>													
Service Charge Per EDU	972	\$19.50	18,954	387	\$19.50	7,547	774	\$19.50	163	15,256	\$19.71	15,256	0.00%
Usage (in 100 Gallons)	35,570	\$2.3510	83,624	14,162	\$2.3510	33,295	28,324	\$2.3510	719	67,308	\$2.3764	67,309	0.00%
<u>Adjustment (2):</u>													
Usage (in 100 Gallons)				(242,823)	\$2.3510	(570,877)	(195,595)	\$2.3510	(4,966)	(464,810)	\$2.3764	(464,812)	0.00%
<b>Total Zone 3 Residential</b>			<u><u>\$33,781,109</u></u>			<u><u>\$33,251,074</u></u>			<u><u>\$355,026</u></u>	<u><u>\$33,227,937</u></u>		<u><u>\$33,040,534</u></u>	-0.56%

Note (1): Adjustment to reflect the change in revenue brought about by customer growth (loss)

Note (2): Adjustment from usage normalization

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Zone 4 - Kane WW	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge (5/8")	21,714	\$40.00	\$868,564	21,714	\$40.00	\$868,564	21,663	\$40.00	\$9,358	\$875,882	\$20.00	\$433,262	-50.53%
Service Charge (Other than 5/8")	12	\$100.00	1,200	12	\$100.00	1,200	12	\$100.00	13	1,213	\$20.00	240	-80.21%
Usage (in 100 Gallons)													
First 10,000 Gallons	609,041	\$2.1000	1,278,987	609,041	\$2.1000	1,278,987	595,117	\$2.1000	13,497	1,263,242			
All Over 10,000 Gallons	11,807	\$1.8000	21,253	11,807	\$1.8000	21,253	11,565	\$1.8000	225	21,043			
Flat Rate (Unmetered)	334	\$110.00	36,712	334	\$110.00	36,712	334	\$110.00	396	37,108	\$110.00	36,712	-1.07%
<u>Low Income:</u>													
Low Income Discount Tier 1			(18,242)			(18,242)			(197)	(18,439)		(17,966)	-2.57%
Low Income Discount Tier 2			(13,201)			(13,201)			(143)	(13,344)		(13,002)	-2.57%
Low Income Discount Tier 3			(25,923)			(25,923)			(280)	(26,203)		(25,530)	-2.57%
Low Income Discount Tier 4												(15,106)	
<u>Adjustment (1):</u>													
Service Charge	0	\$40.00	0	(51)	\$40.00	(2,040)	(102)	\$40.00	(44)	(4,124)	\$20.00	(2,040)	-50.53%
Usage (in 100 Gallons)	0	\$2.1000	0	(1,440)	\$2.1000	(3,023)	(2,879)	\$2.1000	(65)	(6,111)			
<u>Adjustment (2):</u>													
First 10,000 Gallons				(12,485)	\$2.1000	(26,219)	(10,057)	\$2.1000	(228)	(21,348)			
All Over 10,000 Gallons				(242)	\$1.8000	(436)	(195)	\$1.8000	(4)	(355)			
Total Usage	620,849			606,682			593,551						
Annualized Winter Usage(3)													
First 10,000 Gallons	609,041			596,556			585,060						
All Over 10,000 Gallons	16,783			7,566			6,293						
	625,825			604,123			591,353						
Winter Average Usage							591,353				\$2.8750	1,700,140	35.31%
<b>Total Zone 4 Residential</b>			<b>\$2,149,350</b>			<b>\$2,117,632</b>			<b>\$22,528</b>	<b>\$2,108,564</b>		<b>\$2,096,710</b>	-0.56%

Note(1): Adjustment to reflect the change in revenue brought about by customer growth (loss)

Note (2): Adjustment from usage normalization

Note (3): Annualized Winter Usage is from average winter usage multiplied by 12



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Zone 6 - McKeesport WW	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge	115,814	\$14.30	\$1,656,146	115,382	\$14.30	\$1,649,968	115,067	\$14.30	\$17,771	\$1,663,235	\$20.00	\$2,301,348	38.37%
Consumption Charges:													
Usage (in 100 Gallons)	3,042,640	\$2.8750	8,747,591	3,031,255	\$2.8750	8,714,859	2,952,645	\$2.8750	91,680	8,580,534			
<u>Port Vue:</u>													
Service Charge	182	\$14.30	2,597	182	\$14.30	2,597	182	\$14.30	28	2,625	\$20.00	3,633	38.40%
Consumption Charges:													
Usage (in 100 Gallons)	398,478	\$2.8750	1,145,623	398,478	\$2.8750	1,145,623	398,478	\$2.8750	12,373	1,157,996			
<u>Adjustment (1):</u>													
Service Charge	(432)	\$14.30	(6,178)	(315)	\$14.30	(4,505)	(630)	\$14.30	(97)	(9,106)	\$20.00	(12,600)	38.37%
Usage (in 100 Gallons)	(11,385)	\$2.8750	(32,732)	(8,302)	\$2.8750	(23,867)	(16,603)	\$2.8750	(516)	(48,250)			
<u>Low Income:</u>													
Low Income Discount Tier 1			(100,035)			(100,035)			(1,080)	(101,115)		(102,516)	1.39%
Low Income Discount Tier 2			(99,605)			(99,605)			(1,076)	(100,681)		(102,074)	1.38%
Low Income Discount Tier 3			(140,352)			(140,352)			(1,516)	(141,868)		(143,832)	1.38%
Low Income Discount Tier 4												(81,102)	
<u>Adjustment (2):</u>													
Usage (in 100 Gallons)				(70,309)	\$2.8750	(202,138)	(56,634)	\$2.8750	(1,758)	(164,581)			
Total Usage	3,429,733			3,351,122			3,277,885						
Annualized Winter Usage(3)	3,444,808			3,323,695			3,251,263				\$2.8750	9,347,381	-1.87%
<b>Total Zone 6 Residential</b>			<b>\$11,173,055</b>			<b>\$10,942,545</b>			<b>\$115,809</b>	<b>\$10,838,789</b>		<b>\$11,210,239</b>	3.43%

Note(1): Adjustment to reflect the change in revenue brought about by customer growth (loss)

Note (2): Adjustment from usage normalization

Note (3): Annualized Winter Usage is from average winter usage multiplied by 12

PENNSYLVANIA-AMERICAN WATER COMPANY  
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<b>Commercial Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 3 - Scranton WW	7,827,713	\$15,802,012	7,755,892	\$15,685,749	7,772,888	\$169,891	\$15,900,531	\$15,901,039	0.00%
Zone 4 - Kane WW	221,699	513,762	218,206	507,169	215,770	5,427	507,998	508,322	0.00%
Zone 6 - McKeesport WW	1,646,131	3,887,670	1,613,898	3,817,016	1,583,213	40,483	3,788,874	3,501,107	0.00%
<b>Total Commercial</b>	<u>9,695,542</u>	<u>\$20,203,444</u>	<u>9,587,996</u>	<u>\$20,009,934</u>	<u>9,571,871</u>	<u>\$215,801</u>	<u>\$20,197,403</u>	<u>\$19,910,468</u>	0.00%

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Zone 3 - Scranton WW	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma Revenues	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge Per EDU	64,956	\$35.00	\$2,273,473	65,244	\$35.00	\$2,283,553	65,466	\$35.00	\$24,746	\$2,316,069	\$35.38	\$2,316,200	0.01%
Consumption Charges Usage (in 100 Gallons)	7,760,894	\$1.7270	13,403,064	7,827,713	\$1.7270	13,518,460	7,755,892	\$1.7270	144,660	13,539,086	\$1.7457	13,539,461	0.00%
<i>Adjustment (1):</i>													
Service Charge Per EDU Usage (in 100 Gallons)	288	\$35.00	10,080	222	\$35.00	7,770	444	\$35.00	168	15,708	\$35.38	15,709	0.01%
	66,818	\$1.7270	115,395	51,506	\$1.7270	88,950	103,011	\$1.7270	1,921	179,822	\$1.7457	179,827	0.00%
<i>Adjustment (2):</i>													
Usage (in 100 Gallons)				(123,326)	\$1.7270	(212,984)	(86,016)	\$1.7270	(1,604)	(150,154)	\$1.7457	(150,158)	0.00%
<b>Total Zone 3 Commercial</b>			<b>\$15,802,012</b>			<b>\$15,685,749</b>			<b>\$169,891</b>	<b>\$15,900,531</b>		<b>\$15,901,039</b>	0.00%

Note(1): Adjustment to reflect the change in revenue brought about by customer growth (loss)

Note (2): Adjustment from usage normalization

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Zone 4 - Kane WW	6/30/2023			6/30/2024			6/30/2025			6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma Revenues	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge (5/8")	1,702	\$40.00	\$68,076	1,690	\$40.00	\$67,596	1,690	\$40.00	\$730	\$50.00	\$84,495	23.66%
Service Charge (Other than 5/8")	277	\$100.00	27,729	277	\$100.00	27,729	277	\$100.00	299	\$50.00	13,864	-50.54%
Usage (in 100 Gallons)												
First 10,000 Gal	65,958	\$2.1000	138,512	64,599	\$2.1000	135,657	63,581	\$2.1000	1,442	\$1.9000	120,803	-10.49%
All Over 10,000 Gal	157,100	\$1.8000	282,780	157,100	\$1.8000	282,780	154,625	\$1.8000	3,006	\$1.9000	293,788	4.43%
<i>Adjustment (1):</i>												
Service Charge	(12)	\$40.00	(480)	0	\$40.00	0	0	\$40.00	0	\$50.00	0	0.00%
Usage (in 100 Gallons)	(1,359)	\$2.1000	(2,855)	0	\$2.1000	0	0	\$2.1000	0	\$1.9000	0	0.00%
<i>Adjustment (2):</i>												
Usage (in 100 Gallons)												
First 10,000 Gal				(1,018)	\$2.1000	(2,138)	(710)	\$2.1000	(16)	\$1.9000	(1,349)	-10.48%
All Over 10,000 Gal				(2,475)	\$1.8000	(4,455)	(1,726)	\$1.8000	(34)	\$1.9000	(3,279)	4.39%
<b>Total Zone 4 Commercial</b>			<b>\$513,762</b>			<b>\$507,169</b>			<b>\$5,427</b>		<b>\$507,998</b>	0.06%

Note(1): Adjustment to reflect the change in revenue brought about by customer growth (loss)

Note (2): Adjustment from usage normalization

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Zone 6 - McKeesport WW	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma Revenues	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
Service Charge	9,866	\$35.00	\$345,294	9,818	\$35.00	\$343,614	9,779	\$35.00	\$3,696	\$345,945	\$50.00	\$488,926	41.33%
Consumption Charges: Usage (in 100 Gallons)	1,631,492	\$2.1416	3,494,004	1,623,741	\$2.1416	3,477,404	1,591,861	\$2.1416	36,819	3,445,949	\$1.9000	3,024,536	-12.23%
<u>Port Vue:</u>													
Service Charge	160	\$14.30	2,281	160	\$14.30	2,281	160	\$14.30	25	2,306	\$50.00	7,976	245.88%
Consumption Charges: Usage (in 100 Gallons)	22,390	\$2.8750	64,371	22,390	\$2.8750	64,371	22,037	\$2.8750	684	64,040	\$1.9000	41,870	-34.62%
<u>Adjustment (1):</u>													
Service Charge	(48)	\$35.00	(1,680)	(39)	\$35.00	(1,365)	(78)	\$35.00	(29)	(2,759)	\$50.00	(3,900)	41.36%
Usage (in 100 Gallons)	(7,751)	\$2.1416	(16,600)	(6,298)	\$2.1416	(13,488)	(12,596)	2.1416	(291)	(27,266)	\$1.9000	(23,932)	-12.23%
<u>Adjustment (2):</u>													
Usage (in 100 Gallons)				(25,582)	\$2.1416	(54,786)	(17,843)	\$2.1416	(413)	(38,626)	\$1.9000	(33,902)	
Usage (in 100 Gallons) Port Vue				(353)	\$2.8750	(1,015)	(246)	\$2.8750	(8)	(715)	\$1.9000	(467)	
<b>Total Zone 6 Commercial</b>			<b>\$3,887,670</b>			<b>\$3,817,016</b>			<b>\$40,483</b>	<b>\$3,788,874</b>		<b>\$3,501,107</b>	-7.60%

Note(1): Adjustment to reflect the change in revenue brought about by customer growth (loss)

Note (2): Adjustment from usage normalization

PENNSYLVANIA-AMERICAN WATER COMPANY  
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<b>Industrial Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 3 - Scranton WW	1,255,447	\$2,216,402	1,255,447	\$2,216,402	1,255,447	\$23,937	\$2,240,339	\$2,240,403	0.00%
Zone 4 - Kane WW	10,271	20,038	10,271	20,038	10,271	217	20,255	20,108	0.00%
Zone 6 - McKeesport WW	3,654	8,106	3,654	8,106	3,654	88	8,194	7,343	0.00%
<b>Total Industrial</b>	<u>1,269,373</u>	<u>\$2,244,546</u>	<u>1,269,373</u>	<u>\$2,244,546</u>	<u>1,269,373</u>	<u>\$24,242</u>	<u>\$2,268,788</u>	<u>\$2,267,854</u>	0.00%

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	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma Revenues	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 3 - Scranton WW</b>													
C. Service Charge Per EDU	1,378	\$35.00	\$48,245	1,378	\$35.00	\$48,245	1,378	\$35.00	\$521	\$48,766	\$35.38	\$48,769	0.01%
C. Consumption Charges All Usage (100 Gallons)	1,255,447	\$1.7270	2,168,157	1,255,447	\$1.7270	2,168,157	1,255,447	\$1.7270	23,416	2,191,573	\$1.7457	2,191,634	0.00%
<b>Total Zone 3 Industrial</b>			<u><b>\$2,216,402</b></u>			<u><b>\$2,216,402</b></u>			<u><b>\$23,937</b></u>	<u><b>\$2,240,339</b></u>		<u><b>2,240,403</b></u>	0.00%

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	6/30/2023			6/30/2024			6/30/2025				6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma Revenues	Billing Determinants	Current Rate	DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 4 - Kane WW</b>													
Service Charge (5/8")	0	\$40.00	\$0	0	\$40.00	\$0	0	\$40.00	\$0	\$0	\$50.00	\$0	0.00%
Service Charge (Other than 5/8")	12	\$100.00	1,185	12	\$100.00	1,185	12	\$100.00	13	1,198	\$50.00	593	-50.50%
Usage per 100 Gallons:													
First 10,000 Gal	1,218	\$2.1000	2,558	1,218	\$2.1000	2,558	1,218	\$2.1000	28	2,586	\$1.9000	2,314	
All Over 10,000 Gal	9,053	\$1.8000	16,295	9,053	\$1.8000	16,295	9,053	\$1.8000	176	16,471	\$1.9000	17,201	
<b>Total Zone 4 Industrial</b>			<b>\$20,038</b>			<b>\$20,038</b>			<b>\$217</b>	<b>\$20,255</b>		<b>\$20,108</b>	-0.73%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO INDUSTRIAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025		6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma Revenues	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 6 - McKeesport WW</b>													
Service Charge	8	\$35.00	\$280	8	\$35.00	\$280	8	\$35.00	\$3	\$283	\$50.00	\$400	41.34%
Consumption Charges:													
Usage per 100 Gallons:	3,654	\$2.1416	7,826	3,654	\$2.1416	7,826	3,654	\$2.1416	\$85	7,911	\$1.9000	6,943	-12.24%
<u>Port Vue:</u>													
Service Charge	0	\$14.30	0	0	\$14.30	0	0	\$14.30	\$0	0	\$50.00	0	0.00%
Consumption Charges:													
Usage per 100 Gallons:	0	\$2.8750	0	0	\$2.8750	0	0	\$2.8750	\$0	0	\$1.9000	0	0.00%
<b>Total Zone 6 Industrial</b>			<b>\$8,106</b>			<b>\$8,106</b>			<b>\$88</b>	<b>\$8,194</b>		<b>\$7,343</b>	-10.39%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

<b>Municipal Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 3 - Scranton WW	275,610	\$500,765	266,222	\$484,552	265,259	\$5,215	\$488,104	\$488,119	0.00%
Zone 4 - Kane WW	60,938	118,743	58,862	114,940	58,649	1,238	115,789	116,622	0.00%
Zone 6 - McKeesport WW	175,334	397,664	169,362	384,833	168,749	4,142	387,658	351,645	0.00%
<b>Total Municipal</b>	<u>511,882</u>	<u>\$1,017,172</u>	<u>494,446</u>	<u>\$984,325</u>	<u>492,657</u>	<u>\$10,595</u>	<u>\$991,551</u>	<u>\$956,386</u>	0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025		Proforma	6/30/2025		6/30/2025	
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 3 - Scranton WW</b>													
C. Service Charge Per EDU	708	\$35.00	\$24,787	708	\$35.00	\$24,787	708	\$35.00	\$268	\$25,055	\$35.38	\$25,056	0.00%
C. Consumption Charges All Usage (100 Gallons)	275,610	\$1.7270	475,978	275,610	\$1.7270	475,978	266,222	\$1.7270	4,965	464,730	\$1.7457	464,744	0.00%
<u>Adjustment (1):</u> All Usage (100 Gallons)				(9,388)	\$1.7270	(16,213)	(963)	\$1.7270	(18)	(1,681)	\$1.7457	(1,681)	0.00%
<b>Total Zone 3 Municipal</b>			<u>\$500,765</u>			<u>\$484,552</u>			<u>\$5,215</u>	<u>\$488,104</u>		<u>\$488,119</u>	0.00%

Note (1): Adjustment from usage normalization

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025		Proforma	6/30/2025		6/30/2025		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change	
<b>Zone 4 - Kane WW</b>														
Service Charge (5/8")	54	\$40.00	\$2,167	54	\$40.00	\$2,167	54	\$40.00	\$23	\$2,190	\$50.00	\$2,708	23.65%	
Service Charge (Other than 5/8")	50	\$100.00	4,962	50	\$100.00	4,962	50	\$100.00	54	5,016	\$50.00	2,481	-50.54%	
Consumption Charges													0.00%	
First 10,000 Gallons	6,419	\$2.1000	13,480	6,419	\$2.1000	13,480	6,200	\$2.1000	141	13,161	\$1.9000	11,780	-10.49%	
All Over 10,000 Gallons	54,519	\$1.8000	98,134	54,519	\$1.8000	98,134	52,662	\$1.8000	1,024	95,816	\$1.9000	100,058	4.43%	
<i>Adjustment (1):</i>														
First 10,000 Gallons				(219)	\$2.1000	(460)	(22)	\$2.1000	0	(46)	\$1.9000	(42)	-8.70%	
All Over 10,000 Gallons				(1,857)	\$1.8000	(3,343)	(191)	\$1.8000	(4)	(348)	\$1.9000	(363)	4.31%	
<b>Total Zone 4 Municipal</b>			<b>\$118,743</b>			<b>\$114,940</b>			<b>\$1,238</b>	<b>\$115,789</b>		<b>\$116,622</b>	0.72%	

Note (1): Adjustment from usage normalization

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO MUNICIPAL CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025		Proforma	6/30/2025		6/30/2025	
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 6 - McKeesport WW</b>													
Service Charge	584	\$35.00	\$20,437	584	\$35.00	\$20,437	584	\$35.00	\$221	\$20,658	\$50.00	\$29,195	41.33%
Consumption Charges:													
Usage (in 100 Gallons)	173,684	\$2.1416	371,961	173,684	\$2.1416	371,961	167,768	\$2.1416	3,880	363,171	\$1.9000	318,759	-12.23%
<u>Port Vue:</u>													
Service Charge	37	\$14.30	522	37	\$14.30	522	37	\$14.30	6	528	\$50.00	1,826	245.83%
Consumption Charges:													
Usage (in 100 Gallons)	1,650	\$2.8750	4,744	1,650	\$2.8750	4,744	1,594	\$2.8750	49	4,632	\$1.9000	3,029	-34.61%
<u>Adjustment (1):</u>													
Usage (in 100 Gallons)				(5,916)	\$2.1416	(12,670)	(607)	\$2.1416	(14)	(1,314)	\$1.9000	(1,153)	-12.25%
Usage (in 100 Gallons) Port Vue				(56)	\$2.8750	(161)	(6)	\$2.8750	0	(17)	\$1.9000	(11)	-35.29%
<b>Total Zone 6 Municipal</b>			<b>\$397,664</b>			<b>\$384,833</b>			<b>\$4,142</b>	<b>\$387,658</b>		<b>\$351,645</b>	-9.29%

Note (1): Adjustment from usage normalization

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

<b>Bulk WW Class</b>	6/30/2023 Water Usage (in 100 Gallons)	6/30/2023 Annualized Revenues	6/30/2024 Water Usage (in 100 Gallons)	6/30/2024 Proforma Revenues	6/30/2025 Water Usage (in 100 Gallons)	Proforma DSIC Revenues	6/30/2025 Proforma @ Present Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
Zone 3 - Scranton WW	521,607	\$1,195,024	521,607	\$1,195,024	521,607	\$12,907	\$1,207,931	\$1,207,944	0.00%
Zone 4 - Kane WW	0	0	0	0	0	0	0	0	0.00%
Zone 6 - McKeesport WW	4,202,906	7,045,793	4,202,906	7,045,793	4,202,906	76,095	7,121,888	7,045,793	0.00%
<b>Total Bulk WW</b>	<u>4,724,512</u>	<u>\$8,240,817</u>	<u>4,724,512</u>	<u>\$8,240,817</u>	<u>4,724,512</u>	<u>\$89,002</u>	<u>\$8,329,819</u>	<u>\$8,253,737</u>	0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone 3 - Scranton WW</b>													
Bulk (Residential)													
Service Charge	5,354	\$19.50	\$104,403	5,354	\$19.50	\$104,403	5,354	\$19.50	\$1,128	\$105,531	\$19.71	\$105,527	0.00%
Consumption Charges													
All Usage (100 Gallons)	241,973	\$2.3510	568,879	241,973	\$2.3510	568,879	241,973	\$2.3510	6,144	575,023	\$2.3764	575,025	0.00%
Bulk (Non-Residential)													
Service Charge	1,109	\$35.00	38,815	1,109	\$35.00	38,815	1,109	\$35.00	419	39,234	\$35.38	39,236	0.01%
Consumption Charges													
All Usage (100 Gallons)	279,633	\$1.7270	482,927	279,633	\$1.7270	482,927	279,633	\$1.7270	5,216	488,143	\$1.7457	488,156	0.00%
<b>Total Zone 3 Bulk WW</b>			<b>\$1,195,024</b>			<b>\$1,195,024</b>			<b>\$12,907</b>	<b>\$1,207,931</b>		<b>\$1,207,944</b>	0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	Proforma Revenues	Proposed Rate	Proforma @ Proposed Rate	% Percent Change
<b>Zone 4 - Kane WW</b>													
Service Charge (5/8")	0	\$40.00	\$0	0	\$40.00	\$0	0	\$40.00	\$0	\$0	\$50.00	\$0	0.00%
Service Charge (Other than 5/8")	0	\$100.00	0	0	\$100.00	0	0	\$100.00	0	0	\$50.00	0	0.00%
Usage per 100 Gallons:													
First 10,000 Gallons	0	\$2.1000	0	0	\$2.1000	0	0	\$2.1000	0	0	\$1.9000	0	0.00%
All Over 10,000 Gallons	0	\$1.8000	0	0	\$1.8000	0	0	\$1.8000	0	0	\$1.9000	0	0.00%
<b>Total Zone 4 Bulk WW</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	<b>\$0</b>		<b>\$0</b>	0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO BULK WASTEWATER CLASS BILL ANALYSIS

	6/30/2023			6/30/2024			6/30/2025			6/30/2025			
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Proforma Revenues	Proposed Rate	6/30/2025 Proforma @ Proposed Rate	% Percent Change
<b>Zone 6 - McKeesport WW</b>													
Flat Rate Monthly	228	\$86.00	\$19,608	228	\$86.00	\$19,608	228	\$86.00	\$212	\$19,820	\$86.00	\$19,608	-1.07%
Flat Rate Quarterly	61	\$258.00	15,738	61	\$258.00	15,738	61	\$258.00	170	15,908	\$258.00	15,738	-1.07%
Consumption Charges: Usage per 100 Gallons:	4,202,906	\$1.6680	7,010,447	4,202,906	\$1.6680	7,010,447	4,202,906	\$1.6680	75,713	7,086,160	\$1.6680	7,010,447	-1.07%
<b>Total Zone 6 Bulk WW</b>			<u><u>\$7,045,793</u></u>			<u><u>\$7,045,793</u></u>			<u><u>\$76,095</u></u>	<u><u>\$7,121,888</u></u>		<u><u>\$7,045,793</u></u>	-1.07%

PENNSYLVANIA-AMERICAN WATER COMPANY  
MISCELLANEOUS AND OTHER OPERATING REVENUES  
WASTEWATER CSS OPERATIONS  
TWELVE MONTHS ENDING JUNE 2023, 2024, AND 2025

	Per Books 06/30/2023	Adjustments	Adjusted 06/30/2023	Adjustments	06/30/2024	Adjustments	06/30/2025	Proposed 06/30/2025
523 Other WW Revenues								
IPP Revenue	(\$624)	\$226,664	\$226,040	\$0	\$226,040	\$0	\$226,040	\$226,040
536 Guaranteed Revenues	0		0		0		0	0
532 Late Payment Fees	443,629	(47,454)	396,175	(5,121)	391,055	865	391,919	391,915
536 Miscellaneous Services	55,412		55,412		55,412		55,412	55,412
472 Rents From Property	0		0		0		0	0
473 Intercompany Rent	0		0		0		0	0
	\$499,041	(\$47,454)	\$451,587	(\$5,121)	\$446,466	\$865	\$447,331	\$447,326
<b>Total Other Revenues</b>	<b>\$498,417</b>	<b>\$179,210</b>	<b>\$677,627</b>	<b>(\$5,121)</b>	<b>\$672,506</b>	<b>\$865</b>	<b>\$673,371</b>	<b>\$673,366</b>

Pennsylvania American Water Company  
Wastewater CSS Bill Analysis Summary  
12 Months Ending June 2023, 2024, 2025

RESIDENTIAL CLASS	12 Mo-Ended	Old Rates	Current Rates	Base Year Revenue	Base Year Billing Determinants	Annualized Revenue Current Rate	Annualized Customer Growth (Loss)	Annualized 06/30/2023 Revenue	Annualized Customer Growth (Loss)	Normalized Usage	Annualized 06/30/2024 Revenue	Annualized Customer Growth (Loss)	Normalized Usage	Annualized 06/30/2025 Revenue	1.08%	Annualized 06/30/2025 Revenue
	06/30/2023 Billing Units														Annualized DSIC Revenue	
<b>Rate Zone 3 Scranton WW</b>	(a)	(b)	(b)	(a) x (b)												
<u>Old Rate</u>																
Service Charge	350,342	\$19.50		\$6,831,666												
Usage (100 Gallons)	7,472,307	\$1.0600		7,920,646												
Flat (Unmetered)	81	\$55.09		4,458												
<u>Current Rate</u>																
Service Charge	0	\$19.50	\$0	\$0	350,342	\$6,831,666	972	\$6,850,620	387		\$6,858,167	774		\$6,873,260	\$74,231	\$6,947,491
Usage (100 Gallons)	4,337,214	\$2.3510	\$10,196,790	\$11,809,521	27,764,184	35,570	27,847,808	14,162	(242,823)	27,310,226	28,324	(195,595)	26,916,972	290,703	27,207,675	
Flat (Unmetered)	51	\$95.00	\$4,852	\$132	12,540		12,540			12,540			12,540	135	12,675	
Low Income (30% Discount - 2022)	(\$262,375)			(262,375)												
Low Income (80% Discount) Tier 1 # of Customers	(\$153,707) 324	(\$15.60) (\$1.8808)	(153,707)	3,888 131,059	(60,653) (246,496)		(60,653) (246,496)			(60,653) (246,496)			(60,653) (246,496)	(655) (2,662)	(61,308) (249,158)	
Low Income (55% Discount) Tier 2 # of Customers	(\$124,600) 404	(\$10.73) (\$1.2931)	(124,600)	4,848 163,419	(51,995) (211,309)		(51,995) (211,309)			(51,995) (211,309)			(51,995) (211,309)	(562) (2,282)	(52,557) (213,591)	
Low Income (30% Discount) Tier 3 # of Customers	(\$143,415) 1,011	(\$5.85) (\$0.7053)	(143,415)	12,132 408,952	(70,972) (288,434)		(70,972) (288,434)			(70,972) (288,434)			(70,972) (288,434)	(766) (3,115)	(71,738) (291,549)	
<b>Rate Zone 4 Kane WW</b>	Billing Units				Base Year Billing Determinants	Annualized Revenue Current Rate	Annualized Customer Growth (Loss)	Annualized 06/30/2023 Revenue	Annualized Customer Growth (Loss)	Normalized Usage	Annualized 06/30/2024 Revenue	Annualized Customer Growth (Loss)	Normalized Usage	Annualized 06/30/2025 Revenue	Annualized DSIC Revenue	Annualized 06/30/2025 Revenue
<u>Old Rate</u>																
Service Charge																
5/8" Meter	13,590	\$66.84		\$908,338												
> 5/8" Meter	7	\$133.69		1,001												
Unmetered	210	\$82.49		17,283												
<u>Current Rate</u>																
Service Charge																
5/8" Meter	8,124	\$40.00	\$324,975	21,714	\$868,564	0	\$868,564	(51)		\$866,524	(102)		\$862,444	\$9,314	\$871,758	
> 5/8" Meter	5	\$100.00	451	12	1,200		1,200			1,200			1,200	13	1,213	
Unmetered	124	\$110.00	13,664	334	36,712		36,712			36,712			36,712	396	37,108	
<u>Old Rate</u>																
Usage (100 Gallons)																
First 2000 Gal	221,900	\$0.0000	\$0													
Next 8000 Gal	159,033	\$1.0732	170,674													
Next 20000 Gal	5,807	\$1.1919	6,921													
All over 30000 Gal	1,447	\$1.3008	1,882													
	388,186															
<u>Current Rate</u>																
Usage (100 Gallons)																
First 10,000 Gal	228,109	\$2.1000	\$479,029	609,041	\$1,278,987	0	\$1,278,987	(1,440)	(12,485)	\$1,249,745	(2,879)	(10,057)	\$1,222,579	\$13,204	\$1,235,783	
All Over 10,000 Gal	4,553	\$1.8000	8,196	11,807	21,253		21,253		(242)	20,817		(195)	20,466	221	20,687	
	232,662															
Low Income (30% Discount - 2022)	(\$20,080)			(20,080)												
Low Income (80% Discount) Tier 1 # of Customers	(\$7,778) 19	(\$32.00) (\$1.6800)	(7,778)	228 6,515	(7,296) (10,946)		(7,296) (10,946)			(7,296) (10,946)			(7,296) (10,946)	(79) (118)	(7,375) (11,064)	
Low Income (55% Discount) Tier 2 # of Customers	(\$5,982) 20	(\$22.00) (\$1.1550)	(5,982)	240 6,858	(5,280) (7,921)		(5,280) (7,921)			(5,280) (7,921)			(5,280) (7,921)	(57) (86)	(5,337) (8,007)	
Low Income (30% Discount) Tier 3 # of Customers	(\$10,820) 72	(\$12.00) (\$0.6300)	(10,820)	864 24,690	(10,368) (15,555)		(10,368) (15,555)			(10,368) (15,555)			(10,368) (15,555)	(\$112) (168)	(\$10,480) (15,723)	













PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 3 SCRANTON RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$19.71	\$19.71	(\$0.00)	0.00%
100	22.09	22.09	(0.00)	0.00%
500	31.59	31.59	(0.00)	0.00%
1,000	43.47	43.47	(0.00)	0.00%
2,000	67.24	67.24	(0.00)	0.00%
3,000	91.00	91.00	(0.00)	0.00%
3,201	* 95.78	95.78	(0.00)	0.00%
3,500	102.88	102.88	(0.00)	0.00%
4,000	114.77	114.77	(0.00)	0.00%
5,000	138.53	138.53	(0.00)	0.00%
6,000	162.29	162.29	(0.00)	0.00%
7,000	186.06	186.06	0.00	0.00%
8,000	209.82	209.82	0.00	0.00%
9,000	233.59	233.59	0.00	0.00%
10,000	257.35	257.35	0.00	0.00%
11,000	281.11	281.11	0.00	0.00%
12,000	304.88	304.88	0.00	0.00%
13,000	328.64	328.64	0.00	0.00%
14,000	352.41	352.41	0.00	0.00%
15,000	376.17	376.17	0.00	0.00%
16,000	399.93	399.93	0.00	0.00%
17,000	423.70	423.70	0.00	0.00%
18,000	447.46	447.46	0.00	0.00%
19,000	471.22	471.23	0.00	0.00%
20,000	494.99	494.99	0.00	0.00%
21,000	518.75	518.75	0.00	0.00%
22,000	542.52	542.52	0.00	0.00%
23,000	566.28	566.28	0.00	0.00%
24,000	590.04	590.05	0.00	0.00%
25,000	613.81	613.81	0.00	0.00%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 4 KANE RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$40.43	\$20.00	(\$20.43)	-50.53%
100	42.55	22.88	(19.68)	-46.25%
500	51.05	34.38	(16.67)	-32.66%
1,000	61.66	48.75	(12.91)	-20.94%
2,000	82.89	77.50	(5.39)	-6.50%
3,000	104.11	106.25	2.14	2.05%
3,122 *	106.70	109.76	3.06	2.86%
3,500	114.73	120.63	5.90	5.14%
4,000	125.34	135.00	9.66	7.71%
5,000	146.57	163.75	17.18	11.72%
6,000	167.79	192.50	24.71	14.72%
7,000	189.02	221.25	32.23	17.05%
8,000	210.25	250.00	39.75	18.91%
9,000	231.47	278.75	47.28	20.42%
10,000	252.70	307.50	54.80	21.69%
11,000	270.89	336.25	65.36	24.13%
12,000	289.09	365.00	75.91	26.26%
13,000	307.28	393.75	86.47	28.14%
14,000	325.48	422.50	97.02	29.81%
15,000	343.67	451.25	107.58	31.30%
16,000	361.87	480.00	118.13	32.65%
17,000	380.06	508.75	128.69	33.86%
18,000	398.26	537.50	139.24	34.96%
19,000	416.45	566.25	149.80	35.97%
20,000	434.64	595.00	160.36	36.89%
21,000	452.84	623.75	170.91	37.74%
22,000	471.03	652.50	181.47	38.53%
23,000	489.23	681.25	192.02	39.25%
24,000	507.42	710.00	202.58	39.92%
25,000	525.62	738.75	213.13	40.55%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 6 MCKEESPORT RESIDENTIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$14.45	\$20.00	\$5.55	38.37%
100	17.36	22.88	5.51	31.76%
500	28.98	34.38	5.39	18.60%
1,000	43.51	48.75	5.24	12.03%
2,000	72.58	77.50	4.92	6.79%
3,000	101.64	106.25	4.61	4.54%
3,122	* 105.18	109.76	4.58	4.35%
3,500	116.17	120.63	4.46	3.84%
4,000	130.70	135.00	4.30	3.29%
5,000	159.76	163.75	3.99	2.50%
6,000	188.82	192.50	3.68	1.95%
7,000	217.88	221.25	3.37	1.55%
8,000	246.94	250.00	3.06	1.24%
9,000	276.00	278.75	2.75	1.00%
10,000	305.06	307.50	2.44	0.80%
11,000	334.12	336.25	2.13	0.64%
12,000	363.18	365.00	1.82	0.50%
13,000	392.24	393.75	1.51	0.38%
14,000	421.30	422.50	1.20	0.28%
15,000	450.36	451.25	0.89	0.20%
16,000	479.42	480.00	0.58	0.12%
17,000	508.48	508.75	0.27	0.05%
18,000	537.54	537.50	(0.04)	-0.01%
19,000	566.60	566.25	(0.35)	-0.06%
20,000	595.66	595.00	(0.66)	-0.11%
21,000	624.72	623.75	(0.97)	-0.16%
22,000	653.79	652.50	(1.29)	-0.20%
23,000	682.85	681.25	(1.60)	-0.23%
24,000	711.91	710.00	(1.91)	-0.27%
25,000	740.97	738.75	(2.22)	-0.30%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 3 SCRANTON COMMERCIAL (C) - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$35.38	\$0.00	0.01%
100	37.12	37.13	0.00	0.01%
500	44.11	44.11	0.00	0.01%
1,000	52.83	52.84	0.00	0.00%
2,000	70.29	70.29	0.00	0.00%
3,000	87.75	87.75	0.00	0.00%
3,500	96.48	96.48	0.00	0.00%
4,000	105.20	105.21	0.00	0.00%
5,000	122.66	122.67	0.00	0.00%
6,000	140.12	140.12	0.00	0.00%
7,000	157.57	157.58	0.01	0.00%
8,000	175.03	175.04	0.01	0.00%
9,000	192.49	192.49	0.01	0.00%
10,000	209.94	209.95	0.01	0.00%
16,000	314.68	314.69	0.01	0.00%
20,000	384.51	384.52	0.01	0.00%
21,000	401.96	401.98	0.01	0.00%
22,000	419.42	419.43	0.01	0.00%
22,094	* 421.06	421.07	0.01	0.00%
23,000	436.88	436.89	0.01	0.00%
23,692	448.96	448.97	0.01	0.00%
24,000	454.33	454.35	0.01	0.00%
25,000	471.79	471.81	0.01	0.00%
26,000	489.25	489.26	0.01	0.00%
27,000	506.70	506.72	0.02	0.00%
28,000	524.16	524.18	0.02	0.00%
29,000	541.62	541.63	0.02	0.00%
30,000	559.07	559.09	0.02	0.00%
40,000	733.64	733.66	0.02	0.00%
50,000	908.20	908.23	0.03	0.00%
60,000	1,082.77	1,082.80	0.03	0.00%
70,000	1,257.33	1,257.37	0.04	0.00%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 4 KANE COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$40.43	\$50.00	\$9.57	23.66%
100	42.55	51.90	9.35	21.96%
500	51.05	59.50	8.45	16.56%
1,000	61.66	69.00	7.34	11.91%
2,000	82.89	88.00	5.11	6.17%
3,000	104.11	107.00	2.89	2.77%
3,500	114.73	116.50	1.77	1.55%
4,000	125.34	126.00	0.66	0.53%
5,000	146.57	145.00	(1.57)	-1.07%
6,000	167.79	164.00	(3.79)	-2.26%
7,000	189.02	183.00	(6.02)	-3.18%
8,000	210.25	202.00	(8.25)	-3.92%
9,000	231.47	221.00	(10.47)	-4.52%
10,000	252.70	240.00	(12.70)	-5.03%
15,000	343.67	335.00	(8.67)	-2.52%
20,000	434.64	430.00	(4.64)	-1.07%
21,000	452.84	449.00	(3.84)	-0.85%
22,000	471.03	468.00	(3.03)	-0.64%
22,094	* 472.74	469.79	(2.96)	-0.63%
23,000	489.23	487.00	(2.23)	-0.46%
23,692	501.82	500.15	(1.67)	-0.33%
24,000	507.42	506.00	(1.42)	-0.28%
25,000	525.62	525.00	(0.62)	-0.12%
26,000	543.81	544.00	0.19	0.03%
27,000	562.00	563.00	1.00	0.18%
28,000	580.20	582.00	1.80	0.31%
29,000	598.39	601.00	2.61	0.44%
30,000	616.59	620.00	3.41	0.55%
40,000	798.53	810.00	11.47	1.44%
50,000	980.48	1,000.00	19.52	1.99%
60,000	1,162.42	1,190.00	27.58	2.37%
70,000	1,344.36	1,380.00	35.64	2.65%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 6 MCKEESPORT COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$50.00	\$14.62	41.33%
100	37.54	51.90	14.36	38.24%
500	46.20	59.50	13.30	28.78%
1,000	57.03	69.00	11.97	21.00%
2,000	78.67	88.00	9.33	11.86%
3,000	100.32	107.00	6.68	6.66%
3,500	111.14	116.50	5.36	4.82%
4,000	121.97	126.00	4.03	3.31%
5,000	143.61	145.00	1.39	0.96%
6,000	165.26	164.00	(1.26)	-0.76%
7,000	186.91	183.00	(3.91)	-2.09%
8,000	208.56	202.00	(6.56)	-3.14%
9,000	230.20	221.00	(9.20)	-4.00%
10,000	251.85	240.00	(11.85)	-4.71%
16,000	381.73	354.00	(27.73)	-7.27%
20,000	468.32	430.00	(38.32)	-8.18%
21,000	489.97	449.00	(40.97)	-8.36%
22,000	511.62	468.00	(43.62)	-8.53%
22,094	* 513.65	469.79	(43.87)	-8.54%
23,000	533.27	487.00	(46.27)	-8.68%
23,692	548.25	500.15	(48.10)	-8.77%
24,000	554.91	506.00	(48.91)	-8.81%
25,000	576.56	525.00	(51.56)	-8.94%
26,000	598.21	544.00	(54.21)	-9.06%
27,000	619.85	563.00	(56.85)	-9.17%
28,000	641.50	582.00	(59.50)	-9.28%
29,000	663.15	601.00	(62.15)	-9.37%
30,000	684.80	620.00	(64.80)	-9.46%
40,000	901.27	810.00	(91.27)	-10.13%
50,000	1,117.74	1,000.00	(117.74)	-10.53%
60,000	1,334.22	1,190.00	(144.22)	-10.81%
70,000	1,550.69	1,380.00	(170.69)	-11.01%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 6 PORT VUE COMMERCIAL - MONTHLY  
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$14.45	\$50.00	\$35.55	245.91%
100	17.36	51.90	34.54	198.95%
500	28.98	59.50	30.52	105.28%
1,000	43.51	69.00	25.49	58.57%
2,000	72.58	88.00	15.42	21.25%
3,000	101.64	107.00	5.36	5.28%
3,500	116.17	116.50	0.33	0.29%
4,000	130.70	126.00	(4.70)	-3.59%
5,000	159.76	145.00	(14.76)	-9.24%
6,000	188.82	164.00	(24.82)	-13.14%
7,000	217.88	183.00	(34.88)	-16.01%
8,000	246.94	202.00	(44.94)	-18.20%
9,000	276.00	221.00	(55.00)	-19.93%
10,000	305.06	240.00	(65.06)	-21.33%
16,000	479.42	354.00	(125.42)	-26.16%
20,000	595.66	430.00	(165.66)	-27.81%
21,000	624.72	449.00	(175.72)	-28.13%
22,000	653.79	468.00	(185.79)	-28.42%
22,094	* 656.52	469.79	(186.73)	-28.44%
23,000	682.85	487.00	(195.85)	-28.68%
23,692	702.96	500.15	(202.81)	-28.85%
24,000	711.91	506.00	(205.91)	-28.92%
25,000	740.97	525.00	(215.97)	-29.15%
26,000	770.03	544.00	(226.03)	-29.35%
27,000	799.09	563.00	(236.09)	-29.54%
28,000	828.15	582.00	(246.15)	-29.72%
29,000	857.21	601.00	(256.21)	-29.89%
30,000	886.27	620.00	(266.27)	-30.04%
40,000	1,176.87	810.00	(366.87)	-31.17%
50,000	1,467.48	1,000.00	(467.48)	-31.86%
60,000	1,758.08	1,190.00	(568.08)	-32.31%
70,000	2,048.69	1,380.00	(668.69)	-32.64%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 6 MCKEESPORT INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$50.00	\$14.62	41.33%
1,000	57.03	69.00	11.97	21.00%
2,000	78.67	88.00	9.33	11.86%
3,000	100.32	107.00	6.68	6.66%
4,000	121.97	126.00	4.03	3.31%
5,000	143.61	145.00	1.39	0.96%
10,000	251.85	240.00	(11.85)	-4.71%
16,000	381.73	354.00	(27.73)	-7.27%
20,000	468.32	430.00	(38.32)	-8.18%
30,000	684.80	620.00	(64.80)	-9.46%
40,000	901.27	810.00	(91.27)	-10.13%
50,000	1,117.74	1,000.00	(117.74)	-10.53%
60,000	1,334.22	1,190.00	(144.22)	-10.81%
70,000	1,550.69	1,380.00	(170.69)	-11.01%
80,000	1,767.16	1,570.00	(197.16)	-11.16%
90,000	1,983.63	1,760.00	(223.63)	-11.27%
100,000	2,200.11	1,950.00	(250.11)	-11.37%
200,000	4,364.84	3,850.00	(514.84)	-11.80%
300,000	6,529.57	5,750.00	(779.57)	-11.94%
400,000	8,694.30	7,650.00	(1,044.30)	-12.01%
500,000	10,859.02	9,550.00	(1,309.02)	-12.05%
600,000	13,023.75	11,450.00	(1,573.75)	-12.08%
685,947	* 14,884.27	13,082.99	(1,801.28)	-12.10%
700,000	15,188.48	13,350.00	(1,838.48)	-12.10%
800,000	17,353.21	15,250.00	(2,103.21)	-12.12%
900,000	19,517.94	17,150.00	(2,367.94)	-12.13%
1,000,000	21,682.67	19,050.00	(2,632.67)	-12.14%
1,100,000	23,847.40	20,950.00	(2,897.40)	-12.15%
1,200,000	26,012.13	22,850.00	(3,162.13)	-12.16%
1,300,000	28,176.86	24,750.00	(3,426.86)	-12.16%
1,400,000	30,341.59	26,650.00	(3,691.59)	-12.17%
1,500,000	32,506.32	28,550.00	(3,956.32)	-12.17%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%  
Bill at proposed rate was calculated using DSIC rate @ 0.00%



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
ZONE 3 SCRANTON INDUSTRIAL (C) - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$35.38	\$35.38	\$0.00	0.01%
1,000	52.83	52.84	0.00	0.00%
2,000	70.29	70.29	0.00	0.00%
3,000	87.75	87.75	0.00	0.00%
4,000	105.20	105.21	0.00	0.00%
5,000	122.66	122.67	0.00	0.00%
10,000	209.94	209.95	0.01	0.00%
16,000	314.68	314.69	0.01	0.00%
20,000	384.51	384.52	0.01	0.00%
30,000	559.07	559.09	0.02	0.00%
40,000	733.64	733.66	0.02	0.00%
50,000	908.20	908.23	0.03	0.00%
60,000	1,082.77	1,082.80	0.03	0.00%
70,000	1,257.33	1,257.37	0.04	0.00%
80,000	1,431.90	1,431.94	0.04	0.00%
90,000	1,606.46	1,606.51	0.05	0.00%
100,000	1,781.03	1,781.08	0.05	0.00%
200,000	3,526.68	3,526.78	0.10	0.00%
300,000	5,272.33	5,272.48	0.15	0.00%
400,000	7,017.98	7,018.18	0.20	0.00%
500,000	8,763.64	8,763.88	0.24	0.00%
600,000	10,509.29	10,509.58	0.29	0.00%
685,947	* 12,009.62	12,009.96	0.33	0.00%
700,000	12,254.94	12,255.28	0.34	0.00%
800,000	14,000.59	14,000.98	0.39	0.00%
900,000	15,746.24	15,746.68	0.44	0.00%
1,000,000	17,491.89	17,492.38	0.49	0.00%
1,100,000	19,237.55	19,238.08	0.53	0.00%
1,200,000	20,983.20	20,983.78	0.58	0.00%
1,300,000	22,728.85	22,729.48	0.63	0.00%
1,400,000	24,474.50	24,475.18	0.68	0.00%
1,500,000	26,220.15	26,220.88	0.73	0.00%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RATE ZONE 4 KANE INDUSTRIAL - MONTHLY  
2 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$101.08	\$50.00	(\$51.08)	-50.53%
1,000	122.31	69.00	(53.31)	-43.58%
2,000	143.53	88.00	(55.53)	-38.69%
3,000	164.76	107.00	(57.76)	-35.06%
4,000	185.99	126.00	(59.99)	-32.25%
5,000	207.21	145.00	(62.21)	-30.02%
10,000	313.35	240.00	(73.35)	-23.41%
15,000	404.32	335.00	(69.32)	-17.14%
20,000	495.29	430.00	(65.29)	-13.18%
30,000	677.24	620.00	(57.24)	-8.45%
40,000	859.18	810.00	(49.18)	-5.72%
50,000	1,041.12	1,000.00	(41.12)	-3.95%
60,000	1,223.07	1,190.00	(33.07)	-2.70%
70,000	1,405.01	1,380.00	(25.01)	-1.78%
80,000	1,586.96	1,570.00	(16.96)	-1.07%
90,000	1,768.90	1,760.00	(8.90)	-0.50%
100,000	1,950.84	1,950.00	(0.84)	-0.04%
200,000	3,770.28	3,850.00	79.72	2.11%
300,000	5,589.72	5,750.00	160.28	2.87%
400,000	7,409.16	7,650.00	240.84	3.25%
500,000	9,228.60	9,550.00	321.40	3.48%
600,000	11,048.04	11,450.00	401.96	3.64%
685,947	* 12,611.80	13,082.99	471.19	3.74%
700,000	12,867.48	13,350.00	482.52	3.75%
800,000	14,686.92	15,250.00	563.08	3.83%
900,000	16,506.36	17,150.00	643.64	3.90%
1,000,000	18,325.80	19,050.00	724.20	3.95%
1,100,000	20,145.24	20,950.00	804.76	3.99%
1,200,000	21,964.68	22,850.00	885.32	4.03%
1,300,000	23,784.12	24,750.00	965.88	4.06%
1,400,000	25,603.56	26,650.00	1,046.44	4.09%
1,500,000	27,423.00	28,550.00	1,127.00	4.11%

\* Average monthly bill.

Bill at present rate was calculated using DSIC rate @ 1.08%

Bill at proposed rate was calculated using DSIC rate @ 0.00%

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WW OPERATIONS  
SUMMARY OF APPLICATION OF PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Rate Zone XX: BRENTWOOD WW	Residential	Commercial	Industrial	Municipal	Bulk WW	Total Sales	Late Payments (*)	Total Revenues
Present Rate Application	\$1,434,460	\$344,866	\$0	\$35,740		\$1,815,067	\$9,124	\$1,824,191
Proposed Rate Application	1,713,458	428,917	0	40,249		2,182,624	10,972	2,193,596
Change in Revenues	278,998	84,051	0	4,508		367,557	1,848	369,405
% Change in Revenues	19.00%	24.00%	0.00%	13.00%		20.00%	20.00%	20.00%

(\*) Utilized the same 0.5027% late payment rate as calculated for PA American Water Company.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WW OPERATIONS  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO RESIDENTIAL CLASS BILL ANALYSIS

All Class	6/30/2023			6/30/2024			6/30/2025			Proforma		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Proposed Rate	Revenue @ Proposed Rate	% Percent Change
Residential												
Service Charge				44,340	\$4.57	\$202,634	44,340	\$4.57	\$202,634	\$10.00	\$443,400	118.82%
Usage Charge (100 Gal)				1,382,521	\$0.8910	1,231,826	1,382,521	\$0.8910	1,231,826			
Annualized Winter Average							1,311,259			\$0.9810	1,286,345	0.00%
Low Income Discounts- Tier 1											(4,871)	
Low Income Discounts- Tier 2											(4,715)	
Low Income Discounts- Tier 3											(3,741)	
Low Income Discounts- Tier 4											(2,961)	
Commercial												
Service Charge				3,288	\$4.57	15,026	3,288	\$4.57	15,026	\$20.00	65,760	337.64%
Usage Charge (100 Gal)				370,191	\$0.8910	329,840	370,191	\$0.8910	329,840	\$0.9810	363,157	10.10%
Municipal												
Service Charge				60	\$4.57	274	60	\$4.57	274	\$20.00	1,200	337.64%
Usage Charge (100 Gal)				39,805	\$0.8910	35,466	39,805	\$0.8910	35,466	\$0.9810	39,049	10.10%
Other Revenue:												
Late Fees						9,124			9,124		10,972	20.25%
<b>Brentwood WW</b>			<b>\$0</b>			<b>\$1,824,191</b>			<b>\$1,824,191</b>		<b>\$2,193,596</b>	20.25%

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WW OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
RESIDENTIAL - MONTHLY  
ALL METER SIZES & INCLUDING ALCOSAN TREATMENT CHARGE

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$12.38	\$17.81	\$5.43	43.86%
100	14.39	19.91	5.52	38.37%
500	22.41	28.29	5.88	26.24%
1,000	32.44	38.77	6.33	19.51%
2,000	52.50	59.73	7.23	13.77%
3,000	72.56	80.69	8.13	11.20%
3,122	* 75.01	83.25	8.24	10.99%
3,500	82.59	91.17	8.58	10.39%
4,000	92.62	101.65	9.03	9.75%
4,500	102.65	112.13	9.48	9.24%
5,500	122.71	133.09	10.38	8.46%
6,500	142.77	154.05	11.28	7.90%
7,500	162.83	175.01	12.18	7.48%
8,500	182.89	195.97	13.08	7.15%
9,500	202.95	216.93	13.98	6.89%
10,000	212.98	227.41	14.43	6.78%
11,000	233.04	248.37	15.33	6.58%
12,000	253.10	269.33	16.23	6.41%
13,000	273.16	290.29	17.13	6.27%
14,000	293.22	311.25	18.03	6.15%
15,000	313.28	332.21	18.93	6.04%
16,000	333.34	353.17	19.83	5.95%
17,000	353.40	374.13	20.73	5.87%
18,000	373.46	395.09	21.63	5.79%
19,000	393.52	416.05	22.53	5.73%
20,000	413.58	437.01	23.43	5.67%
21,000	433.64	457.97	24.33	5.61%
22,000	453.70	478.93	25.23	5.56%
23,000	473.76	499.89	26.13	5.52%
24,000	493.82	520.85	27.03	5.47%
25,000	513.88	541.81	27.93	5.44%
30,000	614.18	646.61	32.43	5.28%

\* Average residential monthly bill.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WW OPERATIONS

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
NON RESIDENTIAL - MONTHLY  
ALL METER SIZES & INCLUDING ALCOSAN TREATMENT CHARGE

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$12.38	\$27.81	\$15.43	124.64%
100	14.39	29.91	15.52	107.88%
500	22.41	38.29	15.88	70.86%
1,000	32.44	48.77	16.33	50.34%
2,000	52.50	69.73	17.23	32.82%
3,000	72.56	90.69	18.13	24.99%
4,000	92.62	111.65	19.03	20.55%
5,000	112.68	132.61	19.93	17.69%
6,000	132.74	153.57	20.83	15.69%
7,000	152.80	174.53	21.73	14.22%
8,000	172.86	195.49	22.63	13.09%
9,000	192.92	216.45	23.53	12.20%
10,000	212.98	237.41	24.43	11.47%
11,000	233.04	258.37	25.33	10.87%
12,000	253.10	279.33	26.23	10.36%
13,000	273.16	300.29	27.13	9.93%
14,000	293.22	321.25	28.03	9.56%
15,000	313.28	342.21	28.93	9.23%
16,000	333.34	363.17	29.83	8.95%
17,000	353.40	384.13	30.73	8.70%
18,000	373.46	405.09	31.63	8.47%
19,000	393.52	426.05	32.53	8.27%
20,000	413.58	447.01	33.43	8.08%
21,000	433.64	467.97	34.33	7.92%
22,000	453.70	488.93	35.23	7.77%
22,094	* 455.59	490.90	35.31	7.75%
23,000	473.76	509.89	36.13	7.63%
24,000	493.82	530.85	37.03	7.50%
25,000	513.88	551.81	37.93	7.38%
30,000	614.18	656.61	42.43	6.91%
40,000	814.78	866.21	51.43	6.31%
50,000	1,015.38	1,075.81	60.43	5.95%

\* Average commercial monthly bill.

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BUTLER AREA SEWER AUTHORITY (BASA)  
 SUMMARY OF APPLICATION OF PRESENT AND PROPOSED RATES  
 FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Rate Zone XX: Butler Area Sewer Authority (BASA)	Residential	Commercial	Industrial	Municipal	Miscellaneous	Total Sales	Late Payments (*)	Total Revenues
Present Rate Application	\$8,694,030	\$2,289,268	\$427,168	\$369,219	\$8,500	\$11,788,185	\$59,216	\$11,847,401
Proposed Rate Application	12,170,706	3,256,317	445,807	618,778	8,500	16,500,108	82,903	16,583,011
Change in Revenues	3,476,676	967,049	18,639	249,559		4,711,923	23,687	4,735,610
% Change in Revenues	40.00%	42.00%	4.00%	68.00%		40.00%	40.00%	40.00%

(\*) Utilized the same 0.5027% late payment rate as calculated for PA American Water Company.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BUTLER AREA SEWER AUTHORITY (BASA)  
APPLICATION OF PRESENT RATES AND PROPOSED RATES TO RESIDENTIAL CLASS BILL ANALYSIS

All Class	6/30/2023			6/30/2024			6/30/2025				Proforma		
	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Annualized Revenue	Billing Determinants	Current Rate	Proforma DSIC Revenues	6/30/2025 Annualized Revenue	Proposed Rate	Proforma Revenue @ Proposed Rate	% Percent Change
<u>Residential</u>													
For the first 25 Units				189,036	\$45.50	\$8,601,138	189,036	\$45.50	\$92,892	\$8,694,030			
For the next 25 Units					\$44.60	0		\$44.60		0			
Flat Rate (Unmetered)							144				\$70.00	10,080	
Service Charge per EDU							171,072				\$10.00	1,710,720	
Annualized Winter Average (1)							5,146,601				\$2.06	10,591,704	
<u>Low Income:</u>													
Low Income Discount Tier 1												(38,039)	
Low Income Discount Tier 2												(45,422)	
Low Income Discount Tier 3												(35,105)	
Low Income Discount Tier 4												(23,231)	
<u>Commercial</u>													
For the first 25 Units				49,776	\$45.50	2,264,808	49,776	\$45.50	24,460	2,289,268			
Service Charge per EDU Usage (2)							12,132				\$50.00	606,600	
							1,982,579				\$1.34	2,649,717	
<u>Industrial</u>													
Service Charge per EDU Usage (2)				9,288	\$45.50	422,604	9,288	\$45.50	4,564	427,168			
							168				\$50.00	8,400	
							327,278				\$1.34	437,407	
<u>Municipal</u>													
Service Charge per EDU Usage (2)				8,028	\$45.50	365,274	8,028	\$45.50	3,945	369,219			
							504				\$50.00	25,200	
							352,624				\$1.34	471,282	
Special Rate VA Hospital Service Charge (1) Usage (2)				2,640	\$0.00	0	12				\$50.00	600	
							91,056	\$0.00	0	0	\$1.34	121,696	0.00%
<u>Other WW Revenue</u>													
IPP Surcharge						8,500						8,500	
<u>Other Revenues</u>													
Late Fees						58,584						82,903	40.00%
<b>BASA WW Total Revenue</b>			<b>\$0</b>			<b>\$11,720,908</b>				<b>\$11,847,401</b>		<b>\$16,583,011</b>	39.97%

Note (1) Annualized winter usage is based on average monthly winter usage multiplied by 12.

Note (2) Annual usage including seasonal usage.



PENNSYLVANIA-AMERICAN WATER COMPANY  
BUTLER AREA SEWER AUTHORITY (BASA)

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
RESIDENTIAL - MONTHLY  
1 EDU PER 4000 GALLONS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$45.99	\$10.00	(\$35.99)	-78.26%
100	45.99	12.06	(33.93)	-73.78%
500	45.99	20.29	(25.70)	-55.88%
1,000	45.99	30.58	(15.41)	-33.51%
2,000	45.99	51.16	5.17	11.24%
3,000	45.99	71.74	25.75	55.99%
3,122	*	74.25	28.26	61.44%
3,500	45.99	82.03	36.04	78.36%
4,000	45.99	92.32	46.33	100.73%
5,000	45.99	112.90	66.91	145.48%
6,000	45.99	133.48	87.49	190.23%
7,000	45.99	154.06	108.07	234.98%
8,000	91.98	174.64	82.66	89.86%
9,000	91.98	195.22	103.24	112.24%
10,000	91.98	215.80	123.82	134.61%
11,000	91.98	236.38	144.40	156.98%
12,000	137.97	256.96	118.99	86.24%
13,000	137.97	277.54	139.57	101.15%
14,000	137.97	298.12	160.15	116.07%
15,000	137.97	318.70	180.73	130.99%
16,000	183.97	339.28	155.31	84.43%
17,000	183.97	359.86	175.89	95.61%
18,000	183.97	380.44	196.47	106.80%
19,000	183.97	401.02	217.05	117.99%
20,000	229.96	421.60	191.64	83.34%
21,000	229.96	442.18	212.22	92.29%
22,000	229.96	462.76	232.80	101.24%
22,561	229.96	474.31	244.35	106.26%
23,000	229.96	483.34	253.38	110.19%
24,000	275.95	503.92	227.97	82.61%
25,000	275.95	524.50	248.55	90.07%
50,000	551.90	1,039.00	487.10	88.26%

\* Average residential monthly bill.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BUTLER AREA SEWER AUTHORITY (BASA)

COMPARISON OF BILLS UNDER PRESENT AND 2022 RATES  
NON RESIDENTIAL - MONTHLY  
1 EDU PER 4000 GALLONS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE	
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT
0	\$45.99	\$50.00	\$4.01	8.72%
100	45.99	51.34	5.35	11.62%
500	45.99	56.68	10.69	23.25%
1,000	45.99	63.37	17.37	37.78%
2,000	45.99	76.73	30.74	66.84%
3,000	45.99	90.10	44.10	95.90%
4,000	45.99	103.46	57.47	124.96%
5,000	45.99	116.83	70.83	154.01%
6,000	45.99	130.19	84.20	183.07%
7,000	45.99	143.56	97.56	212.13%
8,000	91.98	156.92	64.94	70.60%
9,000	91.98	170.29	78.30	85.13%
10,000	91.98	183.65	91.67	99.66%
11,000	91.98	197.02	105.03	114.19%
12,000	137.97	210.38	72.41	52.48%
13,000	137.97	223.75	85.77	62.16%
14,000	137.97	237.11	99.14	71.85%
15,000	137.97	250.48	112.50	81.54%
16,000	183.97	263.84	79.87	43.42%
17,000	183.97	277.21	93.24	50.68%
18,000	183.97	290.57	106.60	57.95%
19,000	183.97	303.94	119.97	65.21%
20,000	229.96	317.30	87.34	37.98%
21,000	229.96	330.67	100.71	43.79%
22,000	229.96	344.03	114.07	49.61%
22,094	*	345.29	115.33	50.15%
23,000	229.96	357.40	127.44	55.42%
24,000	275.95	370.76	94.81	34.36%
25,000	275.95	384.13	108.18	39.20%
30,000	321.94	450.95	129.01	40.07%
35,000	367.93	517.78	149.84	40.73%
50,000	551.90	718.25	166.35	30.14%

\* Average commercial monthly bill.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BUTLER AREA SEWER AUTHORITY (BASA)

COMPARISON OF BILLS UNDER PRESENT AND 2025 RATES  
INDUSTRIAL - MONTHLY  
1 EDU PER 4000 GALLONS

CONSUMPTION GALLONS	BILLS UNDER		INCREASE		
	PRESENT RATES	PROPOSED RATES	AMOUNT	PERCENT	
0	\$45.99	\$50.00	\$4.01	8.72%	
1,000	45.99	63.37	17.37	37.78%	
2,000	45.99	76.73	30.74	66.84%	
3,000	45.99	90.10	44.10	95.90%	
4,000	45.99	103.46	57.47	124.96%	
5,000	45.99	116.83	70.83	154.01%	
10,000	91.98	183.65	91.67	99.66%	
16,000	183.97	263.84	79.87	43.42%	
20,000	229.96	317.30	87.34	37.98%	
30,000	321.94	450.95	129.01	40.07%	
40,000	459.91	584.60	124.69	27.11%	
50,000	551.90	718.25	166.35	30.14%	
60,000	689.87	851.90	162.03	23.49%	
70,000	781.85	985.55	203.70	26.05%	
80,000	919.83	1,119.20	199.37	21.67%	
90,000	1,011.81	1,252.85	241.04	23.82%	
100,000	1,149.79	1,386.50	236.72	20.59%	
200,000	2,299.57	2,723.00	423.43	18.41%	
300,000	3,449.36	4,059.50	610.15	17.69%	
400,000	4,599.14	5,396.00	796.86	17.33%	
500,000	5,748.93	6,732.50	983.58	17.11%	
600,000	6,898.71	8,069.00	1,170.29	16.96%	
685,947	*	7,864.53	9,217.68	1,353.15	17.21%
700,000		8,048.50	9,405.50	1,357.01	16.86%
800,000		9,198.28	10,742.00	1,543.72	16.78%
900,000		10,348.07	12,078.50	1,730.44	16.72%
1,000,000		11,497.85	13,415.00	1,917.15	16.67%
1,100,000		12,647.64	14,751.50	2,103.87	16.63%
1,200,000		13,797.42	16,088.00	2,290.58	16.60%
1,300,000		14,947.21	17,424.50	2,477.30	16.57%
1,400,000		16,096.99	18,761.00	2,664.01	16.55%
1,500,000		17,246.78	20,097.50	2,850.73	16.53%

\* Average Industrial monthly bill.

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**STATEMENT NO. 11 - DIRECT TESTIMONY OF JOHN J. SPANOS**

**EXHIBIT NO. 11-A - DEPRECIATION STUDY  
WATER OPERATIONS  
AS OF JUNE 30, 2023**

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF  
JOHN J. SPANOS

ON BEHALF OF  
PENNSYLVANIA-AMERICAN WATER COMPANY

DEPRECIATION

DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)

November 8, 2023

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: PENNSYLVANIA-AMERICAN WATER COMPANY

DIRECT TESTIMONY OF JOHN J. SPANOS

1 **Q. Please state your name and address.**

2 A. My name is John J. Spanos. My business address is 207 Senate Avenue,  
3 Camp Hill, Pennsylvania 17011.

4 **Q. With what firm are you associated?**

5 A. I am associated with the firm of Gannett Fleming Valuation and Rate  
6 Consultants, LLC ("Gannett Fleming").

7 **Q. How long have you been associated with Gannett Fleming?**

8 A. I have been associated with the firm since June 1986.

9 **Q. What is your position in the firm?**

10 A. I am President.

11 **Q. What is your educational background?**

12 A. I have Bachelor of Science degrees in Industrial Management and  
13 Mathematics from Carnegie Mellon University and a Master of Business  
14 Administration degree from York College of Pennsylvania.

15 **Q. Are you a member of any professional societies?**

16 A. Yes. I am a member and past President of the Society of Depreciation  
17 Professionals. I am also a member of the American Gas Association/Edison  
18 Electric Institute Industry Accounting Committee.

1 **Q. Do you hold any special certification as a depreciation expert?**

2 A. Yes. The Society of Depreciation Professionals has established national  
3 standards for depreciation professionals. The Society administers an  
4 examination to become certified in this field. I passed the certification exam  
5 in September 1997 and was recertified in August 2003, February 2008,  
6 January 2013, February 2018 and February 2023.

7 **Q. Please outline your experience in the field of depreciation.**

8 A. I have over 37 years of depreciation experience, which includes giving expert  
9 testimony in more than 430 cases before 46 regulatory commissions,  
10 including the Pennsylvania Public Utility Commission (“Commission”). My  
11 participation in the cases where I appeared as an expert witness has included  
12 conducting and analyzing depreciation studies for companies, government-  
13 owned utilities and other service providers in the electric, gas, water,  
14 wastewater and pipeline industries. In addition to the cases in which I  
15 submitted testimony, I have supervised over 800 other depreciation or  
16 valuation assignments. Please refer to Appendix A for additional information  
17 on my qualifications, work history, case experience, and my leadership in the  
18 Society of Depreciation Professionals.

19 **Q. What is the purpose of your testimony?**

20 A. I was asked by Pennsylvania-American Water Company (“PAWC” or the  
21 “Company”) to prepare depreciation studies of the Company’s water and  
22 wastewater plant in service as of June 30, 2023 and its water and wastewater  
23 plant projected to be in service as of June 30, 2024, and June 30, 2025. The

1 depreciation studies are presented for the total water operations and  
2 separately for the four wastewater operations, consisting of the following:

- 3 (1) Water Operations
- 4 (2) Wastewater Sanitary Sewer System (“SSS”) General Operations
- 5 (3) Butler Area Sewer Authority (“BASA”) Wastewater Operations
- 6 (4) Brentwood Wastewater Operations
- 7 (5) Wastewater Combined Sewer System (“CSS”) Operations

8 **Q. Have you prepared exhibits presenting the results of your studies?**

9 A. Yes, I have prepared a total of thirteen exhibits, consisting of the following:

- 10 • **Exhibit Nos. 11-A, 11-D and 11-K** present the results of the  
11 depreciation studies for each water and wastewater operation as of  
12 June 30, 2023, except BASA Wastewater Operations and Brentwood  
13 Wastewater Operations because PAWC will acquire those systems  
14 during the future test year ending June 30, 2024, as explained by  
15 E. Christopher Abruzzo Esq. in PAWC Statement No.6.
- 16 • **Exhibit Nos. 11-B, 11-E, 11-G, 11-I and 11-L** present the results of  
17 the depreciation study for each water and wastewater operation as of  
18 June 30, 2024.
- 19 • **Exhibit Nos. 11-C, 11-F, 11-H, 11-J and 11-M** present the results of  
20 the depreciation study for each water and wastewater operation as of  
21 June 30, 2025.

22 In addition, I am responsible for the responses to Depreciation Data Filing  
23 Requirements FR VI.1, FR VI.2, FR VI.3, FR VI.4, FR VI.5 and FR VI.6 that  
24 are presented as Appendix B to my testimony.



1 **Q. Please describe what is set forth in each of Exhibit Nos. 11-A through**  
2 **11-M.**

3 **A. Exhibit No. 11-A**, titled "2023 Depreciation Study - Calculated Annual  
4 Depreciation Accruals Related to Water Plant as of June 30, 2023," includes  
5 the results of the depreciation study related to the assets of the Water  
6 Operations as of June 30, 2023. The report also includes the detailed  
7 depreciation calculations.

8 **Exhibit No. 11-B**, titled "2024 Depreciation Study - Calculated Annual  
9 Depreciation Accruals Related to Water Plant as of June 30, 2024," includes  
10 the results of the depreciation study related to the assets of Water Operations  
11 estimated as of June 30, 2024. The report also includes explanatory text,  
12 statistics related to the estimation of service life, and the detailed depreciation  
13 calculations.

14 **Exhibit No. 11-C** titled "2025 Depreciation Study – Calculated Annual  
15 Depreciation Accruals Related to Water Plant as of June 30, 2025," includes  
16 the results of the depreciation study related to the assets of Water Operations  
17 estimated as of June 30, 2025.

18 **Exhibit Nos. 11-D through 11-M** pertain to the Company's wastewater  
19 operations and are organized in the same fashion described above for  
20 PAWC's Water Operations except, as I noted before, there is no exhibit  
21 presenting the results of a depreciation study for the BASA Wastewater  
22 Operations and Brentwood Wastewater Operations as of June 30, 2023  
23 because PAWC will acquire these systems during the future test year ending  
24 June 30, 2024.

1 **Q. What was the purpose of your depreciation studies?**

2 A. The purpose of the depreciation studies is to estimate the annual depreciation  
3 accruals related to water and wastewater plant in service for ratemaking  
4 purposes and, using Commission-approved procedures, to estimate the  
5 Company's book reserve as of June 30, 2023, June 30, 2024 and June 30,  
6 2025.

7 **Q. Is the Company's claim for annual depreciation in the current  
8 proceeding based on the same method of depreciation used in its most  
9 recent rate proceeding in Docket Nos. R-2022-3031672 and R-2022-  
10 3031673?**

11 A. Yes, it is. For most plant accounts, the current claim for annual depreciation  
12 is based on the straight-line remaining life method of depreciation, which has  
13 been used for over thirty-seven years. For Accounts 340.00, 342.00, 343.00,  
14 344.00, 346.00, 347.00 and 348.00 for water assets and Accounts 390, 392,  
15 393.00, 394.00, 396.00, 397.00 and 398.00 for wastewater assets, the claim  
16 for annual depreciation is based on the straight- line remaining life method of  
17 amortization. That method employs amortization accounting to distribute the  
18 unrecovered cost of fixed capital assets over the remaining amortization  
19 period selected for each account.

20 **Q. What group procedure is being used in this proceeding for depreciable  
21 accounts?**

22 A. The equal life group procedure is used in the current studies for all  
23 depreciable accounts and installation years of water and wastewater plant,  
24 which is the same procedure that has been used by the Company for many

1 years with the Commission's approval and, in fact, was used most recently in  
2 the Company's last base rate case (Docket Nos. R-2022-3031672 and  
3 R-2022-3031673).

4 **Q. Is the Company's claim for accrued depreciation in the current**  
5 **proceeding made on the same basis that has been used for over thirty-**  
6 **eight years?**

7 A. Yes. The current claim for accrued depreciation for water assets is the book  
8 reserve brought forward from the book reserves approved by the Commission  
9 at Dockets No. R-842621, R-842675 and R-842755. Similarly, for  
10 wastewater assets, accrued depreciation is brought forward from a starting  
11 point previously approved by the Commission in prior rate proceedings and  
12 at the time of each acquisition.

13 **Q. How was the book reserve used in the calculation of annual**  
14 **depreciation?**

15 A. The book reserve was allocated to vintages, by account, to determine original  
16 cost less accrued depreciation by vintage. The total annual accrual is the  
17 sum of the results of dividing the original costs less accrued depreciation by  
18 the vintage composite remaining lives.

19 **Q. How was the book reserve as of June 30, 2024 and June 30, 2025**  
20 **estimated?**

21 A. The book reserve as of June 30, 2024 and June 30, 2025, by account, was  
22 projected by adding estimated accruals, salvage and the amortization of net  
23 salvage and subtracting estimated retirements and cost of removal from the  
24 book reserve as of June 30, 2023. Annual accruals were calculated based  
25 on average yearly or monthly plant balances. For most accounts, salvage

1 and cost of removal were estimated by: (1) expressing actual salvage and  
2 cost of removal as a percent of retirements, by account, for the most recent  
3 five-year period; and (2) applying those percentages to the projected  
4 retirements by account. The projected book reserve, by account, was  
5 allocated to vintages for the purpose of the annual accrual calculation based  
6 on calculated accrued depreciation as of June 30, 2024 and June 30, 2025.

7 **Q. Has a service life study of the Company's water and wastewater utility**  
8 **property been performed?**

9 A. Yes. Service life studies were most recently performed in 2022 (based on  
10 plant data through 2021) for the Company's water assets and 2020 (based  
11 on plant data through 2019) for its wastewater assets. The service life studies  
12 were the basis for the service lives and survivor curves I used to calculate  
13 annual accruals.

14 **Q. Briefly outline the procedure used in performing the service life studies.**

15 A. The service life studies consisted of assembling and compiling historical data  
16 from the records related to the water and wastewater plant of the Company  
17 and its predecessors; statistically analyzing such data to obtain historical  
18 trends of survivor characteristics; obtaining supplementary information from  
19 management and operating personnel concerning Company practices and  
20 plans as they relate to plant operations; and interpreting the above data to  
21 form judgments of service life characteristics.

22 lowa-type survivor curves were used to describe the estimated survivor  
23 characteristics of the mass property groups. Individual service lives were  
24 used for major individual units of plant, such as reservoirs and buildings  
25 housing treatment plants, pump stations, offices and shops. The life span

1 concept was recognized by coordinating the lives of associated plant installed  
2 in subsequent years with the probable retirement date defined by the life  
3 estimated for the major unit.

4 **Q. What statistical data were employed in the historical analyses**  
5 **performed for the purpose of estimating service life characteristics?**

6 A. The data consisted of the entries made to record retirements and other  
7 transactions related to the water plant during the period 1960-2021 and the  
8 wastewater plant during the period 2000-2019. These entries were classified  
9 by depreciable group, type of transaction, the year in which the transaction  
10 took place, and the year in which the plant was installed. The types of  
11 transactions included in the data were plant additions, retirements, transfers,  
12 and balances.

13 **Q. What was the source of these data?**

14 A. The data were assembled from Company records related to its utility plant in  
15 service.

16 **Q. Were the methods used in the service life study the same as those used**  
17 **in other depreciation studies for water and wastewater plant presented**  
18 **before the Commission?**

19 A. Yes. The methods are the same ones that have been presented previously  
20 for the Company and for other water and wastewater companies before the  
21 Commission, which have been accepted by the Commission in its past orders  
22 for water and wastewater utilities, including PAWC.

1 **Q. Are the factors considered in your estimates of service life presented in**  
2 **Exhibit Nos. 11-B, 11-E, 11-G, 11-I and 11-L?**

3 A. Yes. A discussion of the factors considered in the estimation of service lives  
4 is presented in Part III of each of these exhibits.

5 **Q. Please outline the contents of Exhibit Nos. 11-B, 11-E, 11-G, 11-I and**  
6 **11-L, which include the results of your service life studies for water and**  
7 **wastewater plant.**

8 A. Exhibit No. 11-B is presented in eight parts. Part I, Introduction, discusses  
9 the plan of the report and the basis of the study. Part II, Estimation of Survivor  
10 Curves, presents descriptions of the considerations and the methods used in  
11 the service life studies. Part III, Service Life Considerations, presents the  
12 factors and judgments utilized in the average service-life analysis. Part IV,  
13 Calculation of Annual and Accrued Depreciation, describes the procedures  
14 used in the calculation of group depreciation. Part V, Results of Study,  
15 presents a summary by depreciable group of annual depreciation accrual  
16 rates and amounts. Part VI, Service Life Statistics, presents the statistical  
17 analysis of service life estimates. Part VII, Detailed Depreciation  
18 Calculations, presents the detailed tabulations of annual depreciation.  
19 Finally, Part VIII, Experienced and Estimated Net Salvage, presents the cost  
20 of removal and gross salvage recorded for the period 2019-2023.

21 Table 1, pages V-5 and V-6, presents the book cost of Water Plant as  
22 of June 30, 2024, Customers' Advances for Construction, Contributions in Aid  
23 of Construction, and the resulting net original cost used in the depreciation  
24 study. Table 2, pages V-7 through V-9, presents the estimated survivor

1 curve, the net original cost as of June 30, 2024, and the book reserve and  
2 calculated annual depreciation for each account or subaccount of Water  
3 Plant. Table 3, pages V-10 through V-12, presents the bring-forward to  
4 June 30, 2024, of the book depreciation reserve as of June 30, 2023.  
5 Table 4, pages V-13 through V-15, sets forth the calculation of the annual  
6 accruals used in the bring-forward. Table 5, page V-16, presents the  
7 experienced and estimated net salvage during the five-year period, 2019  
8 through 2023.

9 The section beginning on page VI-2 presents the results of the  
10 retirement rate analyses prepared as the historical bases for the service life  
11 estimates. The section beginning on page VII-2 presents the depreciation  
12 calculations related to original cost. The tabulation on pages VII-3 through  
13 VII-6 presents the cumulative depreciated original cost by year installed. The  
14 tabulations on pages VII-8 through VII-137 present the calculation of annual  
15 depreciation by vintage by account for each depreciable group of water plant.  
16 The tabulation on pages VIII-2 through VIII-6 presents the retirements,  
17 salvage, and cost of removal by account for each year during the period 2019  
18 through 2023.

19 Exhibit Nos. 11-E, 11-G, 11-I and 11-L are presented in the same  
20 fashion described above for all of the Company's wastewater plant by  
21 operating system.

1 **Q. Please outline the contents of Exhibit Nos. 11-C, 11-F, 11-H, 11-J and**  
2 **11-M.**

3 A. Exhibit No. 11-C includes a description of the results, summaries of the  
4 depreciation calculations, and the detailed depreciation calculations as of  
5 June 30, 2025. The descriptions and explanations presented in Exhibit No.  
6 11-B are also applicable to the depreciation calculations presented in Exhibit  
7 No. 11-C. The graphs and tables related to service lives presented in Exhibit  
8 No. 11-B also support the service life estimates used in Exhibit No. 11-C,  
9 inasmuch as the estimates are the same for both test years. The summary  
10 tables and detailed depreciation calculations as of June 30, 2025, are  
11 organized and presented in the same manner as those as of June 30, 2024.  
12 Exhibit Nos. 11-F, 11-H, 11-J and 11-M present data and information for all  
13 of PAWC's wastewater plant, by operating system, in the same fashion  
14 described above.

15 **Q. Please outline the contents of Exhibit Nos. 11-A, 11-D and 11-K.**

16 A. Exhibit No. 11-A includes a description of the results, summaries of the  
17 depreciation calculations, and the detailed depreciation calculations as of  
18 June 30, 2023. The descriptions and explanations presented in Exhibit No.  
19 11-B are also applicable to the depreciation calculations presented in Exhibit  
20 No. 11-A. The graphs and tables related to service lives presented in Exhibit  
21 No. 11-B also support the service life estimates used in Exhibit No. 11-A,  
22 inasmuch as the estimates are the same for both test years. The summary  
23 tables and detailed depreciation calculations as of June 30, 2023 are  
24 organized and presented in the same manner as those as of June 30, 2024.



1 Exhibit Nos. 11-D and 11-K are presented in the same fashion as the Water  
2 Operations assets and use the same format for all wastewater plant by  
3 operating system, except the BASA Wastewater Operations and Brentwood  
4 Wastewater Operations (for the reasons previously explained).

5 **Q. Please use an example to illustrate the manner in which the study is**  
6 **presented in Exhibit Nos. 11-A through 11-M.**

7 A. I will use Account 331, Mains and Accessories, as my example, inasmuch as  
8 it is the largest depreciable group of water assets and represents 52 percent  
9 of the original cost of depreciable water utility plant as of June 30, 2024.

10 The retirement rate method was used to analyze the survivor  
11 characteristics of this group. The life table for the 1948-2021 experience band  
12 is presented on pages VI-112 through VI-116 of Exhibit No. 11-B. The life  
13 table, or original survivor curve, is plotted along with the estimated smooth  
14 survivor curve, the 90-R2, on page VI-111.

15 The calculation of the annual depreciation related to the original cost of  
16 water plant as of June 30, 2023 is presented on pages II-115 through II-118  
17 of Exhibit No. 11-A. The calculation is based on the 90-R2 survivor curve,  
18 the attained age, and the allocated book reserve. The calculation as of  
19 June 30, 2024 is presented on pages VII-108 through VII-110 of Exhibit  
20 No. 11-B and is based in part on the bring-forward of the book reserve. The  
21 calculation as of June 30, 2025 is presented on pages II-109 through II-111  
22 of Exhibit No. 11-C and is based in part on the bring-forward of the book  
23 reserve. The tabulations in Exhibit Nos. 11-A, 11-B and 11-C set forth the  
24 installation year, the original cost, calculated accrued depreciation, allocated

1 book reserve, future accruals, remaining life and annual accrual. The totals  
2 are brought forward to Table 2 on page I-7 in Exhibit No. 11-A, on page V-8  
3 in Exhibit No. 11-B and on page I-7 in Exhibit No. 11-C. The same process  
4 was conducted for the plant of all the wastewater systems.

5 **Q. Do the exhibits exclude the original cost of certain plant?**

6 A. Yes. Certain items of plant, as well as amounts received from customers as  
7 advances or contributions, have been excluded from the original cost used in  
8 the study. The original cost and a description of the plant excluded are set  
9 forth on page I-5 of Exhibit No. 11-B. The net original cost used in the study  
10 is developed in Table 1 on pages I-3 and I-4 of Exhibit No. 11-A, on pages  
11 V-5 and V-6 of Exhibit No. 11-B and on pages I-3 and I-4 of Exhibit No. 11-C.  
12 The same description pertains to all the studies for the Company's  
13 wastewater operations.

14 **Q. In what manner is net salvage incorporated in the depreciation  
15 calculations?**

16 A. As stated on page IV-7 of Exhibit No. 11-B, no adjustment for net salvage  
17 was made to the calculated annual depreciation amounts. The total  
18 calculated annual depreciation set forth on page I-7 of Exhibit No. 11-A, on  
19 page V-9 of Exhibit No. 11-B and on page I-7 of Exhibit No. 11-C reflects an  
20 addition for the amortization of negative net salvage in accordance with the  
21 practice of the Commission. The amortization is based on: (1) experience  
22 during the period 2018 through 2022 for the calculation as of June 30, 2023;  
23 (2) experience during the period 2019 through June 30, 2023, plus estimates  
24 for the last six months of year 2023, for the calculation as of June 30, 2024;

1 and (3) experience during the period 2020 through June 30, 2023, plus  
2 estimates for the last six months of 2023 and year 2024, for the calculation  
3 as of June 30, 2025. The detail by plant account of regular retirements,  
4 salvage, and cost of removal for each year is presented on: (1) pages III-2  
5 through III-6 of Exhibit No. 11-A; (2) pages VIII-2 through VIII-6 of Exhibit  
6 No. 11-B; and (3) pages III-2 through III-6 of Exhibit No, 11-C. The totals are  
7 brought forward to Table 3 on page I-8 of Exhibit No. 11-A, to Table 5 on page  
8 V-16 of Exhibit No. 11-B and to Table 5 on page I-14 of Exhibit No. 11-C, in  
9 which the amounts of the five-year amortizations are calculated. The same  
10 calculations are presented in all the studies for the Company's wastewater  
11 operations.

12 **Q. Do any systems have additional calculations performed?**

13 A. Yes. The BASA Wastewater Operations and Brentwood Wastewater  
14 Operations acquisitions will be recorded at the net value of the assets in 2024  
15 determined by the Commission under Section 1329(c) of the Public Utility  
16 Code. Therefore, the service lives and survivor curves for each plant account  
17 based on the seller's original cost for the acquired property were used to  
18 calculate depreciation expense. From that analysis, I derived the accrual  
19 rates that were applied to the acquired plant at the approved ratemaking rate  
20 base, in order to determine the appropriate level of depreciation expense to  
21 include in the Company's revenue requirement.

22 **Q. Does this complete your testimony?**

23 A. Yes, it does.

## Appendix A

## **JOHN SPANOS**

### **DEPRECIATION EXPERIENCE**

**Q. Please state your name.**

A. My name is John J. Spanos.

**Q. What is your educational background?**

A. I have Bachelor of Science degrees in Industrial Management and Mathematics from Carnegie-Mellon University and a Master of Business Administration from York College.

**Q. Do you belong to any professional societies?**

A. Yes. I am a member and past President of the Society of Depreciation Professionals and a member of the American Gas Association/Edison Electric Institute Industry Accounting Committee.

**Q. Do you hold any special certification as a depreciation expert?**

A. Yes. The Society of Depreciation Professionals has established national standards for depreciation professionals. The Society administers an examination to become certified in this field. I passed the certification exam in September 1997 and was recertified in August 2003, February 2008, January 2013, February 2018 and February 2023.

**Q. Please outline your experience in the field of depreciation.**

A. In June 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 through December 1995, I helped prepare numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey, and Anchorage Telephone Utility. I helped perform depreciation studies for the following companies in

the railroad industry: Union Pacific Railroad, Burlington Northern Railroad, and Wisconsin Central Transportation Corporation.

I helped perform depreciation studies for the following organizations in the electric utility industry: Chugach Electric Association, The Cincinnati Gas and Electric Company (CG&E), The Union Light, Heat and Power Company (ULH&P), Northwest Territories Power Corporation, and the City of Calgary - Electric System.

I helped perform depreciation studies for the following pipeline companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

I helped perform depreciation studies for the following gas utility companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

I helped perform depreciation studies for the following water utility companies: Indiana-American Water Company, Consumers Pennsylvania Water Company and The York Water Company; and depreciation and original cost studies for Philadelphia Suburban Water Company and Pennsylvania-American Water Company.

In each of the above studies, I assembled and analyzed historical and simulated data, performed field reviews, developed preliminary estimates of service life and net salvage, calculated annual depreciation, and prepared reports for submission to state public utility commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E.

In January 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July 1999, I was promoted to the position of Manager, Depreciation and

Valuation Studies. In December 2000, I was promoted to the position as Vice-President of Gannett Fleming Valuation and Rate Consultants, Inc., in April 2012, I was promoted to the position as Senior Vice President of the Valuation and Rate Division of Gannett Fleming Inc. (now doing business as Gannett Fleming Valuation and Rate Consultants, LLC) and in January of 2019, I was promoted to my present position of President of Gannett Fleming Valuation and Rate Consultants, LLC. In my current position I am responsible for conducting all depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory bodies.

Since January 1996, I have conducted depreciation studies similar to those previously listed including assignments for Pennsylvania-American Water Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-American Water Company; Indiana-American Water Company; Iowa-American Water Company; New Jersey-American Water Company; Hampton Water Works Company; Omaha Public Power District; Enbridge Pipe Line Company; Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water Company; St. Louis County Water Company; Missouri-American Water Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas & Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI - Elizabethtown Gas Company; Cinergy Corporation – CG&E; Cinergy

Corporation – ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company; Idaho Power Company; El Paso Electric Company; Aqua North Carolina; Aqua Ohio; Aqua Texas, Inc.; Aqua Illinois, Inc.; Ameren Missouri; Central Hudson Gas & Electric; Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint Energy – Oklahoma; CenterPoint Energy – Entex; CenterPoint Energy - Louisiana; NSTAR – Boston Edison Company; Westar Energy, Inc.; United Water Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas; Allegheny Energy Supply, Inc.; Public Service Company of North Carolina; South Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company; Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light; Duke Energy North Carolina; Duke Energy South Carolina; Monongahela Power Company; Potomac Edison Company; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Duke Energy Progress; Northern Indiana Public Service Company; Tennessee- American Water Company; Columbia Gas of Maryland; Maryland-American Water Company; Bonneville Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution, Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi; Entergy Louisiana; Entergy Gulf States Louisiana; the Borough of Hanover; Louisville Gas and Electric Company; Kentucky Utilities Company; Madison Gas and Electric; Central Maine Power; PEPCO; PacifiCorp; Minnesota Energy Resource Group; Jersey Central Power & Light Company; Cheyenne Light, Fuel and Power Company; United Water Arkansas; Central Vermont Public Service Corporation; Green Mountain Power; Portland General Electric Company; Atlantic City Electric; Nicor Gas Company; Black Hills Power; Black Hills Colorado Gas; Black Hills Energy Arkansas, Inc.; Black Hills Kansas



Gas; Black Hills Service Company; Black Hills Utility Holdings; Public Service Company of Oklahoma; City of Dubois; Peoples Gas Light and Coke Company; North Shore Gas Company; Connecticut Light and Power; New York State Electric and Gas Corporation; Rochester Gas and Electric Corporation; Greater Missouri Operations; Tennessee Valley Authority; Omaha Public Power District; Indianapolis Power & Light Company; Vermont Gas Systems, Inc.; Metropolitan Edison; Pennsylvania Electric; West Penn Power; Pennsylvania Power; PHI Service Company - Delmarva Power and Light; Atmos Energy Corporation; Citizens Energy Group; PSE&G Company; Berkshire Gas Company; Alabama Gas Corporation; Mid-Atlantic Interstate Transmission, LLC; SUEZ Water; WEC Energy Group; Rocky Mountain Natural Gas, LLC; Illinois-American Water Company; Northern Illinois Gas Company; Public Service of New Hampshire; FirstEnergy Service Corporation; Northeast Ohio Natural Gas Corporation; Blue Granite Water Company; Spire Missouri, Inc.; Dominion Energy South Carolina, Inc.; South FirstEnergy Operating Companies; Dayton Power and Light Company; Liberty Utilities; East Kentucky Power Cooperative; Bangor Natural Gas; Hanover Borough Municipal Water Works; West Virginia American Water Company; Evergy Metro; Evergy Missouri West; Granite State Electric; Bluegrass Water; The Borough of Ambler; Newtown Artesian Water Company and Connecticut Water Company.

My additional duties include determining final life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to management for its consideration and supporting such rates before regulatory bodies.

**Q. Have you submitted testimony to any state utility commission on the subject of utility plant depreciation?**

A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission; the

Commonwealth of Kentucky Public Service Commission; the Public Utilities Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities Board of New Jersey; the Missouri Public Service Commission; the Massachusetts Department of Telecommunications and Energy; the Alberta Energy & Utility Board; the Idaho Public Utility Commission; the Louisiana Public Service Commission; the State Corporation Commission of Kansas; the Oklahoma Corporate Commission; the Public Service Commission of South Carolina; Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; Illinois Commerce Commission; the Indiana Utility Regulatory Commission; the California Public Utilities Commission; the Federal Energy Regulatory Commission (“FERC”); the Arkansas Public Service Commission; the Public Utility Commission of Texas; Maryland Public Service Commission; Washington Utilities and Transportation Commission; The Tennessee Regulatory Commission; the Regulatory Commission of Alaska; Minnesota Public Utility Commission; Utah Public Service Commission; District of Columbia Public Service Commission; the Mississippi Public Service Commission; Delaware Public Service Commission; Virginia State Corporation Commission; Colorado Public Utility Commission; Oregon Public Utility Commission; South Dakota Public Utilities Commission; Wisconsin Public Service Commission; Wyoming Public Service Commission; the Public Service Commission of West Virginia; Maine Public Utility Commission; Iowa Utility Board; Connecticut Public Utilities Regulatory Authority; New Mexico Public Regulation Commission; Commonwealth of Massachusetts Department of Public Utilities; Rhode Island Public Utilities Commission and the North Carolina Utilities Commission.

**Q. Have you had any additional education relating to utility plant depreciation?**

A. Yes. I have completed the following courses conducted by Depreciation Programs, Inc.:

“Techniques of Life Analysis,” “Techniques of Salvage and Depreciation Analysis,” “Forecasting Life and Salvage,” “Modeling and Life Analysis Using Simulation,” and “Managing a Depreciation Study.” I have also completed the “Introduction to Public Utility Accounting” program conducted by the American Gas Association.

**Q. Does this conclude your qualification statement?**

A. Yes.

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
01.	1998	PA PUC	R-00984375	City of Bethlehem – Bureau of Water	Original Cost and Depreciation
02.	1998	PA PUC	R-00984567	City of Lancaster	Original Cost and Depreciation
03.	1999	PA PUC	R-00994605	The York Water Company	Depreciation
04.	2000	D.T.&E.	DTE 00-105	Massachusetts-American Water Company	Depreciation
05.	2001	PA PUC	R-00016114	City of Lancaster	Original Cost and Depreciation
06.	2001	PA PUC	R-00017236	The York Water Company	Depreciation
07.	2001	PA PUC	R-00016339	Pennsylvania-American Water Company	Depreciation
08.	2001	OH PUC	01-1228-GA-AIR	Cinergy Corp – Cincinnati Gas & Elect Company	Depreciation
09.	2001	KY PSC	2001-092	Cinergy Corp – Union Light, Heat & Power Co.	Depreciation
10.	2002	PA PUC	R-00016750	Philadelphia Suburban Water Company	Depreciation
11.	2002	KY PSC	2002-00145	Columbia Gas of Kentucky	Depreciation
12.	2002	NJ BPU	GF02040245	NUI Corporation/Elizabethtown Gas Company	Depreciation
13.	2002	ID PUC	IPC-E-03-7	Idaho Power Company	Depreciation
14.	2003	PA PUC	R-0027975	The York Water Company	Depreciation
15.	2003	IN URC	R-0027975	Cinergy Corp – PSI Energy, Inc.	Depreciation
16.	2003	PA PUC	R-00038304	Pennsylvania-American Water Company	Depreciation
17.	2003	MO PSC	WR-2003-0500	Missouri-American Water Company	Depreciation
18.	2003	FERC	ER03-1274-000	NSTAR-Boston Edison Company	Depreciation
19.	2003	NJ BPU	BPU 03080683	South Jersey Gas Company	Depreciation
20.	2003	NV PUC	03-10001	Nevada Power Company	Depreciation
21.	2003	LA PSC	U-27676	CenterPoint Energy – Arkla	Depreciation
22.	2003	PA PUC	R-00038805	Pennsylvania Suburban Water Company	Depreciation
23.	2004	AB En/Util Bd	1306821	EPCOR Distribution, Inc.	Depreciation
24.	2004	PA PUC	R-00038168	National Fuel Gas Distribution Corp (PA)	Depreciation
25.	2004	PA PUC	R-00049255	PPL Electric Utilities	Depreciation
26.	2004	PA PUC	R-00049165	The York Water Company	Depreciation
27.	2004	OK Corp Cm	PUC 200400187	CenterPoint Energy – Arkla	Depreciation
28.	2004	OH PUC	04-680-EI-AIR	Cinergy Corp. – Cincinnati Gas and Electric Company	Depreciation
29.	2004	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
30.	2004	NY PUC	04-G-1047	National Fuel Gas Distribution Gas (NY)	Depreciation
31.	2004	AR PSC	04-121-U	CenterPoint Energy – Arkla	Depreciation
32.	2005	IL CC	05-ICC-06	North Shore Gas Company	Depreciation
33.	2005	IL CC	05-ICC-06	Peoples Gas Light and Coke Company	Depreciation
34.	2005	KY PSC	2005-00042	Union Light Heat & Power	Depreciation

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35.	2005	IL CC	05-0308	MidAmerican Energy Company	Depreciation
36.	2005	MO PSC	GF-2005	Laclede Gas Company	Depreciation
37.	2005	KS CC	05-WSEE-981-RTS	Westar Energy	Depreciation
38.	2005	RR Com of TX	GUD #	CenterPoint Energy – Entex Gas Services Div.	Depreciation
39.	2005	US District Court	Cause No. 1:99-CV-1693- LJM/VSS	Cinergy Corporation	Accounting
40.	2005	OK CC	PUD 200500151	Oklahoma Gas and Electric Company	Depreciation
41.	2005	MA Dept Tele- com & Ergy	DTE 05-85	NSTAR	Depreciation
42.	2005	NY PUC	05-E-934/05-G-0935	Central Hudson Gas & Electric Company	Depreciation
43.	2005	AK Reg Com	U-04-102	Chugach Electric Association	Depreciation
44.	2005	CA PUC	A05-12-002	Pacific Gas & Electric	Depreciation
45.	2006	PA PUC	R-00051030	Aqua Pennsylvania, Inc.	Depreciation
46.	2006	PA PUC	R-00051178	T.W. Phillips Gas and Oil Company	Depreciation
47.	2006	NC Util Cm.	G-5, Sub522	Pub. Service Company of North Carolina	Depreciation
48.	2006	PA PUC	R-00051167	City of Lancaster	Depreciation
49.	2006	PA PUC	R00061346	Duquesne Light Company	Depreciation
50.	2006	PA PUC	R-00061322	The York Water Company	Depreciation
51.	2006	PA PUC	R-00051298	PPL GAS Utilities	Depreciation
52.	2006	PUC of TX	32093	CenterPoint Energy – Houston Electric	Depreciation
53.	2006	KY PSC	2006-00172	Duke Energy Kentucky	Depreciation
54.	2006	SC PSC		SCANA	Accounting
55.	2006	AK Reg Com	U-06-6	Municipal Light and Power	Depreciation
56.	2006	DE PSC	06-284	Delmarva Power and Light	Depreciation
57.	2006	IN URC	IURC43081	Indiana American Water Company	Depreciation
58.	2006	AK Reg Com	U-06-134	Chugach Electric Association	Depreciation
59.	2006	MO PSC	WR-2007-0216	Missouri American Water Company	Depreciation
60.	2006	FERC	IS05-82-002, et al	TransAlaska Pipeline	Depreciation
61.	2006	PA PUC	R-00061493	National Fuel Gas Distribution Corp. (PA)	Depreciation
62.	2007	NC Util Com.	E-7 SUB 828	Duke Energy Carolinas, LLC	Depreciation
63.	2007	OH PSC	08-709-EL-AIR	Duke Energy Ohio Gas	Depreciation
64.	2007	PA PUC	R-00072155	PPL Electric Utilities Corporation	Depreciation
65.	2007	KY PSC	2007-00143	Kentucky American Water Company	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
66.	2007	PA PUC	R-00072229	Pennsylvania American Water Company	Depreciation
67.	2007	KY PSC	2007-0008	NiSource – Columbia Gas of Kentucky	Depreciation
68.	2007	NY PSC	07-G-0141	National Fuel Gas Distribution Corp (NY)	Depreciation
69.	2008	AK PSC	U-08-004	Anchorage Water & Wastewater Utility	Depreciation
70.	2008	TN Reg Auth	08-00039	Tennessee-American Water Company	Depreciation
71.	2008	DE PSC	08-96	Artesian Water Company	Depreciation
72.	2008	PA PUC	R-2008-2023067	The York Water Company	Depreciation
73.	2008	KS CC	08-WSEE1-RTS	Westar Energy	Depreciation
74.	2008	IN URC	43526	Northern Indiana Public Service Company	Depreciation
75.	2008	IN URC	43501	Duke Energy Indiana	Depreciation
76.	2008	MD PSC	9159	NiSource – Columbia Gas of Maryland	Depreciation
77.	2008	KY PSC	2008-000251	Kentucky Utilities	Depreciation
78.	2008	KY PSC	2008-000252	Louisville Gas & Electric	Depreciation
79.	2008	PA PUC	2008-20322689	Pennsylvania American Water Co. - Wastewater	Depreciation
80.	2008	NY PSC	08-E887/08-00888	Central Hudson	Depreciation
81.	2008	WV TC	VE-080416/VG-8080417	Avista Corporation	Depreciation
82.	2008	IL CC	ICC-09-166	Peoples Gas, Light and Coke Company	Depreciation
83.	2009	IL CC	ICC-09-167	North Shore Gas Company	Depreciation
84.	2009	DC PSC	1076	Potomac Electric Power Company	Depreciation
85.	2009	KY PSC	2009-00141	NiSource – Columbia Gas of Kentucky	Depreciation
86.	2009	FERC	ER08-1056-002	Entergy Services	Depreciation
87.	2009	PA PUC	R-2009-2097323	Pennsylvania American Water Company	Depreciation
88.	2009	NC Util Cm	E-7, Sub 090	Duke Energy Carolinas, LLC	Depreciation
89.	2009	KY PSC	2009-00202	Duke Energy Kentucky	Depreciation
90.	2009	VA St. CC	PUE-2009-00059	Aqua Virginia, Inc.	Depreciation
91.	2009	PA PUC	2009-2132019	Aqua Pennsylvania, Inc.	Depreciation
92.	2009	MS PSC	Docket No. 2011-UA-183	Entergy Mississippi	Depreciation
93.	2009	AK PSC	09-08-U	Entergy Arkansas	Depreciation
94.	2009	TX PUC	37744	Entergy Texas	Depreciation
95.	2009	TX PUC	37690	El Paso Electric Company	Depreciation
96.	2009	PA PUC	R-2009-2106908	The Borough of Hanover	Depreciation
97.	2009	KS CC	10-KCPE-415-RTS	Kansas City Power & Light	Depreciation
98.	2009	PA PUC	R-2009-	United Water Pennsylvania	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
99.	2009	OH PUC		Aqua Ohio Water Company	Depreciation
100.	2009	WI PSC	3270-DU-103	Madison Gas & Electric Company	Depreciation
101.	2009	MO PSC	WR-2010	Missouri American Water Company	Depreciation
102.	2009	AK Reg Cm	U-09-097	Chugach Electric Association	Depreciation
103.	2010	IN URC	43969	Northern Indiana Public Service Company	Depreciation
104.	2010	WI PSC	6690-DU-104	Wisconsin Public Service Corp.	Depreciation
105.	2010	PA PUC	R-2010-2161694	PPL Electric Utilities Corp.	Depreciation
106.	2010	KY PSC	2010-00036	Kentucky American Water Company	Depreciation
107.	2010	PA PUC	R-2009-2149262	Columbia Gas of Pennsylvania	Depreciation
108.	2010	MO PSC	GR-2010-0171	Laclede Gas Company	Depreciation
109.	2010	SC PSC	2009-489-E	South Carolina Electric & Gas Company	Depreciation
110.	2010	NJ BD OF PU	ER09080664	Atlantic City Electric	Depreciation
111.	2010	VA St. CC	PUE-2010-00001	Virginia American Water Company	Depreciation
112.	2010	PA PUC	R-2010-2157140	The York Water Company	Depreciation
113.	2010	MO PSC	ER-2010-0356	Greater Missouri Operations Company	Depreciation
114.	2010	MO PSC	ER-2010-0355	Kansas City Power and Light	Depreciation
115.	2010	PA PUC	R-2010-2167797	T.W. Phillips Gas and Oil Company	Depreciation
116.	2010	PSC SC	2009-489-E	SCANA – Electric	Depreciation
117.	2010	PA PUC	R-2010-22010702	Peoples Natural Gas, LLC	Depreciation
118.	2010	AK PSC	10-067-U	Oklahoma Gas and Electric Company	Depreciation
119.	2010	IN URC	Cause No. 43894	Northern Indiana Public Serv. Company - NIFL	Depreciation
120.	2010	IN URC	Cause No. 43894	Northern Indiana Public Serv. Co. - Kokomo	Depreciation
121.	2010	PA PUC	R-2010-2166212	Pennsylvania American Water Co. - WW	Depreciation
122.	2010	NC Util Cn.	W-218,SUB310	Aqua North Carolina, Inc.	Depreciation
123.	2011	OH PUC	11-4161-WS-AIR	Ohio American Water Company	Depreciation
124.	2011	MS PSC	EC-123-0082-00	Entergy Mississippi	Depreciation
125.	2011	CO PUC	11AL-387E	Black Hills Colorado	Depreciation
126.	2011	PA PUC	R-2010-2215623	Columbia Gas of Pennsylvania	Depreciation
127.	2011	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Depreciation
128.	2011	IN URC	43114 IGCC 4S	Duke Energy Indiana	Depreciation
129.	2011	FERC	IS11-146-000	Enbridge Pipelines (Southern Lights)	Depreciation
130.	2011	IL CC	11-0217	MidAmerican Energy Corporation	Depreciation
131.	2011	OK CC	201100087	Oklahoma Gas & Electric Company	Depreciation
132.	2011	PA PUC	2011-2232243	Pennsylvania American Water Company	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
133.	2011	FERC	RP11-___-000	Carolina Gas Transmission	Depreciation
134.	2012	WA UTC	UE-120436/UG-120437	Avista Corporation	Depreciation
135.	2012	AK Reg Cm	U-12-009	Chugach Electric Association	Depreciation
136.	2012	MA PUC	DPU 12-25	Columbia Gas of Massachusetts	Depreciation
137.	2012	TX PUC	40094	El Paso Electric Company	Depreciation
138.	2012	ID PUC	IPC-E-12	Idaho Power Company	Depreciation
139.	2012	PA PUC	R-2012-2290597	PPL Electric Utilities	Depreciation
140.	2012	PA PUC	R-2012-2311725	Borough of Hanover – Bureau of Water	Depreciation
141.	2012	KY PSC	2012-00222	Louisville Gas and Electric Company	Depreciation
142.	2012	KY PSC	2012-00221	Kentucky Utilities Company	Depreciation
143.	2012	PA PUC	R-2012-2285985	Peoples Natural Gas Company	Depreciation
144.	2012	DC PSC	Case 1087	Potomac Electric Power Company	Depreciation
145.	2012	OH PSC	12-1682-EL-AIR	Duke Energy Ohio (Electric)	Depreciation
146.	2012	OH PSC	12-1685-GA-AIR	Duke Energy Ohio (Gas)	Depreciation
147.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Depreciation
148.	2012	PA PUC	R-2012-2321748	Columbia Gas of Pennsylvania	Depreciation
149.	2012	FERC	ER-12-2681-000	ITC Holdings	Depreciation
150.	2012	MO PSC	ER-2012-0174	Kansas City Power and Light	Depreciation
151.	2012	MO PSC	ER-2012-0175	KCPL Greater Missouri Operations Company	Depreciation
152.	2012	MO PSC	GO-2012-0363	Laclede Gas Company	Depreciation
153.	2012	MN PUC	G007,001/D-12-533	Integrys – MN Energy Resource Group	Depreciation
154.	2012	TX PUC	SOAH 582-14-1051/ TECQ 2013-2007-UCR	Aqua Texas	Depreciation
155.	2012	PA PUC	2012-2336379	York Water Company	Depreciation
156.	2013	NJ BPU	ER12121071	PHI Service Company– Atlantic City Electric	Depreciation
157.	2013	KY PSC	2013-00167	Columbia Gas of Kentucky	Depreciation
158.	2013	VA St CC	2013-00020	Virginia Electric and Power Company	Depreciation
159.	2013	IA Util Bd	2013-0004	MidAmerican Energy Corporation	Depreciation
160.	2013	PA PUC	2013-2355276	Pennsylvania American Water Company	Depreciation
161.	2013	NY PSC	13-E-0030, 13-G-0031, 13-S-0032	Consolidated Edison of New York	Depreciation
162.	2013	PA PUC	2013-2355886	Peoples TWP LLC	Depreciation
163.	2013	TN Reg Auth	12-0504	Tennessee American Water	Depreciation
164.	2013	ME PUC	2013-168	Central Maine Power Company	Depreciation
165.	2013	DC PSC	Case 1103	PHI Service Company – PEPCO	Depreciation



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166.	2013	WY PSC	2003-ER-13	Cheyenne Light, Fuel and Power Company	Depreciation
167.	2013	FERC	ER13-2428-0000	Kentucky Utilities	Depreciation
168.	2013	FERC	ER13- -0000	MidAmerican Energy Company	Depreciation
169.	2013	FERC	ER13-2410-0000	PPL Utilities	Depreciation
170.	2013	PA PUC	R-2013-2372129	Duquesne Light Company	Depreciation
171.	2013	NJ BPU	ER12111052	Jersey Central Power and Light Company	Depreciation
172.	2013	PA PUC	R-2013-2390244	Bethlehem, City of – Bureau of Water	Depreciation
173.	2013	OK CC	UM 1679	Oklahoma, Public Service Company of	Depreciation
174.	2013	IL CC	13-0500	Nicor Gas Company	Depreciation
175.	2013	WY PSC	20000-427-EA-13	PacifiCorp	Depreciation
176.	2013	UT PSC	13-035-02	PacifiCorp	Depreciation
177.	2013	OR PUC	UM 1647	PacifiCorp	Depreciation
178.	2013	PA PUC	2013-2350509	Dubois, City of	Depreciation
179.	2014	IL CC	14-0224	North Shore Gas Company	Depreciation
180.	2014	FERC	ER14- -0000	Duquesne Light Company	Depreciation
181.	2014	SD PUC	EL14-026	Black Hills Power Company	Depreciation
182.	2014	WY PSC	20002-91-ER-14	Black Hills Power Company	Depreciation
183.	2014	PA PUC	2014-2428304	Borough of Hanover – Municipal Water Works	Depreciation
184.	2014	PA PUC	2014-2406274	Columbia Gas of Pennsylvania	Depreciation
185.	2014	IL CC	14-0225	Peoples Gas Light and Coke Company	Depreciation
186.	2014	MO PSC	ER-2014-0258	Ameren Missouri	Depreciation
187.	2014	KS CC	14-BHCG-502-RTS	Black Hills Service Company	Depreciation
188.	2014	KS CC	14-BHCG-502-RTS	Black Hills Utility Holdings	Depreciation
189.	2014	KS CC	14-BHCG-502-RTS	Black Hills Kansas Gas	Depreciation
190.	2014	PA PUC	2014-2418872	Lancaster, City of – Bureau of Water	Depreciation
191.	2014	WV PSC	14-0701-E-D	First Energy – MonPower/PotomacEdison	Depreciation
192.	2014	VA St CC	PUC-2014-00045	Aqua Virginia	Depreciation
193.	2014	VA St CC	PUE-2013	Virginia American Water Company	Depreciation
194.	2014	OK CC	PUD201400229	Oklahoma Gas and Electric Company	Depreciation
195.	2014	OR PUC	UM1679	Portland General Electric	Depreciation
196.	2014	IN URC	Cause No. 44576	Indianapolis Power & Light	Depreciation
197.	2014	MA DPU	DPU. 14-150	NSTAR Gas	Depreciation
198.	2014	CT PURA	14-05-06	Connecticut Light and Power	Depreciation
199.	2014	MO PSC	ER-2014-0370	Kansas City Power & Light	Depreciation

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200.	2014	KY PSC	2014-00371	Kentucky Utilities Company	Depreciation
201.	2014	KY PSC	2014-00372	Louisville Gas and Electric Company	Depreciation
202.	2015	PA PUC	R-2015-2462723	United Water Pennsylvania Inc.	Depreciation
203.	2015	PA PUC	R-2015-2468056	NiSource - Columbia Gas of Pennsylvania	Depreciation
204.	2015	NY PSC	15-E-0283/15-G-0284	New York State Electric and Gas Corporation	Depreciation
205.	2015	NY PSC	15-E-0285/15-G-0286	Rochester Gas and Electric Corporation	Depreciation
206.	2015	MO PSC	WR-2015-0301/SR-2015-0302	Missouri American Water Company	Depreciation
207.	2015	OK CC	PUD 201500208	Oklahoma, Public Service Company of	Depreciation
208.	2015	WV PSC	15-0676-W-42T	West Virginia American Water Company	Depreciation
209.	2015	PA PUC	2015-2469275	PPL Electric Utilities	Depreciation
210.	2015	IN URC	Cause No. 44688	Northern Indiana Public Service Company	Depreciation
211.	2015	OH PSC	14-1929-EL-RDR	First Energy-Ohio Edison/Cleveland Electric/ Toledo Edison	Depreciation
212.	2015	NM PRC	15-00127-UT	El Paso Electric	Depreciation
213.	2015	TX PUC	PUC-44941; SOAH 473-15-5257	El Paso Electric	Depreciation
214.	2015	WI PSC	3270-DU-104	Madison Gas and Electric Company	Depreciation
215.	2015	OK CC	PUD 201500273	Oklahoma Gas and Electric	Depreciation
216.	2015	KY PSC	Doc. No. 2015-00418	Kentucky American Water Company	Depreciation
217.	2015	NC UC	Doc. No. G-5, Sub 565	Public Service Company of North Carolina	Depreciation
218.	2016	WA UTC	Docket UE-17	Puget Sound Energy	Depreciation
219.	2016	NY PSC	Case No. 16-W-0130	SUEZ Water New York, Inc.	Depreciation
220.	2016	MO PSC	ER-2016-0156	KCPL – Greater Missouri	Depreciation
221.	2016	WI PSC		Wisconsin Public Service Corporation	Depreciation
222.	2016	KY PSC	Case No. 2016-00026	Kentucky Utilities Company	Depreciation
223.	2016	KY PSC	Case No. 2016-00027	Louisville Gas and Electric Company	Depreciation
224.	2016	OH PUC	Case No. 16-0907-WW-AIR	Aqua Ohio	Depreciation
225.	2016	MD PSC	Case 9417	NiSource - Columbia Gas of Maryland	Depreciation
226.	2016	KY PSC	2016-00162	Columbia Gas of Kentucky	Depreciation
227.	2016	DE PSC	16-0649	Delmarva Power and Light Company – Electric	Depreciation
228.	2016	DE PSC	16-0650	Delmarva Power and Light Company – Gas	Depreciation
229.	2016	NY PSC	Case 16-G-0257	National Fuel Gas Distribution Corp – NY Div	Depreciation
230.	2016	PA PUC	R-2016-2537349	Metropolitan Edison Company	Depreciation
231.	2016	PA PUC	R-2016-2537352	Pennsylvania Electric Company	Depreciation
232.	2016	PA PUC	R-2016-2537355	Pennsylvania Power Company	Depreciation

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233.	2016	PA PUC	R-2016-2537359	West Penn Power Company	Depreciation
234.	2016	PA PUC	R-2016-2529660	NiSource - Columbia Gas of PA	Depreciation
235.	2016	KY PSC	Case No. 2016-00063	Kentucky Utilities / Louisville Gas & Electric Co	Depreciation
236.	2016	MO PSC	ER-2016-0285	KCPL Missouri	Depreciation
237.	2016	AR PSC	16-052-U	Oklahoma Gas & Electric Co	Depreciation
238.	2016	PSCW	6680-DU-104	Wisconsin Power and Light	Depreciation
239.	2016	ID PUC	IPC-E-16-23	Idaho Power Company	Depreciation
240.	2016	OR PUC	UM1801	Idaho Power Company	Depreciation
241.	2016	ILL CC	16-	MidAmerican Energy Company	Depreciation
242.	2016	KY PSC	Case No. 2016-00370	Kentucky Utilities Company	Depreciation
243.	2016	KY PSC	Case No. 2016-00371	Louisville Gas and Electric Company	Depreciation
244.	2016	IN URC	Cause No. 45029	Indianapolis Power & Light	Depreciation
245.	2016	AL RC	U-16-081	Chugach Electric Association	Depreciation
246.	2017	MA DPU	D.P.U. 17-05	NSTAR Electric Company and Western Massachusetts Electric Company	Depreciation
247.	2017	TX PUC	PUC-26831, SOAH 973-17-2686	El Paso Electric Company	Depreciation
248.	2017	WA UTC	UE-17033 and UG-170034	Puget Sound Energy	Depreciation
249.	2017	OH PUC	Case No. 17-0032-EL-AIR	Duke Energy Ohio	Depreciation
250.	2017	VA SCC	Case No. PUE-2016-00413	Virginia Natural Gas, Inc.	Depreciation
251.	2017	OK CC	Case No. PUD201700151	Public Service Company of Oklahoma	Depreciation
252.	2017	MD PSC	Case No. 9447	Columbia Gas of Maryland	Depreciation
253.	2017	NC UC	Docket No. E-2, Sub 1142	Duke Energy Progress	Depreciation
254.	2017	VA SCC	Case No. PUR-2017-00090	Dominion Virginia Electric and Power Company	Depreciation
255.	2017	FERC	ER17-1162	MidAmerican Energy Company	Depreciation
256.	2017	PA PUC	R-2017-2595853	Pennsylvania American Water Company	Depreciation
257.	2017	OR PUC	UM1809	Portland General Electric	Depreciation
258.	2017	FERC	ER17-217-000	Jersey Central Power & Light	Depreciation
259.	2017	FERC	ER17-211-000	Mid-Atlantic Interstate Transmission, LLC	Depreciation
260.	2017	MN PUC	Docket No. G007/D-17-442	Minnesota Energy Resources Corporation	Depreciation
261.	2017	IL CC	Docket No. 17-0124	Northern Illinois Gas Company	Depreciation
262.	2017	OR PUC	UM1808	Northwest Natural Gas Company	Depreciation
263.	2017	NY PSC	Case No. 17-W-0528	SUEZ Water Owego-Nichols	Depreciation
264.	2017	MO PSC	GR-2017-0215	Laclede Gas Company	Depreciation
265.	2017	MO PSC	GR-2017-0216	Missouri Gas Energy	Depreciation

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266.	2017	ILL CC	Docket No. 17-0337	Illinois-American Water Company	Depreciation
267.	2017	FERC	Docket No. ER18-22-000	PPL Electric Utilities Corporation	Depreciation
268.	2017	IN URC	Cause No. 44988	Northern Indiana Public Service Company	Depreciation
269.	2017	NJ BPU	BPU Docket No. WR17090985	New Jersey American Water Company, Inc.	Depreciation
270.	2017	RI PUC	Docket No. 4800	SUEZ Water Rhode Island	Depreciation
271.	2017	OK CC	Cause No. PUD 201700496	Oklahoma Gas and Electric Company	Depreciation
272.	2017	NJ BPU	ER18010029 & GR18010030	Public Service Electric and Gas Company	Depreciation
273.	2017	NC Util Com.	Docket No. E-7, SUB 1146	Duke Energy Carolinas, LLC	Depreciation
274.	2017	KY PSC	Case No. 2017-00321	Duke Energy Kentucky, Inc.	Depreciation
275.	2017	MA DPU	D.P.U. 18-40	Berkshire Gas Company	Depreciation
276.	2018	IN IURC	Cause No. 44992	Indiana-American Water Company, Inc.	Depreciation
277.	2018	IN IURC	Cause No. 45029	Indianapolis Power and Light	Depreciation
278.	2018	NC Util Com.	Docket No. W-218, Sub 497	Aqua North Carolina, Inc.	Depreciation
279.	2018	PA PUC	Docket No. R-2018-2647577	NiSource - Columbia Gas of Pennsylvania, Inc.	Depreciation
280.	2018	OR PUC	Docket UM 1933	Avista Corporation	Depreciation
281.	2018	WA UTC	Docket No. UE-108167	Avista Corporation	Depreciation
282.	2018	ID PUC	AVU-E-18-03, AVU-G-18-02	Avista Corporation	Depreciation
283.	2018	IN URC	Cause No. 45039	Citizens Energy Group	Depreciation
284.	2018	FERC	Docket No. ER18-	Duke Energy Progress	Depreciation
285.	2018	PA PUC	Docket No. R-2018-3000124	Duquesne Light Company	Depreciation
286.	2018	MD PSC	Case No. 948	NiSource - Columbia Gas of Maryland	Depreciation
287.	2018	MA DPU	D.P.U. 18-45	NiSource - Columbia Gas of Massachusetts	Depreciation
288.	2018	OH PUC	Case No. 18-0299-GA-ALT	Vectren Energy Delivery of Ohio	Depreciation
289.	2018	PA PUC	Docket No. R-2018-3000834	SUEZ Water Pennsylvania Inc.	Depreciation
290.	2018	MD PSC	Case No. 9847	Maryland-American Water Company	Depreciation
291.	2018	PA PUC	Docket No. R-2018-3000019	The York Water Company	Depreciation
292.	2018	FERC	ER-18-2231-000	Duke Energy Carolinas, LLC	Depreciation
293.	2018	KY PSC	Case No. 2018-00261	Duke Energy Kentucky, Inc.	Depreciation
294.	2018	NJ BPU	BPU Docket No. WR18050593	SUEZ Water New Jersey	Depreciation
295.	2018	WA UTC	Docket No. UE-180778	PacifiCorp	Depreciation
296.	2018	UT PSC	Docket No. 18-035-36	PacifiCorp	Depreciation
297.	2018	OR PUC	Docket No. UM-1968	PacifiCorp	Depreciation
298.	2018	ID PUC	Case No. PAC-E-18-08	PacifiCorp	Depreciation
299.	2018	WY PSC	20000-539-EA-18	PacifiCorp	Depreciation
300.	2018	PA PUC	Docket No. R-2018-3003068	Aqua Pennsylvania, Inc.	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
301.	2018	IL CC	Docket No. 18-1467	Aqua Illinois, Inc.	Depreciation
302.	2018	KY PSC	Case No. 2018-00294	Louisville Gas & Electric Company	Depreciation
303.	2018	KY PSC	Case No. 2018-00295	Kentucky Utilities Company	Depreciation
304.	2018	IN URC	Cause No. 45159	Northern Indiana Public Service Company	Depreciation
305.	2018	VA SCC	Case No. PUR-2019-00175	Virginia American Water Company	Depreciation
306.	2019	PA PUC	Docket No. R-2018-3006818	Peoples Natural Gas Company, LLC	Depreciation
307.	2019	OK CC	Cause No. PUD201800140	Oklahoma Gas and Electric Company	Depreciation
308.	2019	MD PSC	Case No. 9490	FirstEnergy – Potomac Edison	Depreciation
309.	2019	SC PSC	Docket No. 2018-318-E	Duke Energy Progress	Depreciation
310.	2019	SC PSC	Docket No. 2018-319-E	Duke Energy Carolinas	Depreciation
311.	2019	DE PSC	DE 19-057	Public Service of New Hampshire	Depreciation
312.	2019	NY PSC	Case No. 19-W-0168 & 19-W-	SUEZ Water New York	Depreciation
313.	2019	PA PUC	Docket No. R-2019-3006904	Newtown Artesian Water Company	Depreciation
314.	2019	MO PSC	ER-2019-0335	Ameren Missouri	Depreciation
315.	2019	MO PSC	EC-2019-0200	KCP&L Greater Missouri Operations Company	Depreciation
316.	2019	MN DOC	G011/D-19-377	Minnesota Energy Resource Corp.	Depreciation
317.	2019	NY PSC	Case 19-E-0378 & 19-G-0379	New York State Electric and Gas Corporation	Depreciation
318.	2019	NY PSC	Case 19-E-0380 & 19-G-0381	Rochester Gas and Electric Corporation	Depreciation
319.	2019	WA UTC	Docket UE-190529 / UG-190530	Puget Sound Energy	Depreciation
320.	2019	PA PUC	Docket No. R-2019-3010955	City of Lancaster	Depreciation
321.	2019	IURC	Cause No. 45253	Duke Energy Indiana	Depreciation
322.	2019	KY PSC	Case No. 2019-00271	Duke Energy Kentucky, Inc.	Depreciation
323.	2019	OH PUC	Case No. 18-1720-GA-AIR	Northeast Ohio Natural Gas Corp	Depreciation
324.	2019	NC Util. Com.	Docket No. E-2, Sub 1219	Duke Energy Carolinas	Depreciation
325.	2019	FERC	Docket No. ER20-277-000	Jersey Central Power & Light Company	Depreciation
326.	2019	MA DPU	D.P.U. 19-120	NSTAR Gas Company	Depreciation
327.	2019	SC PSC	Docket No. 2019-290-WS	Blue Granite Water Company	Depreciation
328.	2019	NC Util. Com.	Docket No. E-2, Sub 1219	Duke Energy Progress	Depreciation
329.	2019	MD PSC	Case No. 9609	NiSource Columbia Gas of Maryland, Inc.	Depreciation
330.	2020	NJ BPU	Docket No. ER20020146	Jersey Central Power & Light Company	Depreciation
331.	2020	PA PUC	Docket No. R-2020-3018835	NiSource - Columbia Gas of Pennsylvania, Inc.	Depreciation
332.	2020	PA PUC	Docket No. R-2020-3019369	Pennsylvania-American Water Company	Depreciation
333.	2020	PA PUC	Docket No. R-2020-3019371	Pennsylvania-American Water Company	Depreciation
334.	2020	MO PSC	GO-2018-0309, GO-2018-0310	Spire Missouri, Inc.	Depreciation
335.	2020	NM PRC	Case No. 20-00104-UT	El Paso Electric Company	Depreciation
336.	2020	MD PSC	Case No. 9644	Columbia Gas of Maryland, Inc.	Depreciation
337.	2020	MO PSC	GO-2018-0309, GO-2018-0310	Spire Missouri, Inc.	Depreciation
338.	2020	VA St CC	Case No. PUR-2020-00095	Virginia Natural Gas Company	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
339.	2020	SC PSC	Docket No. 2020-125-E	Dominion Energy South Carolina, Inc.	Depreciation
340.	2020	WV PSC	Case No. 20-0745-G-D	Hope Gas, Inc. d/b/a Dominion Energy West Virginia	Depreciation
341.	2020	VA St CC	Case No. PUR-2020-00106	Aqua Virginia, Inc.	Depreciation
342.	2020	PA PUC	Docket No. R-2020-3020256	City of Bethlehem – Bureau of Water	Depreciation
343.	2020	NE PSC	Docket No. NG-109	Black Hills Nebraska	Depreciation
344.	2020	NY PSC	Case No. 20-E-0428 & 20-G-0429	Central Hudson Gas & Electric Corporation	Depreciation
345.	2020	FERC	ER20-598	Duke Energy Indiana	Depreciation
346.	2020	FERC	ER20-855	Northern Indiana Public Service Company	Depreciation
347.	2020	OR PSC	UE 374	PacifiCorp	Depreciation
348.	2020	MD PSC	Case No. 9490 Phase II	Potomac Edison – Maryland	Depreciation
349.	2020	IN URC	Case No. 45447	Southern Indiana Gas and Electric Company	Depreciation
350.	2020	IN URC	IURC Cause No. 45468	Indiana Gas Company, Inc. d/b/a Vectren Energy Delivery of	Depreciation
351.	2020	KY PSC	Case No. 2020-00349	Kentucky Utilities Company	Depreciation
352.	2020	KY PSC	Case No. 2020-00350	Louisville Gas and Electric Company	Depreciation
353.	2020	FERC	Docket No. ER21- 000	South FirstEnergy Operating Companies	Depreciation
354.	2020	OH PUC	Case Nos 20-1651-EL-AIR, 20-1652-EL-AAM & 20-1653-EL-ATA	Dayton Power and Light Company	Depreciation
355.	2020	OR PSC	UG 388	Northwest Natural Gas Company	Depreciation
356.	2020	MO PSC	Case No. GR-2021-0241	Ameren Missouri Gas	Depreciation
357.	2021	KY PSC	Case No. 2021-00103	East Kentucky Power Cooperative	Depreciation
358.	2021	MPUC	Docket No. 2021-00024	Bangor Natural Gas	Depreciation
359.	2021	PA PUC	Docket No. R-2021-3024296	Columbia Gas of Pennsylvania, Inc.	Depreciation
360.	2021	NC Util. Com.	Doc. No. G-5, Sub 632	Public Service of North Carolina	Depreciation
361.	2021	MO PSC	ER-2021-0240	Ameren Missouri	Depreciation
362.	2021	PA PUC	Docket No. R-2021-3024750	Duquesne Light Company	Depreciation
363.	2021	KS PSC	21-BHCG-418-RTS	Black Hills Kansas Gas	Depreciation
364.	2021	KY PSC	Case No. 2021-00190	Duke Energy Kentucky	Depreciation
365.	2021	OR PSC	Docket UM 2152	Portland General Electric	Depreciation
366.	2021	ILL CC	Docket No. 20-0810	North Shore Gas Company	Depreciation
367.	2021	FERC	ER21-1939-000	Duke Energy Progress	Depreciation
368.	2021	FERC	ER21-1940-000	Duke Energy Carolina	Depreciation
369.	2021	KY PSC	Case No. 2021-00183	NiSource Columbia Gas of Kentucky	Depreciation
370.	2021	MD PSC	Case No. 9664	NiSource Columbia Gas of Maryland	Depreciation
371.	2021	OH PUC	Case No. 21-0596-ST-AIR	Aqua Ohio	Depreciation
372.	2021	PA PUC	Docket No. R-2021-3026116	Hanover Borough Municipal Water Works	Depreciation
373.	2021	OR PSC	UM-2180	Idaho Power Company	Depreciation
374.	2021	ID PUC	Case No. IPC-E-21-18	Idaho Power Company	Depreciation
375.	2021	WPSC	6690-DU-104	Wisconsin Public Service Company	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
376.	2021	PAPUC	Docket No. R-2021-3026116	Borough of Hanover	Depreciation
377.	2021	OH PUC	Case No. 21-637-GA-AIR; Case No. 21-638-GA-ALT; Case No. 21-639-GA-UNC; Case No. 21-640-GA-AAM	NiSource Columbia Gas of Ohio	Depreciation
378.	2021	TX PUC	Texas PUC Docket No. 52195; SOHA Docket No. 473-21-2606	El Paso Electric	Depreciation
379.	2021	MO PSC	Case No. GR.2021-0108	Spire Missouri	Depreciation
380.	2021	WV PSC	Case No. 21-0215-WS-P	West Virginia American Water Company	Depreciation
381.	2021	FERC	ER21-2736	Duke Energy Carolinas	Depreciation
382.	2021	FERC	ER21-2737	Duke Energy Progress	Depreciation
383.	2021	IN URC	Cause #45621	Northern Indiana Public Service Company	Depreciation
384.	2021	PA PUC	Docket No. R-2021-3026682	City of Lancaster	Depreciation
385.	2021	OH PUC	Case No. 21-887-EL-AIR; Case No. 21-888-EL-ATA; Case No. 889-EI-AAM	Duke Energy Ohio	Depreciation
386.	2021	AK PSC	Docket No. 21-097-U	Black Hills Energy Arkansas, Inc.	Depreciation
387.	2021	OK CC	Cause No. PUD202100164	Oklahoma Gas & Electric	Depreciation
388.	2021	FERC	Case ER-22-392-001	El Paso Electric	Depreciation
389.	2021	FERC	Case ER-21-XXX	MidAmerican Electric	Depreciation
390.	2021	PA PUC	Docket Nos. R-2021-3027385, R-2021-3027386	Aqua Pennsylvania, Inc. Aqua Pennsylvania Wastewater, Inc.	Depreciation
391.	2022	FERC	Case ER-22-282-000	El Paso Electric	Depreciation
392.	2022	ILL CC	Docket No. 22-0154	MidAmerican Gas	Depreciation
393.	2022	MO PSC	Case No. ER-2022-0129	Evergy Metro	Depreciation
394.	2022	MO PSC	Case No. ER-2022-0130	Evergy Missouri West	Depreciation
395.	2022	PA PUC	Docket No. R-2022-3031211	NiSource Columbia Gas of Pennsylvania, Inc.	Depreciation
396.	2022	MA DPU	D.P.U. 22-20	The Berkshire Gas Company	Depreciation
397.	2022	PA PUC	R-2022-3031672; R-2022-	Pennsylvania-American Water Company	Depreciation
398.	2022	SD PUC	Docket No. NG22-	MidAmerican Gas	Depreciation
399.	2022	MD PSC	Case No. 9680	NiSource Columbia Gas of Maryland	Depreciation
400.	2022	WYPSC	Docket No. 20003-214-ER-22	Black Hills Energy – Cheyenne Light, Fuel and Power Company	Depreciation
401.	2022	MA DPU	D.P.U. 22.22	NSTAR Electric Company d/b/a Eversource Energy	Depreciation
402.	2022	NC Util Com	Docket No. W-218, Sub 573	Aqua North Carolina, Inc.	Depreciation
403.	2022	OR PUC	UM2213	Northwest Natural Gas	Depreciation
404.	2022	OR PUC	UM2214	Northwest Natural Gas	Depreciation
405.	2022	ME PUC	Docket No. 2022-00152	Central Maine Power	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
406.	2022	SC PSC	Docket No. 2022-254-E	Duke Energy Progress	Depreciation
407.	2022	NC Util Com	Docket No. E-2, SUB 1300	Duke Energy Progress	Depreciation
408.	2022	IN URC	Cause #45772	Northern Indiana Public Service Company	Depreciation
409.	2022	PA PUC	R-2022-3031340	The York Water Company	Depreciation
410.	2022	PA PUC	R-2022-3032806	The York Water Company	Depreciation
411.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Depreciation
412.	2022	MO PSC	ER-2022-0337	Ameren Missouri	Depreciation
413.	2022	OH PUC	Case No. 22-507-GA-AIR	Duke Energy Ohio	Depreciation
414.	2022	PA PUC	R-2022-3035730	National Fuel Gas Distribution Corporation – PA Division	Depreciation
415.	2022	WY PSC	20003-214-ER-22	Cheyenne Light, Fuel and Power Company	Depreciation
416.	2022	NJ BPU	BPU Docket No. ER2303144	Jersey Central Power & Light Company	Depreciation
417.	2022	KY PSC	Case No. 2022-00372	Duke Energy Kentucky	Depreciation
418.	2022	TX PUC	SOAH Docket No. 473-23-04521	Aqua Texas, Inc.	Depreciation
419.	2022	NC Util Com	Docket No. E-7, Sub 1276	Duke Energy Carolinas, LLC	Depreciation
420.	2022	KY PSC	Case No. 2022-00432	Bluegrass Water	Depreciation
421.	2023	ILL CC	Docket No. 23-0069	The Peoples Gas Light and Coke Company	Depreciation
422.	2023	ILL CC	Docket No. 23-0068	North Shore Gas Company	Depreciation
423.	2023	WV PSC	Case No. 23-0030-E-D	Monongahela Power Company and The Potomac Edison Company	Depreciation
424.	2023	ID PUC	AVU-E-23-01; AVU-G-23-01	Avista Corporation	Depreciation
425.	2023	ILL CC	Docket No. 23-0066	Northern Illinois Gas Company d/b/a Nicor Gas Company	Depreciation
426.	2023	SC PSC	Docket No. 2023-70-G	Dominion Energy South Carolina, Inc.	Depreciation
427.	2023	FERC	Docket No. ER23-xxx-00	Duke Energy Ohio, Inc.	Depreciation
428.	2023	WY PSC	Docket No. 30036-78-GR-23	Black Hills Wyoming Gas Company d/b/a Black Hills Energy	Depreciation
429.	2023	PSC MD	Case No. 9695	The Potomac Edison Company	Depreciation
430.	2023	OR PUC	Case No. UM2277	Avista Corporation	Depreciation
431.	2023	FERC	Docket No. ER23-xxx-000	PPL Electric Utilities	Depreciation
432.	2023	OH PUC	Case No. 23-0154-GA-AIR	Northeast Ohio Natural Gas Corporation	Depreciation
433.	2023	DE PSC	PSC Docket No. 23-0601	Artesian Water Company	Depreciation
434.	2023	CO PUC	No. 23AL-0231G	Black Hills Colorado d/b/a Black Hills Energy	Depreciation
435.	2023	NH PUC	Docket No. DE 23-039	Granite State Electric d/b/a Liberty Utilities	Depreciation
436.	2023	MD PSC	Case No. 9701	Columbia Gas of Maryland	Depreciation
437.	2023	NY PSC	Case Nos. 23-E-0418; 23-G-0419	Central Hudson Gas and Electric	Depreciation
438.	2023	FERC	Docket No. ER23-xxx-000	Central Maine Power Company	Depreciation
439.	2023	SD PUC	Docket Number EL23-016	Northwestern Energy	Depreciation
440.	2023	CT PURA	Docket No. 23-08-32	Connecticut Water Company	Depreciation
441.	2023	IN URC	Cause No. 45911	Indianapolis Power & Light	Depreciation





## Appendix B

Pennsylvania-American Water Company  
Data Requirements of the Pennsylvania Public Utility Commission  
Depreciation Study

FR VI.1

**Pennsylvania-American Water Company**  
**VI. Depreciation**

1. Provide a description of the depreciation methods used to calculate annual depreciation amounts and depreciation reserves, together with a discussion of the factors which were considered in arriving at estimates of service life and dispersion by account. Supply a comprehensive statement of any changes made in method of depreciation. Provide dates of all field inspections and facilities visited.

**Answer:**

The depreciation methods utilized in calculating annual and accrued depreciation are discussed in Exhibit No. 11-B in Part IV of the water depreciation study. The calculation of annual and accrued depreciation are discussed in Exhibit Nos. 11-E, 11-G, 11-I and 11-L in Part IV of the wastewater depreciation studies.

Field trips and facilities visited for Pennsylvania-American Water Company water and wastewater systems are presented in Part III. Service Life Considerations, in Exhibit Nos. 11-B, 11-E, 11-G, 11-I and 11-L of those that had recent visits.

Pennsylvania-American Water Company  
Data Requirements of the Pennsylvania Public Utility Commission  
Depreciation Study

FR VI.2

**Pennsylvania-American Water Company**  
**VI. Depreciation**

2. Set forth, in exhibit form, charts depicting the original and estimated survivor curves and a tabular presentation of the original life table plotted on the chart for each account where the retirement rate method of analysis is utilized.

**Answer:**

Charts depicting the original and estimated survivor curves and a tabular presentation of the original life table plotted on the chart for each account where the retirement rate method of analysis is utilized is presented in Exhibit No. 11-B in Part VI. Service Life Statistics, of the water depreciation study. The original and estimated survivor curves and a tabular presentation of the original life table plotted on the chart for each account where the retirement rate method of analysis is utilized is presented in Exhibit Nos. 11-E, 11-G, 11-I and 11-L in Part VI. Service Life Statistics, for wastewater depreciation studies.

Pennsylvania-American Water Company  
Data Requirements of the Pennsylvania Public Utility Commission  
Depreciation Study

FR VI.3

**Pennsylvania-American Water Company**  
**VI. Depreciation**

3. Provide the surviving original cost at historic test year-end by vintage by account and include applicable depreciation reserves and accruals. These calculations should be provided for plant in service as well as other categories of plant, including contributions in aid of construction and customers' advances for construction.

**Answer:**

The surviving original cost at the end of the historical year June 30, 2023 by vintage by account and the applicable depreciation reserve for utility plant are presented in Exhibit No. 11-A beginning on page II-8, in Exhibit No. 11-D beginning on page II-7, and in Exhibit No. 11-K beginning on page II-6.

The surviving original cost at test year end June 30, 2024, by vintage by account and the applicable depreciation reserve for utility plant are presented in Exhibit No. 11-B beginning on page VII-8, in Exhibit No. 11-E beginning on page VII-7, in Exhibit No. 11-G beginning on page VII-6, in Exhibit No. 11-I beginning on page VII-6, and in Exhibit No. 11-L beginning on page VII-6.

The surviving original cost at test year end June 30, 2025, by vintage by account and the applicable depreciation reserve for utility plant are presented in Exhibit No. 11-C beginning on page II-7, in Exhibit No. 11-F beginning on page II-7, in Exhibit No. 11-H beginning on page II-6, in Exhibit No. 11-J beginning on page II-6, and in Exhibit No. 11-M beginning on page II-6.

Pennsylvania-American Water Company  
Data Requirements of the Pennsylvania Public Utility Commission  
Depreciation Study

FR VI.4

**Pennsylvania-American Water Company**  
**VI. Depreciation**

4. Provide a comparison of the calculated depreciation reserve used for ratemaking purposes v. the book reserve by account at the end of the test year, if they differ.

**Answer:**

A comparison of the calculated depreciation reserve v. book reserve by account at June 30, 2023, at June 30, 2024, and at June 30, 2025, are attached as pages FR VI.4 (2) through (20) for all water and wastewater systems by account.

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2023**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK DEPRECIATION RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
303.14 WATER RIGHTS - HIBERNIA	1,942,823	1,942,823
303.35 WASTE HANDLING AND TREATMENT LAND	99,548	131,860
303.99 COMPREHENSIVE PLANNING STUDIES	9,145,491	7,254,665
304.15 OTHER WATER SOURCE STRUCTURES	15,309,490	7,841,590
304.20 POWER AND PUMING STRUCTURES		
LARGE STRUCTURES	17,219,794	8,229,846
OTHER STRUCTURES	17,533,987	8,380,009
TOTAL ACCOUNT 304.2	34,753,781	16,609,855
304.30 PURIFICATION BUILDINGS		
LARGE STRUCTURES	99,183,411	100,397,397
OTHER STRUCTURES	13,257,260	13,292,910
TOTAL ACCOUNT 304.3	112,440,671	113,690,307
304.36 WASTE HANDLING AND TREATMENT STRUCTURES	8,632,820	7,463,436
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	327,929	331,573
304.39 PURIFICATION BUILDINGS - TANK PAINTING	111,088	112,323
304.61 OFFICE BUILDINGS		
LARGE STRUCTURES	6,888,644	6,169,390
OTHER STRUCTURES	4,356,055	3,901,233
TOTAL ACCOUNT 304.61	11,244,699	10,070,623
304.62 STORES, SHOP AND GARAGE BUILDINGS		
LARGE STRUCTURES	11,120,532	15,227,016
OTHER STRUCTURES	3,073,693	4,208,717
TOTAL ACCOUNT 304.62	14,194,225	19,435,733
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	1,255,286	3,630,315
TOTAL ACCOUNT 304	198,269,989	179,185,755
305.00 COLLECTING AND IMPOUNDING RESERVOIRS		
LARGE RESERVOIRS	24,585,414	20,920,002
OTHER RESERVOIRS	3,612,251	2,979,691
TOTAL ACCOUNT 305	28,197,665	23,899,693
306.00 LAKE, RIVER AND OTHER INTAKES		
LARGE RESERVOIRS	6,158,658	4,748,401
OTHER RESERVOIRS	2,127,280	1,640,159
TOTAL ACCOUNT 306	8,285,938	6,388,560
307.00 WELLS AND SPRINGS	4,292,670	3,401,063
310.00 POWER GENERATION EQUIPMENT	5,730,174	6,293,958

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2023**

DEPRECIABLE GROUP (1)	CALCULATED ACCRUED DEPRECIATION (2)	BOOK DEPRECIATION RESERVE (3)
PUMPING EQUIPMENT		
311.20 ELECTRIC	4,551,210	3,968,076
311.50 OTHER	1,318,570	1,149,625
311.52 SOURCE OF SUPPLY	3,171,140	2,764,830
311.53 WATER TREATMENT	28,946,048	25,237,269
311.54 TRANSMISSION AND DISTRIBUTION	2,628,133	2,291,397
TOTAL ACCOUNT 311	40,615,101	35,411,197
PURIFICATION SYSTEM		
320.10 LARGE STRUCTURES		
LARGE STRUCTURES	88,489,519	85,325,556
OTHER STRUCTURES	5,437,563	5,243,141
TOTAL ACCOUNT 320.1	93,927,082	90,568,697
320.18 LARGE STRUCTURES PAINT	103,246	103,246
320.19 LARGE STRUCTURES PAINT	3,172,535	3,059,100
320.20 CHEMICAL TREATMENT	31,738,957	30,603,828
320.29 CHEMICAL TREATMENT PAINT	8,168	8,168
320.30 GRANULAR ACTIVATED CARBON	6,187,381	5,555,240
320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT	9,280,387	10,673,814
TOTAL ACCOUNT 320	144,417,756	140,572,093
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	41,633,998	39,932,025
330.10 ELEVATED TANKS AND STANDPIPES	2,388,457	2,290,818
330.20 GROUND LEVEL FACILITIES	2,910,124	2,791,160
330.30 BELOW GRADE FACILITIES	165,419	158,657
330.40 CLEARWELL	2,728,695	2,617,148
330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	2,175,252	2,086,329
330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	27,594,504	26,466,456
TOTAL ACCOUNT 330	79,596,449	76,342,593
331.00 MAINS AND ACCESSORIES	577,672,113	342,396,516
333.00 SERVICES	184,527,160	158,738,784
334.00 METERS AND METER INSTALLATIONS	89,805,421	76,372,916
335.00 FIRE HYDRANTS	31,686,398	19,446,220
340.00 OFFICE FURNITURE AND EQUIPMENT		
FURNITURE	2,098,804	1,060,253
COMPUTERS AND PERIPHERAL EQUIPMENT	5,682,329	2,870,542
COMPUTER SOFTWARE	42,349,147	21,393,515
COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	1,373,765	693,985
OTHER OFFICE EQUIPMENT	3,640	1,839
TOTAL ACCOUNT 340	51,507,685	26,020,134



**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2023**

DEPRECIABLE GROUP	CALCULATED ACCRUED DEPRECIATION	BOOK DEPRECIATION RESERVE
(1)	(2)	(3)
341.00 TRANSPORTATION EQUIPMENT		
NOT CLASSIFIED	1,115	1,555
LIGHT DUTY TRUCKS	18,179,276	25,350,423
EQUIPMENT	10,477,214	14,610,142
AUTOS	1,539,762	1,767,676
OTHER	4,569,847	6,372,507
TOTAL ACCOUNT 341	34,767,214	48,102,303
342.00 STORES EQUIPMENT	130,503	67,164
343.00 TOOLS AND WORK EQUIPMENT	11,779,457	9,326,628
344.00 LABORATORY EQUIPMENT	1,007,188	381,654
345.00 POWER OPERATED EQUIPMENT	1,393,061	1,356,764
346.00 COMMUNICATION EQUIPMENT		
EQUIPMENT	375,259	325,497
NON-TELEPHONE	1,766,586	1,532,326
REMOTE CONTROL AND INSTRUMENTATION	1,649,672	1,430,915
TELEPHONE	165,040	143,155
TOTAL ACCOUNT 346	3,956,557	3,431,893
347.00 MISCELLANEOUS EQUIPMENT	5,573,896	3,893,050
348.00 OTHER TANGIBLE EQUIPMENT	483,442	477,612
<b>TOTAL DEPRECIABLE PLANT</b>	<b>1,514,883,699</b>	<b>1,170,835,898</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2024**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK DEPRECIATION RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
303.14 WATER RIGHTS - HIBERNIA	1,942,823	1,942,823
303.35 WASTE HANDLING AND TREATMENT LAND	102,210	133,178
303.99 COMPREHENSIVE PLANNING STUDIES	9,931,140	9,027,061
304.15 OTHER WATER SOURCE STRUCTURES	17,232,964	8,694,594
304.20 POWER AND PUMING STRUCTURES		
LARGE STRUCTURES	18,365,883	9,393,614
OTHER STRUCTURES	17,719,291	9,065,637
TOTAL ACCOUNT 304.2	36,085,174	18,459,251
304.30 PURIFICATION BUILDINGS		
LARGE STRUCTURES	105,573,133	106,630,080
OTHER STRUCTURES	14,054,818	14,186,360
TOTAL ACCOUNT 304.3	119,627,951	120,816,440
304.36 WASTE HANDLING AND TREATMENT STRUCTURES	9,245,070	8,232,332
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	464,439	467,566
304.39 PURIFICATION BUILDINGS - TANK PAINTING	115,225	115,844
304.61 OFFICE BUILDINGS		
LARGE STRUCTURES	7,550,288	6,804,093
OTHER STRUCTURES	4,662,999	4,195,737
TOTAL ACCOUNT 304.61	12,213,287	10,999,830
304.62 STORES, SHOP AND GARAGE BUILDINGS		
LARGE STRUCTURES	12,607,648	16,666,286
OTHER STRUCTURES	3,028,327	4,018,892
TOTAL ACCOUNT 304.62	15,635,975	20,685,178
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	1,314,547	3,313,011
TOTAL ACCOUNT 304	211,934,632	191,784,046
305.00 COLLECTING AND IMPOUNDING RESERVOIRS		
LARGE RESERVOIRS	26,008,937	22,219,353
OTHER RESERVOIRS	3,459,226	2,875,666
TOTAL ACCOUNT 305	29,468,163	25,095,019
306.00 LAKE, RIVER AND OTHER INTAKES		
LARGE RESERVOIRS	6,359,098	5,020,651
OTHER RESERVOIRS	2,131,124	1,689,487
TOTAL ACCOUNT 306	8,490,222	6,710,138
307.00 WELLS AND SPRINGS	4,434,071	3,612,473
310.00 POWER GENERATION EQUIPMENT	5,838,959	5,546,185

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2024**

DEPRECIABLE GROUP (1)	CALCULATED ACCRUED DEPRECIATION (2)	BOOK DEPRECIATION RESERVE (3)
PUMPING EQUIPMENT		
311.20 ELECTRIC	4,844,348	3,183,068
311.50 OTHER	1,672,127	770,023
311.52 SOURCE OF SUPPLY	3,467,240	3,000,408
311.53 WATER TREATMENT	29,586,674	26,577,175
311.54 TRANSMISSION AND DISTRIBUTION	<u>2,764,535</u>	<u>2,497,330</u>
TOTAL ACCOUNT 311	42,334,924	36,028,004
PURIFICATION SYSTEM		
320.10 LARGE STRUCTURES		
LARGE STRUCTURES	90,191,729	84,182,848
OTHER STRUCTURES	<u>4,120,777</u>	<u>3,846,140</u>
TOTAL ACCOUNT 320.1	94,312,506	88,028,988
320.18 LARGE STRUCTURES PAINT	103,246	103,246
320.19 LARGE STRUCTURES PAINT	3,235,334	3,139,061
320.20 CHEMICAL TREATMENT	33,332,547	30,308,513
320.29 CHEMICAL TREATMENT PAINT	8,168	8,168
320.30 GRANULAR ACTIVATED CARBON	6,889,279	6,870,691
320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT	<u>9,509,536</u>	<u>10,789,269</u>
TOTAL ACCOUNT 320	147,390,616	139,247,936
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	43,197,891	42,731,163
330.10 ELEVATED TANKS AND STANDPIPES	2,642,835	2,576,544
330.20 GROUND LEVEL FACILITIES	3,202,967	2,447,602
330.30 BELOW GRADE FACILITIES	179,290	174,867
330.40 CLEARWELL	2,946,485	2,868,151
330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	2,211,744	2,164,662
330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	<u>29,210,004</u>	<u>28,235,459</u>
TOTAL ACCOUNT 330	83,591,216	81,198,448
331.00 MAINS AND ACCESSORIES	593,557,613	317,168,189
333.00 SERVICES	192,872,715	165,593,656
334.00 METERS AND METER INSTALLATIONS	96,876,371	86,478,411
335.00 FIRE HYDRANTS	33,267,649	20,657,896
340.00 OFFICE FURNITURE AND EQUIPMENT		
FURNITURE	2,514,714	1,627,429
COMPUTERS AND PERIPHERAL EQUIPMENT	7,697,701	4,881,170
COMPUTER SOFTWARE	54,205,498	32,442,490
COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	999,169	343,459
OTHER OFFICE EQUIPMENT	<u>4,550</u>	<u>3,049</u>
TOTAL ACCOUNT 340	65,421,632	39,297,597

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2024**

<b>DEPRECIABLE GROUP</b>	<b>CALCULATED ACCRUED DEPRECIATION</b>	<b>BOOK DEPRECIATION RESERVE</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
341.00 TRANSPORTATION EQUIPMENT		
NOT CLASSIFIED	1,339	1,734
LIGHT DUTY TRUCKS	22,657,537	28,279,582
EQUIPMENT	11,399,290	15,100,515
AUTOS	1,591,472	1,837,721
OTHER	<u>5,004,536</u>	<u>6,612,942</u>
TOTAL ACCOUNT 341	40,654,174	51,832,494
342.00 STORES EQUIPMENT	153,969	98,512
343.00 TOOLS AND WORK EQUIPMENT	14,093,359	11,953,618
344.00 LABORATORY EQUIPMENT	1,084,806	624,008
345.00 POWER OPERATED EQUIPMENT	1,443,675	1,449,816
346.00 COMMUNICATION EQUIPMENT		
EQUIPMENT	705,173	671,739
NON-TELEPHONE	2,355,119	2,158,396
REMOTE CONTROL AND INSTRUMENTATION	2,028,877	1,864,142
TELEPHONE	<u>195,334</u>	<u>185,515</u>
TOTAL ACCOUNT 346	5,284,503	4,879,792
347.00 MISCELLANEOUS EQUIPMENT	6,900,856	5,438,554
348.00 OTHER TANGIBLE EQUIPMENT	<u>515,267</u>	<u>510,231</u>
<b>TOTAL DEPRECIABLE PLANT</b>	<b><u><u>1,597,585,565</u></u></b>	<b><u><u>1,206,308,085</u></u></b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2025**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK DEPRECIATION RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
303.14 WATER RIGHTS - HIBERNIA	1,942,823	1,942,823
303.35 WASTE HANDLING AND TREATMENT LAND	105,361	134,486
303.99 COMPREHENSIVE PLANNING STUDIES	10,699,631	10,223,405
304.15 OTHER WATER SOURCE STRUCTURES	19,556,707	11,659,067
304.20 POWER AND PUMING STRUCTURES		
LARGE STRUCTURES	19,504,396	10,740,331
OTHER STRUCTURES	18,241,386	10,044,840
TOTAL ACCOUNT 304.2	37,745,782	20,785,171
304.30 PURIFICATION BUILDINGS		
LARGE STRUCTURES	111,434,377	111,411,219
OTHER STRUCTURES	13,455,501	13,452,705
TOTAL ACCOUNT 304.3	124,889,878	124,863,924
304.36 WASTE HANDLING AND TREATMENT STRUCTURES	9,857,422	8,631,394
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	600,950	603,418
304.39 PURIFICATION BUILDINGS - TANK PAINTING	119,363	119,360
304.61 OFFICE BUILDINGS		
LARGE STRUCTURES	8,021,193	7,107,547
OTHER STRUCTURES	4,959,934	4,394,978
TOTAL ACCOUNT 304.61	12,981,127	11,502,525
304.62 STORES, SHOP AND GARAGE BUILDINGS		
LARGE STRUCTURES	14,094,355	18,101,774
OTHER STRUCTURES	3,288,358	4,223,330
TOTAL ACCOUNT 304.62	17,382,713	22,325,104
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	1,411,348	2,856,281
TOTAL ACCOUNT 304	224,545,290	203,346,244
305.00 COLLECTING AND IMPOUNDING RESERVOIRS		
LARGE RESERVOIRS	27,661,886	7,708,843
OTHER RESERVOIRS	1,459,992	242,940
TOTAL ACCOUNT 305	29,121,878	7,951,783
306.00 LAKE, RIVER AND OTHER INTAKES		
LARGE RESERVOIRS	6,529,070	5,242,607
OTHER RESERVOIRS	2,082,880	1,672,477
TOTAL ACCOUNT 306	8,611,950	6,915,084
307.00 WELLS AND SPRINGS	4,939,269	4,240,951
310.00 POWER GENERATION EQUIPMENT	6,380,566	6,082,054

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2025**

DEPRECIABLE GROUP (1)	CALCULATED ACCRUED DEPRECIATION (2)	BOOK DEPRECIATION RESERVE (3)
PUMPING EQUIPMENT		
311.20 ELECTRIC	5,281,367	1,928,386
311.50 OTHER	2,152,227	251,890
311.52 SOURCE OF SUPPLY	3,791,172	3,436,500
311.53 WATER TREATMENT	30,210,343	27,854,875
311.54 TRANSMISSION AND DISTRIBUTION	<u>2,892,243</u>	<u>2,696,554</u>
TOTAL ACCOUNT 311	44,327,352	36,168,205
PURIFICATION SYSTEM		
320.10 LARGE STRUCTURES		
LARGE STRUCTURES	94,634,111	88,380,857
OTHER STRUCTURES	<u>3,726,066</u>	<u>3,479,854</u>
TOTAL ACCOUNT 320.1	98,360,177	91,860,711
320.18 LARGE STRUCTURES PAINT	103,246	103,246
320.19 LARGE STRUCTURES PAINT	3,298,133	3,220,121
320.20 CHEMICAL TREATMENT	32,638,112	23,764,484
320.29 CHEMICAL TREATMENT PAINT	8,168	8,168
320.30 GRANULAR ACTIVATED CARBON	7,531,745	7,963,693
320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT	<u>9,224,787</u>	<u>10,134,011</u>
TOTAL ACCOUNT 320	151,164,368	137,054,434
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	44,513,361	43,738,815
330.10 ELEVATED TANKS AND STANDPIPES	3,120,959	2,970,426
330.20 GROUND LEVEL FACILITIES	3,564,278	2,865,778
330.30 BELOW GRADE FACILITIES	193,086	190,827
330.40 CLEARWELL	3,159,144	3,116,599
330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	2,248,235	2,244,150
330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	<u>30,555,941</u>	<u>29,713,492</u>
TOTAL ACCOUNT 330	87,355,004	84,840,087
331.00 MAINS AND ACCESSORIES	623,925,471	320,293,493
333.00 SERVICES	201,859,476	173,808,467
334.00 METERS AND METER INSTALLATIONS	105,490,025	98,232,397
335.00 FIRE HYDRANTS	35,094,743	22,126,934
340.00 OFFICE FURNITURE AND EQUIPMENT		
FURNITURE	2,980,598	2,225,292
COMPUTERS AND PERIPHERAL EQUIPMENT	10,163,055	7,353,689
COMPUTER SOFTWARE	50,909,155	29,417,612
COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	168,216	16,573
OTHER OFFICE EQUIPMENT	<u>5,461</u>	<u>4,261</u>
TOTAL ACCOUNT 340	64,226,485	39,017,427

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK DEPRECIATION RESERVE AS OF JUNE 30, 2025**

<b>DEPRECIABLE GROUP</b>	<b>CALCULATED ACCRUED DEPRECIATION</b>	<b>BOOK DEPRECIATION RESERVE</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
341.00 TRANSPORTATION EQUIPMENT		
NOT CLASSIFIED	1,539	1,902
LIGHT DUTY TRUCKS	27,346,723	32,074,239
EQUIPMENT	12,408,192	15,866,742
AUTOS	1,733,535	1,662,086
OTHER	<u>5,368,149</u>	<u>6,832,146</u>
TOTAL ACCOUNT 341	46,858,138	56,437,115
342.00 STORES EQUIPMENT	177,459	128,629
343.00 TOOLS AND WORK EQUIPMENT	16,505,924	14,656,979
344.00 LABORATORY EQUIPMENT	1,087,795	727,066
345.00 POWER OPERATED EQUIPMENT	1,476,652	1,506,133
346.00 COMMUNICATION EQUIPMENT		
EQUIPMENT	877,468	898,903
NON-TELEPHONE	3,061,023	2,888,978
REMOTE CONTROL AND INSTRUMENTATION	2,478,395	2,361,391
TELEPHONE	<u>148,457</u>	<u>138,370</u>
TOTAL ACCOUNT 346	6,565,343	6,287,642
347.00 MISCELLANEOUS EQUIPMENT	8,511,662	7,309,665
348.00 OTHER TANGIBLE EQUIPMENT	<u>1,105,637</u>	<u>936,806</u>
<b>TOTAL DEPRECIABLE PLANT</b>	<b><u><u>1,682,078,302</u></u></b>	<b><u><u>1,240,368,309</u></u></b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2023**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	431,613	45,562
354.30 STRUCTURES AND IMPROVEMENTS - SPP	6,981,186	8,246,486
354.40 STRUCTURES AND IMPROVEMENTS - TDP	135,058,224	81,813,715
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	899,419	1,813,015
355.00 POWER GENERATION EQUIPMENT	2,508,211	3,429,449
360.10 COLLECTION SEWERS - FORCE MAINS	8,715,673	4,624,342
361.10 COLLECTION SEWERS - GRAVITY MAINS	74,484,195	48,387,077
361.20 MANHOLES	21,533,970	10,598,056
363.00 SERVICES	31,572,252	24,434,472
364.00 FLOW MEASURING DEVICES	439,076	278,146
365.00 FLOW MEASURING INSTALLATIONS	242,524	219,699
370.00 RECEIVING WELLS	87,356	47,932
371.00 PUMPING EQUIPMENT	4,295,817	2,202,233
380.00 TREATMENT EQUIPMENT	48,946,797	23,479,248
381.00 PLANT SEWERS	1,837,334	1,613,223
382.00 OUTFALL SEWER LINES	250,819	247,981
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	280,281	280,396
390.00 OFFICE FURNITURE AND EQUIPMENT	211,569	127,679
391.00 TRANSPORTATION EQUIPMENT	961,033	790,481
392.00 STORES EQUIPMENT	35,572	35,455
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	335,011	361,985
394.00 LABORATORY EQUIPMENT	349,993	147,330
395.00 POWER OPERATED EQUIPMENT	194,102	226,648
396.00 COMMUNICATION EQUIPMENT	1,166,719	1,192,577
397.00 MISCELLANEOUS EQUIPMENT	203,468	309,606
398.00 OTHER TANGIBLE PLANT	2,277	1,363
<b>TOTAL DEPRECIABLE PLANT</b>	<b><u>342,024,491</u></b>	<b><u>214,954,156</u></b>



**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2024**

<b>DEPRECIABLE GROUP</b>	<b>CALCULATED ACCRUED DEPRECIATION</b>	<b>BOOK RESERVE</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	623,528	176,042
354.30 STRUCTURES AND IMPROVEMENTS - SPP	7,251,874	8,716,727
354.40 STRUCTURES AND IMPROVEMENTS - TDP	138,224,577	89,164,962
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	940,758	1,376,318
355.00 POWER GENERATION EQUIPMENT	2,509,383	3,253,556
360.10 COLLECTION SEWERS - FORCE MAINS	9,252,983	5,043,190
361.10 COLLECTION SEWERS - GRAVITY MAINS	76,246,559	51,938,655
361.20 MANHOLES	22,029,285	12,533,389
363.00 SERVICES	32,116,145	25,757,379
364.00 FLOW MEASURING DEVICES	460,139	355,096
365.00 FLOW MEASURING INSTALLATIONS	244,839	232,673
370.00 RECEIVING WELLS	101,936	64,325
371.00 PUMPING EQUIPMENT	4,695,096	2,784,876
380.00 TREATMENT EQUIPMENT	51,959,588	29,034,139
381.00 PLANT SEWERS	1,971,772	1,763,887
382.00 OUTFALL SEWER LINES	262,013	260,812
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	388,518	420,360
390.00 OFFICE FURNITURE AND EQUIPMENT	273,992	201,196
390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL	2,254	4,509
391.00 TRANSPORTATION EQUIPMENT	1,145,323	1,061,888
392.00 STORES EQUIPMENT	39,866	39,760
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	397,233	429,941
394.00 LABORATORY EQUIPMENT	347,365	233,954
395.00 POWER OPERATED EQUIPMENT	212,952	244,267
396.00 COMMUNICATION EQUIPMENT	1,393,820	1,450,052
397.00 MISCELLANEOUS EQUIPMENT	311,096	419,996
398.00 OTHER TANGIBLE PLANT	2,846	2,226
<b>TOTAL DEPRECIABLE PLANT</b>	<b>353,405,740</b>	<b>236,964,175</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2025**

<b>DEPRECIABLE GROUP</b>	<b>CALCULATED ACCRUED DEPRECIATION</b>	<b>BOOK RESERVE</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	837,924	380,112
354.30 STRUCTURES AND IMPROVEMENTS - SPP	7,611,290	9,170,329
354.40 STRUCTURES AND IMPROVEMENTS - TDP	141,616,012	96,268,382
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	1,005,232	673,908
355.00 POWER GENERATION EQUIPMENT	2,680,780	3,456,913
360.10 COLLECTION SEWERS - FORCE MAINS	9,900,099	5,734,022
361.10 COLLECTION SEWERS - GRAVITY MAINS	78,426,909	54,970,487
361.20 MANHOLES	22,634,966	14,433,486
363.00 SERVICES	32,910,052	27,497,792
364.00 FLOW MEASURING DEVICES	478,615	418,708
365.00 FLOW MEASURING INSTALLATIONS	247,635	242,861
370.00 RECEIVING WELLS	116,599	80,585
371.00 PUMPING EQUIPMENT	5,098,635	2,894,563
380.00 TREATMENT EQUIPMENT	54,711,678	33,395,194
381.00 PLANT SEWERS	2,104,812	1,913,233
382.00 OUTFALL SEWER LINES	173,092	98,934
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	480,233	498,651
390.00 OFFICE FURNITURE AND EQUIPMENT	338,257	274,524
390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL	9,018	13,053
391.00 TRANSPORTATION EQUIPMENT	1,420,354	1,374,586
392.00 STORES EQUIPMENT	44,160	44,068
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	467,585	499,803
394.00 LABORATORY EQUIPMENT	286,378	193,788
395.00 POWER OPERATED EQUIPMENT	186,523	101,924
396.00 COMMUNICATION EQUIPMENT	1,131,244	1,194,139
397.00 MISCELLANEOUS EQUIPMENT	448,068	567,764
398.00 OTHER TANGIBLE PLANT	3,416	2,951
<b>TOTAL DEPRECIABLE PLANT</b>	<b>365,369,566</b>	<b>256,394,760</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2024**

<b>DEPRECIABLE GROUP</b>	<b>CALCULATED ACCRUED DEPRECIATION</b>	<b>BOOK RESERVE</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	69	135
354.30 STRUCTURES AND IMPROVEMENTS - SPP	9,498,187	8,986,667
354.40 STRUCTURES AND IMPROVEMENTS - TDP	6,452,292	7,044,159
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	3,730,540	2,637,296
355.00 POWER GENERATING EQUIPMENT	742,313	652,135
360.10 COLLECTION SEWERS - FORCE MAINS	1,578,908	1,412,550
361.10 COLLECTION SEWERS - GRAVITY MAINS	21,417,436	19,662,798
361.20 MANHOLES	35	78
363.00 SERVICES	5,203,488	4,683,777
364.00 FLOW MEASURING DEVICES	260,700	201,522
371.00 PUMPING EQUIPMENT	2,419,838	1,988,559
380.00 TREATMENT EQUIPMENT	9,148,084	7,240,178
382.00 OUTFALL SEWER LINES	23,165	22,054
390.00 OFFICE FURNITURE AND EQUIPMENT	8,792	6,749
390.20 COMPUTER AND PERIPHERAL EQUIPMENT	70,662	51,503
391.00 TRANSPORTATION EQUIPMENT	479,490	386,529
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	262	539
395.00 POWER OPERATED EQUIPMENT	538,546	526,945
396.00 COMMUNICATION EQUIPMENT	517,458	431,670
397.00 MISCELLANEOUS EQUIPMENT	3,060	3,060
<b>TOTAL DEPRECIABLE PLANT</b>	<b>62,093,325</b>	<b>55,938,903</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2025**

<b>DEPRECIABLE GROUP</b>	<b>CALCULATED ACCRUED DEPRECIATION</b>	<b>BOOK RESERVE</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	55,214	10,466
354.30 STRUCTURES AND IMPROVEMENTS - SPP	10,100,072	9,752,034
354.40 STRUCTURES AND IMPROVEMENTS - TDP	6,586,234	7,202,547
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	3,884,824	3,034,159
355.00 POWER GENERATING EQUIPMENT	769,923	689,571
360.10 COLLECTION SEWERS - FORCE MAINS	1,634,698	1,482,222
361.10 COLLECTION SEWERS - GRAVITY MAINS	21,832,910	19,919,455
361.20 MANHOLES	1,954	1,900
363.00 SERVICES	5,310,456	4,876,016
364.00 FLOW MEASURING DEVICES	264,355	233,538
371.00 PUMPING EQUIPMENT	2,320,173	1,823,320
380.00 TREATMENT EQUIPMENT	9,552,926	7,979,654
382.00 OUTFALL SEWER LINES	23,404	22,618
390.00 OFFICE FURNITURE AND EQUIPMENT	11,994	1,121
390.20 COMPUTER AND PERIPHERAL EQUIPMENT	6,778	3,882
391.00 TRANSPORTATION EQUIPMENT	511,689	469,399
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	2,924	4,894
395.00 POWER OPERATED EQUIPMENT	576,479	580,933
396.00 COMMUNICATION EQUIPMENT	141,504	53,284
<b>TOTAL DEPRECIABLE PLANT</b>	<b>63,588,511</b>	<b>58,141,013</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2024**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
361.10 COLLECTION SEWERS - GRAVITY MAINS	2,523,505	2,120,652
361.20 MANHOLES	548,661	359,710
363.00 SERVICES	286,796	246,411
390.00 OFFICE FURNITURE AND EQUIPMENT	13	26
391.00 TRANSPORTATION EQUIPMENT	279	509
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	131	263
	<u>3,359,385</u>	<u>2,727,571</u>
<b>TOTAL DEPRECIABLE PLANT</b>		

**PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2025**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
361.10 COLLECTION SEWERS - GRAVITY MAINS	2,350,505	1,713,845
361.20 MANHOLES	559,647	403,896
363.00 SERVICES	289,940	253,860
390.00 OFFICE FURNITURE AND EQUIPMENT	101	222
391.00 TRANSPORTATION EQUIPMENT	2,165	4,601
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,081	2,242
	<u>3,203,439</u>	<u>2,378,666</u>
<b>TOTAL DEPRECIABLE PLANT</b>		

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2023**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	601,958	573,427
354.30 STRUCTURES AND IMPROVEMENTS - SPP	6,829,278	7,304,734
354.40 STRUCTURES AND IMPROVEMENTS - TDP	49,366,439	52,990,817
355.00 POWER GENERATING EQUIPMENT	311,456	296,907
360.10 COLLECTION SEWERS - FORCE MAINS	684,738	567,264
361.10 COLLECTION SEWERS - GRAVITY MAINS	153,455,947	150,631,841
361.20 MANHOLES	22,732,877	20,528,009
363.00 SERVICES	6,257,116	5,815,433
364.00 FLOW MEASURING DEVICES	948,932	728,505
371.00 PUMPING EQUIPMENT	4,874,779	4,539,008
380.00 TREATMENT EQUIPMENT	30,783,750	26,850,889
381.00 PLANT SEWERS	786,488	800,718
382.00 OUTFALL SEWER LINES	21,661	50,018
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	3,217,166	2,553,314
390.00 OFFICE FURNITURE AND EQUIPMENT	584,520	377,432
391.00 TRANSPORTATION EQUIPMENT	3,744,511	3,816,617
392.00 STORES EQUIPMENT	13,590	11,756
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	369,688	334,814
394.00 LABORATORY EQUIPMENT	186,510	149,758
395.00 POWER OPERATED EQUIPMENT	773,253	957,232
396.00 COMMUNICATION EQUIPMENT	868,064	825,358
397.00 MISCELLANEOUS EQUIPMENT	507,226	434,518
<b>TOTAL DEPRECIABLE PLANT</b>	<b><u>287,919,947</u></b>	<b><u>281,138,370</u></b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2024**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	790,743	678,726
354.30 STRUCTURES AND IMPROVEMENTS - SPP	7,168,957	7,754,269
354.40 STRUCTURES AND IMPROVEMENTS - TDP	50,551,095	53,649,066
355.00 POWER GENERATING EQUIPMENT	330,980	315,200
360.10 COLLECTION SEWERS - FORCE MAINS	413,620	336,740
361.10 COLLECTION SEWERS - GRAVITY MAINS	155,993,589	150,264,489
361.20 MANHOLES	22,401,214	20,545,147
363.00 SERVICES	6,341,966	5,504,611
364.00 FLOW MEASURING DEVICES	1,064,786	912,915
371.00 PUMPING EQUIPMENT	5,234,173	4,868,761
380.00 TREATMENT EQUIPMENT	32,323,559	29,306,935
381.00 PLANT SEWERS	812,126	832,403
382.00 OUTFALL SEWER LINES	25,821	54,342
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	3,758,863	3,198,085
390.00 OFFICE FURNITURE AND EQUIPMENT	714,494	541,121
391.00 TRANSPORTATION EQUIPMENT	4,145,008	4,318,769
392.00 STORES EQUIPMENT	17,864	16,115
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	489,491	482,262
394.00 LABORATORY EQUIPMENT	274,560	250,520
395.00 POWER OPERATED EQUIPMENT	846,842	1,033,646
396.00 COMMUNICATION EQUIPMENT	1,054,042	1,028,735
397.00 MISCELLANEOUS EQUIPMENT	687,363	630,605
<b>TOTAL DEPRECIABLE PLANT</b>	<b><u>295,441,156</u></b>	<b><u>286,523,462</u></b>



**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS**

**COMPARISON OF CALCULATED ACCRUED DEPRECIATION  
AND BOOK RESERVE AS OF JUNE 30, 2025**

<u>DEPRECIABLE GROUP</u>	<u>CALCULATED ACCRUED DEPRECIATION</u>	<u>BOOK RESERVE</u>
(1)	(2)	(3)
<b>DEPRECIABLE PLANT</b>		
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	995,164	762,913
354.30 STRUCTURES AND IMPROVEMENTS - SPP	7,509,533	8,184,256
354.40 STRUCTURES AND IMPROVEMENTS - TDP	52,854,321	56,715,396
355.00 POWER GENERATING EQUIPMENT	401,864	357,652
360.10 COLLECTION SEWERS - FORCE MAINS	650,856	62,109
361.10 COLLECTION SEWERS - GRAVITY MAINS	159,679,707	155,183,595
361.20 MANHOLES	21,239,965	19,268,258
363.00 SERVICES	6,401,104	5,203,897
364.00 FLOW MEASURING DEVICES	1,171,611	1,083,679
371.00 PUMPING EQUIPMENT	5,697,182	5,448,964
380.00 TREATMENT EQUIPMENT	33,415,891	31,061,063
381.00 PLANT SEWERS	840,035	863,615
382.00 OUTFALL SEWER LINES	29,945	58,189
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	4,279,535	3,831,745
390.00 OFFICE FURNITURE AND EQUIPMENT	861,958	721,775
391.00 TRANSPORTATION EQUIPMENT	4,592,667	4,855,626
392.00 STORES EQUIPMENT	22,137	20,471
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	639,273	654,201
394.00 LABORATORY EQUIPMENT	365,488	353,232
395.00 POWER OPERATED EQUIPMENT	916,628	1,106,103
396.00 COMMUNICATION EQUIPMENT	1,243,784	1,230,716
397.00 MISCELLANEOUS EQUIPMENT	883,010	843,210
<b>TOTAL DEPRECIABLE PLANT</b>	<b>304,691,658</b>	<b>297,870,665</b>

Pennsylvania-American Water Company  
Data Requirements of the Pennsylvania Public Utility Commission  
Depreciation Study

FR VI.5

**Pennsylvania-American Water Company**  
**VI. Depreciation**

5. Supply a schedule by account and depreciable group showing the survivor curve and annual accrual rate estimated to be appropriate:
  - a. For the purposes of this filing.
  - b. For the purposes of the most recent rate increase filing prior to the current proceedings.

**Answer:**

- a. Refer to Table 2 in Exhibit Nos. 11-A through 11-M.
- b. Refer to pages FR VI.5 (2) to FR VI.5 (10) for survivor curves and annual accrual rates estimated to be appropriate in the most recent prior water rate filing, and pages FR VI.5 (11) to FR VI.5 (20) for survivor curves and annual accrual rates estimated to be appropriate in the most recent prior wastewater rate filing.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2021

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2021 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>INTANGIBLE PLANT</b>							
301.00 ORGANIZATION	NONDEPR.	766,405.12					
302.00 FRANCHISES AND CONSENTS	NONDEPR.	2,404,589.20					
303.00 MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	15,572.16					
<b>TOTAL INTANGIBLE PLANT</b>		<b>3,186,576.48</b>					
<b>NONDEPRECIABLE PLANT</b>							
303.20 POWER AND PUMPING LAND	NONDEPR.	5,917,006.78					
303.30 PURIFICATION LAND	NONDEPR.	42,401.17					
303.40 TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.	3,299,940.69					
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	2,099,979.91					
303.51 TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.	1,865,772.73					
303.52 TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.	5,342,548.13					
303.61 OFFICE LAND	NONDEPR.	3,232,992.63					
<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>21,800,642.04</b>					
<b>DEPRECIABLE PLANT</b>							
303.14 WATER RIGHTS - HIBERNIA	25-SQ	1,942,822.51	1,942,823	0	0	-	-
303.35 WASTE HANDLING AND TREATMENT LAND	100-R2	155,025.17	131,860	23,165	23,165	14.94	1.0
303.99 COMPREHENSIVE PLANNING STUDIES	5-SQ	10,129,413.65	6,211,368	3,918,046	1,725,025	17.03	2.3
304.15 OTHER WATER SOURCE STRUCTURES	60-R1.5	51,463,964.34	7,314,162	44,149,802	1,202,233	2.34	36.7
304.20 POWER AND PUMPING STRUCTURES	75-R2	69,241,749.62	7,820,939	61,420,811	1,794,794	2.59	34.2
LARGE STRUCTURES	55-R3	48,467,615.43	8,025,727	40,441,888	1,322,490	2.73	30.6
OTHER STRUCTURES							
<b>TOTAL ACCOUNT 304.2</b>		<b>117,709,365.05</b>	<b>15,846,666</b>	<b>101,862,699</b>	<b>3,117,284</b>	<b>2.65</b>	<b>32.7</b>
304.30 PURIFICATION BUILDINGS	70-S0.5	262,610,503.21	89,321,786	173,288,716	5,935,968	2.26	29.2
LARGE STRUCTURES	60-R3	46,883,820.97	13,591,474	33,292,347	823,337	1.76	40.4
OTHER STRUCTURES							
<b>TOTAL ACCOUNT 304.3</b>		<b>309,494,324.18</b>	<b>102,913,260</b>	<b>206,581,063</b>	<b>6,759,305</b>	<b>2.18</b>	<b>30.6</b>
304.36 WASTE HANDLING AND TREATMENT STRUCTURES	60-S2.5	24,482,786.39	6,315,262	18,167,525	682,980	2.79	26.6
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ	1,399,108.81	130,717	1,268,392	134,962	9.65	9.4
304.39 PURIFICATION BUILDINGS - TANK PAINTING	10-SQ	119,362.95	111,509	7,854	2,244	1.88	3.5
304.61 OFFICE BUILDINGS	55-R1.5	30,071,233.12	5,349,912	24,721,322	947,487	3.15	26.1
LARGE STRUCTURES	50-R3	13,697,563.47	3,445,320	10,252,243	318,171	2.32	32.2
OTHER STRUCTURES							
<b>TOTAL ACCOUNT 304.61</b>		<b>43,768,796.59</b>	<b>8,795,232</b>	<b>34,973,565</b>	<b>1,265,658</b>	<b>2.89</b>	<b>27.6</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2021

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2021 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (8)
					AMOUNT (6)	RATE (7)=(6)/(3)	
304.62 STORES, SHOP AND GARAGE BUILDINGS							
LARGE STRUCTURES	55-S0.5 *	58,770,484.91	12,484,976	46,285,520	1,610,332	2.74	28.7
OTHER STRUCTURES	45-R3	8,145,034.52	4,256,308	3,888,727	119,147	1.46	32.6
TOTAL ACCOUNT 304.62		66,915,529.43	16,741,284	50,174,247	1,729,479	2.58	29.0
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS							
TOTAL ACCOUNT 304	35-S0.5	3,773,173.42	3,475,076	298,097	13,058	0.35	22.8
TOTAL ACCOUNT 304		619,126,411.16	161,643,168	457,483,244	14,907,203	2.41	30.7
305.00 COLLECTING AND IMPOUNDING RESERVOIRS							
LARGE RESERVOIRS	125-R2 *	128,206,927.13	18,359,214	109,847,713	1,815,539	1.42	60.5
OTHER RESERVOIRS	75-R3	7,575,529.05	2,697,259	4,878,270	217,849	2.88	22.4
TOTAL ACCOUNT 305		135,782,456.18	21,056,473	114,725,983	2,033,388	1.50	56.4
306.00 LAKE, RIVER AND OTHER INTAKES							
LARGE RESERVOIRS	55-S1 *	14,077,642.95	4,400,375	9,677,268	340,240	2.42	28.4
OTHER RESERVOIRS	50-S0.5	4,422,682.49	1,549,085	2,873,597	118,165	2.67	24.3
TOTAL ACCOUNT 306		18,500,325.44	5,949,460	12,550,865	458,405	2.48	27.4
307.00 WELLS AND SPRINGS							
POWER GENERATION EQUIPMENT	55-S0	10,324,454.26	3,212,772	7,111,682	242,909	2.35	29.3
TOTAL ACCOUNT 307	43-S1	18,647,753.17	5,482,567	13,165,186	497,248	2.67	26.5
311.20 PUMPING EQUIPMENT							
ELECTRIC	42-S0	24,339,314.33	4,131,568	20,207,746	807,187	3.32	25.0
OTHER	42-S0	7,424,900.68	643,853	6,781,048	267,141	3.60	25.4
SOURCE OF SUPPLY	42-S0	12,265,487.62	2,246,552	10,018,936	399,153	3.25	25.1
WATER TREATMENT	42-S0	48,031,216.20	23,425,226	24,605,990	1,265,876	2.64	19.4
TRANSMISSION AND DISTRIBUTION	42-S0	6,721,882.58	2,083,153	4,638,730	196,557	2.92	23.6
TOTAL ACCOUNT 311		98,782,801.41	32,530,352	66,252,450	2,935,914	2.97	22.6
320.10 PURIFICATION SYSTEM							
LARGE STRUCTURES	60-S0.5 *	211,524,980.26	75,009,591	136,515,386	5,089,245	2.41	26.8
OTHER STRUCTURES	55-R3	17,191,745.81	5,320,786	11,870,960	339,708	1.98	34.9
TOTAL ACCOUNT 320.1		228,716,726.07	80,330,377	148,386,346	5,428,953	2.37	27.3
320.18 LARGE STRUCTURES PAINT							
LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
CHEMICAL TREATMENT	10-SQ	3,522,542.77	3,508,657	13,886	3,967	0.11	3.5
CHEMICAL TREATMENT	36-R0.5	89,703,244.40	31,374,662	58,328,582	3,158,276	3.52	18.5
CHEMICAL TREATMENT PAINT	FULLY ACCRUED	8,167.87	8,168	0	0	-	-
GRANULAR ACTIVATED CARBON	7-L2	9,238,160.63	5,124,218	4,113,943	1,562,798	16.92	2.6
WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3	14,959,312.90	10,325,951	4,633,362	255,882	1.71	18.1
TOTAL ACCOUNT 320		346,251,400.37	130,775,279	215,476,119	10,409,876	3.01	20.7

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2021

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2021 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (8)
						AMOUNT (6)	RATE (7)=(6)/(3)	
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	111,954,088.80	37,063,307	74,890,782	2,034,455	1.82	36.8
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	14,159,866.81	1,898,066	12,261,801	291,888	2.06	42.0
330.20	GROUND LEVEL FACILITIES	65-S0.5	18,107,441.78	2,275,414	15,832,028	374,554	2.07	42.3
330.30	BELOW GRADE FACILITIES	65-S0.5	818,707.23	136,023	682,684	16,483	2.01	41.4
330.40	CLEARWELL	65-S0.5	12,806,300.08	2,265,037	10,541,263	255,441	1.99	41.3
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	2,286,184.88	2,006,257	279,908	66,682	2.92	4.2
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	35,848,470.46	23,137,681	12,710,789	2,671,977	7.45	4.8
	TOTAL ACCOUNT 330		195,981,040.04	68,781,785	127,199,255	5,711,480	2.91	22.3
331.00	MAINS AND ACCESSORIES	110-R2	2,818,971,284.42	314,564,339	2,504,406,945	34,100,213	1.21	73.4
333.00	SERVICES	70-R2.5	624,475,330.93	143,326,352	481,148,979	10,578,834	1.69	45.5
334.00	METERS AND METER INSTALLATIONS	21-L1	193,703,115.13	73,956,736	119,746,379	10,952,329	5.65	10.9
335.00	FIRE HYDRANTS	75-R2.5	118,875,087.54	16,807,173	102,067,915	2,008,405	1.69	50.8
340.00	OFFICE FURNITURE AND EQUIPMENT							
	FURNITURE	20-SQ	5,511,088.15	942,661	4,568,427	315,693	5.73	14.5
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	2,727,234	2,727,234	5,763,968	2,396,001	28.22	2.4
	COMPUTER SOFTWARE	5-SQ	65,812,319.72	18,631,562	47,180,758	17,380,327	26.41	2.7
	COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	10-SQ	37,535,345.18	21,411,333	16,124,012	10,524,771	28.04	1.5
	OTHER OFFICE EQUIPMENT	10-SQ	9,100.95	1,537	7,564	1,009	11.08	7.5
	TOTAL ACCOUNT 340		117,359,056.23	43,714,327	73,644,729	30,617,801	26.09	2.4
341.00	TRANSPORTATION EQUIPMENT							
	NOT CLASSIFIED	7-L3	2,587.67	1,005	1,583	336	12.98	4.7
	LIGHT DUTY TRUCKS	7-L3	43,731,243.08	20,446,693	23,285,550	5,242,221	11.99	4.4
	EQUIPMENT	7-L3	17,545,021.52	13,121,246	4,423,776	1,603,616	9.14	2.8
	AUTOS	7-L3	2,345,942.67	2,235,440	110,503	42,199	1.80	2.6
	OTHER	7-L3	7,747,401.58	5,613,839	2,133,563	687,312	8.87	3.1
	TOTAL ACCOUNT 341		71,372,196.52	41,417,223	29,954,975	7,575,684	10.61	4.0
342.00	STORES EQUIPMENT	20-SQ	450,196.89	84,839	365,358	26,938	5.98	13.6
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	34,349,227.60	6,430,087	27,919,141	2,003,910	5.83	13.9
344.00	LABORATORY EQUIPMENT	20-L0.5	2,900,877.04	1,027,763	1,873,114	193,287	6.66	9.7
345.00	POWER OPERATED EQUIPMENT	19-S0.5	2,405,124.09	1,559,848	845,276	119,340	4.96	7.1
346.00	COMMUNICATION EQUIPMENT							
	EQUIPMENT	15-SQ	1,319,862.68	190,820	1,129,043	89,046	6.75	12.7
	NON-TELEPHONE	15-SQ	6,252,711.98	1,039,837	5,212,875	423,380	6.77	12.3
	REMOTE CONTROL AND INSTRUMENTATION	10-SQ	3,562,628.46	1,583,679	1,978,949	375,466	10.54	5.3
	TELEPHONE	10-SQ	281,195.25	124,994	156,201	29,764	10.58	5.2
	TOTAL ACCOUNT 346		11,416,398.37	2,939,330	8,477,068	917,656	8.04	9.2
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	20,523,409.94	1,928,340	18,595,070	1,121,267	5.46	16.6
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	795,577.91	429,153	366,425	32,456	4.08	11.3
	TOTAL DEPRECIABLE PLANT		<u>5,473,220,785.97</u>	<u>1,085,903,417</u>	<u>4,387,317,369</u>	<u>139,192,733</u>	<u>2.54</u>	
	AMORTIZATION OF NET SALVAGE					<u>20,362,874</u>		
	TOTAL UTILITY PLANT IN SERVICE		<u>5,498,208,004.49</u>	<u>1,085,903,417</u>	<u>4,387,317,369</u>	<u>159,555,607</u>		

\* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2022

	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2022	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	RATE	COMPOSITE REMAINING LIFE
		(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
<b>INTANGIBLE PLANT</b>								
301.00	ORGANIZATION	NONDEPR.	766,405.12					
302.00	FRANCHISES AND CONSENTS	NONDEPR.	2,404,589.20					
303.00	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	15,572.16					
	<b>TOTAL INTANGIBLE PLANT</b>		<b>3,186,576.48</b>					
<b>NONDEPRECIABLE PLANT</b>								
303.20	POWER AND PUMPING LAND	NONDEPR.	5,937,006.78					
303.30	PURIFICATION LAND	NONDEPR.	42,401.17					
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.	3,299,940.69					
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	2,099,979.91					
303.51	TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.	1,865,772.73					
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.	5,342,548.13					
303.61	OFFICE LAND	NONDEPR.	3,472,992.63					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>22,060,642.04</b>					
<b>DEPRECIABLE PLANT</b>								
303.14	WATER RIGHTS - HIBERNIA	25-SQ	1,942,822.51	1,942,823	0	0	-	-
303.35	WASTE HANDLING AND TREATMENT LAND	100-R2	155,025.17	155,025	0	0	-	-
303.99	COMPREHENSIVE PLANNING STUDIES	5-SQ	10,579,413.65	7,975,338	2,604,076	1,161,128	10.98	2.2
304.15	OTHER WATER SOURCE STRUCTURES	60-R1.5	51,463,964.34	8,888,850	42,575,114	1,134,979	2.21	37.5
304.20	POWER AND PUMPING STRUCTURES	75-R2	69,241,749.62	9,530,768	59,710,982	1,770,341	2.56	33.7
	OTHER STRUCTURES	55-R3	48,910,095.19	9,450,170	39,459,925	1,296,109	2.65	30.4
	<b>TOTAL ACCOUNT 304.2</b>		<b>118,151,844.81</b>	<b>18,980,938</b>	<b>99,170,907</b>	<b>3,066,450</b>	<b>2.60</b>	<b>32.3</b>
304.30	PURIFICATION BUILDINGS	70-S0.5	279,529,633.27	94,423,471	185,106,161	6,634,616	2.37	27.9
	LARGE STRUCTURES	60-R3	47,488,926.00	13,126,010	34,362,916	842,540	1.77	40.8
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.3</b>		<b>327,018,559.27</b>	<b>107,549,481</b>	<b>219,469,077</b>	<b>7,477,156</b>	<b>2.29</b>	<b>29.4</b>
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	60-S2.5	24,482,786.39	7,007,069	17,475,718	680,996	2.78	25.7
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ	1,399,108.81	265,731	1,133,378	135,111	9.66	8.4
304.39	PURIFICATION BUILDINGS - TANK PAINTING	10-SQ	119,362.95	113,753	5,610	2,244	1.88	2.5
304.61	OFFICE BUILDINGS	55-R1.5	30,071,233.12	6,106,600	23,964,634	930,280	3.09	25.8
	LARGE STRUCTURES	50-R3	15,795,959.43	3,525,262	12,270,697	363,428	2.31	33.6
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.61</b>		<b>45,867,192.55</b>	<b>9,631,862</b>	<b>36,235,331</b>	<b>1,295,708</b>	<b>2.82</b>	<b>28.0</b>

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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2022 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL (7)=(6)/(3)		COMPOSITE REMAINING LIFE (8)
					AMOUNT (6)	RATE (7)=(6)/(3)	
304.62 STORES, SHOP AND GARAGE BUILDINGS							
LARGE STRUCTURES	55-S0.5 *	58,770,494.91	14,185,562	44,584,934	1,582,951	2.89	28.2
OTHER STRUCTURES	45-R3	9,431,900.06	4,074,241	5,357,659	163,488	1.73	32.8
TOTAL ACCOUNT 304.62		68,202,394.97	18,259,803	49,942,593	1,746,439	2.56	28.6
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS		3,773,173.42	3,485,875	287,298	12,839	0.34	22.4
TOTAL ACCOUNT 304		640,478,387.51	174,183,362	466,295,026	15,551,922	2.43	30.0
305.00 COLLECTING AND IMPOUNDING RESERVOIRS							
LARGE RESERVOIRS	125-R2 *	128,206,927.13	20,443,884	107,763,044	1,788,778	1.40	60.2
OTHER RESERVOIRS	75-R3	8,475,529.05	2,915,519	5,560,010	206,829	2.44	26.9
TOTAL ACCOUNT 305		136,682,456.18	23,359,403	113,323,054	1,995,607	1.46	56.8
306.00 LAKE, RIVER AND OTHER INTAKES							
LARGE RESERVOIRS	55-S1 *	14,077,642.95	4,725,133	9,352,510	334,491	2.38	28.0
OTHER RESERVOIRS	50-S0.5	4,878,667.19	1,609,650	3,269,017	129,169	2.65	25.3
TOTAL ACCOUNT 306		18,956,310.14	6,334,783	12,621,527	463,660	2.45	27.2
307.00 WELLS AND SPRINGS	55-S0	13,388,619.84	3,008,599	10,380,021	338,177	2.53	30.7
310.00 POWER GENERATION EQUIPMENT	43-S1	20,859,764.75	5,557,935	15,301,830	568,968	2.73	26.9
PUMPING EQUIPMENT							
ELECTRIC	42-S0	28,764,997.73	4,936,838	23,828,160	952,264	3.31	25.0
OTHER	311-S0	7,424,900.68	911,149	6,513,752	256,276	3.45	25.4
SOURCE OF SUPPLY	42-S0	13,846,273.01	2,330,094	11,516,179	460,351	3.32	25.0
WATER TREATMENT	42-S0	48,579,304.90	24,582,332	23,996,973	1,241,955	2.56	19.3
TRANSMISSION AND DISTRIBUTION	42-S0	13,311,520.08	1,015,455	12,296,065	497,499	3.74	24.7
TOTAL ACCOUNT 311		111,926,986.40	33,775,868	78,151,129	3,408,345	3.05	22.9
PURIFICATION SYSTEM							
LARGE STRUCTURES	60-S0.5 *	233,741,334.67	77,128,004	156,613,328	6,180,184	2.64	25.3
OTHER STRUCTURES	55-R3	16,561,584.49	4,833,816	11,727,768	336,337	2.03	34.9
TOTAL ACCOUNT 320.1		250,302,919.16	81,961,820	168,341,096	6,516,521	2.60	25.8
320.18 LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
320.19 LARGE STRUCTURES PAINT	10-SQ	3,522,542.77	3,512,532	10,011	4,004	0.11	2.5
320.20 CHEMICAL TREATMENT	36-R0.5	106,908,231.80	31,615,346	75,292,886	4,189,844	3.92	18.0
320.29 CHEMICAL TREATMENT PAINT	FULLY ACCRUED	8,167.87	8,168	0	0	-	-
320.30 GRANULAR ACTIVATED CARBON	7-L2	9,238,160.63	6,787,789	2,450,372	956,162	10.35	2.6
320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3	14,959,312.90	10,607,334	4,351,979	246,975	1.65	17.6
TOTAL ACCOUNT 320		385,042,580.86	134,596,235	250,446,344	11,913,506	3.09	21.0

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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2022

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2022 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (6)
						AMOUNT (6)	RATE (7)=(6)/(3)	
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	118,334,757.78	40,194,822	78,139,936	2,105,381	1.78	37.1
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	18,159,866.81	2,230,959	15,928,908	376,025	2.07	42.4
330.20	GROUND LEVEL FACILITIES	65-S0.5	18,107,441.78	2,650,238	15,457,204	368,737	2.04	41.9
330.30	BELOW GRADE FACILITIES	65-S0.5	818,707.23	152,479	666,228	16,278	1.99	40.9
330.40	CLEARWELL	65-S0.5	12,806,300.08	1,259,882	10,286,418	252,195	1.97	40.8
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	1,482,963.09	1,258,084	224,879	70,565	4.76	3.2
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	41,010,970.46	26,000,695	15,010,275	2,531,316	6.17	5.9
	TOTAL ACCOUNT 330		210,721,007.23	75,007,159	135,713,848	5,720,497	2.71	23.7
331.00	MAINS AND ACCESSORIES	110-R2	2,972,470,945.31	320,507,351	2,651,963,594	36,052,282	1.21	73.6
333.00	SERVICES	70-R2.5	647,586,083.09	153,001,000	494,585,083	10,903,069	1.68	46.4
334.00	METERS AND METER INSTALLATIONS	21-L1	210,757,676.65	83,781,344	126,976,333	11,547,691	5.48	11.0
335.00	FIRE HYDRANTS	75-R2.5	127,139,837.10	18,044,077	109,095,760	2,137,601	1.68	51.0
340.00	OFFICE FURNITURE AND EQUIPMENT							
	FURNITURE	20-SQ	5,511,088.15	1,306,807	4,204,281	310,473	5.63	13.5
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	3,446,304	9,626,127.47	6,179,823	2,141,175	22.24	2.9
	COMPUTER SOFTWARE	5-SQ	56,937,669.71	25,966,048	30,971,622	13,870,334	24.36	2.2
	COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	10-SQ	47,983,883.24	33,401,059	14,582,824	5,502,153	11.47	2.7
	OTHER OFFICE EQUIPMENT	10-SQ	9,100,925	2,645	6,956	1,009	11.08	6.5
	TOTAL ACCOUNT 340		120,067,369.52	64,122,763	55,944,606	21,825,144	18.18	2.6
341.00	TRANSPORTATION EQUIPMENT							
	NOT CLASSIFIED	7-L3	2,587.67	1,341	1,247	324	12.52	3.8
	LIGHT DUTY TRUCKS	7-L3	48,159,781.72	25,214,574	22,945,208	5,773,589	11.99	4.0
	EQUIPMENT	7-L3	21,248,210.09	14,300,485	6,947,725	1,966,330	9.25	3.5
	AUTOS	7-L3	2,345,942.67	2,277,667	68,276	26,337	1.12	2.6
	OTHER	7-L3	7,747,401.58	6,301,034	1,446,368	546,143	7.05	2.6
	TOTAL ACCOUNT 341		79,503,923.73	48,095,101	31,408,824	8,312,723	10.46	3.8
342.00	STORES EQUIPMENT	20-SQ	450,196.89	113,771	336,426	26,703	5.93	12.6
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	38,318,950.61	8,570,238	29,748,713	2,198,901	5.74	13.5
344.00	LABORATORY EQUIPMENT	20-L0.5	2,900,877.04	1,228,944	1,671,933	173,092	5.97	9.7
345.00	POWER OPERATED EQUIPMENT	19-S0.5	2,405,124.09	1,680,051	725,073	102,550	4.26	7.1
346.00	COMMUNICATION EQUIPMENT							
	EQUIPMENT	15-SQ	1,319,862.68	322,240	997,623	84,310	6.39	11.8
	NON-TELEPHONE	15-SQ	8,503,366.67	1,528,419	6,974,948	572,529	6.73	12.2
	REMOTE CONTROL AND INSTRUMENTATION	10-SQ	7,771,032.15	1,832,553	5,938,479	780,228	10.04	7.6
	TELEPHONE	10-SQ	272,914.20	146,025	126,889	29,297	10.73	4.3
	TOTAL ACCOUNT 346		17,867,175.70	3,829,237	14,037,939	1,466,364	8.21	9.6
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	23,054,106.91	3,142,560	19,911,547	1,209,576	5.25	16.5
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	795,577.91	461,769	333,809	32,438	4.08	10.3
	TOTAL DEPRECIABLE PLANT		<u>5,794,051,228.79</u>	<u>1,172,474,736</u>	<u>4,621,576,495</u>	<u>137,109,944</u>	<u>2.37</u>	
	AMORTIZATION OF NET SALVAGE					<u>22,126,996</u>		
	TOTAL UTILITY PLANT IN SERVICE		<u>5,819,298,447.31</u>	<u>1,172,474,736</u>	<u>4,621,576,495</u>	<u>159,236,940</u>		

\* Life Span Procedure was used. Curve shown is Interim Survivor Curve.



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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2023

	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2023	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	AMOUNT	RATE	COMPOSITE REMAINING LIFE
		(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
<b>INTANGIBLE PLANT</b>								
301.00	ORGANIZATION	NONDEPR.	766,405.12					
302.00	FRANCHISES AND CONSENTS	NONDEPR.	2,404,589.20					
303.00	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	15,572.16					
	<b>TOTAL INTANGIBLE PLANT</b>		<b>3,186,576.48</b>					
<b>NONDEPRECIABLE PLANT</b>								
303.20	POWER AND PUMPING LAND	NONDEPR.	6,315,146.65					
303.30	PURIFICATION LAND	NONDEPR.	446,173.08					
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.	3,299,940.69					
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	2,099,979.91					
303.51	TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.	1,865,772.73					
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.	5,342,548.13					
303.61	OFFICE LAND	NONDEPR.	3,472,992.63					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>22,842,553.82</b>					
<b>DEPRECIABLE PLANT</b>								
303.14	WATER RIGHTS - HIBERNIA	25-SQ	1,942,822.51	1,942,823	0	0	-	-
303.35	WASTE HANDLING AND TREATMENT LAND	100-R2	155,025.17	155,025	0	0	-	-
303.99	COMPREHENSIVE PLANNING STUDIES	5-SQ	11,298,770.79	9,163,560	2,135,211	890,107	7.88	2.4
304.15	OTHER WATER SOURCE STRUCTURES	60-R1.5	51,463,964.34	10,383,011	41,080,953	1,090,805	2.12	37.7
304.20	POWER AND PUMPING STRUCTURES	75-R2	70,436,249.62	11,024,971	59,411,279	1,812,339	2.57	32.8
	LARGE STRUCTURES	55-R3	54,078,532.49	10,342,235	43,736,297	1,379,087	2.55	31.7
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.2</b>		<b>124,514,782.11</b>	<b>21,367,206</b>	<b>103,147,576</b>	<b>3,191,426</b>	<b>2.56</b>	<b>32.3</b>
304.30	PURIFICATION BUILDINGS	70-S0.5	293,404,600.70	99,933,596	193,471,003	7,034,158	2.40	27.5
	LARGE STRUCTURES	60-R3	50,729,573.44	13,646,822	37,082,751	904,979	1.78	41.0
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.3</b>		<b>344,134,174.14</b>	<b>113,580,418</b>	<b>230,553,754</b>	<b>7,939,137</b>	<b>2.31</b>	<b>29.0</b>
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	60-S2.5	25,496,837.05	7,697,597	17,799,241	710,222	2.79	25.1
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ	1,399,108.81	400,887	998,222	135,103	9.66	7.4
304.39	PURIFICATION BUILDINGS - TANK PAINTING	10-SQ	119,362.95	115,997	3,366	2,244	1.88	1.5
304.61	OFFICE BUILDINGS	55-R1.5	30,071,233.12	6,870,151	23,201,083	915,368	3.04	25.3
	LARGE STRUCTURES	50-R3	17,004,129.34	3,737,143	13,266,986	391,066	2.30	33.9
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.61</b>		<b>47,075,362.46</b>	<b>10,607,294</b>	<b>36,468,069</b>	<b>1,306,434</b>	<b>2.78</b>	<b>27.9</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (8)
						AMOUNT (6)	RATE (7)=(6)/(3)	
304.62	STORES, SHOP AND GARAGE BUILDINGS LARGE STRUCTURES OTHER STRUCTURES	55-S0.5 45-R3	58,770,494.91 10,794,949.87	15,778,197 4,003,576	42,992,299 6,791,374	1,559,568 205,422	2.65 1.90	27.6 33.1
	TOTAL ACCOUNT 304.62		69,565,444.78	19,781,773	49,783,673	1,764,990	2.54	28.2
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	35-S0.5	3,773,173.42	3,495,886	277,287	12,644	0.34	21.9
	TOTAL ACCOUNT 304		667,542,210.06	187,430,069	480,112,141	16,153,005	2.42	29.7
305.00	COLLECTING AND IMPOUNDING RESERVOIRS LARGE RESERVOIRS OTHER RESERVOIRS	125-R2 75-R3	175,843,094.15 8,666,139.67	16,699,199 1,28,333	159,143,895 8,537,807	2,732,011 137,221	1.55 1.58	58.3 62.2
	TOTAL ACCOUNT 305		184,509,233.82	16,827,532	167,681,702	2,869,232	1.56	58.4
306.00	LAKE, RIVER AND OTHER INTAKES LARGE RESERVOIRS OTHER RESERVOIRS	55-S1 50-S0.5	14,077,642.95 4,878,687.19	5,072,287 1,732,462	9,005,356 3,146,205	327,479 125,690	2.33 2.58	27.5 25.0
	TOTAL ACCOUNT 306		18,956,330.14	6,804,749	12,151,561	453,169	2.39	26.8
307.00	WELLS AND SPRINGS	55-S0	14,474,540.51	3,301,550	11,172,991	361,709	2.50	30.9
310.00	POWER GENERATION EQUIPMENT	43-S1	33,632,562.91	3,602,563	30,030,000	1,019,407	3.03	29.5
311.20	PUMPING EQUIPMENT	42-S0	29,503,026.00	6,278,556	23,224,470	931,060	3.16	24.9
311.50	ELECTRIC	42-S0	7,424,900.68	1,167,313	6,257,588	247,082	3.33	25.3
311.52	OTHER	42-S0	15,124,095.30	2,618,030	12,506,065	501,115	3.31	25.0
311.53	SOURCE OF SUPPLY	42-S0	49,485,169.34	25,640,093	23,845,076	1,236,547	2.50	19.3
311.54	WATER TREATMENT	42-S0	17,457,786.81	889,452	16,568,335	663,436	3.80	25.0
	TRANSMISSION AND DISTRIBUTION	42-S0	17,457,786.81	889,452	16,568,335	663,436	3.80	25.0
	TOTAL ACCOUNT 311		118,994,978.13	36,593,444	82,401,534	3,579,240	3.01	23.0
320.10	PURIFICATION SYSTEM	60-S0.5	259,341,704.90	80,694,366	178,647,337	7,331,156	2.83	24.4
	LARGE STRUCTURES	55-R3	18,778,529.32	4,177,558	14,600,971	385,088	2.05	37.9
	OTHER STRUCTURES							
	TOTAL ACCOUNT 320.1		278,120,234.22	84,871,924	193,248,308	7,716,244	2.77	25.0
320.18	LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
320.19	LARGE STRUCTURES PAINT	10-SQ	3,522,542.77	3,516,408	6,135	4,089	0.12	1.5
320.20	CHEMICAL TREATMENT	36-R0.5	128,432,781.43	31,620,481	96,812,300	5,395,215	4.20	17.9
320.29	CHEMICAL TREATMENT PAINT	FULLY ACCRUED	8,167.87	8,168	0	0	-	-
320.30	GRANULAR ACTIVATED CARBON	7-L2	9,238,160.63	7,844,087	1,394,074	540,150	5.85	2.6
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3	23,452,205.11	9,288,440	14,163,765	685,372	2.92	20.7
	TOTAL ACCOUNT 320		442,877,337.76	137,252,754	305,624,582	14,341,070	3.24	21.3

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF DECEMBER 31, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (6)
						AMOUNT (6)	RATE (7)/(6)/(3)	
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	128,426,201.28	43,279,898	85,146,303	2,259,913	1.76	37.7
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	18,159,866.81	2,606,871	15,552,996	370,422	2.04	42.0
330.20	GROUND LEVEL FACILITIES	65-S0.5	18,107,441.78	3,019,634	15,087,808	363,177	2.01	41.5
330.30	BELOW GRADE FACILITIES	65-S0.5	818,707.23	168,775	649,932	16,004	1.95	40.6
330.40	CLEARWELL	65-S0.5	12,806,300.08	2,772,170	10,034,130	248,876	1.94	40.3
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	497,598.08	325,480	172,118	81,721	16.42	2.1
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	47,585,970.46	28,685,239	18,900,731	3,045,364	6.40	6.2
	TOTAL ACCOUNT 330		226,402,085.72	80,858,067	145,544,018	6,385,477	2.82	22.8
331.00	MAINS AND ACCESSORIES	110-R2	3,150,142,151.14	325,579,074	2,824,563,077	38,389,000	1.22	73.6
333.00	SERVICES	70-R2.5	678,692,421.45	163,249,988	515,442,433	11,375,511	1.68	46.3
334.00	METERS AND METER INSTALLATIONS	21-L1	242,348,418.46	91,790,821	150,557,597	13,409,312	5.53	11.2
335.00	FIRE HYDRANTS	75-R2.5	134,465,732.09	19,778,768	114,686,964	2,244,624	1.67	51.1
340.00	OFFICE FURNITURE AND EQUIPMENT							
	FURNITURE	20-SQ	5,511,088.15	1,664,168	3,846,920	305,608	5.55	12.6
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	11,777,505.36	4,665,863	7,111,642	2,399,737	20.38	3.0
	COMPUTER SOFTWARE	5-SQ	52,876,132.43	35,733,306	17,142,826	10,220,209	19.33	1.7
	COMPUTER SOFTWARE - BUSINESS TRANSFORMATION	10-SQ	58,320,395.08	39,700,332	18,620,063	2,079,020	3.56	9.0
	OTHER OFFICE EQUIPMENT	10-SQ	9,100.95	3,653	5,448	1,009	11.08	5.5
	TOTAL ACCOUNT 340		128,494,221.97	81,767,222	46,726,999	15,005,583	11.68	3.1
341.00	TRANSPORTATION EQUIPMENT							
	NOT CLASSIFIED	7-L3	2,587.67	1,665	923	300	11.59	3.1
	LIGHT DUTY TRUCKS	7-L3	53,018,290.45	30,326,635	22,691,655	6,216,220	11.73	3.6
	EQUIPMENT	7-L3	25,310,943.97	15,722,712	9,588,232	2,443,390	9.65	3.9
	AUTOS	7-L3	2,345,942.67	2,303,947	41,996	17,072	0.73	2.5
	OTHER	7-L3	7,747,401.58	6,847,226	900,176	392,304	5.06	2.3
	TOTAL ACCOUNT 341		88,425,166.34	55,202,185	33,222,982	9,071,286	10.26	3.7
342.00	STORES EQUIPMENT	20-SQ	450,196.89	142,481	307,716	26,515	5.89	11.6
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	44,334,525.08	10,784,193	33,550,332	2,475,171	5.58	13.6
344.00	LABORATORY EQUIPMENT	20-L0.5	2,900,877.04	1,409,871	1,491,006	155,611	5.36	9.6
345.00	POWER OPERATED EQUIPMENT	19-S0.5	2,723,924.56	1,731,159	992,766	119,118	4.37	8.3
346.00	COMMUNICATION EQUIPMENT							
	EQUIPMENT	15-SQ	1,319,862.68	448,775	871,088	79,302	6.01	11.0
	NON-TELEPHONE	15-SQ	8,644,933.36	2,097,327	6,547,606	582,295	6.74	11.2
	REMOTE CONTROL AND INSTRUMENTATION	10-SQ	16,149,119.93	2,613,514	13,535,606	1,647,516	10.20	8.2
	TELEPHONE	10-SQ	272,914.20	1,75,305	97,609	25,276	9.26	3.9
	TOTAL ACCOUNT 346		26,386,830.17	5,334,921	21,051,909	2,334,389	8.85	9.0
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	24,207,979.77	4,361,280	19,846,700	1,240,504	5.12	16.0
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	795,577.91	494,385	301,193	32,416	4.07	9.3
	TOTAL DEPRECIABLE PLANT		<u>6,245,153,900.39</u>	<u>1,245,558,484</u>	<u>4,999,595,414</u>	<u>141,931,456</u>	<u>2.27</u>	
	AMORTIZATION OF NET SALVAGE					<u>22,762,278</u>		
	TOTAL UTILITY PLANT IN SERVICE		<u>6,271,183,030.69</u>	<u>1,245,558,484</u>	<u>4,999,595,414</u>	<u>164,693,734</u>		

\* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2021

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) ORIGINAL COST AS OF DECEMBER 31, 2021	(4) BOOK DEPRECIATION RESERVE	(5) FUTURE ACCRUALS	(6) CALCULATED ANNUAL ACCURAL		(8) COMPOSITE REMAINING LIFE
						AMOUNT	RATE (7)=(6)/(3)	
<b>DEPRECIABLE PLANT</b>								
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	2,922,659.17	43,314	2,879,345	80,477	2.75	35.8
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	17,194,565.51	6,891,894	10,302,671	321,814	1.87	32.0
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	149,090,592.23	74,070,070	75,020,523	2,677,431	1.80	28.0
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	3,507,072.89	1,711,335	1,795,738	73,186	2.09	24.5
355.00	POWER GENERATION EQUIPMENT	35-S0.5	4,320,734.91	2,800,154	1,520,581	75,954	1.76	20.0
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	36,014,431.59	3,428,555	32,585,876	626,509	1.74	52.0
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	166,373,356.72	40,726,772	125,646,585	2,533,631	1.52	49.6
361.20	MANHOLES	50-S2.5	28,263,649.44	9,514,794	18,748,856	794,879	2.81	23.6
363.00	SERVICES	47-R3	43,409,706.20	22,659,038	20,750,668	984,742	2.27	21.1
364.00	FLOW MEASURING DEVICES	15-L2.5	530,204.62	164,880	365,325	69,899	13.18	5.2
365.00	FLOW MEASURING INSTALLATIONS	25-S2	272,564.04	201,351	71,213	16,042	5.89	4.4
370.00	RECEIVING WELLS	50-R3	143,419.77	31,139	112,281	3,257	2.27	34.5
371.00	PUMPING EQUIPMENT	30-S0.5	14,741,942.32	1,275,582	13,466,360	747,751	5.07	18.0
380.00	TREATMENT EQUIPMENT	35-S1.5	68,503,716.55	14,693,290	53,810,427	2,636,120	3.85	20.4
381.00	PLANT SEWERS	50-R3	6,183,989.54	1,411,590	4,772,399	142,569	2.31	33.5
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	229,597	374,792	12,957	2.14	28.9
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	596,404.70	195,658	402,747	33,563	5.61	12.0
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	682,596.03	59,782	622,814	39,455	5.78	15.8
391.00	TRANSPORTATION EQUIPMENT	14-L4	1,627,652.53	497,746	1,129,905	137,073	8.42	8.2
392.00	STORES EQUIPMENT	25-SQ	107,351.44	29,033	78,319	4,299	4.00	18.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	872,282.74	291,410	580,873	39,167	4.49	14.8
394.00	LABORATORY EQUIPMENT	15-SQ	536,027.98	262,433	273,595	39,746	7.41	6.9
395.00	POWER OPERATED EQUIPMENT	22-R2	542,370.71	407,298	135,072	11,672	2.15	11.6
396.00	COMMUNICATION EQUIPMENT	15-SQ	2,195,942.61	1,187,094	1,008,849	116,994	5.33	8.6
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	532,484.69	194,183	338,301	24,985	4.69	13.5
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	513	13,719	610	4.29	22.5
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>549,786,339.34</b>	<b>182,978,506</b>	<b>366,807,834</b>	<b>12,244,782</b>	<b>2.23</b>	
<b>NONDEPRECIABLE PLANT</b>								
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,857,555.19					
353.30	LAND AND LAND RIGHTS - SPP		203,839.26					
353.40	LAND AND LAND RIGHTS - TDP		3,853,717.18					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>6,136,251.41</b>					
	<b>AMORTIZATION OF NET SALVAGE</b>							
	<b>TOTAL UTILITY PLANT</b>		<b>555,922,590.75</b>	<b>182,978,506</b>	<b>366,807,834</b>	<b>1,122,278</b>		
						<b>13,367,060</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2022

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) ORIGINAL COST AS OF DECEMBER 31, 2022	(4) BOOK DEPRECIATION RESERVE	(5) FUTURE ACCRUALS	CALCULATED ANNUAL		(8) COMPOSITE REMAINING LIFE
						(6) ACCRUAL AMOUNT	(7)=(6)/(3) ACCRAU RATE	
<b>DEPRECIABLE PLANT</b>								
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	3,344,865.40	225,041	3,119,824	89,765	2.68	34.8
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	17,791,611.38	7,310,370	10,481,241	329,089	1.85	31.8
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	152,132,594.45	76,792,614	75,339,980	2,693,442	1.77	28.0
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	3,846,816.75	1,926,787	1,920,030	78,724	2.05	24.4
355.00	POWER GENERATION EQUIPMENT	35-S0.5	5,744,996.58	2,925,899	2,819,098	133,625	2.33	21.1
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	40,565,058.59	4,353,791	36,211,268	689,482	1.70	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	176,291,375.14	43,086,387	133,204,988	2,678,047	1.52	49.7
361.20	MANHOLES	50-S2.5	29,652,321.04	10,655,289	18,997,032	795,462	2.68	23.9
363.00	SERVICES	47-R3	45,439,103.11	23,651,609	21,787,494	1,027,912	2.26	21.2
364.00	FLOW MEASURING DEVICES	15-L2.5	564,962.51	228,085	336,878	62,072	10.99	5.4
365.00	FLOW MEASURING INSTALLATIONS	25-S2	272,564.04	217,405	55,159	13,096	4.80	4.2
370.00	RECEIVING WELLS	50-R3	143,419.77	34,395	109,025	3,235	2.26	33.7
371.00	PUMPING EQUIPMENT	30-S0.5	17,200,567.65	1,925,109	15,275,459	845,290	4.91	18.1
380.00	TREATMENT EQUIPMENT	35-S1.5	76,306,980.94	16,653,533	59,453,448	2,865,004	3.75	20.8
381.00	PLANT SEWERS	50-R3	6,183,989.54	1,554,458	4,629,532	141,595	2.29	32.7
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	242,848	361,541	12,817	2.12	28.2
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	1,196,404.70	246,460	951,945	65,723	5.68	14.5
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	718,389.99	101,165	617,225	40,787	2.29	15.1
391.00	TRANSPORTATION EQUIPMENT	14-L4	1,627,652.53	637,946	989,707	130,725	8.03	7.6
392.00	STORES EQUIPMENT	25-SQ	107,351.44	33,327	74,024	4,301	4.01	17.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,034,519.57	318,284	716,236	48,018	4.64	14.9
394.00	LABORATORY EQUIPMENT	15-SQ	481,441.01	241,130	240,311	39,012	8.10	6.2
395.00	POWER OPERATED EQUIPMENT	22-R2	542,370.71	419,369	123,002	11,171	2.06	11.0
396.00	COMMUNICATION EQUIPMENT	15-SQ	3,272,595.36	1,053,027	2,219,568	226,382	6.92	9.8
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	881,510.69	139,211	742,300	54,946	6.23	13.5
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	1,374	12,858	598	4.20	21.5
<b>TOTAL DEPRECIABLE PLANT</b>			<b>585,964,083.30</b>	<b>195,174,913</b>	<b>390,789,173</b>	<b>13,080,320</b>	<b>2.23</b>	
<b>NONDEPRECIABLE PLANT</b>								
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,857,560.19					
353.30	LAND AND LAND RIGHTS - SPP		203,839.26					
353.40	LAND AND LAND RIGHTS - TDP		3,853,717.18					
<b>TOTAL NONDEPRECIABLE PLANT</b>			<b>6,136,256.41</b>					
<b>AMORTIZATION OF NET SALVAGE</b>								
<b>TOTAL UTILITY PLANT</b>			<b>592,100,339.71</b>	<b>195,174,913</b>	<b>390,789,173</b>	<b>1,323,361</b>		
						<b>14,403,681</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF DECEMBER 31, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>								
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	3,612,200.53	297,122	3,315,079	96,348	2.67	34.4
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	18,566,095.31	7,611,923	10,954,172	344,938	1.86	31.8
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	153,334,778.46	79,389,942	73,944,836	2,660,957	1.74	27.8
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	4,070,803.79	2,007,181	2,063,623	86,335	2.12	23.9
355.00	POWER GENERATION EQUIPMENT	35-S0.5	8,021,589.23	2,880,147	5,141,442	234,190	2.92	22.0
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	45,561,550.15	4,624,544	40,937,006	773,411	1.70	52.9
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	184,392,031.37	45,103,176	139,288,855	2,792,821	1.51	49.9
361.20	MANHOLES	50-S2.5	30,039,047.08	11,440,838	18,598,209	782,893	2.61	23.8
363.00	SERVICES	47-R3	46,563,946.78	24,671,948	21,891,999	1,023,840	2.20	21.4
364.00	FLOW MEASURING DEVICES	15-L2.5	599,501.42	284,926	314,575	55,186	9.21	5.7
365.00	FLOW MEASURING INSTALLATIONS	25-S2	272,564.04	230,488	42,076	10,482	3.85	4.0
370.00	RECEIVING WELLS	50-R3	143,419.77	37,636	105,784	3,200	2.23	33.1
371.00	PUMPING EQUIPMENT	30-S0.5	19,524,019.44	2,649,119	16,874,900	930,890	4.77	18.1
380.00	TREATMENT EQUIPMENT	35-S1.5	88,159,162.46	18,610,808	69,548,354	3,260,297	3.70	21.3
381.00	PLANT SEWERS	50-R3	6,183,989.54	1,686,089	4,487,901	139,968	2.26	32.1
382.00	OUTFALL SEWER LINES	50-R3	604,383.91	255,857	348,532	12,614	2.09	27.6
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	2,057,547.56	329,600	1,727,948	112,889	5.49	15.3
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	759,062.66	144,758	614,305	42,424	5.69	14.5
391.00	TRANSPORTATION EQUIPMENT	14-L4	1,627,652.53	771,796	855,857	124,345	7.64	6.9
392.00	STORES EQUIPMENT	25-SQ	107,351.44	37,632	69,719	4,300	4.01	16.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,300,973.27	344,614	956,359	62,704	4.82	15.3
394.00	LABORATORY EQUIPMENT	15-SQ	418,758.86	210,580	208,179	33,391	7.97	6.2
395.00	POWER OPERATED EQUIPMENT	22-R2	542,370.71	430,952	111,419	10,647	1.96	10.5
396.00	COMMUNICATION EQUIPMENT	15-SQ	4,946,898.15	1,191,435	3,755,463	329,837	6.67	11.4
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	1,237,451.91	169,275	1,068,177	81,253	6.57	13.1
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	2,222	12,010	586	4.12	20.5
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>622,661,386.87</b>	<b>205,424,608</b>	<b>417,236,779</b>	<b>14,010,846</b>	<b>2.25</b>	
<b>NONDEPRECIABLE PLANT</b>								
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,857,560.19					
353.30	LAND AND LAND RIGHTS - SPP		203,839.26					
353.40	LAND AND LAND RIGHTS - TDP		3,853,717.18					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>6,136,256.41</b>					
<b>AMORTIZATION OF NET SALVAGE</b>								
	<b>TOTAL UTILITY PLANT</b>		<b>628,797,643.28</b>	<b>205,424,608</b>	<b>417,236,779</b>	<b>1,515,247</b>		
						<b>15,526,093</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
ROYERSFORD WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2021

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) ORIGINAL COST AS OF DECEMBER 31, 2021	(4) BOOK DEPRECIATION RESERVE	(5) FUTURE ACCRUALS	(6) CALCULATED ANNUAL ACCURAL		(8) COMPOSITE REMAINING LIFE
						AMOUNT	RATE (7)=(6)/(3)	
<b>DEPRECIABLE PLANT</b>								
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	627,002.28	332,942	294,060	10,190	1.63	28.9
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	787,394.52	573,845	213,550	13,541	1.72	15.8
355.00	POWER GENERATION EQUIPMENT	35-S0.5	932,792.72	323,863	608,930	32,908	3.53	18.5
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	79,235.90	64,298	14,938	1,087	1.37	13.7
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	2,677,568.65	743,554	1,934,015	41,476	1.55	46.6
361.20	MANHOLES	50-S2.5	106,984.15	68,337	38,617	7,081	6.82	5.5
363.00	SERVICES	47-R3	80,889.89	62,868	18,022	1,258	1.56	14.3
364.00	FLOW MEASURING DEVICES	15-L2.5	45,062.56	15,824	29,239	5,601	12.43	5.2
371.00	PUMPING EQUIPMENT	30-S0.5	442,227.42	114,273	327,954	19,669	4.45	16.7
380.00	TREATMENT EQUIPMENT	35-S1.5	13,576,315.69	4,307,440	9,268,876	506,321	3.73	18.3
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	23,874.37	7,737	16,137	1,075	4.50	15.0
394.00	LABORATORY EQUIPMENT	15-SQ	3,278.57	0	3,279	226	6.89	14.5
396.00	COMMUNICATION EQUIPMENT	15-SQ	18,286.98	5,410	12,877	1,275	6.97	10.1
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>19,400,883.70</b>	<b>6,620,391</b>	<b>12,780,494</b>	<b>641,708</b>	<b>3.31</b>	
<b>NONDEPRECIABLE PLANT</b>								
353.20	LAND AND LAND RIGHTS - COLLECTION		62.00					
353.30	LAND AND LAND RIGHTS - SPP		39.00					
353.40	LAND AND LAND RIGHTS - TDP		3,000.00					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>3,101.00</b>					
<b>AMORTIZATION OF NET SALVAGE</b>						<b>30.4</b>		
<b>TOTAL UTILITY PLANT</b>						<b>642,012</b>		

353.20 LAND AND LAND RIGHTS - COLLECTION  
353.30 LAND AND LAND RIGHTS - SPP  
353.40 LAND AND LAND RIGHTS - TDP

**TOTAL NONDEPRECIABLE PLANT**  
**AMORTIZATION OF NET SALVAGE**  
**TOTAL UTILITY PLANT**

PENNSYLVANIA-AMERICAN WATER COMPANY  
ROYERSFORD WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2022

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) ORIGINAL COST AS OF DECEMBER 31, 2022	(4) BOOK DEPRECIATION RESERVE	(5) FUTURE ACCRUALS	(6) CALCULATED ANNUAL ACCURAL		(8) COMPOSITE REMAINING LIFE
						AMOUNT	RATE (7)=(6)/(3)	
<b>DEPRECIABLE PLANT</b>								
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	627,002.28	343,162	283,840	9,906	1.58	28.7
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	791,994.98	587,028	204,967	13,521	1.71	15.2
355.00	POWER GENERATION EQUIPMENT	35-S0.5	950,992.72	355,312	595,681	32,595	3.43	18.3
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	97,637.72	63,912	33,726	1,350	1.38	25.0
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	2,733,573.21	779,457	1,954,116	42,012	1.54	46.5
361.20	MANHOLES	50-S2.5	130,755.52	73,364	57,392	5,922	4.53	9.7
363.00	SERVICES	47-R3	99,291.71	61,524	37,768	1,800	1.81	21.0
364.00	FLOW MEASURING DEVICES	15-L2.5	55,062.56	22,047	33,016	5,543	10.07	6.0
371.00	PUMPING EQUIPMENT	30-S0.5	461,027.42	132,042	328,985	19,930	4.32	16.5
380.00	TREATMENT EQUIPMENT	35-S1.5	13,677,329.34	4,802,814	8,874,515	496,405	3.63	17.9
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	46,874.37	7,329	39,545	2,333	4.98	17.0
394.00	LABORATORY EQUIPMENT	15-SQ	7,783.57	(114)	7,898	559	7.18	14.1
396.00	COMMUNICATION EQUIPMENT	15-SQ	36,786.98	5,829	30,958	2,600	7.07	11.9
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>19,716,112.38</b>	<b>7,233,707</b>	<b>12,482,407</b>	<b>634,476</b>	<b>3.22</b>	
<b>NONDEPRECIABLE PLANT</b>								
353.20	LAND AND LAND RIGHTS - COLLECTION		62.00					
353.30	LAND AND LAND RIGHTS - SPP		39.00					
353.40	LAND AND LAND RIGHTS - TDP		3,000.00					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>3,101.00</b>					
<b>AMORTIZATION OF NET SALVAGE</b>						<b>2,341</b>		
<b>TOTAL UTILITY PLANT</b>						<b>636,817</b>		



PENNSYLVANIA-AMERICAN WATER COMPANY  
ROYERSFORD WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2023

(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) ORIGINAL COST AS OF DECEMBER 31, 2023	(4) BOOK DEPRECIATION RESERVE	(5) FUTURE ACCRUALS	(6) CALCULATED ANNUAL ACCRUAL		(8) COMPOSITE REMAINING LIFE
					AMOUNT	RATE (7)=(6)/(3)	
<b>DEPRECIABLE PLANT</b>							
354.30	55-S0	627,002.28	353,069	273,933	9,618	1.53	28.5
354.40	55-S0	815,088.44	598,694	216,374	13,106	1.61	16.5
355.00	35-S0.5	972,192.72	384,222	587,971	32,565	3.35	18.1
360.10	75-R3	116,096.49	63,750	52,346	1,596	1.37	32.8
361.10	80-R2.5	2,789,720.13	816,252	1,973,468	42,302	1.52	46.7
361.20	50-S2.5	154,589.60	77,011	77,589	5,757	3.72	13.5
363.00	47-R3	117,750.48	60,942	56,808	2,291	1.95	24.8
364.00	15-L2.5	65,062.56	27,718	37,345	5,575	8.57	6.7
371.00	30-S0.5	483,827.42	148,040	335,787	20,534	4.24	16.4
380.00	35-S1.5	13,864,063.96	5,281,797	8,582,267	489,804	3.53	17.5
390.00	20-SQ	79,103.75	7,093	72,011	4,114	5.20	17.5
391.00	14-L4	75,000.00	669	74,331	5,857	7.81	12.7
394.00	15-SQ	11,930.57	(371)	12,302	897	7.52	13.7
396.00	15-SQ	55,786.98	7,598	48,189	3,967	7.11	12.1
397.00	15-SQ	5,000.00	42	4,958	342	6.84	14.5
		<b>20,232,205.38</b>	<b>7,826,526</b>	<b>12,405,679</b>	<b>638,325</b>	<b>3.15</b>	
<b>TOTAL DEPRECIABLE PLANT</b>							
<b>NONDEPRECIABLE PLANT</b>							
353.20		62.00					
353.30		39.00					
353.40		3,000.00					
		<b>3,101.00</b>			<b>4,933</b>		
<b>TOTAL NONDEPRECIABLE PLANT</b>							
<b>AMORTIZATION OF NET SALVAGE</b>							
		<b>20,235,306.38</b>	<b>7,826,526</b>	<b>12,405,679</b>	<b>643,258</b>		
<b>TOTAL UTILITY PLANT</b>							

PENNSYLVANIA-AMERICAN WATER COMPANY  
UPPER POTTS GROVE WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF DECEMBER 31, 2022 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>							
354.30	STRUCTURES AND IMPROVEMENTS - SPP	1,412,677.78	377,771	1,034,907	32,755	2.32	31.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	2,190,765.35	794,776	1,395,989	46,086	2.10	30.3
355.00	POWER GENERATION EQUIPMENT	57,802.32	28,291	29,511	1,798	3.11	16.4
360.10	COLLECTION SEWERS - FORCE MAINS	756,805.00	134,232	622,573	11,972	1.58	52.0
361.10	COLLECTION SEWERS - GRAVITY MAINS	7,646,315.95	1,387,180	6,259,136	117,025	1.53	53.5
361.20	MANHOLES	1,859,330.67	328,887	1,530,443	53,282	2.87	28.7
363.00	SERVICES	2,032,146.93	409,691	1,622,456	60,321	2.97	26.9
371.00	PUMPING EQUIPMENT	470,892.59	125,924	344,969	23,370	4.96	14.8
380.00	TREATMENT EQUIPMENT	1,460,510.24	529,851	930,660	61,834	4.23	15.1
391.00	TRANSPORTATION EQUIPMENT	40,000.00	0	40,000	3,152	7.88	12.7
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	2,500.00	0	2,500	128	5.12	19.5
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>17,929,746.83</b>	<b>4,116,603</b>	<b>13,813,144</b>	<b>411,723</b>	<b>2.30</b>	
<b>NONDEPRECIABLE PLANT</b>							
353.10	LAND AND LAND RIGHTS	10,356.37					
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>10,356.37</b>					
<b>AMORTIZATION OF NET SALVAGE</b>							
	<b>TOTAL UTILITY PLANT</b>	<b>17,940,103.20</b>	<b>4,116,603</b>	<b>13,813,144</b>	<b>411,723</b>		
				<b>0</b>			

PENNSYLVANIA-AMERICAN WATER COMPANY  
UPPER POTTSBROGUE WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2023

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF DECEMBER 31, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>							
354.30	STRUCTURES AND IMPROVEMENTS - SPP	1,412,677.78	410,545	1,002,133	31,906	2.26	31.4
354.40	STRUCTURES AND IMPROVEMENTS - TDP	2,190,765.35	840,782	1,349,983	44,900	2.05	30.1
355.00	POWER GENERATION EQUIPMENT	62,378.63	29,671	32,707	1,937	3.11	16.9
360.10	COLLECTION SEWERS - FORCE MAINS	756,805.00	146,190	610,615	11,890	1.57	51.4
361.10	COLLECTION SEWERS - GRAVITY MAINS	7,669,197.52	1,502,065	6,167,133	116,231	1.52	53.1
361.20	MANHOLES	1,870,737.51	381,671	1,489,067	52,995	2.83	28.1
363.00	SERVICES	2,051,299.56	469,222	1,582,077	60,028	2.93	26.4
371.00	PUMPING EQUIPMENT	470,892.59	149,280	321,613	22,359	4.75	14.4
380.00	TREATMENT EQUIPMENT	1,460,510.24	591,630	868,880	59,385	4.07	14.6
391.00	TRANSPORTATION EQUIPMENT	80,000.00	3,283	76,717	6,298	7.87	12.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	7,500.00	139	7,361	385	5.13	19.1
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>18,032,764.18</b>	<b>4,524,478</b>	<b>13,508,286</b>	<b>408,314</b>	<b>2.26</b>	
<b>NONDEPRECIABLE PLANT</b>							
353.10	LAND AND LAND RIGHTS	10,356.37					
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>10,356.37</b>			<b>0</b>		
<b>AMORTIZATION OF NET SALVAGE</b>							
	<b>TOTAL UTILITY PLANT</b>	<b>18,043,120.55</b>	<b>4,524,478</b>	<b>13,508,286</b>	<b>408,314</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
YORK WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF DECEMBER 31, 2022 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>							
354.30	STRUCTURES AND IMPROVEMENTS - SPP	141,754.43	118,464	23,290	982	0.69	23.7
354.40	STRUCTURES AND IMPROVEMENTS - TDP	104,271,994.44	38,079,020	66,192,974	2,317,727	2.22	28.6
355.00	POWER GENERATION EQUIPMENT	40,032.64	13,922	26,111	1,216	3.04	21.5
360.10	COLLECTION SEWERS - FORCE MAINS	117,592.47	23,576	94,016	1,795	1.53	52.4
361.10	COLLECTION SEWERS - GRAVITY MAINS	26,918,123.19	9,365,769	17,552,354	387,612	1.44	45.3
361.20	MANHOLES	5,422,043.32	2,372,752	3,049,291	236,844	4.37	12.9
363.00	SERVICES	2,093,335.53	1,341,152	752,184	62,336	2.98	12.1
364.00	FLOW MEASURING DEVICES	90,155.20	30,387	59,768	10,591	11.75	5.6
371.00	PUMPING EQUIPMENT	4,680,696.60	2,044,708	2,635,989	218,826	4.68	12.0
380.00	TREATMENT EQUIPMENT	30,742,836.96	7,952,834	22,790,003	1,191,988	3.88	19.1
390.00	OFFICE FURNITURE AND EQUIPMENT	60,303.60	34,224	26,079	2,268	3.76	11.5
391.00	TRANSPORTATION EQUIPMENT	1,254,829.63	382,120	872,709	77,035	6.14	11.3
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	300,000.00	15,000	285,000	14,615	4.87	19.5
394.00	LABORATORY EQUIPMENT	277,064.98	44,296	232,769	65,488	23.63	3.6
396.00	COMMUNICATION EQUIPMENT	90,000.00	6,000	84,000	5,793	6.44	14.5
397.00	MISCELLANEOUS EQUIPMENT	75,000.00	5,000	70,000	4,828	6.44	14.5
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>176,575,762.99</b>	<b>61,829,225</b>	<b>114,746,537</b>	<b>4,599,924</b>	<b>2.61</b>	
<b>NONDEPRECIABLE PLANT</b>							
353.00	LAND AND LAND RIGHTS - LAND	40,501.00					
353.05	LAND AND LAND RIGHTS - EASEMENTS	94,374.54					
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>134,875.54</b>			<b>5,601</b>		
<b>AMORTIZATION OF NET SALVAGE</b>							
	<b>TOTAL UTILITY PLANT</b>	<b>176,710,638.53</b>	<b>61,829,225</b>	<b>114,746,537</b>	<b>4,605,525</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
YORK WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND  
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF DECEMBER 31, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>								
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	1,141,754.43	119,730	1,022,024	31,109	2.72	32.9
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	107,995,351.50	40,370,610	67,624,742	2,365,293	2.19	28.6
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	150,000.00	536	149,464	5,542	3.69	27.0
355.00	POWER GENERATION EQUIPMENT	35-S0.5	90,032.64	15,329	74,704	3,316	3.68	22.5
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	117,592.47	25,375	92,217	1,768	1.50	52.2
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	27,255,956.32	9,676,981	17,578,975	389,828	1.43	45.1
361.20	MANHOLES	50-S2.5	5,507,833.75	2,586,836	2,920,998	209,722	3.81	13.9
363.00	SERVICES	47-R3	2,189,454.55	1,391,904	767,551	59,776	2.77	12.8
364.00	FLOW MEASURING DEVICES	15-L2.5	90,155.20	40,980	49,175	8,754	9.71	5.6
371.00	PUMPING EQUIPMENT	30-S0.5	4,855,696.60	2,229,973	2,625,724	216,593	4.46	12.1
380.00	TREATMENT EQUIPMENT	35-S1.5	31,093,502.96	9,026,526	22,066,977	1,172,835	3.77	18.8
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	200,000.00	417	199,583	11,327	5.66	17.6
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	310,303.60	36,883	273,421	15,342	17.8	17.8
391.00	TRANSPORTATION EQUIPMENT	14-L4	1,497,431.84	408,631	1,088,801	104,527	6.98	10.4
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	550,000.00	33,161	516,839	27,264	4.96	19.0
394.00	LABORATORY EQUIPMENT	15-SQ	399,031.78	79,622	319,410	54,392	13.63	5.9
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,747,500.00	18,605	1,728,895	119,681	6.85	14.4
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	75,000.00	9,830	65,170	4,827	6.44	13.5
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>185,236,597.64</b>	<b>66,071,929</b>	<b>119,164,670</b>	<b>4,801,896</b>	<b>2.59</b>	
<b>NONDEPRECIABLE PLANT</b>								
353.00	LAND AND LAND RIGHTS - LAND		40,501.00					
353.05	LAND AND LAND RIGHTS - EASEMENTS		94,374.54					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>134,875.54</b>			<b>18,375</b>		
<b>AMORTIZATION OF NET SALVAGE</b>								
	<b>TOTAL UTILITY PLANT</b>		<b>185,371,473.18</b>	<b>66,071,929</b>	<b>119,164,670</b>	<b>4,820,271</b>		

Pennsylvania-American Water Company  
Data Requirements of the Pennsylvania Public Utility Commission  
Depreciation Study

FR VI.6

**Pennsylvania-American Water Company**  
**VI. Depreciation**

6. Provide an exhibit showing gross salvage, cost of removal, and net salvage for the five most recent calendar or fiscal years by account.

**Answer:**

The information is presented on pages III-2 through III-6 of Exhibit No. 11-A for the historic test year, on pages VIII-2 through VIII-6 of Exhibit No. 11-B for the future test year, and on pages III-2 through III-6 of Exhibit No. 11-C for the fully forecasted test year for water assets.

The information is presented in Part III. Experienced Net Salvage of Exhibit Nos. 11-D and 11-K for the historic test year, in Part VIII, Experienced and Estimated Net Salvage of Exhibit Nos. 11-E, 11-G, 11-I and 11-L of the future test year, and in Part III. Experienced and Estimated Net Salvage of Exhibit Nos. 11-F, 11-H, 11-J and 11-M of the fully forecasted test year for wastewater assets.

**EXHIBIT NO. 11-A - DEPRECIATION STUDY**

**WATER OPERATIONS**

**AS OF JUNE 30, 2023**

Exhibit No. 11-A  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WATER OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WATER PLANT

AS OF JUNE 30, 2023

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**



Exhibit No. 11-A  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WATER PLANT  
AS OF JUNE 30, 2023

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
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[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant as of June 30, 2023. Summaries of the original cost, annual accruals and the book depreciation reserve are presented in Tables 1 through 3, beginning on page I-3 of the attached report.

A description of the methods and procedures upon which the study was based, as well as support for the service life estimates, is set forth in a companion report "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of June 30, 2024".

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, reading "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink, reading "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. RESULTS OF STUDY**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**WATER OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of net original cost used in the study. The net original cost is the original cost of water plant less advances, contributions and property to be excluded pursuant to Commission audits. The results of the depreciation study are summarized in Table 2, which sets forth the book reserve and the calculated annual depreciation related to net original cost as of June 30, 2023, and the annual amortization of net negative salvage. Table 3 presents the calculation of the amortization of experienced net salvage, by account, based on the five-year period, 2018-2022.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-8. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage, and cost of removal are set forth by account for the years 2018 through 2022, on pages III-2 through III-6.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2023

DEPRECIABLE GROUP	ORIGINAL COST AS OF JUNE 30, 2023 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2023 (6)
<b>INTANGIBLE PLANT</b>					
301.00 ORGANIZATION	766,405.12				766,405.12
302.00 FRANCHISES AND CONSENTS	2,404,599.20				2,404,599.20
303.00 MISCELLANEOUS INTANGIBLE PLANT	15,572.16				15,572.16
<b>TOTAL INTANGIBLE PLANT</b>	<b>3,186,576.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3,186,576.48</b>
<b>NONDEPRECIABLE PLANT</b>					
303.20 POWER AND PUMPING LAND	6,169,782.02				6,169,782.02
303.30 PURIFICATION LAND	42,401.17				42,401.17
303.40 TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	3,699,278.24		215,927.20		3,483,351.04
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPE LAND	2,107,863.83				2,107,863.83
303.51 TRANSMISSION AND DISTRIBUTION - LAND	1,865,772.73				1,865,772.73
303.52 TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	5,338,245.56				5,338,245.56
303.61 OFFICE LAND	3,221,899.78				3,221,899.78
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>22,445,243.33</b>	<b>0.00</b>	<b>215,927.20</b>	<b>0.00</b>	<b>22,229,316.13</b>
<b>DEPRECIABLE PLANT</b>					
303.14 WATER RIGHTS - HIBERNIA	1,942,822.51				1,942,822.51
303.35 WASTE HANDLING AND TREATMENT LAND	155,025.17				155,025.17
303.99 COMPREHENSIVE PLANNING STUDIES	11,052,834.26				11,052,834.26
304.15 OTHER WATER SOURCE STRUCTURES	95,740,074.67				95,740,074.67
304.20 POWER AND PUMPING STRUCTURES	105,806,222.00		1,289,607.60	41310	104,475,304.40
304.30 PURIFICATION BUILDINGS	335,064,166.83		169,605.01	230375	334,664,166.82
304.36 WASTE HANDLING AND TREATMENT STRUCTURE	25,230,121.46				25,230,121.46
304.38 PURIFICATION BUILDINGS AND TREATMENT STRUCTURES PAINTING	1,403,438.95				1,403,438.95
304.39 PURIFICATION BUILDINGS - TANK PAINTING	119,362.95				119,362.95
304.61 OFFICE BUILDINGS	42,682,006.14		60,000.00	12834	42,609,172.14
304.62 STORES, SHOP AND GARAGE BUILDINGS	68,074,046.37		576.00		68,073,470.37
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	6,864,629.49				6,864,629.49
305.00 COLLECTING AND IMPOUNDING RESERVOIRS	135,474,936.47		3,575.00		135,471,361.47
306.00 LAKE, RIVER AND OTHER INTAKES	17,350,909.40		41,551.00		17,309,358.40
307.00 WELLS AND SPRINGS	11,984,294.01		71,610.27		11,912,683.74
310.00 POWER GENERATION EQUIPMENT	19,053,150.70		118,273.00		18,908,316.70
311.20 PUMPING EQUIPMENT - ELECTRIC	18,259,688.55		1,954,569.05	26561	16,188,403.50
311.50 PUMPING EQUIPMENT - OTHER	13,047,342.71			116,716.00	13,047,342.71
311.52 PUMPING EQUIPMENT - SOURCE OF SUPPLY	12,240,259.32				12,240,259.32
311.53 PUMPING EQUIPMENT - WATER TREATMENT	47,853,790.34				47,853,790.34
311.54 PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION	6,707,900.44				6,707,900.44
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	227,045,025.74		27,162.27		226,390,011.47
320.18 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	103,245.73				103,245.73
320.19 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	3,667,945.94				3,667,945.94

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2023

	DEPRECIABLE GROUP					NET ORIGINAL COST AS OF JUNE 30, 2023
	(1)	(2)	(3)	(4)	(5)	
320.20	PURIFICATION SYSTEM - CHEMICAL TREATMENT	103,200,976.61				103,158,609.61
320.29	PURIFICATION SYSTEM - CHEMICAL TREATMENT PAINT	8,167.87				8,167.87
320.30	GRANULAR ACTIVATED CARBON	12,704,166.27				12,704,166.27
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	14,890,092.88				14,890,092.88
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	119,914,862.96		2,905,114.51		117,009,748.45
330.10	ELEVATED TANKS AND STANDPIPES	14,144,856.97				14,144,856.97
330.20	GROUND LEVEL FACILITIES	18,118,307.94				18,118,307.94
330.30	BELOW GRADE FACILITIES	818,707.23				818,707.23
330.40	CLEARWELL	12,806,300.04				12,806,300.04
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	2,303,924.15				2,303,924.15
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	41,110,935.19				41,110,935.19
331.00	MAINS AND ACCESSORIES	3,355,224,093.77	48,333,879.26	249,594,762.81	502,366	3,056,793,085.70
333.00	SERVICES	705,318,211.59	11,443,825.85	15,529,927.73		678,344,468.01
334.00	METERS AND METER INSTALLATIONS	223,217,608.09		1,824,706.75		221,392,901.34
335.00	FIRE HYDRANTS	141,592,695.69		5,469,207.17		134,208,552.33
340.10	OFFICE FURNITURE	7,800,711.97				7,800,711.97
340.20	COMPUTERS AND PERIPHERAL EQUIPMENT	14,520,712.81				14,520,712.81
340.30	COMPUTER SOFTWARE	80,252,425.10				80,252,425.10
340.31	COMPUTER SOFTWARE - ENTERPRISE SOLUTIONS	1,549,193.48				1,549,193.48
340.50	OTHER OFFICE EQUIPMENT	9,454.95		354.00		9,100.95
341.00	NOT CLASSIFIED	2,587.67				2,587.67
341.10	LIGHT DUTY TRUCKS	51,891,848.30				51,891,848.30
341.20	EQUIPMENT	16,793,602.21				16,793,602.21
341.30	AUTOS	1,995,589.81				1,995,589.81
341.40	OTHER	7,584,706.89				7,584,706.89
342.00	STORES EQUIPMENT	469,790.25				469,790.25
343.00	TOOLS AND WORK EQUIPMENT	43,247,014.88		61.00		43,246,953.88
344.00	LABORATORY EQUIPMENT	2,262,021.06				2,262,021.06
345.00	POWER OPERATED EQUIPMENT	2,122,806.77				2,122,806.77
346.00	EQUIPMENT	2,231,368.37				2,231,368.37
346.10	NON-TELEPHONE	8,295,019.71				8,295,019.71
346.19	REMOTE CONTROL AND INSTRUMENTATION	4,021,751.34				4,021,751.34
346.20	TELEPHONE	295,178.57				295,178.57
347.00	MISCELLANEOUS EQUIPMENT	28,263,694.68		4,085.00		28,259,609.68
348.00	OTHER TANGIBLE EQUIPMENT	795,577.91				795,577.91
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>6,246,702,204.13</b>	<b>61,692,641.30</b>	<b>279,107,115.17</b>	<b>1,558,014.00</b>	<b>5,904,344,433.66</b>
	<b>TOTAL UTILITY PLANT IN SERVICE</b>	<b>6,272,334,023.94</b>	<b>61,692,641.30</b>	<b>279,323,042.37</b>	<b>1,558,014.00</b>	<b>5,929,760,326.27</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED		COMPOSITE REMAINING LIFE (8)
						ANNUAL AMOUNT (6)	ACCRRUAL RATE (7)	
<b>INTANGIBLE PLANT</b>								
301.00	ORGANIZATION	NONDEPR.	766,405.12					
302.00	FRANCHISES AND CONSENTS	NONDEPR.	2,404,599.20					
303.00	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	15,572.16					
	<b>TOTAL INTANGIBLE PLANT</b>		<b>3,186,576.48</b>					
<b>NONDEPRECIABLE PLANT</b>								
303.20	POWER AND PUMPING LAND	NONDEPR.	6,169,782.02					
303.30	PURIFICATION LAND	NONDEPR.	42,401.17					
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.	3,483,351.04					
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	2,107,863.83					
303.51	TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.	1,865,772.73					
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.	5,338,245.56					
303.61	OFFICE LAND	NONDEPR.	3,221,899.78					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>22,229,316.13</b>					
<b>DEPRECIABLE PLANT</b>								
303.14	WATER RIGHTS - HIBERNIA	25-SQ	1,942,822.51	1,942,823	0	0		-
303.35	WASTE HANDLING AND TREATMENT LAND	100-R3	155,025.17	131,860	23,165	1,322	0.85	17.5
303.99	COMPREHENSIVE PLANNING STUDIES	5-SQ	11,052,834.26	7,254,665	3,798,169	1,710,935	15.48	2.2
304.15	OTHER WATER SOURCE STRUCTURES	50-S0.5	95,740,074.67	7,841,590	87,898,485	2,770,762	2.89	31.7
304.20	POWER AND PUMPING STRUCTURES	75-S0.5	56,213,745.31	8,229,846	47,983,900	1,598,982	2.84	30.0
	LARGE STRUCTURES	55-R3	48,261,559.09	8,380,009	39,881,550	1,340,992	2.78	29.7
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.2</b>		<b>104,475,304.40</b>	<b>16,609,855</b>	<b>87,865,450</b>	<b>2,939,974</b>	<b>2.81</b>	<b>29.9</b>
304.30	PURIFICATION BUILDINGS	55-S1	284,083,890.05	100,397,397	183,686,493	6,932,737	2.44	26.5
	LARGE STRUCTURES	60-R3	50,580,296.77	13,292,910	37,287,387	915,696	1.81	40.7
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.3</b>		<b>334,664,186.82</b>	<b>113,690,307</b>	<b>220,973,880</b>	<b>7,848,433</b>	<b>2.35</b>	<b>28.2</b>
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	55-S1	25,230,121.46	7,463,436	17,766,685	764,243	3.03	23.2
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ	1,403,438.95	331,573	1,071,866	135,951	9.69	7.9
304.39	PURIFICATION BUILDINGS - TANK PAINTING	10-SQ	119,362.95	112,323	7,040	3,520	2.95	2.0
304.61	OFFICE BUILDINGS	55-S0	26,607,642.45	6,169,390	20,438,253	860,052	3.23	23.8
	LARGE STRUCTURES	50-R3	16,001,529.69	3,901,233	12,100,297	369,893	2.31	32.7
	OTHER OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.61</b>		<b>42,609,172.14</b>	<b>10,070,623</b>	<b>32,538,550</b>	<b>1,229,945</b>	<b>2.89</b>	<b>26.5</b>
304.62	STORES, SHOP AND GARAGE BUILDINGS	55-S0.5	58,751,831.95	15,227,016	43,524,817	1,457,508	2.48	29.9
	LARGE STRUCTURES	45-R3	9,321,638.42	4,208,717	5,112,921	152,710	1.64	33.5
	OTHER OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.62</b>		<b>68,073,470.37</b>	<b>19,435,733</b>	<b>48,637,738</b>	<b>1,610,218</b>	<b>2.37</b>	<b>30.2</b>
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	35-S0.5	6,864,629.49	3,630,315	3,234,314	135,847	1.98	23.8
	TOTAL ACCOUNT 304		<b>679,179,761.25</b>	<b>179,185,755</b>	<b>499,994,008</b>	<b>17,438,893</b>	<b>2.57</b>	<b>28.7</b>



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	RATE (7)	COMPOSITE REMAINING LIFE (8)
305.00	COLLECTING AND IMPOUNDING RESERVOIRS							
	LARGE RESERVOIRS	130-R2	127,895,832.42	20,920,002	106,975,831	1,763,342	1.38	60.7
	OTHER RESERVOIRS	75-R3	7,575,529.05	2,979,691	4,595,838	142,402	1.88	32.3
	TOTAL ACCOUNT 305		135,471,361.47	23,899,693	111,571,669	1,905,744	1.41	58.5
306.00	LAKE, RIVER AND OTHER INTAKES							
	LARGE RESERVOIRS	55-S1.5	12,329,112.16	4,748,401	7,580,711	291,984	2.37	26.0
	OTHER RESERVOIRS	50-S0.5	4,980,246.24	1,640,159	3,340,087	130,484	2.62	25.6
	TOTAL ACCOUNT 306		17,309,358.40	6,388,560	10,920,798	422,468	2.44	25.9
307.00	WELLS AND SPRINGS	55-S0	11,912,683.74	3,401,063	8,511,621	286,230	2.40	29.7
310.00	POWER GENERATION EQUIPMENT	45-S0.5	18,908,316.70	6,293,958	12,614,359	473,877	2.51	26.6
311.20	PUMPING EQUIPMENT							
	ELECTRIC	39-S0	16,188,403.50	3,968,076	12,220,328	540,917	3.34	22.6
	OTHER	39-S0	13,047,342.71	1,149,625	11,897,718	502,951	3.85	23.7
311.52	SOURCE OF SUPPLY	39-S0	12,240,259.32	2,764,830	9,475,429	412,901	3.37	22.9
311.53	WATER TREATMENT	39-S0	47,853,790.34	25,237,289	22,616,521	1,337,620	2.80	16.9
311.54	TRANSMISSION AND DISTRIBUTION	39-S0	6,707,900.44	2,291,397	4,416,503	206,173	3.07	21.4
	TOTAL ACCOUNT 311		96,037,696.31	35,411,197	60,626,499	3,000,562	3.12	20.2
320.10	PURIFICATION SYSTEM							
	LARGE STRUCTURES	50-S1	210,047,725.16	85,325,556	124,722,167	5,259,400	2.50	23.7
	OTHER OTHER STRUCTURES	55-R3	16,342,286.31	5,243,141	11,099,145	319,725	1.96	34.7
	TOTAL ACCOUNT 320.1		226,390,011.47	90,568,697	135,821,312	5,579,125	2.46	24.3
320.18	LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
320.19	LARGE STRUCTURES PAINT	10-SQ	3,667,945.94	3,059,100	608,846	79,964	2.18	7.6
320.20	CHEMICAL TREATMENT	42-R0.5	103,158,609.61	30,603,828	72,554,782	3,343,377	3.24	21.7
320.29	CHEMICAL TREATMENT PAINT		8,167.87	8,168	0	0	-	-
320.30	GRANULAR ACTIVATED CARBON	11-L0.5	12,704,166.27	5,555,240	7,148,926	1,318,973	10.38	5.4
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3	14,890,092.68	10,673,614	4,216,279	243,895	1.64	17.3
	TOTAL ACCOUNT 320		360,922,239.77	140,572,093	220,350,145	10,585,334	2.93	20.9
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	117,009,748.45	39,932,025	77,077,723	2,101,017	1.80	36.7
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	14,144,856.97	2,290,818	11,854,039	285,273	2.02	41.6
330.20	GROUND LEVEL FACILITIES	65-S0.5	18,118,307.94	2,791,160	15,327,148	367,277	2.03	41.7
330.30	BELOW GRADE FACILITIES	65-S0.5	818,707.23	158,657	660,050	16,194	1.98	40.8
330.40	CLEARWELL	65-S0.5	12,806,300.04	2,617,148	10,189,152	251,227	1.96	40.6
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	2,303,924.15	2,086,329	217,595	78,333	3.40	2.8
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	41,110,935.19	26,466,456	14,644,479	2,642,615	6.43	5.5
	TOTAL ACCOUNT 330		206,312,779.97	76,342,593	129,970,186	5,741,996	2.78	22.6
331.00	MAINS AND ACCESSORIES	90-R2	3,056,793,085.70	342,396,516	2,714,396,570	46,324,768	1.52	58.6
333.00	SERVICES	65-R2.5	678,344,458.01	158,738,784	519,605,674	12,539,036	1.85	41.4
334.00	METERS AND METER INSTALLATIONS	20-L1.5	221,392,901.34	76,372,916	145,019,985	13,764,263	6.22	10.5
335.00	FIRE HYDRANTS	60-R2	134,208,552.33	19,446,220	114,762,332	3,065,466	2.28	37.4

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	RATE (7)	COMPOSITE REMAINING LIFE (8)
340.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	7,800,711.97	1,060,253	6,740,459	483,811	6.20	13.9
	FURNITURE	5-SQ	14,520,712.81	2,870,542	11,650,171	4,124,631	28.41	2.8
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	80,252,425.10	21,393,515	58,858,910	28,816,507	35.91	2.0
	COMPUTER SOFTWARE	10-SQ	1,549,193.48	693,985	855,208	720,949	46.54	1.2
	OTHER OFFICE EQUIPMENT	10-SQ	9,100.95	1,839	7,262	1,210	13.29	6.0
	TOTAL ACCOUNT 340		104,132,144.31	26,020,134	78,112,010	34,147,108	32.79	2.3
341.00	TRANSPORTATION EQUIPMENT	10-L2.5	2,587.67	1,555	1,033	179	6.92	5.8
	NOT CLASSIFIED	10-L2.5	51,891,848.30	25,350,423	26,541,425	4,116,259	7.93	6.4
	LIGHT DUTY TRUCKS	10-L2.5	16,793,602.21	14,610,142	2,183,460	489,680	2.92	4.5
	EQUIPMENT	10-L2.5	1,995,589.81	1,767,676	227,914	70,144	3.51	3.2
	AUTOS	10-L2.5	7,584,706.89	6,372,507	1,212,200	240,622	3.17	5.0
	OTHER							
	TOTAL ACCOUNT 341		78,268,334.88	48,102,303	30,166,032	4,916,884	6.28	6.1
342.00	STORES EQUIPMENT	20-SQ	469,790.25	67,164	402,626	29,362	6.25	13.7
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	43,246,953.88	9,326,628	33,920,326	2,447,749	5.66	13.9
344.00	LABORATORY EQUIPMENT	20-SQ	2,262,021.06	381,654	1,880,367	267,187	11.81	7.0
345.00	POWER OPERATED EQUIPMENT	21-S0.5	2,122,806.77	1,356,764	766,043	92,041	4.34	8.3
346.00	COMUNICATION EQUIPMENT	15-SQ	2,231,368.37	325,497	1,905,871	154,156	6.91	12.4
	EQUIPMENT	15-SQ	8,295,019.71	1,532,326	6,762,694	582,182	7.02	11.6
	NON-TELEPHONE	10-SQ	4,021,751.34	1,430,915	2,590,836	459,462	11.42	5.6
	TELEPHONE	10-SQ	295,178.57	143,155	152,024	41,359	14.00	3.7
	TOTAL ACCOUNT 346		14,843,317.99	3,431,893	11,411,425	1,237,139	8.33	9.2
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	28,259,609.68	3,893,050	24,366,560	1,350,943	4.78	18.0
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	795,577.91	477,612	317,966	32,481	4.08	9.8
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>5,904,344,433.66</b>	<b>1,170,835,898</b>	<b>4,733,508,535</b>	<b>161,761,728</b>	<b>2.74</b>	
	<b>AMORTIZATION OF NET SALVAGE</b>					<b>23,803,004</b>		
	<b>TOTAL UTILITY PLANT IN SERVICE</b>		<b>5,929,760,326.27</b>	<b>1,170,835,898</b>	<b>4,733,508,535</b>	<b>185,564,732</b>		

\* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

ACCOUNT (1)	2018			2019			2020			2021			2022			NET SALVAGE (12)*	SALVAGE ACCURAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)	GROSS SALVAGE (10)	COST OF REMOVAL (11)	GROSS SALVAGE (10)	COST OF REMOVAL (11)			
303.61				3,062.78	4,483.73	(4,483.73)								0.00	0		
303.99				387,837.75	210.38									(3,062.78)	(613)		
304.15	1,582.30	180,812.86	27,560.73						666,811.69	850,320.81				(2,634,386.35)	(526,877)		
304.20	13,853.00	39,684.28	31,830.10	147,277.43					37,171.02	23,865.76				(274,091.35)	(54,818)		
304.30	14,493.83	1,091,908.37	66,260.61	148,391.82					137,849.62	52,542.41				(2,138,116.77)	(427,623)		
304.36		43,138.55		546.00										(43,684.55)	(8,737)		
304.61		6,567.28	1,864,549.94	1,304,656.48					1,346.07	6,818.30				543,362.51	108,673		
304.62	729.22		192,159.79	54,481.40					18,876.94	46,017.09				66,955.11	13,391		
304.63		3,068.49	25,209.50	8,030.27						79,910.95				(65,823.69)	(13,165)		
305.00				1,266,548.34					24,577.59	299,889.33				(1,591,482.43)	(318,296)		
306.00				17,003.99					467.17	55,144.80				(24,350.54)	(4,870)		
307.00		1,391.04		118,341.25					450.15					(222,689.15)	(44,538)		
310.00		11,634.03		42,462.99					5,700.51					(57,690.32)	(11,538)		
311.00		191,399.40		1,092,490.18					193,743.82	350,411.61				(2,062,425.95)	(412,485)		
320.00	512.50	619,426.48	13,739.63	924,729.91	(214.05)				890,085.40	1,520,577.41				(4,650,170.56)	(930,034)		
320.30			229.83	423,003.27					1,370.70	299,375.44				(800,124.88)	(160,025)		
320.37		29,963.00	23.00	90,807.00						3,396,011.14				(120,747.00)	(24,149)		
330.00	162.78	2,820,506.21		2,686,207.69					1,561,680.99	13,983,952.63				(11,660,801.25)	(2,332,160)		
331.00	25,598.82	11,746,655.36	13,124.96	21,381,790.52	25,703.04				8,196,453.86	67,848,534.11				(67,848,534.11)	(13,569,707)		
333.00	(214.01)	1,300,493.65	9,792.38	1,897,743.49					2,681,541.01	2,218.42				(10,899,894.79)	(2,179,979)		
334.00	115,629.32	913,142.15	93,029.52	2,727,391.38	42,569.41				1,021,270.85	54,380.07				(9,136,996.88)	(1,827,399)		
335.00	2,311.49	309,652.61	4,063.03	908,970.88	3,093.12				1,074,172.62	6,290.78				(5,267,587.05)	(1,053,517)		
340.00	8,779.58	30,861.14	10,745.87	122,477.36	613.87				78,720.20	67,823.74				(294,673.30)	(58,935)		
341.00	205,163.90	148,702.02	261,902.01	761,298.60	456,214.35				(16,299.55)	820,242.37				971,065.67	194,211		
342.00		245.80		9,682.12										(10,050.32)	(2,010)		
343.00		7,924.48	48,579.17	57,836.24	3,000.00				40,863.25	38,089.15				(143,849.35)	(28,770)		
344.00		4,823.99		14,919.23	13,845.30				5,126.37	8,395.86				(47,110.75)	(9,422)		
345.00		860.13	12,288.18	15,876.66						590.23				(5,038.84)	(1,008)		
346.00	132.58	30,002.27		87,193.50					49,301.95	165,439.94				(376,436.97)	(75,287)		
347.00		20,027.66	8,306.50	73,665.55	16,130.65				8,339.46	105,946.50				(215,803.32)	(43,161)		
348.00		(29.21)		808.08										(778.87)	(156)		
<b>TOTAL</b>	<b>388,735.31</b>	<b>19,552,862.04</b>	<b>2,683,394.75</b>	<b>36,775,532.16</b>	<b>535,673.85</b>	<b>847,279.91</b>	<b>16,655,044.10</b>	<b>1,003,336.20</b>	<b>28,764,825.44</b>	<b>1,003,336.20</b>	<b>28,764,825.44</b>	<b>119,015,028.83</b>	<b>(23,803,004)</b>				

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1843	72	72				0.0
1850	4,000	4,000				0.0
1861	1,094	1,094				0.0
1868	3,816	2,208	1,608		1,608	0.0
1869	235	138	97		1,705	0.0
1870	8,505	4,936	3,569		5,274	0.0
1871	9,909	8,883	1,026		6,300	0.0
1872	106,289	85,905	20,384		26,684	0.0
1873	9,244	5,342	3,902		30,586	0.0
1874	40,344	23,159	17,185		47,771	0.0
1875	4,224	2,409	1,815		49,586	0.0
1876	9,019	5,611	3,408		52,994	0.0
1877	159	91	68		53,062	0.0
1878	6,503	3,689	2,814		55,876	0.0
1879	4,560	2,607	1,953		57,829	0.0
1880	301	171	130		57,959	0.0
1882	330	289	41		58,000	0.0
1883	98	56	42		58,042	0.0
1884	18,618	17,427	1,191		59,233	0.0
1885	30,240	17,067	13,173		72,406	0.0
1886	41,947	23,656	18,291		90,697	0.0
1887	89,524	68,296	21,228		111,925	0.0
1888	120,510	69,400	51,110		163,035	0.0
1889	519,386	450,613	68,773		231,808	0.0
1890	285,784	158,433	127,351		359,159	0.0
1891	155,391	99,914	55,477		414,636	0.0
1892	264,172	193,608	70,564		485,200	0.0
1893	410,400	251,985	158,415		643,615	0.0
1894	173,722	144,264	29,458		673,073	0.0
1895	21,049	17,642	3,407		676,480	0.0
1896	472,058	264,216	207,842		884,322	0.0
1897	318,760	282,452	36,308		920,630	0.0
1898	86,903	48,137	38,766		959,396	0.0
1899	410,069	226,017	184,052		1,143,448	0.0
1900	1,804,381	1,073,589	730,792		1,874,240	0.0
1901	501,541	309,534	192,007		2,066,247	0.0
1902	233,425	134,242	99,183		2,165,430	0.0
1903	371,548	208,445	163,103		2,328,533	0.0
1904	158,992	91,438	67,554		2,396,087	0.1
1905	552,786	312,283	240,503		2,636,590	0.1
1906	366,950	228,058	138,892		2,775,482	0.1
1907	1,971,183	1,094,843	876,340		3,651,822	0.1
1908	544,206	301,085	243,121		3,894,943	0.1
1909	362,718	204,674	158,044		4,052,987	0.1
1910	543,770	318,912	224,858		4,277,845	0.1

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1911	188,117	115,372		72,745	4,350,590	0.1
1912	327,406	182,563		144,843	4,495,433	0.1
1913	161,056	85,169		75,887	4,571,320	0.1
1914	477,114	250,069		227,045	4,798,365	0.1
1915	515,579	303,496		212,083	5,010,448	0.1
1916	1,165,980	604,106		561,874	5,572,322	0.1
1917	146,847	76,661		70,186	5,642,508	0.1
1918	216,158	137,713		78,445	5,720,953	0.1
1919	221,129	134,481		86,648	5,807,601	0.1
1920	314,283	172,168		142,115	5,949,716	0.1
1921	317,674	187,399		130,275	6,079,991	0.1
1922	281,215	162,531		118,684	6,198,675	0.1
1923	2,486,510	1,436,641	1,049,869		7,248,544	0.2
1924	1,187,883	703,410		484,473	7,733,017	0.2
1925	744,359	368,432		375,927	8,108,944	0.2
1926	1,965,320	968,964		996,356	9,105,300	0.2
1927	260,301	130,436		129,865	9,235,165	0.2
1928	449,856	242,269		207,587	9,442,752	0.2
1929	362,111	217,579		144,532	9,587,284	0.2
1930	278,726	149,909		128,817	9,716,101	0.2
1931	313,244	183,926		129,318	9,845,419	0.2
1932	115,788	57,945		57,843	9,903,262	0.2
1933	48,278	23,627		24,651	9,927,913	0.2
1934	89,860	43,084		46,776	9,974,689	0.2
1935	156,477	75,707		80,770	10,055,459	0.2
1936	122,932	60,175		62,757	10,118,216	0.2
1937	270,681	161,610		109,071	10,227,287	0.2
1938	103,358	52,400		50,958	10,278,245	0.2
1939	216,825	112,054		104,771	10,383,016	0.2
1940	229,178	135,899		93,279	10,476,295	0.2
1941	189,378	106,384		82,994	10,559,289	0.2
1942	156,333	88,440		67,893	10,627,182	0.2
1943	108,428	56,115		52,313	10,679,495	0.2
1944	60,077	31,313		28,764	10,708,259	0.2
1945	458,816	252,019		206,797	10,915,056	0.2
1946	627,550	320,138		307,412	11,222,468	0.2
1947	577,387	331,034		246,353	11,468,821	0.2
1948	741,938	430,140		311,798	11,780,619	0.2
1949	469,260	308,211		161,049	11,941,668	0.3
1950	516,422	321,606		194,816	12,136,484	0.3
1951	1,228,309	758,773		469,536	12,606,020	0.3
1952	1,035,368	631,287		404,081	13,010,101	0.3
1953	2,802,692	1,763,264	1,039,428		14,049,529	0.3
1954	2,442,487	1,305,805		1,136,682	15,186,211	0.3
1955	3,975,732	1,855,277		2,120,455	17,306,666	0.4

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1956	2,522,743	1,264,836	1,257,907		18,564,573	0.4
1957	3,351,658	1,592,360	1,759,298		20,323,871	0.4
1958	4,369,245	2,215,161	2,154,084		22,477,955	0.5
1959	4,108,451	2,072,507	2,035,944		24,513,899	0.5
1960	4,506,669	2,161,815	2,344,854		26,858,753	0.6
1961	5,872,751	2,810,086	3,062,665		29,921,418	0.6
1962	2,806,877	1,434,946	1,371,931		31,293,349	0.7
1963	3,150,588	1,465,423	1,685,165		32,978,514	0.7
1964	7,678,680	3,279,953	4,398,727		37,377,241	0.8
1965	7,243,417	3,594,093	3,649,324		41,026,565	0.9
1966	6,603,505	2,832,384	3,771,121		44,797,686	0.9
1967	8,222,080	3,579,731	4,642,349		49,440,035	1.0
1968	7,725,606	3,238,690	4,486,916		53,926,951	1.1
1969	8,642,420	4,350,250	4,292,170		58,219,121	1.2
1970	5,653,156	2,387,469	3,265,687		61,484,808	1.3
1971	7,959,219	3,303,302	4,655,917		66,140,725	1.4
1972	15,062,198	7,700,071	7,362,127		73,502,852	1.6
1973	27,893,702	16,527,762	11,365,940		84,868,792	1.8
1974	7,796,406	3,178,749	4,617,657		89,486,449	1.9
1975	8,446,772	3,348,034	5,098,738		94,585,187	2.0
1976	17,274,146	8,332,299	8,941,847		103,527,034	2.2
1977	8,480,592	3,132,210	5,348,382		108,875,416	2.3
1978	13,468,952	4,819,719	8,649,233		117,524,649	2.5
1979	13,316,358	4,971,336	8,345,022		125,869,671	2.7
1980	16,490,604	5,623,030	10,867,574		136,737,245	2.9
1981	12,910,098	4,737,035	8,173,063		144,910,308	3.1
1982	15,213,275	7,196,945	8,016,330		152,926,638	3.2
1983	16,279,293	6,001,323	10,277,970		163,204,608	3.4
1984	20,610,314	6,909,154	13,701,160		176,905,768	3.7
1985	35,456,835	13,056,712	22,400,123		199,305,891	4.2
1986	37,932,944	13,396,334	24,536,610		223,842,501	4.7
1987	40,743,979	14,053,533	26,690,446		250,532,947	5.3
1988	61,983,615	23,855,683	38,127,932		288,660,879	6.1
1989	61,885,495	21,948,236	39,937,259		328,598,138	6.9
1990	99,799,778	45,234,998	54,564,780		383,162,918	8.1
1991	59,868,640	28,392,418	31,476,222		414,639,140	8.8
1992	67,117,492	27,450,905	39,666,587		454,305,727	9.6
1993	101,828,821	42,767,067	59,061,754		513,367,481	10.8
1994	60,153,696	17,141,809	43,011,887		556,379,368	11.8
1995	90,150,891	29,759,956	60,390,935		616,770,303	13.0
1996	66,614,294	18,722,528	47,891,766		664,662,069	14.0
1997	94,811,205	33,882,779	60,928,426		725,590,495	15.3
1998	157,754,125	44,519,393	113,234,732		838,825,227	17.7
1999	114,686,969	36,011,828	78,675,141		917,500,368	19.4
2000	89,494,651	22,348,222	67,146,429		984,646,797	20.8



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	DEPRECIATED ORIGINAL COST		PCT OF COL 4 TOTAL (6)
			AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	
2001	109,529,023	29,660,600	79,868,423	1,064,515,220	22.5
2002	109,092,365	25,324,832	83,767,533	1,148,282,753	24.3
2003	59,399,992	16,012,320	43,387,672	1,191,670,425	25.2
2004	77,042,033	15,225,460	61,816,573	1,253,486,998	26.5
2005	95,684,391	22,196,549	73,487,842	1,326,974,840	28.0
2006	61,863,074	18,342,339	43,520,735	1,370,495,575	29.0
2007	120,831,408	24,093,359	96,738,049	1,467,233,624	31.0
2008	155,475,080	27,294,388	128,180,692	1,595,414,316	33.7
2009	133,964,806	22,468,416	111,496,390	1,706,910,706	36.1
2010	152,078,496	26,051,118	126,027,378	1,832,938,084	38.7
2011	198,812,134	36,551,157	162,260,977	1,995,199,061	42.2
2012	311,087,656	63,553,952	247,533,704	2,242,732,765	47.4
2013	254,853,558	44,229,563	210,623,995	2,453,356,760	51.8
2014	226,891,141	33,334,849	193,556,292	2,646,913,052	55.9
2015	231,210,939	28,078,409	203,132,530	2,850,045,582	60.2
2016	277,178,961	38,046,959	239,132,002	3,089,177,584	65.3
2017	246,917,922	27,829,755	219,088,167	3,308,265,751	69.9
2018	397,469,250	51,641,286	345,827,964	3,654,093,715	77.2
2019	286,460,838	30,266,749	256,194,089	3,910,287,804	82.6
2020	309,370,633	22,879,260	286,491,373	4,196,779,177	88.7
2021	335,397,218	19,834,149	315,563,069	4,512,342,246	95.3
2022	395,475,381	10,654,389	384,820,992	4,897,163,238	103.5
2023	134,970,537	1,044,658	133,925,879	5,031,089,117	106.3
9999	340,818,760-	43,238,182-	297,580,578-	4,733,508,539	100.0
SUBTOTAL	5,904,344,433	1,170,835,898	4,733,508,535		
NONDEPRECIABLE	25,415,893		25,415,893		
TOTAL	5,929,760,326	1,170,835,898	4,758,924,428		

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

ACCOUNT 303.14 WATER RIGHTS - HIBERNIA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	1,942,822.51	1,942,823	1,942,823			
	1,942,822.51	1,942,823	1,942,823			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 100-R3						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1991	70,430.00	45,526	60,303	10,127	17.50	579
1992	84,595.17	54,022	71,557	13,038	17.54	743
	155,025.17	99,548	131,860	23,165		1,322
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.5 0.85

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 303.99 COMPREHENSIVE PLANNING STUDIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	210,221.70	210,222	210,222			
2014	668,293.04	668,293	668,293			
2015	145,773.72	145,774	145,774			
2016	5,166,691.39	5,166,691	5,166,691			
2017	370,367.21	370,367	370,367			
2018	950,553.09	950,553	950,553			
2019	393,070.67	314,457	49,516-	442,587	1.00	442,587
2020	1,282,572.43	769,543	121,177-	1,403,749	2.00	701,874
2021	891,896.17	356,758	56,177-	948,073	3.00	316,024
2022	961,088.22	192,218	30,268-	991,356	4.00	247,839
2023	12,306.62	615	97-	12,404	4.75	2,611
	11,052,834.26	9,145,491	7,254,665	3,798,169		1,710,935
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.2						15.48

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
1905	20,000.00	20,000	20,000			
1962	3,046.99	2,528	1,293	1,754	12.53	140
1965	555.68	451	231	325	13.43	24
1966	20,825.96	16,738	8,563	12,263	13.92	881
1967	270.30	216	110	160	13.93	11
1968	13,568.76	10,746	5,497	8,072	14.44	559
1969	631.00	497	254	377	14.49	26
1970	1,609.62	1,254	642	968	15.03	64
1971	11,357.68	8,800	4,502	6,856	15.11	454
1972	19,891.30	15,217	7,785	12,106	15.67	773
1973	102.13	78	40	62	15.79	4
1974	11,058.14	8,290	4,241	6,817	16.36	417
1975	3,360.08	2,500	1,279	2,081	16.52	126
1977	2,198.00	1,598	817	1,381	17.29	80
1978	1,550.08	1,116	571	979	17.50	56
1979	73,467.49	52,044	26,624	46,843	18.11	2,587
1980	50,476.77	35,379	18,099	32,378	18.35	1,764
1981	196,712.02	136,321	69,737	126,975	18.61	6,823
1982	5,146.13	3,524	1,803	3,343	18.88	177
1983	23,321.00	15,765	8,065	15,256	19.17	796
1984	1,022.00	682	349	673	19.48	35
1985	72,193.18	47,460	24,279	47,914	19.80	2,420
1986	65,149.35	41,943	21,457	43,692	20.47	2,134
1987	194.55	123	63	132	20.82	6
1988	5,314.89	3,330	1,704	3,611	20.87	173
1989	138,173.70	85,032	43,500	94,674	21.25	4,455
1990	167,225.90	100,988	51,662	115,564	21.64	5,340
1991	516,329.92	305,667	156,369	359,961	22.05	16,325
1992	304,014.37	176,237	90,157	213,857	22.48	9,513
1993	140,979.07	79,935	40,892	100,087	22.91	4,369
1994	1,280,944.74	713,230	364,864	916,081	23.08	39,692
1995	208,091.31	113,035	57,825	150,266	23.55	6,381
1996	401,536.45	213,577	109,259	292,277	23.76	12,301
1997	28,856.35	14,930	7,638	21,218	24.25	875
1998	262,855.90	132,742	67,906	194,950	24.50	7,957
1999	144,742.69	70,866	36,253	108,490	25.02	4,336
2000	144,747.72	68,914	35,254	109,494	25.31	4,326
2001	9,780.57	4,497	2,301	7,480	25.85	289
2002	750,369.20	334,064	170,896	579,473	26.17	22,143
2003	1,961,187.80	843,311	431,409	1,529,779	26.51	57,706
2004	261,130.29	108,160	55,331	205,799	26.87	7,659

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
2005	1,012,418.84	402,740	206,028	806,391	27.25	29,592
2006	514,445.56	195,901	100,216	414,230	27.64	14,987
2007	1,590,010.81	577,492	295,425	1,294,586	28.05	46,153
2008	1,262,108.56	435,427	222,750	1,039,359	28.48	36,494
2009	238,305.39	77,735	39,767	198,538	28.92	6,865
2010	11,303,442.33	3,467,896	1,774,059	9,529,383	29.37	324,460
2011	352,312.35	101,466	51,907	300,405	29.67	10,125
2012	361,197.40	96,548	49,391	311,806	30.15	10,342
2013	3,025,003.28	747,176	382,230	2,642,773	30.49	86,677
2014	1,416,573.85	318,729	163,051	1,253,523	31.00	40,436
2015	958,211.19	194,709	99,607	858,604	31.37	27,370
2016	1,939,383.30	350,253	179,178	1,760,205	31.76	55,422
2017	2,060,269.38	323,874	165,683	1,894,586	32.17	58,893
2018	17,548,691.65	2,333,976	1,193,982	16,354,710	32.59	501,832
2019	3,419,500.77	369,306	188,924	3,230,577	33.04	97,778
2020	5,290,840.44	436,494	223,296	5,067,544	33.36	151,905
2021	5,305,572.16	297,112	151,992	5,153,580	33.71	152,880
2022	26,587,987.68	760,416	389,003	26,198,985	33.97	771,239
2023	4,229,810.65	30,455	15,580	4,214,231	34.23	123,115
	95,740,074.67	15,309,490	7,841,590	87,898,485		2,770,762
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					31.7	2.89

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2045						
NET SALVAGE PERCENT.. 0						
1962	15,878.73	12,301	5,879	10,000	17.74	564
1970	6,710.06	5,014	2,396	4,314	17.92	241
1995	1,715,454.62	1,008,687	482,081	1,233,374	19.62	62,863
2001	6,191.06	3,255	1,556	4,635	19.84	234
	1,744,234.47	1,029,257	491,912	1,252,322		63,902
BECKS RUN STATION - NEW						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
2012	23,868,525.21	5,434,863	2,597,481	21,271,044	37.31	570,116
2015	17,442.33	3,042	1,454	15,988	37.87	422
	23,885,967.54	5,437,905	2,598,935	21,287,033		570,538
MILL STREET PUMP STATION AND REGULATOR BYPASS						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	1,277,952.17	759,104	362,798	915,154	22.56	40,565
1994	3,067.93	1,708	816	2,252	23.08	98
2001	15,048.48	7,283	3,481	11,568	23.45	493
2018	27,090.40	4,551	2,175	24,915	24.76	1,006
2021	3,362,441.11	250,166	119,562	3,242,879	24.88	130,341
	4,685,600.09	1,022,812	488,832	4,196,768		172,503



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GARDNER CREEK PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1993	1,121,355.16	703,090	336,027	785,328	17.85	43,996
1994	85,662.97	52,914	25,289	60,374	17.95	3,363
2001	13,088.07	7,141	3,413	9,675	18.32	528
2003	7,900.11	4,124	1,971	5,929	18.31	324
	1,228,006.31	767,269	366,700	861,306		48,211
NORRISTOWN BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1997	2,400,581.27	1,323,200	632,397	1,768,185	21.17	83,523
1998	52,044.11	28,234	13,494	38,550	21.08	1,829
2003	1,271.63	613	293	979	21.49	46
2007	10,970.93	4,652	2,223	8,748	21.74	402
2008	97,884.43	39,937	19,087	78,797	21.76	3,621
2012	1,059.31	353	169	891	22.00	40
2013	31,601.32	9,860	4,712	26,889	22.05	1,219
	2,595,413.00	1,406,849	672,375	1,923,038		90,680
MILL ROAD BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1997	2,093,461.42	1,153,916	551,491	1,541,971	21.17	72,838
1998	27,010.00	14,653	7,003	20,007	21.08	949
2015	97,145.43	25,724	12,294	84,851	22.21	3,820
	2,217,616.85	1,194,293	570,788	1,646,829		77,607

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHERRY VALLEY						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
1999	4,650,691.72	2,388,595	1,141,579	3,509,112	22.73	154,382
2014	95,817.24	26,388	12,612	83,206	23.68	3,514
	4,746,508.96	2,414,983	1,154,191	3,592,318		157,896
CLARION WATER TREATMENT AND TANK						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
2003	2,349,120.19	1,028,915	491,749	1,857,371	25.66	72,384
2004	146,294.31	61,985	29,624	116,670	25.84	4,515
2006	10,710.36	4,242	2,027	8,683	25.92	335
2007	2,583.58	984	470	2,113	26.02	81
	2,508,708.44	1,096,126	523,871	1,984,837		77,315
NORRISTOWN - FOREST AVENUE BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2013	1,327,877.66	309,395	147,869	1,180,009	32.92	35,845
	1,327,877.66	309,395	147,869	1,180,009		35,845
SHIRE OAKS RELAY STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2013	2,585,737.11	602,477	287,941	2,297,796	32.92	69,799
2014	2,220,406.42	475,611	227,309	1,993,098	33.02	60,360
	4,806,143.53	1,078,088	515,250	4,290,894		130,159

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALDRICH STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2007	15,755.78	5,244	2,506	13,250	32.08	413
2013	4,835,261.20	1,126,616	538,443	4,296,818	32.92	130,523
2014	1,472,142.36	315,333	150,707	1,321,435	33.02	40,019
2017	3,006.40	456	218	2,788	33.53	83
	6,326,165.74	1,447,649	691,874	5,634,292		171,038
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2005	11,236.00	3,600	1,720	9,516	38.18	249
2019	130,266.72	11,568	5,529	124,738	41.05	3,039
	141,502.72	15,168	7,249	134,254		3,288
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1893	3,249.15	3,249	3,249			
1894	94,841.04	94,841	94,841			
1896	3,182.60	3,183	3,183			
1897	7,107.03	7,107	7,107			
1900	358.00	358	358			
1901	7,495.63	7,496	7,496			
1904	2,021.00	2,021	2,021			
1905	5,507.85	5,508	5,508			
1906	6,449.72	6,450	6,450			
1908	7,657.66	7,658	7,658			
1909	8,663.76	8,664	8,664			
1910	13,836.00	13,836	13,836			
1911	16,065.00	16,065	16,065			
1912	1,348.87	1,349	1,349			
1915	1,154.25	1,154	1,154			
1918	33,974.06	33,974	33,974			
1919	3,620.00	3,620	3,620			
1920	5,563.30	5,563	5,563			

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1921	645.00	645	645			
1922	11,541.92	11,542	11,542			
1923	8,106.40	8,106	8,106			
1924	35,623.67	35,624	35,624			
1925	154.00	154	154			
1926	525.00	525	525			
1927	927.19	927	927			
1928	3,768.38	3,768	3,768			
1929	13,600.23	13,600	13,600			
1930	4,309.44	4,309	4,309			
1931	8,059.98	8,060	8,060			
1932	4,338.00	4,303	2,017	2,321	0.74	2,321
1933	32.82	32	15	18	0.91	18
1934	216.34	214	100	116	1.09	106
1935	2,295.77	2,263	1,061	1,235	1.29	957
1936	1,269.17	1,248	585	684	1.50	456
1937	979.72	961	451	529	1.72	308
1938	3,229.30	3,157	1,480	1,749	1.96	892
1939	3,064.46	2,986	1,400	1,665	2.21	753
1940	267.00	259	121	146	2.47	59
1941	443.03	429	201	242	2.75	88
1942	4,109.17	3,961	1,857	2,252	3.03	743
1943	68.00	65	30	38	3.33	11
1944	653.45	625	293	360	3.64	99
1945	1,436.76	1,378	646	791	3.30	240
1946	473.00	452	212	261	3.65	72
1947	10,135.29	9,629	4,514	5,621	4.00	1,405
1948	71,909.00	67,954	31,857	40,052	4.37	9,165
1949	2,239.14	2,104	986	1,253	4.74	264
1950	515.26	485	227	288	4.52	64
1951	30,741.27	28,774	13,489	17,252	4.92	3,507
1952	12,157.42	11,308	5,301	6,856	5.34	1,284
1953	29,291.37	27,065	12,688	16,603	5.76	2,882
1954	153,376.90	141,812	66,482	86,895	5.63	15,434
1955	109,166.68	100,215	46,981	62,186	6.07	10,245
1956	27,347.64	24,919	11,682	15,666	6.53	2,399
1957	17,149.06	15,619	7,322	9,827	6.46	1,521
1958	14,583.18	13,176	6,177	8,406	6.94	1,211
1959	28,883.94	26,065	12,219	16,665	6.92	2,408
1960	21,287.75	19,044	8,928	12,360	7.42	1,666

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1961	78,692.88	69,769	32,708	45,985	7.93	5,799
1962	774.72	685	321	454	7.97	57
1963	48,815.56	42,762	20,047	28,769	8.49	3,389
1964	387,401.33	338,279	158,586	228,816	8.57	26,700
1965	28,778.30	24,870	11,659	17,119	9.11	1,879
1966	48,962.27	41,863	19,625	29,337	9.67	3,034
1967	98,163.64	83,557	39,172	58,992	9.79	6,026
1968	21,839.15	18,378	8,616	13,224	10.36	1,276
1969	116,318.91	97,359	45,642	70,677	10.52	6,718
1970	47,470.11	39,248	18,400	29,071	11.10	2,619
1971	130,043.91	106,168	49,772	80,272	11.69	6,867
1972	98,769.21	80,092	37,547	61,222	11.89	5,149
1973	59,346.92	47,478	22,258	37,089	12.50	2,967
1974	122,381.06	96,546	45,261	77,120	13.11	5,883
1975	103,900.94	80,793	37,876	66,025	13.73	4,809
1976	48,590.64	37,454	17,558	31,032	13.98	2,220
1977	27,859.09	21,145	9,913	17,946	14.61	1,228
1978	89,718.15	67,019	31,419	58,300	15.24	3,825
1979	73,094.61	53,710	25,179	47,915	15.88	3,017
1980	117,633.55	85,484	40,075	77,559	16.17	4,796
1981	249,656.08	178,254	83,566	166,090	16.82	9,875
1982	194,879.67	136,630	64,052	130,827	17.48	7,484
1983	161,540.95	111,140	52,103	109,438	18.14	6,033
1984	132,167.58	89,173	41,804	90,363	18.80	4,807
1985	954,829.05	634,961	297,671	657,158	19.14	34,334
1986	214,775.45	139,862	65,567	149,208	19.82	7,528
1987	1,118,053.24	712,424	333,985	784,068	20.50	38,247
1988	356,067.30	221,830	103,994	252,073	21.18	11,901
1989	802,971.88	488,689	229,098	573,874	21.87	26,240
1990	1,928,360.33	1,145,446	536,987	1,391,374	22.56	61,674
1991	295,582.63	171,201	80,259	215,323	23.25	9,261
1992	1,853,412.02	1,045,695	490,223	1,363,189	23.95	56,918
1993	1,466,994.16	805,380	377,563	1,089,431	24.64	44,214
1994	244,001.25	130,199	61,037	182,964	25.35	7,218
1995	640,508.68	331,783	155,540	484,968	26.05	18,617
1996	980,949.05	492,633	230,947	750,002	26.76	28,027
1997	725,094.85	352,541	165,272	559,823	27.48	20,372
1998	627,674.57	295,007	138,300	489,375	28.19	17,360
1999	664,291.52	301,323	141,261	523,031	28.91	18,092
2000	1,764,244.19	770,975	361,434	1,402,810	29.63	47,344

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
2001	795,715.62	334,360	156,748	638,967	30.36	21,046
2002	248,483.17	100,188	46,968	201,515	31.08	6,484
2003	4,296,582.59	1,658,481	777,498	3,519,085	31.81	110,628
2004	343,332.69	126,552	59,328	284,005	32.55	8,725
2005	304,512.31	106,884	50,107	254,405	33.28	7,644
2006	3,508,888.09	1,169,162	548,105	2,960,783	34.02	87,031
2007	4,010,156.70	1,264,001	592,565	3,417,591	34.76	98,320
2008	1,161,052.77	344,833	161,658	999,395	35.51	28,144
2009	18,926.38	5,246	2,459	16,467	36.51	451
2010	227,598.24	58,880	27,603	199,995	37.25	5,369
2011	561,794.04	134,831	63,209	498,585	38.00	13,121
2012	570,966.71	126,241	59,182	511,785	38.75	13,207
2013	1,558,069.72	314,730	147,546	1,410,524	39.50	35,709
2014	1,884,291.04	344,260	161,390	1,722,901	40.26	42,794
2015	850,472.81	138,797	65,068	785,405	41.02	19,147
2016	3,076,647.97	439,345	205,966	2,870,682	42.02	68,317
2017	596,714.50	73,396	34,408	562,306	42.78	13,144
2018	1,736,767.27	178,887	83,862	1,652,905	43.54	37,963
2019	142,324.04	11,784	5,524	136,800	44.31	3,087
2020	1,386,162.67	86,912	40,744	1,345,418	44.85	29,998
2021	4,180,261.27	175,571	82,308	4,097,953	45.62	89,828
2022	59,156.99	1,260	591	58,566	45.95	1,275
2023	46,663.68	252	118	46,546	46.05	1,011
9999	1,289,607.60-	468,529-	223,924-	1,065,684-		35,833-
	48,261,559.09	17,533,987	8,380,009	39,881,550		1,340,992
	104,475,304.40	34,753,781	16,609,855	87,865,450		2,939,974
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.9 2.81

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH PURIFICATION BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1961	19,418.30	16,374	16,556	2,862	11.53	248
1962	587.00	494	499	88	11.46	8
1964	398.22	331	335	64	11.92	5
1967	22,777.88	18,751	18,959	3,818	12.03	317
1969	88,648.46	72,284	73,087	15,561	12.23	1,272
1970	9.00	7	7	2	12.36	
1972	2,625.00	2,102	2,125	500	12.69	39
1975	162.19	128	129	33	12.98	3
1976	1,253.00	978	989	264	13.24	20
1979	8,573.73	6,564	6,637	1,937	13.47	144
1980	0.44		0			
1981	5,147.00	3,870	3,913	1,234	13.87	89
1982	183.99	137	139	45	13.95	3
1983	34,159.01	25,278	25,559	8,600	14.05	612
1986	2,413.79	1,742	1,761	652	14.28	46
1987	38,000.00	27,223	27,526	10,474	14.25	735
1989	3,521.45	2,466	2,493	1,028	14.54	71
1995	4,585.62	2,979	3,012	1,574	15.10	104
1996	593,868.61	380,017	384,240	209,628	15.19	13,800
1997	1,174.41	739	747	427	15.32	28
1998	34,779.35	21,476	21,715	13,065	15.49	843
2000	66,447.94	39,583	40,023	26,425	15.61	1,693
2001	7,444.51	4,340	4,388	3,056	15.74	194
2002	369,599.38	211,115	213,461	156,138	15.76	9,907
2003	108,767.55	60,692	61,367	47,401	15.84	2,992
2005	40,107.45	21,225	21,461	18,647	16.01	1,165
2006	577,744.83	296,614	299,910	277,834	16.11	17,246
2007	36,412.64	18,061	18,262	18,151	16.26	1,116
2008	7,024.74	3,361	3,398	3,626	16.35	222
2009	59,229.01	27,281	27,584	31,645	16.40	1,930
2010	2,144.76	945	956	1,189	16.50	72
2011	87,207.23	36,627	37,034	50,173	16.57	3,028
2012	5,665,980.92	2,249,961	2,274,966	3,391,015	16.70	203,055
2013	126,807.08	47,426	47,953	78,854	16.74	4,711
2014	88,273.55	30,746	31,088	57,186	16.84	3,396
2017	1,306,365.52	339,394	343,166	963,200	17.09	56,360
2018	51,403.47	11,591	11,720	39,684	17.17	2,311
	9,463,247.03	3,982,902	4,027,167	5,436,080		327,785

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE FILTER BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1906	871.05	871	871			
1924	65,855.77	63,893	64,603	1,253	3.04	412
1928	713.20	684	692	22	4.01	5
1938	1,127.93	1,045	1,057	71	6.74	11
1953	17,140.17	14,878	15,043	2,097	10.65	197
1954	63,503.27	54,772	55,381	8,122	11.00	738
1955	11,789.91	10,102	10,214	1,576	11.37	139
1958	1,894.04	1,588	1,606	288	12.52	23
1961	6,679.68	5,508	5,569	1,110	13.19	84
1962	306.00	252	255	51	13.07	4
1963	541.00	441	446	95	13.53	7
1965	321.42	259	262	60	13.94	4
1966	438.31	352	356	82	13.92	6
1969	941.98	738	746	196	14.97	13
1973	503.00	382	386	117	15.79	7
1975	27,418.68	20,531	20,759	6,659	16.10	414
1976	340.00	252	255	85	16.29	5
1977	1,330.30	979	990	340	16.50	21
1979	6,592.08	4,757	4,810	1,782	16.98	105
1980	1,168.00	834	843	325	17.24	19
1981	249.00	177	179	70	17.17	4
1982	180.14	126	127	53	17.48	3
1984	3,590.63	2,465	2,492	1,098	17.82	62
1985	123,865.79	83,783	84,714	39,152	18.18	2,154
1986	78,714.49	52,715	53,301	25,414	18.25	1,393
1987	835.29	553	559	276	18.35	15
1988	3,086.01	2,009	2,031	1,055	18.76	56
1989	112,676.89	72,406	73,211	39,466	18.91	2,087
1991	168,795.55	105,328	106,499	62,297	19.28	3,231
1995	370.12	217	219	151	19.85	8
1996	13,940.61	7,980	8,069	5,872	20.17	291
1997	41,038.76	23,047	23,303	17,736	20.30	874
2002	76,925.72	38,286	38,712	38,214	21.19	1,803
2003	36,076.00	17,389	17,582	18,494	21.49	861
2005	377,900.56	170,735	172,633	205,268	21.84	9,399
2006	389,936.20	169,700	171,586	218,350	22.06	9,898
2007	94,552.36	39,636	40,077	54,476	22.17	2,457
2008	105,093.21	42,247	42,717	62,377	22.31	2,796



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE FILTER BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2009	71,161.85	27,298	27,601	43,560	22.50	1,936
2010	5,973.99	2,175	2,199	3,775	22.71	166
2011	50,433.38	17,309	17,501	32,932	22.97	1,434
2012	12,866,867.33	4,146,991	4,193,086	8,673,781	23.13	375,001
2013	131,156.68	39,347	39,784	91,372	23.33	3,917
2014	1,581,299.96	438,336	443,208	1,138,092	23.47	48,491
2016	154,511.18	35,043	35,433	119,079	23.86	4,991
2017	1,000,282.18	199,256	201,471	798,811	24.12	33,118
2018	2,210.78	377	381	1,830	24.33	75
2019	96,411.39	13,536	13,686	82,725	24.49	3,378
	17,797,611.84	5,931,585	5,997,507	11,800,105		512,113

NEW HERSHEY TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2067  
NET SALVAGE PERCENT.. 0

1930	44.14	42	42	2	4.09	
1984	41,078.07	26,754	27,051	14,027	20.88	672
1992	5,084,272.63	2,884,308	2,916,363	2,167,909	23.64	91,705
1995	8,866.38	4,717	4,769	4,097	24.63	166
1996	2,162.87	1,127	1,140	1,023	24.81	41
1999	4,710.26	2,261	2,286	2,424	26.00	93
2001	236,919.02	107,372	108,565	128,354	26.54	4,836
2006	49,418.53	18,483	18,688	30,730	28.45	1,080
2010	7,202.92	2,182	2,206	4,997	29.92	167
2011	65,485.64	18,546	18,752	46,734	30.37	1,539
2012	3,766,871.07	990,310	1,001,316	2,765,555	30.84	89,674
2013	166,659.20	40,498	40,948	125,711	31.15	4,036
2014	237,415.86	52,564	53,148	184,268	31.65	5,822
2015	34,086.88	6,817	6,893	27,194	32.00	850
2016	152,442.65	26,998	27,298	125,145	32.53	3,847
2017	164,504.71	25,367	25,649	138,856	32.91	4,219
2018	24,911.72	3,251	3,287	21,625	33.31	649
2021	2,285,405.95	124,326	125,708	2,159,698	34.76	62,132
2022	278,329.97	7,654	7,739	270,591	35.36	7,652
	12,610,788.47	4,343,577	4,391,850	8,218,938		279,180

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHINCHILLA WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1893	690.28	690	690			
1910	955.96	956	956			
1921	7,550.49	7,393	7,475	75	2.17	35
1953	44.66	39	39	5	10.65	
1990	3,174,965.67	2,011,658	2,034,033	1,140,933	19.08	59,797
1995	10,224.61	5,983	6,050	4,175	19.85	210
2006	66,480.93	28,933	29,255	37,226	22.06	1,687
2007	1,592.33	668	675	917	22.17	41
2009	1,945.08	746	754	1,191	22.50	53
2013	13,302.91	3,991	4,035	9,268	23.33	397
2017	44.24	9	9	35	24.12	1
2018	2,722.48	464	469	2,253	24.33	93
2023	2,377.48	23	23	2,354	25.26	93
	3,282,897.12	2,061,553	2,084,465	1,198,432		62,407

FALLBROOK WTP  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	2,232,245.42	1,414,351	1,430,069	802,176	19.08	42,043
1991	14,802.97	9,237	9,340	5,463	19.28	283
1992	3,782.38	2,322	2,348	1,435	19.51	74
1994	5,692.25	3,384	3,422	2,271	19.78	115
1997	5,455.32	3,064	3,098	2,357	20.30	116
1998	18,465.92	10,156	10,269	8,197	20.45	401
1999	2,277.11	1,224	1,238	1,040	20.64	50
2003	17,373.38	8,374	8,467	8,906	21.49	414
2006	53,490.76	23,279	23,538	29,953	22.06	1,358
2007	70,346.66	29,489	29,817	40,530	22.17	1,828
2008	47,309.49	19,018	19,229	28,080	22.31	1,259
2009	28,023.69	10,750	10,869	17,154	22.50	762
2010	4,824.82	1,756	1,776	3,049	22.71	134
2012	30,878.01	9,952	10,063	20,815	23.13	900
2014	46,182.39	12,802	12,944	33,238	23.47	1,416

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FALLBROOK WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2015	54,662.81	13,775	13,928	40,735	23.75	1,715
2016	58,953.74	13,371	13,520	45,434	23.86	1,904
2018	11,872.00	2,024	2,046	9,826	24.33	404
	2,706,639.12	1,588,328	1,605,980	1,100,659		55,176
SCRANTON AREA WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	8,672,635.08	5,494,982	5,556,051	3,116,584	19.08	163,343
1991	150,511.12	93,919	94,963	55,548	19.28	2,881
1992	466.64	286	289	177	19.51	9
1993	60.06	36	36	24	19.50	1
1994	6,187.92	3,679	3,720	2,468	19.78	125
1995	10,098.00	5,909	5,975	4,123	19.85	208
1996	225,291.34	128,957	130,390	94,901	20.17	4,705
1997	6,216.61	3,491	3,530	2,687	20.30	132
1999	25,313.12	13,608	13,759	11,554	20.64	560
2001	546.72	279	282	265	21.10	13
2002	58,250.92	28,991	29,313	28,938	21.19	1,366
2003	52,704.72	25,404	25,686	27,018	21.49	1,257
2004	3,862.28	1,805	1,825	2,037	21.65	94
2005	274,383.89	123,967	125,345	149,039	21.84	6,824
2006	6,859.58	2,985	3,018	3,841	22.06	174
2007	40,511.69	16,983	17,172	23,340	22.17	1,053
2008	21,809.99	8,768	8,865	12,945	22.31	580
2009	1,610.17	618	625	985	22.50	44
2010	8,990.99	3,273	3,309	5,682	22.71	250
2011	109,155.82	37,462	37,878	71,277	22.97	3,103
2012	124,937.89	40,267	40,715	84,223	23.13	3,641
2013	21,316.66	6,395	6,466	14,851	23.33	637
2014	5,310.00	1,472	1,488	3,822	23.47	163
2017	3,575,716.70	712,283	720,199	2,855,518	24.12	118,388
2018	1,029,586.48	175,544	177,495	852,092	24.33	35,022

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SCRANTON AREA WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2019	17,498.43	2,457	2,484	15,014	24.49	613
2020	31,583.35	3,420	3,458	28,125	24.70	1,139
2022	11,156.40	427	432	10,725	25.11	427
	14,492,572.57	6,937,667	7,014,770	7,477,803		346,752
BROWNELL WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	4,333,381.56	2,745,631	2,776,145	1,557,237	19.08	81,616
1991	88,970.52	55,518	56,135	32,836	19.28	1,703
1992	72.69	45	46	27	19.51	1
1998	3,431.58	1,887	1,908	1,524	20.45	75
1999	152.98	82	83	70	20.64	3
2003	7,790.06	3,755	3,797	3,993	21.49	186
2005	30,165.72	13,629	13,780	16,385	21.84	750
2007	12,234.92	5,129	5,186	7,049	22.17	318
2008	56,670.86	22,782	23,035	33,636	22.31	1,508
2009	66,342.17	25,449	25,732	40,610	22.50	1,805
2010	10,428.23	3,796	3,838	6,590	22.71	290
2011	5,098.68	1,750	1,769	3,329	22.97	145
2012	56,670.09	18,265	18,468	38,202	23.13	1,652
2013	1,247.32	374	378	869	23.33	37
2014	42,913.80	11,896	12,028	30,886	23.47	1,316
2015	10,206.09	2,572	2,601	7,606	23.75	320
2016	8,246.29	1,870	1,891	6,356	23.86	266
2017	7,772.90	1,548	1,565	6,208	24.12	257
2018	7,323.77	1,249	1,263	6,061	24.33	249
2019	648.49	91	92	556	24.49	23
	4,749,768.72	2,917,318	2,949,740	1,800,029		92,520

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

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RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NESBITT WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2048						
NET SALVAGE PERCENT.. 0						
1988	6,091,845.49	4,029,756	4,074,542	2,017,303	17.91	112,636
1989	236,127.92	154,144	155,857	80,271	18.08	4,440
1991	9,200.90	5,830	5,895	3,306	18.51	179
1992	3,913.79	2,451	2,478	1,436	18.50	78
1994	2,637.07	1,598	1,616	1,021	18.85	54
1998	19,882.52	11,134	11,258	8,625	19.64	439
1999	5,954.90	3,273	3,309	2,646	19.67	135
2001	3,606.32	1,888	1,909	1,697	20.02	85
2002	777.36	397	401	376	20.15	19
2003	16,530.05	8,199	8,290	8,240	20.32	406
2006	33,459.15	15,016	15,183	18,276	20.88	875
2007	18,344.81	7,925	8,013	10,332	21.04	491
2008	64,101.93	26,538	26,833	37,269	21.23	1,755
2009	26,211.66	10,385	10,500	15,711	21.34	736
2010	1,810.10	682	690	1,121	21.48	52
2012	509,430.90	170,914	172,814	336,617	21.79	15,448
2014	96,480.80	27,873	28,183	68,298	22.15	3,083
2015	14,209.06	3,751	3,793	10,416	22.30	467
2016	100,151.34	23,766	24,030	76,121	22.50	3,383
2022	18,429.84	752	760	17,669	23.51	752
	7,273,105.91	4,506,272	4,556,354	2,716,752		145,513

CRYSTAL LAKE WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2052  
NET SALVAGE PERCENT.. 0

1992	5,023,109.47	3,036,470	3,070,216	1,952,893	20.28	96,296
1993	73,596.13	43,937	44,425	29,171	20.25	1,441
1995	197.94	114	115	83	20.78	4
1999	13,626.50	7,162	7,242	6,385	21.66	295
2004	11,303.55	5,154	5,211	6,092	22.67	269
2006	99,797.96	42,414	42,885	56,913	23.00	2,474
2007	13,173.73	5,375	5,435	7,739	23.22	333
2008	28,589.12	11,150	11,274	17,315	23.46	738
2009	19,356.65	7,181	7,261	12,096	23.74	510
2010	2,858.04	1,007	1,018	1,840	23.90	77
2011	22,252.17	7,397	7,479	14,773	24.10	613

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2052 NET SALVAGE PERCENT.. 0						
2014	3,545.66	945	956	2,590	24.78	105
2015	2,868.40	695	703	2,166	25.00	87
2016	10,676.66	2,317	2,343	8,334	25.26	330
2018	14,229.77	2,319	2,345	11,885	25.67	463
2020	3,879.66	399	403	3,476	26.15	133
	5,343,061.41	3,174,036	3,209,311	2,133,750		104,168

CEASETOWN WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2053  
NET SALVAGE PERCENT.. 0

1993	8,491,079.67	5,018,228	5,074,000	3,417,080	20.76	164,599
1994	18,958.58	10,996	11,118	7,840	21.00	373
1995	16,043.96	9,119	9,220	6,824	21.26	321
1997	45,655.10	24,928	25,205	20,450	21.62	946
1998	3,202.38	1,713	1,732	1,470	21.73	68
2001	5,100.00	2,524	2,552	2,548	22.44	114
2002	3,150.51	1,515	1,532	1,619	22.67	71
2004	17,119.10	7,741	7,827	9,292	23.02	404
2005	299,398.81	130,418	131,867	167,531	23.32	7,184
2006	93,193.36	39,132	39,567	53,626	23.49	2,283
2007	11,733.64	4,712	4,764	6,969	23.84	292
2008	28,894.84	11,096	11,219	17,676	24.06	735
2009	10,169.23	3,730	3,771	6,398	24.17	265
2010	16,080.19	5,581	5,643	10,437	24.45	427
2011	77,289.61	25,320	25,601	51,688	24.63	2,099
2012	123,725.49	37,971	38,393	85,332	24.84	3,435
2013	2,077.72	592	599	1,479	25.09	59
2014	40,488.30	10,604	10,722	29,766	25.36	1,174
2020	10,209.09	1,026	1,037	9,172	26.85	342
	9,313,569.58	5,346,946	5,406,371	3,907,199		185,191

PENNSYLVANIA-AMERICAN WATER COMPANY  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
1993	9,042,484.16	5,344,108	5,403,501	3,638,983	20.76	175,288
1994	557,586.68	323,400	326,994	230,592	21.00	10,981
1995	50,819.95	28,886	29,207	21,613	21.26	1,017
1998	1,099.27	588	595	505	21.73	23
2002	1,956.80	941	951	1,005	22.67	44
2003	5,173.10	2,411	2,438	2,735	22.92	119
2005	2,174.91	947	958	1,217	23.32	52
2006	52,855.60	22,194	22,441	30,415	23.49	1,295
2007	1,179.60	474	479	700	23.84	29
2008	34,000.57	13,056	13,201	20,799	24.06	864
2009	5,827.62	2,138	2,162	3,666	24.17	152
2010	15,084.17	5,236	5,294	9,790	24.45	400
2011	95,761.95	31,372	31,721	64,041	24.63	2,600
2013	64,674.64	18,432	18,637	46,038	25.09	1,835
2014	165,655.45	43,385	43,867	121,788	25.36	4,802
2015	9,260.45	2,208	2,233	7,028	25.56	275
2016	8,689.72	1,849	1,870	6,820	25.89	263
2018	716,495.48	114,281	115,551	600,944	26.35	22,806
2019	11,862.12	1,552	1,569	10,293	26.58	387
2020	3,420.65	344	348	3,073	26.85	114
2021	4,578.80	315	319	4,260	27.07	157
	10,850,641.69	5,958,117	6,024,334	4,826,308		223,503

NORRISTOWN  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2057  
NET SALVAGE PERCENT.. 0

1992	4,476.99	2,637	2,666	1,811	21.63	84
1994	3,778.23	2,137	2,161	1,617	22.28	73
1997	5,404,226.75	2,866,402	2,898,258	2,505,968	23.02	108,860
1998	7,937.78	4,108	4,154	3,784	23.31	162
2000	74,588.87	36,713	37,121	37,468	23.73	1,579
2001	2,023,509.89	966,024	976,760	1,046,750	24.08	43,470
2002	58,091.88	26,960	27,260	30,832	24.25	1,271
2003	86,104.25	38,747	39,178	46,927	24.44	1,920
2004	98,144.99	42,516	42,989	55,156	24.86	2,219
2005	140.00	58	59	81	25.10	3

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2006	1,204,036.32	483,059	488,428	715,609	25.37	28,207
2007	45,348.29	17,414	17,608	27,741	25.67	1,081
2009	102,333.83	35,674	36,070	66,263	26.16	2,533
2010	13,901.29	4,590	4,641	9,260	26.37	351
2011	28,104.08	8,701	8,798	19,306	26.76	721
2012	365,613.30	105,772	106,948	258,666	27.02	9,573
2013	21,001.51	5,628	5,691	15,311	27.31	561
2014	69.14	17	17	52	27.50	2
2015	67,794.34	15,132	15,300	52,494	27.84	1,886
2016	1,019,886.77	203,467	205,728	814,158	28.09	28,984
2017	61,609.01	10,720	10,839	50,770	28.48	1,783
2018	83,707.68	12,389	12,527	71,181	28.78	2,473
2019	1,119.07	136	138	982	29.00	34
2020	97,321.03	9,022	9,122	88,199	29.36	3,004
2021	3,789,738.42	239,511	242,173	3,547,566	29.65	119,648
2022	181,172.93	5,834	5,899	175,274	30.06	5,831
	14,843,756.64	5,143,368	5,200,530	9,643,227		366,313

HUNTSVILLE  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2059  
NET SALVAGE PERCENT.. 0

1999	5,140,610.11	2,566,193	2,594,713	2,545,898	24.08	105,727
2001	8,125.96	3,826	3,869	4,257	24.73	172
2005	45,477.20	18,664	18,871	26,606	25.86	1,029
2006	30,782.70	12,141	12,276	18,507	26.10	709
2007	7,211.16	2,723	2,753	4,458	26.37	169
2008	59,813.06	21,533	21,772	38,041	26.67	1,426
2009	25,684.93	8,774	8,872	16,813	26.98	623
2010	2,533.46	817	826	1,707	27.32	62
2011	38,290.79	11,625	11,754	26,537	27.53	964
2012	15,722.39	4,445	4,494	11,228	27.91	402
2013	3,295.43	863	873	2,423	28.17	86



PENNSYLVANIA-AMERICAN WATER COMPANY  
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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HUNTSVILLE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2059						
NET SALVAGE PERCENT.. 0						
2015	2,369.82	514	520	1,850	28.90	64
2016	9,027.44	1,750	1,769	7,258	29.10	249
2022	35,020.59	1,086	1,098	33,923	31.26	1,085
	5,423,965.04	2,654,954	2,684,460	2,739,505		112,767

NEW CASTLE WATER TREATMENT PLANT - NEW  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2060  
NET SALVAGE PERCENT.. 0

1948	127.32	113	114	13	9.75	1
2000	2,031,655.46	981,290	992,196	1,039,460	24.62	42,220
2001	3,501,677.38	1,640,886	1,659,122	1,842,555	24.95	73,850
2003	1,504.36	662	669	835	25.45	33
2004	166,573.01	70,577	71,361	95,212	25.84	3,685
2005	19,156.16	7,827	7,914	11,242	26.05	432
2006	285,061.14	111,459	112,698	172,363	26.48	6,509
2007	45,674.49	17,101	17,291	28,383	26.74	1,061
2008	220,753.83	78,809	79,685	141,069	27.02	5,221
2014	30,652.75	7,256	7,337	23,316	29.02	803
2015	149,409.41	32,033	32,389	117,020	29.31	3,992
2018	28,869.57	4,085	4,130	24,739	30.34	815
2019	22,547.59	2,597	2,626	19,922	30.72	649
2021	170,397.42	10,190	10,303	160,094	31.44	5,092
	6,674,059.89	2,964,885	2,997,836	3,676,224		144,363

ROCK RUN FILTRATION PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2051  
NET SALVAGE PERCENT.. 0

1976	3,032,325.96	2,237,553	2,262,421	769,905	16.69	46,130
1985	5,833.47	3,924	3,968	1,866	18.50	101
1991	23,116.00	14,350	14,509	8,607	19.55	440
1996	6,671.00	3,782	3,824	2,847	20.62	138
2000	142,779.16	73,888	74,709	68,070	21.44	3,175
2002	373,803.03	183,687	185,728	188,075	21.74	8,651

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2051						
NET SALVAGE PERCENT.. 0						
2006	428,360.75	184,238	186,286	242,075	22.53	10,745
2007	15,986.12	6,599	6,672	9,314	22.76	409
2011	13,009,059.10	4,386,655	4,435,407	8,573,652	23.59	363,444
2013	228,674.96	67,459	68,209	160,466	23.90	6,714
2014	32,558.55	8,849	8,947	23,611	24.11	979
2018	3,850.44	641	648	3,202	25.03	128
2019	4,599.43	629	636	3,963	25.24	157
2020	24,494.60	2,587	2,616	21,879	25.41	861
2022	4,742,093.46	176,406	178,367	4,563,727	25.88	176,342
	22,074,206.03	7,351,247	7,432,947	14,641,259		618,414

NAZARETH(BLUE MOUNTAIN) PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2055  
NET SALVAGE PERCENT.. 0

1951	429.84	374	378	52	10.64	5
1960	45.00	37	37	8	13.34	1
1970	349.00	268	271	78	15.97	5
1975	41,890.00	30,965	31,309	10,581	16.94	625
1976	12,586.04	9,228	9,331	3,255	17.10	190
1977	48,491.99	35,021	35,410	13,082	17.69	740
1978	89.00	64	65	24	17.89	1
1979	1,797.00	1,273	1,287	510	18.11	28
1980	9,400.42	6,589	6,662	2,738	18.35	149
1983	3,194.00	2,159	2,183	1,011	19.17	53
1985	30.00	20	20	10	19.47	1
1988	9,287.67	5,884	5,949	3,338	20.25	165
1989	2,360.00	1,476	1,492	868	20.35	43
1991	4,553.00	2,754	2,785	1,768	20.91	85
1992	72,215.50	42,983	43,461	28,755	21.08	1,364
1995	4,258,824.56	2,396,866	2,423,504	1,835,320	21.75	84,383
1996	7,506.00	4,134	4,180	3,326	22.02	151
1997	7,826.00	4,212	4,259	3,567	22.31	160
1998	541.00	284	287	254	22.62	11
2007	2,222.54	875	885	1,338	24.65	54
2008	360,111.32	135,042	136,543	223,568	25.00	8,943
2009	6,280.49	2,242	2,267	4,014	25.22	159

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAZARETH (BLUE MOUNTAIN) PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2055						
NET SALVAGE PERCENT.. 0						
2011	12,316.24	3,917	3,961	8,356	25.74	325
2013	17,236.87	4,757	4,810	12,427	26.23	474
2021	2,341,064.49	154,042	155,754	2,185,310	28.40	76,948
	7,220,647.97	2,845,466	2,877,090	4,343,558		175,063

CLARION WATER TREATMENT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2063  
NET SALVAGE PERCENT.. 0

2003	10,342,319.64	4,447,197	4,496,622	5,845,698	26.51	220,509
2004	1,073,637.95	446,741	451,706	621,932	26.66	23,328
2005	51,929.31	20,751	20,982	30,948	27.05	1,144
2008	4,901.24	1,706	1,725	3,176	28.10	113
2009	3,997.32	1,321	1,336	2,662	28.37	94
2010	15,074.97	4,684	4,736	10,339	28.84	358
2012	25,964.22	7,054	7,132	18,832	29.49	639
2013	22,045.21	5,533	5,594	16,451	29.84	551
2015	4,722.08	978	989	3,733	30.61	122
2017	63,675.57	10,239	10,353	53,323	31.31	1,703
2018	7,287.53	991	1,002	6,286	31.76	198
	11,615,555.04	4,947,195	5,002,177	6,613,378		248,759

WEST SHORE REGIONAL TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2066  
NET SALVAGE PERCENT.. 0

1969	805.94	622	629	177	15.93	11
1983	39,657.10	26,174	26,465	13,192	20.61	640
1987	6,134.90	3,821	3,863	2,271	21.80	104
1991	13,030.67	7,547	7,631	5,400	23.25	232
1997	3,934.06	2,005	2,027	1,907	25.02	76
2001	130,034.30	58,932	59,587	70,447	26.54	2,654
2006	13,390,509.38	5,030,814	5,086,725	8,303,784	28.25	293,939
2007	3,389,546.02	1,214,813	1,228,314	2,161,232	28.64	75,462
2008	20,115.84	6,880	6,956	13,159	28.86	456

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST SHORE REGIONAL TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2066						
NET SALVAGE PERCENT.. 0						
2009	21,160.91	6,843	6,919	14,242	29.29	486
2011	68,339.41	19,518	19,735	48,604	30.02	1,619
2013	109,213.87	26,757	27,054	82,160	30.82	2,666
2014	156,113.00	34,844	35,231	120,882	31.32	3,860
2015	8,725.59	1,759	1,779	6,947	31.68	219
2016	67,448.35	12,087	12,221	55,227	32.06	1,723
2017	186,670.82	29,009	29,331	157,339	32.61	4,825
2018	201,042.48	26,437	26,731	174,312	33.02	5,279
2019	35,185.25	3,758	3,800	31,385	33.45	938
2021	2,924,333.11	160,838	162,626	2,761,708	34.36	80,376
2022	1,293,673.16	36,093	36,494	1,257,179	34.84	36,084
	22,065,674.16	6,709,551	6,784,119	15,281,555		511,649
BECK'S RUN PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
2012	26,304,729.23	6,712,967	6,787,573	19,517,156	32.10	608,011
	26,304,729.23	6,712,967	6,787,573	19,517,156		608,011
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
1991	15,090.60	8,644	8,740	6,351	23.87	266
2003	1,684.82	691	699	986	28.78	34
2018	34,566,354.68	4,165,246	4,211,538	30,354,817	36.49	831,867
2019	1,001,606.74	97,757	98,843	902,763	36.98	24,412
	35,584,736.84	4,272,338	4,319,820	31,264,917		856,579

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
MONTROSE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	2,315,435.08	279,010	282,111	2,033,324	36.49	55,723
2019	12,313.10	1,202	1,215	11,098	36.98	300
2020	38,563.16	2,846	2,878	35,686	37.65	948
	2,366,311.34	283,058	286,204	2,080,107		56,971
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2021	7,669,280.13	450,954	455,966	7,213,314	32.01	225,346
	7,669,280.13	450,954	455,966	7,213,314		225,346
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2021	7,119,036.47	449,923	454,923	6,664,113	29.65	224,759
	7,119,036.47	449,923	454,923	6,664,113		224,759
STEELTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1973	6,525,936.72	5,122,860	5,179,794	1,346,143	13.69	98,330
2010	4,883,592.56	2,044,272	2,066,991	2,816,601	18.06	155,958
2014	8,099.14	2,653	2,682	5,417	18.47	293
2017	1,951,444.94	471,859	477,103	1,474,342	18.81	78,381
2019	2,025.12	352	356	1,669	18.99	88
2020	13,665.38	1,853	1,874	11,792	19.12	617
2022	108,844.66	5,355	5,415	103,430	19.33	5,351
	13,493,608.52	7,649,204	7,734,215	5,759,394		339,018

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WHITE DEER / MILTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2062						
NET SALVAGE PERCENT.. 0						
2022	3,744,419.29	110,460	111,688	3,632,731	32.90	110,417
	3,744,419.29	110,460	111,688	3,632,731		110,417
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1889	41.21	41	41			
1900	2,285.84	2,286	2,286			
1901	56.00	56	56			
1902	159.81	160	160			
1903	1,923.01	1,923	1,923			
1906	3,057.68	3,058	3,058			
1908	527.18	527	527			
1909	402.93	403	403			
1912	225.80	226	226			
1914	167.07	167	167			
1915	41.89	42	42			
1917	4.78	5	5			
1918	0.15	0	0			
1923	439.53	440	440			
1924	2,693.29	2,693	2,693			
1928	1,064.43	1,052	1,064	1	1.15	1
1929	3,038.32	2,999	3,032	6	1.24	5
1930	31.26	31	31			
1931	1,166.36	1,137	1,150	17	2.34	7
1934	244.88	238	241	4	2.74	1
1935	341.69	331	335	7	2.91	2
1937	627.00	604	611	16	3.29	5
1940	50.89	48	49	2	4.72	
1941	13.00	12	12	1	4.96	
1943	134.03	125	126	8	5.47	1
1944	251.37	236	239	13	5.03	3
1946	1.00	1	1			
1947	0.28		0			
1948	4.01	4	4			
1949	1,164.45	1,068	1,080	85	6.65	13

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1951	4,026.00	3,652	3,693	333	7.37	45
1952	442.51	402	406	36	7.12	5
1953	1,371.29	1,238	1,252	120	7.52	16
1954	706.13	633	640	66	7.92	8
1955	51.47	46	47	5	8.34	1
1956	47.17	42	42	5	8.76	1
1957	259.31	228	231	29	9.19	3
1958	674.84	592	599	76	9.07	8
1959	61.56	54	55	7	9.53	1
1960	49.71	43	43	6	9.99	1
1961	36.31	31	31	5	10.46	
1962	1,379.73	1,170	1,183	197	10.94	18
1963	625.74	526	532	94	11.43	8
1964	183.99	154	156	28	11.42	2
1965	157.93	131	132	25	11.93	2
1966	658.28	540	546	112	12.44	9
1967	31.14	25	25	6	12.97	
1968	19.47	16	16	3	13.49	
1969	26,214.18	20,809	21,040	5,174	14.03	369
1970	152.63	120	121	31	14.57	2
1971	4,435.82	3,437	3,475	961	15.11	64
1972	1,091,538.03	835,027	844,316	247,222	15.67	15,777
1973	9,354.84	7,063	7,142	2,213	16.23	136
1974	7,994.75	5,954	6,020	1,975	16.79	118
1975	240,965.61	176,965	178,934	62,032	17.36	3,573
1976	37,697.06	27,285	27,589	10,109	17.94	563
1977	1,299.05	932	942	357	18.10	20
1978	10,580.56	7,475	7,558	3,022	18.69	162
1979	2,786.10	1,925	1,946	840	19.69	43
1980	409.67	278	281	129	20.29	6
1981	23,726.70	15,845	16,021	7,705	20.89	369
1982	458,589.11	300,834	304,180	154,409	21.50	7,182
1983	87,384.64	56,276	56,902	30,483	22.11	1,379
1984	31,966.35	20,196	20,421	11,546	22.73	508
1985	592,998.33	367,303	371,389	221,609	23.35	9,491
1986	10,904.41	6,617	6,691	4,214	23.98	176
1987	108,990.11	64,740	65,460	43,530	24.61	1,769
1988	1,261,427.23	732,889	741,042	520,386	25.24	20,618
1989	2,360,392.69	1,340,231	1,355,140	1,005,253	25.88	38,843
1990	944,275.85	523,507	529,330	414,945	26.52	15,646

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1991	1,092,739.58	590,954	597,528	495,212	27.17	18,226
1992	12,816.74	6,754	6,829	5,988	27.82	215
1993	19,605.02	9,999	10,110	9,495	28.82	329
1994	1,104,140.75	547,543	553,634	550,507	29.48	18,674
1995	1,404,014.57	676,173	683,695	720,320	30.14	23,899
1996	407,212.69	190,209	192,325	214,888	30.80	6,977
1997	1,742,402.34	788,263	797,032	945,371	31.47	30,040
1998	631,985.66	276,494	279,570	352,416	32.14	10,965
1999	1,787,399.41	750,708	759,059	1,028,341	33.14	31,030
2000	57,278.05	23,186	23,444	33,834	33.82	1,000
2001	1,578,879.26	614,816	621,655	957,224	34.50	27,746
2002	363,122.03	135,735	137,245	225,877	35.18	6,421
2003	428,459.73	152,532	154,229	274,231	36.18	7,580
2004	116,407.73	39,590	40,030	76,377	36.87	2,072
2005	108,285.28	35,084	35,474	72,811	37.56	1,939
2006	59,120.77	18,191	18,393	40,727	38.25	1,065
2007	274,338.59	79,448	80,332	194,007	39.25	4,943
2008	207,924.19	56,763	57,394	150,530	39.95	3,768
2009	747,730.56	191,569	193,700	554,031	40.64	13,633
2010	706,583.84	169,015	170,895	535,689	41.35	12,955
2011	2,051,623.41	452,998	458,037	1,593,586	42.35	37,629
2012	2,790,886.50	567,945	574,263	2,216,624	43.05	51,490
2013	1,580,445.10	293,963	297,233	1,283,212	43.76	29,324
2014	3,926,729.61	657,335	664,647	3,262,082	44.76	72,879
2015	425,757.02	63,693	64,402	361,356	45.48	7,945
2016	1,508,458.66	198,513	200,721	1,307,737	46.19	28,312
2017	2,256,197.03	255,853	258,699	1,997,498	46.91	42,581
2018	2,240,363.73	212,835	215,203	2,025,161	47.63	42,519
2019	1,913,210.74	145,404	147,021	1,766,189	48.63	36,319
2020	3,447,472.67	198,574	200,783	3,246,690	49.08	66,151
2021	4,269,204.28	164,791	166,624	4,102,580	49.81	82,365
2022	4,144,080.80	80,810	81,709	4,062,372	50.28	80,795
9999	169,605.01-	44,084-	44,574-	125,031-		3,070-
	50,580,296.77	13,146,800	13,292,910	37,287,387		915,696
	334,664,186.82	112,440,671	113,690,307	220,973,880		7,848,433
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						28.2 2.35



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.36 WASTE HANDLING AND TREATMENT STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1991	10,815,702.32	7,406,593	6,403,312	4,412,391	14.73	299,551
1998	68,969.00	42,588	36,819	32,150	15.49	2,076
2000	122,317.58	72,865	62,995	59,323	15.61	3,800
2001	25,833.98	15,061	13,021	12,813	15.74	814
2003	4,063.71	2,268	1,961	2,103	15.84	133
2007	41,023.43	20,348	17,592	23,432	16.26	1,441
2010	77,041.66	33,952	29,353	47,689	16.50	2,890
2012	197,523.29	78,436	67,811	129,712	16.70	7,767
2013	129,535.29	48,446	41,884	87,652	16.74	5,236
2014	18,080.06	6,297	5,444	12,636	16.84	750
2016	167,667.01	48,825	42,211	125,456	17.04	7,362
	11,667,757.33	7,775,679	6,722,402	4,945,355		331,820
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2021	13,562,364.13	857,141	741,034	12,821,330	29.65	432,423
	13,562,364.13	857,141	741,034	12,821,330		432,423
	25,230,121.46	8,632,820	7,463,436	17,766,685		764,243
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.2 3.03

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.38 WASTE HANDLING AND TREATMENT STRUCTURE PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1991	38,331.32	38,331	38,331			
2015	27,627.10	22,102	22,380	5,247	2.00	2,624
2021	1,337,480.53	267,496	270,862	1,066,619	8.00	133,327
	1,403,438.95	327,929	331,573	1,071,866		135,951
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.9 9.69

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.39 PURIFICATION BUILDINGS - TANK PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	26,564.05	26,564	26,564			
1999	12,732.18	12,732	12,732			
2000	10,588.12	10,588	10,588			
2002	28,101.61	28,102	28,102			
2015	41,376.99	33,102	34,337	7,040	2.00	3,520
	119,362.95	111,088	112,323	7,040		3,520
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.0 2.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW CASTLE OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
1986	1,193,234.40	993,368	889,649	303,585	7.44	40,804
1987	17,605.59	14,577	13,055	4,551	7.48	608
1988	64,279.96	53,095	47,551	16,729	7.37	2,270
1989	21,520.60	17,634	15,793	5,728	7.49	765
1990	47,919.69	39,059	34,981	12,939	7.49	1,728
1991	3,439.19	2,784	2,493	946	7.53	126
1992	3,258.04	2,626	2,352	906	7.46	121
1996	15,197.42	11,900	10,658	4,540	7.48	607
1998	1,013.00	777	696	317	7.57	42
2005	152,175.13	106,827	95,673	56,502	7.64	7,396
2006	239,811.48	165,518	148,236	91,575	7.63	12,002
2008	59,275.49	39,300	35,197	24,079	7.62	3,160
2009	4,369.19	2,826	2,531	1,838	7.65	240
2011	8,577.97	5,229	4,683	3,895	7.69	507
2012	18,670.27	10,987	9,840	8,830	7.69	1,148
2013	103,178.46	58,296	52,209	50,969	7.70	6,619
2014	68,172.08	36,690	32,859	35,313	7.72	4,574
2015	29,091.75	14,802	13,257	15,835	7.72	2,051
2016	107,280.37	50,990	45,666	61,614	7.73	7,971
2017	95,983.57	41,926	37,548	58,435	7.74	7,550
2018	19,655.38	7,705	6,901	12,755	7.76	1,644
2019	680.62	231	207	474	7.76	61
	2,274,389.65	1,677,147	1,502,034	772,356		101,994

WASHINGTON CUSTOMER SERVICE CENTER  
INTERIM SURVIVOR CURVE.. IOWA 55-S0  
PROBABLE RETIREMENT YEAR.. 6-2032  
NET SALVAGE PERCENT.. 0

1987	1,315,832.88	1,070,562	958,783	357,050	8.25	43,279
1988	2,021.01	1,634	1,463	558	8.29	67
1989	304,487.32	244,321	218,811	85,676	8.37	10,236
1992	15,076.98	11,872	10,632	4,445	8.37	531
1994	2,429.06	1,888	1,691	738	8.31	89
1995	69,619.62	53,607	48,010	21,610	8.36	2,585
1996	8,235.02	6,292	5,635	2,600	8.34	312
1997	109,992.96	83,221	74,532	35,461	8.36	4,242
2001	50,080.02	36,138	32,365	17,715	8.49	2,087

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WASHINGTON CUSTOMER SERVICE CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. 0						
2002	4,780.74	3,403	3,048	1,733	8.50	204
2003	72,512.60	50,904	45,589	26,924	8.49	3,171
2010	19,835.46	11,965	10,716	9,120	8.55	1,067
2011	62,740.65	36,590	32,770	29,971	8.58	3,493
2013	82,727.62	44,507	39,860	42,868	8.59	4,990
2014	14,536.76	7,431	6,655	7,882	8.61	915
	2,134,908.70	1,664,335	1,490,559	644,350		77,268

CAPITOL DISTRIBUTION CENTER  
INTERIM SURVIVOR CURVE.. IOWA 55-S0  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1989	347,788.60	204,569	183,210	164,579	23.80	6,915
1990	5,101.58	2,946	2,638	2,463	24.14	102
1991	650.26	368	330	321	24.50	13
1996	1,799.05	933	836	963	25.08	38
2001	12,812.78	5,863	5,251	7,562	26.08	290
2002	5,478.58	2,439	2,184	3,294	26.17	126
2003	1,018.77	440	394	625	26.30	24
2006	28,442.30	11,073	9,917	18,525	26.67	695
2007	23,101.69	8,612	7,713	15,389	26.92	572
2008	47,924.90	17,109	15,323	32,602	27.02	1,207
2010	10,983.00	3,555	3,184	7,799	27.16	287
2011	43,527.16	13,267	11,882	31,645	27.37	1,156
2012	124,750.18	35,679	31,954	92,796	27.46	3,379
2013	174,227.60	46,345	41,506	132,722	27.59	4,811
2018	19,709,050.81	2,985,921	2,674,156	17,034,895	28.00	608,389
2019	1,661,686.84	208,043	186,321	1,475,366	27.95	52,786
	22,198,344.10	3,547,162	3,176,797	19,021,547		680,790

OTHER OFFICE BUILDINGS  
SURVIVOR CURVE.. IOWA 50-R3  
NET SALVAGE PERCENT.. 0

1924	845.00	845	845
1926	215.00	215	215

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER OFFICE BUILDINGS						
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1958	13.02	12	11	2	4.44	
1960	48.73	45	40	8	5.03	2
1961	21.19	19	17	4	5.57	1
1963	33,045.39	30,137	26,990	6,056	5.79	1,046
1964	1,079.50	974	872	207	6.36	33
1965	11,957.68	10,750	9,627	2,330	6.52	357
1966	1,125.43	1,007	902	224	6.69	33
1967	48,178.36	42,628	38,176	10,002	7.29	1,372
1968	57,455.89	50,561	45,281	12,175	7.50	1,623
1969	1,273.22	1,114	998	276	7.73	36
1970	11,121.74	9,608	8,605	2,517	8.35	301
1971	9,019.90	7,739	6,931	2,089	8.61	243
1972	61,461.67	52,347	46,880	14,582	8.88	1,642
1973	1,636.52	1,375	1,231	405	9.52	43
1975	6,526.85	5,389	4,826	1,701	10.14	168
1976	45,687.00	37,148	33,268	12,419	10.80	1,150
1977	13,240.50	10,659	9,546	3,695	11.14	332
1979	28,098.53	22,007	19,709	8,390	12.18	689
1980	1.10	1	1			
1981	45,810.00	34,825	31,188	14,622	13.25	1,104
1982	361,045.49	270,892	242,601	118,445	13.64	8,684
1983	32,369.00	23,824	21,336	11,033	14.35	769
1984	902.06	654	586	316	14.76	21
1985	72,985.69	51,864	46,447	26,538	15.48	1,714
1986	351,447.26	245,767	220,100	131,347	15.91	8,256
1987	596,055.80	407,702	365,123	230,933	16.63	13,887
1988	612,729.15	409,609	366,831	245,898	17.36	14,165
1989	449,868.60	295,204	264,374	185,495	17.81	10,415
1990	143,314.05	91,750	82,168	61,146	18.55	3,296
1991	33,727.65	21,046	18,848	14,880	19.28	772
1992	148,265.09	90,545	81,089	67,176	19.76	3,400
1993	12,902.30	7,664	6,864	6,039	20.51	294
1994	325,416.52	187,798	168,185	157,232	21.25	7,399
1995	58,927.46	33,164	29,700	29,227	21.75	1,344
1996	47,370.53	25,836	23,138	24,233	22.50	1,077
1997	35,194.64	18,576	16,636	18,559	23.26	798
1998	15,964.58	8,142	7,292	8,673	24.02	361
1999	61,011.45	30,164	27,014	33,998	24.54	1,385
2000	754,379.80	359,160	321,650	432,729	25.31	17,097
2001	49,302.15	22,561	20,205	29,097	26.08	1,116

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER OFFICE BUILDINGS						
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2002	6,125.14	2,688	2,407	3,718	26.85	138
2003	84,890.14	35,654	31,930	52,960	27.62	1,917
2004	37,729.39	15,197	13,610	24,120	28.17	856
2005	346,446.58	132,828	118,956	227,491	28.95	7,858
2006	226,824.45	82,519	73,901	152,923	29.73	5,144
2007	95,164.77	32,737	29,318	65,847	30.51	2,158
2008	247,019.59	80,034	71,676	175,344	31.30	5,602
2009	101,931.15	30,967	27,733	74,198	32.08	2,313
2010	61,124.75	17,323	15,514	45,611	32.87	1,388
2011	121,514.52	31,934	28,599	92,916	33.66	2,760
2012	183,845.36	44,491	39,845	144,001	34.45	4,180
2013	88,318.55	19,518	17,480	70,839	35.25	2,010
2014	402,537.52	80,427	72,027	330,510	36.05	9,168
2015	12,615.97	2,251	2,016	10,600	36.84	288
2016	1,288,571.53	202,048	180,947	1,107,625	37.64	29,427
2017	539,445.55	72,825	65,219	474,226	38.44	12,337
2018	2,147,974.49	242,721	217,372	1,930,602	39.25	49,187
2019	2,043,505.85	186,368	166,904	1,876,602	39.86	47,080
2020	637,284.25	43,781	39,209	598,076	40.67	14,706
2021	1,240,236.02	57,299	51,315	1,188,921	41.29	28,794
2022	1,607,382.63	37,452	33,541	1,573,842	41.92	37,544
9999	60,000.00-	16,334-	14,629-	45,371-		1,387-
	16,001,529.69	4,356,055	3,901,233	12,100,297		369,893
	42,609,172.14	11,244,699	10,070,623	32,538,550		1,229,945
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.5 2.89

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
UNIONTOWN OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2066						
NET SALVAGE PERCENT.. 0						
2021	3,787,629.81	228,015	312,214	3,475,416	31.22	111,320
	3,787,629.81	228,015	312,214	3,475,416		111,320
NORRISTOWN OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. 0						
1987	747,847.92	608,449	747,848			
1988	14,460.80	11,692	14,461			
1990	21,055.84	16,815	21,056			
1991	515.82	409	516			
2000	8,240.40	6,027	8,240			
2001	106,652.86	76,961	106,653			
2011	2,125.81	1,235	2,126			
2014	364,619.49	185,081	336,384	28,235	8.73	3,234
2015	19,376.64	9,270	16,848	2,528	8.72	290
2018	224.06	81	147	77	8.77	9
	1,285,119.64	916,020	1,254,279	30,841		3,533
BETHEL PARK						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2058						
NET SALVAGE PERCENT.. 0						
1958	1,356.00	1,111	1,356			
1965	653,341.28	511,566	653,341			
1967	45,486.00	35,152	45,486			
1969	4,300.00	3,251	4,300			
1970	2,902.00	2,184	2,902			
1972	1,319.97	976	1,320			
1973	9,153.18	6,728	9,153			
1975	40.52	29	41			
1977	1,690.34	1,197	1,690			
1979	3,808.27	2,631	3,734	75	19.69	4
1981	0.16		0			
1985	8,909.55	5,756	8,168	741	20.82	36



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BETHEL PARK						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2058						
NET SALVAGE PERCENT.. 0						
1986	56,270.95	35,811	50,820	5,451	21.14	258
1987	51,879.47	32,497	46,117	5,763	21.47	268
1988	1,675.90	1,038	1,473	203	21.50	9
1989	365,534.82	222,464	315,700	49,834	21.87	2,279
1991	4,610.90	2,715	3,853	758	22.35	34
1992	10,300.00	5,971	8,473	1,827	22.48	81
1993	2,884.28	1,644	2,333	551	22.63	24
1995	1,257.55	690	979	278	23.02	12
1996	53,669.41	28,837	40,923	12,747	23.25	548
1997	47,281.24	24,832	35,239	12,042	23.50	512
1998	41,194.00	21,215	30,106	11,088	23.54	471
2000	47,532.86	23,286	33,045	14,488	23.95	605
2002	3,229.97	1,492	2,117	1,113	24.45	46
2006	123,630.77	49,811	70,687	52,944	25.19	2,102
2007	61,197.63	23,598	33,488	27,710	25.49	1,087
2008	530,439.54	195,732	277,765	252,675	25.65	9,851
2009	415,793.46	146,110	207,346	208,448	25.84	8,067
2010	105,796.74	35,209	49,965	55,831	26.06	2,142
2011	54,411.31	17,107	24,277	30,135	26.17	1,152
2012	393,497.73	116,003	164,621	228,877	26.31	8,699
2013	23,340.26	6,372	9,043	14,298	26.63	537
2014	26,100.06	6,577	9,333	16,767	26.71	628
	3,153,836.12	1,569,592	2,149,196	1,004,640		39,452

BETHEL PARK (NEW)  
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5  
PROBABLE RETIREMENT YEAR.. 6-2066  
NET SALVAGE PERCENT.. 0

2018	20,032,537.04	2,814,571	3,853,909	16,178,628	30.59	528,886
2019	6,912,393.38	793,543	1,086,575	5,825,818	30.84	188,905
2021	5,255,848.12	316,402	433,240	4,822,608	31.22	154,472
	32,200,778.54	3,924,516	5,373,724	26,827,055		872,263

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
STAFFORD AVENUE DISTRIBUTION CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2062						
NET SALVAGE PERCENT.. 0						
1997	6,386.52	3,288	4,502	1,884	24.51	77
2012	1,538,069.70	434,812	595,375	942,694	27.91	33,776
2014	16,744,779.33	4,038,841	5,530,266	11,214,514	28.31	396,133
2015	12,394.22	2,707	3,707	8,688	28.63	303
2019	22,838.07	2,741	3,753	19,085	29.33	651
	18,324,467.84	4,482,389	6,137,603	12,186,865		430,940

OTHER STRUCTURES

SURVIVOR CURVE.. IOWA 45-R3

NET SALVAGE PERCENT.. 0

1894	1,470.00	1,470	1,470
1906	2,277.20	2,277	2,277
1908	11,029.40	11,029	11,029
1909	13,507.39	13,507	13,507
1912	4,321.23	4,321	4,321
1922	38.02	38	38
1924	0.63	1	1
1926	14,835.75	14,836	14,836
1927	283.00	283	283
1928	2,177.00	2,177	2,177
1929	2,405.47	2,405	2,405
1935	1,480.00	1,480	1,480
1937	295.00	295	295
1940	190.00	190	190
1942	2,556.77	2,557	2,557
1943	0.07	0	0
1945	648.58	649	649
1947	0.21	0	0
1948	524.42	523	524
1949	260.00	258	260
1950	368.99	366	369
1951	871.00	859	871
1954	10,690.00	10,474	10,690
1955	141.54	138	142
1956	6,563.98	6,377	6,564
1957	2,349.38	2,264	2,349
1958	1,197.00	1,152	1,197

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
1959	728.45	699	728			
1960	2,083.92	1,982	2,084			
1961	2,337.30	2,217	2,337			
1962	827.00	782	827			
1963	2,401.75	2,262	2,402			
1964	3,175.28	2,979	3,175			
1965	574.98	534	575			
1966	1,195.17	1,104	1,195			
1967	423.05	389	423			
1968	2,498.10	2,281	2,498			
1969	2,634.23	2,390	2,634			
1970	7,477.75	6,777	7,478			
1971	118.53	107	119			
1972	1,497.86	1,337	1,498			
1973	4,075.51	3,607	4,076			
1974	1,878.67	1,648	1,879			
1976	4,139.68	3,561	4,140			
1977	1,348.58	1,148	1,349			
1978	231.44	195	231			
1980	2,836.34	2,329	2,836			
1981	1,534.25	1,244	1,534			
1982	6,296.00	5,034	6,296			
1983	6,864.02	5,409	6,864			
1984	50,567.72	39,246	50,568			
1985	35,513.76	27,125	35,514			
1986	27,677.97	20,789	27,678			
1987	822.21	607	822			
1988	550,609.05	396,989	549,959	650	13.54	48
1989	67,022.20	47,398	65,662	1,360	14.08	97
1990	977,166.56	677,176	938,110	39,057	14.62	2,671
1991	703,073.68	476,965	660,752	42,321	15.17	2,790
1992	326,380.72	215,509	298,550	27,830	15.95	1,745
1993	10,915.11	7,040	9,753	1,162	16.51	70
1994	68,231.44	42,938	59,483	8,748	17.08	512
1995	6,922.98	4,226	5,854	1,069	17.87	60
1996	89,822.17	53,354	73,913	15,909	18.45	862
1997	117,923.48	68,065	94,292	23,631	19.05	1,240
1998	17,129.33	9,550	13,230	3,899	19.84	197
1999	137,988.42	74,514	103,226	34,762	20.44	1,701
2000	71,946.71	37,398	51,808	20,138	21.25	948

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2001	115,517.13	57,943	80,270	35,247	21.86	1,612
2002	9,450.88	4,545	6,296	3,155	22.67	139
2004	1,409.66	621	860	549	24.10	23
2005	48,851.77	20,576	28,504	20,347	24.74	822
2006	46,209.96	18,461	25,575	20,635	25.55	808
2007	57,133.65	21,665	30,013	27,121	26.19	1,036
2008	30,880.12	11,024	15,272	15,608	27.02	578
2009	16,376.26	5,479	7,590	8,786	27.84	316
2010	3,292.18	1,031	1,428	1,864	28.49	65
2011	204,308.42	59,331	82,193	122,116	29.32	4,165
2012	213,304.25	57,016	78,986	134,318	30.15	4,455
2013	45,748.36	11,163	15,464	30,284	30.98	978
2014	71,517.92	15,834	21,935	49,583	31.65	1,567
2015	518,244.56	102,405	141,864	376,380	32.49	11,584
2016	77,822.77	13,510	18,716	59,107	33.32	1,774
2017	32,855.96	4,928	6,827	26,029	34.00	766
2018	1,430,495.09	179,527	248,704	1,181,792	34.84	33,921
2019	147,569.54	14,875	20,607	126,963	35.68	3,558
2020	440,001.56	33,528	46,447	393,554	36.37	10,821
2021	1,975,016.07	101,121	140,086	1,834,930	37.06	49,512
2022	392,418.76	10,164	14,080	378,338	37.61	10,060
2023	46,416.15	306	424	45,992	37.77	1,218
9999	576.00-	190-	260-	316-		9-
	9,321,638.42	3,073,693	4,208,717	5,112,921		152,710
	68,073,470.37	14,194,225	19,435,733	48,637,738		1,610,218
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.2 2.37

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1861	1,094.45	1,094	1,094			
1916	1.00	1	1			
1917	1,000.00	1,000	1,000			
1920	883.12	883	883			
1927	163.99	164	164			
1929	714.00	714	714			
1930	5,124.00	5,124	5,124			
1936	1,441.58	1,442	1,442			
1941	691.00	691	691			
1942	573.00	573	573			
1943	45.00	45	45			
1951	1.00	1	1			
1952	502.35	502	502			
1954	1,966.06	1,953	1,966			
1958	1,456.00	1,420	1,456			
1959	140.00	135	140			
1960	1,334.56	1,286	1,335			
1962	187.00	178	187			
1963	1,065.20	1,010	1,065			
1964	435.84	411	436			
1967	434.20	401	434			
1969	4.82	4	5			
1970	260.57	236	261			
1971	482.00	434	482			
1972	581.70	519	582			
1973	25.00	22	25			
1975	2,998.44	2,619	2,998			
1981	144.00	119	144			
1983	1,047.68	847	1,048			
1986	2,001.93	1,555	2,002			
1987	6,790.60	5,207	6,791			
1988	3,235.00	2,457	3,235			
1989	533.50	399	534			
1991	2,526.22	1,827	2,526			
1992	1,500.00	1,070	1,500			
1996	22,317.33	14,763	22,317			
1997	6,757.10	4,375	6,757			
1998	4,559.34	2,884	4,559			
2003	66,511.44	36,581	66,511			
2004	206,480.10	109,847	206,480			
2005	177,018.70	90,811	177,019			

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
2006	64,364.98	31,732	64,365			
2007	264,045.81	125,052	264,046			
2008	330,080.07	149,031	330,080			
2009	26,671.02	11,463	26,671			
2010	149,299.60	60,750	149,300			
2011	1,720.18	658	1,720			
2012	59,772.20	21,369	59,772			
2013	28,815.79	9,567	28,816			
2014	11,822.89	3,597	11,823			
2015	594,767.32	164,156	594,767			
2016	487,214.74	120,050	487,215			
2017	371,165.00	80,172	332,208	38,957	21.78	1,789
2018	771,524.70	141,961	588,242	183,283	22.17	8,267
2019	38.81	6	25	14	22.60	1
2020	9,366.40	1,082	4,483	4,883	22.97	213
2021	76,924.79	6,062	25,119	51,806	23.38	2,216
2022	37,310.55	1,511	6,261	31,050	23.69	1,311
2023	3,054,695.82	31,463	130,373	2,924,323	23.96	122,050
	6,864,629.49	1,255,286	3,630,315	3,234,314		135,847
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.8 1.98

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DAM NO. 3 (CITIZENS)						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. 0						
1920	42,226.36	36,099	30,597	11,630	17.48	665
1937	48.00	40	34	14	18.17	1
1949	331.00	267	226	105	17.74	6
1961	2,483.15	1,924	1,631	852	18.00	47
1973	1,843.00	1,345	1,140	703	18.49	38
1974	259.00	188	159	100	18.57	5
1978	82,513.54	58,667	49,725	32,789	18.29	1,793
1992	1,385,786.88	867,780	735,510	650,277	18.50	35,150
	1,515,490.93	966,310	819,022	696,469		37,705

SPRUCE RUN IMPOUNDING RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2078  
NET SALVAGE PERCENT.. 0

1957	3,545.00	2,106	1,785	1,760	45.11	39
1958	937,679.88	554,638	470,098	467,581	44.89	10,416
1962	1,170.00	664	563	607	46.53	13
1964	15,475.00	8,674	7,352	8,123	46.26	176
1965	5,506.28	3,066	2,599	2,908	46.17	63
1967	0.83			1	47.09	
1985	2,905.50	1,270	1,076	1,829	48.96	37
1990	18,419.48	7,416	6,286	12,134	48.97	248
1995	1,423,197.85	514,059	435,705	987,493	49.52	19,941
2021	36,844.32	1,466	1,243	35,602	48.25	738
	2,444,744.14	1,093,359	926,706	1,518,038		31,671

ONEIDA DAM AND RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1918	97,835.35	70,882	60,078	37,757	39.93	946
1925	408.75	284	241	168	42.85	4
1930	2,267.00	1,539	1,304	963	43.99	22
1934	1,013.55	677	574	440	44.33	10
1956	775.09	441	374	401	50.65	8

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ONEIDA DAM AND RESERVOIR						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2089						
NET SALVAGE PERCENT.. 0						
1978	134.64	61	52	83	55.00	2
1982	245.51	105	89	157	55.15	3
1985	16,193.21	6,584	5,580	10,613	55.46	191
1989	294,046.08	110,973	94,058	199,988	56.09	3,565
2013	8,655,614.25	1,281,031	1,085,772	7,569,842	57.57	131,489
	9,068,533.43	1,472,577	1,248,122	7,820,411		136,240

THORN RUN DAM AND RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2083  
NET SALVAGE PERCENT.. 0

1904	361.68	280	237	124	34.85	4
1925	882.00	622	527	355	40.89	9
1928	103.00	71	60	43	41.99	1
1930	285.00	196	166	119	42.14	3
1933	93.00	63	53	40	43.33	1
1936	86.00	58	49	37	42.87	1
1956	941.01	549	465	476	47.94	10
1958	951.00	544	461	490	48.64	10
1983	14,744.19	6,428	5,448	9,296	51.74	180
1984	76,177.36	32,680	27,699	48,479	51.91	934
1987	14,359.75	5,842	4,952	9,408	52.50	179
1989	210,306.30	82,945	70,302	140,004	52.21	2,682
1994	5,117.89	1,811	1,535	3,583	52.97	68
2011	7,667,320.88	1,398,519	1,185,352	6,481,968	53.79	120,505
	7,991,729.06	1,530,608	1,297,308	6,694,421		124,587

GRIFFIN  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1893	59,431.80	47,902	40,601	18,831	31.29	602
1942	171.57	108	92	80	47.21	2
1943	2,456.07	1,533	1,299	1,157	48.21	24
1983	12,768.00	5,363	4,546	8,222	55.24	149



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GRIFFIN						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2089						
NET SALVAGE PERCENT.. 0						
1984	21,564.86	8,915	7,556	14,009	55.34	253
1985	4,179.31	1,699	1,440	2,739	55.46	49
1989	1,031,668.95	389,352	330,006	701,663	56.09	12,510
1990	13,974.55	5,165	4,378	9,597	56.29	170
1995	2,925.08	966	819	2,106	56.75	37
2001	15,236.40	4,224	3,580	11,656	57.37	203
	1,164,376.59	465,227	394,316	770,061		13,999

LAKE SCRANTON  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1901	281,262.27	219,610	186,136	95,126	34.25	2,777
1916	2,609.36	1,899	1,610	1,000	40.06	25
1935	239.93	158	134	106	45.33	2
1968	1,279.11	647	548	731	53.70	14
1970	3,211.00	1,600	1,356	1,855	53.38	35
1976	2,210.73	1,018	863	1,348	55.04	24
1977	57.10	26	22	35	55.01	1
1978	36,565.70	16,455	13,947	22,619	55.00	411
1982	276.75	118	100	177	55.15	3
1983	15,120.00	6,350	5,382	9,738	55.24	176
1984	35,225.92	14,562	12,342	22,883	55.34	413
1985	30,307.31	12,323	10,445	19,863	55.46	358
1986	30,933.62	12,361	10,477	20,457	55.59	368
1987	17,143.97	6,727	5,702	11,442	55.74	205
1989	1,665,697.07	628,634	532,816	1,132,881	56.09	20,198
1990	99,790.35	36,883	31,261	68,529	56.29	1,217
1991	7,810.44	2,824	2,394	5,417	56.50	96
1993	173,539.95	59,871	50,745	122,795	56.96	2,156
1994	518.27	174	147	371	57.21	6
1995	0.88			1	56.75	
2001	5,375.23	1,490	1,263	4,112	57.37	72
2018	9,168,862.63	738,093	625,591	8,543,272	57.11	149,593
2019	278,446.50	18,266	15,482	262,965	56.98	4,615
	11,856,484.09	1,780,089	1,508,763	10,347,721		182,765

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WILLIAMS BRIDGE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2085						
NET SALVAGE PERCENT.. 0						
1892	99,114.45	80,501	68,231	30,884	30.29	1,020
1902	20,137.13	15,594	13,217	6,920	35.25	196
1915	1,350.92	992	841	510	39.06	13
1916	3,362.29	2,482	2,104	1,259	37.93	33
1930	111.28	77	65	46	42.14	1
1942	202.61	130	110	92	45.58	2
1962	40,618.95	22,300	18,901	21,718	50.11	433
1974	16,787.48	8,144	6,903	9,885	52.01	190
1975	78.02	37	31	47	52.00	1
1985	1,916,629.50	793,868	672,864	1,243,765	53.74	23,144
1986	64,940.48	26,671	22,606	42,335	53.09	797
1988	23,272.56	9,204	7,801	15,471	53.50	289
1989	83,219.77	32,256	27,339	55,880	53.72	1,040
1990	5.17	2	2	3	53.96	
1993	1,867.84	667	565	1,303	54.03	24
2001	10,426.96	2,982	2,527	7,899	54.92	144
	2,282,125.41	995,907	844,108	1,438,017		27,327

HOLLISTER  
FULLY ACCRUED  
NET SALVAGE PERCENT.. 0

1972	1,589,982.17	1,589,982	1,589,982
1973	3,536.78	3,537	3,537
1976	958,017.39	958,017	958,017
1977	25,124.94	25,125	25,125
1978	33.29	33	33
1993	1,202.20	1,202	1,202
	2,577,896.77	2,577,896	2,577,897

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHRISTOPHER CHENERY (PIKES CREEK)						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2091						
NET SALVAGE PERCENT.. 0						
1910	236,315.37	176,244	145,381	90,934	38.52	2,361
1916	3,174.05	2,309	1,905	1,269	40.06	32
1929	74,456.00	50,392	41,568	32,888	44.89	733
1930	93,721.44	63,627	52,485	41,236	43.99	937
1933	4,694.45	3,127	2,579	2,115	45.14	47
1935	258.54	171	141	117	45.33	3
1964	36,327.26	19,075	15,735	20,593	53.36	386
1983	2,366.25	975	804	1,562	57.09	27
1984	40,978.64	16,621	13,710	27,268	57.15	477
1986	40,605.19	15,925	13,136	27,469	57.34	479
1987	158.58	61	50	108	57.46	2
1988	5,675.53	2,145	1,769	3,906	57.59	68
1989	619.11	229	189	430	57.74	7
1991	1,085,419.97	385,541	318,027	767,393	58.09	13,210
1993	284,909.12	97,439	80,376	204,533	57.72	3,544
2001	8,126.08	2,217	1,829	6,297	58.65	107
	1,917,805.58	836,098	689,685	1,228,121		22,420

CRYSTAL LAKE  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1904	5,092.51	4,121	3,399	1,693	28.06	60
1933	61.83	45	37	25	33.46	1
1951	79,182.32	53,020	43,735	35,447	35.53	998
1953	26,444.91	17,586	14,506	11,938	35.26	339
1954	114.24	75	62	52	36.26	1
1964	1,215,428.80	745,787	615,189	600,240	37.15	16,157
1965	1,783.96	1,097	905	879	36.34	24
1966	264.25	161	133	131	36.46	4
1967	3,530.07	2,135	1,761	1,769	36.59	48
1981	7,623.81	4,003	3,302	4,322	38.00	114
1982	45.13	23	19	26	37.74	1
1987	10,559.42	5,132	4,233	6,326	38.07	166
1989	1,797.68	850	701	1,097	37.94	29

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2064						
NET SALVAGE PERCENT.. 0						
1990	0.04		0			
1993	184.09	81	67	117	38.03	3
1994	392.40	170	140	252	38.11	7
	1,352,505.46	834,286	688,190	664,315		17,952
GARDNER'S CREEK INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2085						
NET SALVAGE PERCENT.. 0						
1900	52,917.29	41,656	34,361	18,556	33.25	558
1929	10,139.00	6,957	5,739	4,400	42.99	102
1985	1,998,924.41	827,954	682,966	1,315,958	53.74	24,487
1986	9,145.11	3,756	3,098	6,047	53.09	114
2001	6,281.95	1,797	1,482	4,800	54.92	87
	2,077,407.76	882,120	727,647	1,349,761		25,348
NESBITT						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2092						
NET SALVAGE PERCENT.. 0						
1900	185,903.19	146,343	120,716	65,187	33.25	1,961
1932	37,406.03	24,849	20,498	16,908	45.99	368
1934	97.08	64	53	44	46.14	1
1946	172,052.80	104,660	86,332	85,720	49.58	1,729
1980	413.30	178	147	266	57.00	5
1981	18,286.47	7,757	6,399	11,888	57.01	209
1984	111,517.46	45,231	37,310	74,207	57.15	1,298
2001	8,137.93	2,202	1,816	6,322	59.30	107
2012	26,922,112.06	4,175,620	3,444,406	23,477,707	59.92	391,818
2018	379,381.18	29,592	24,410	354,971	59.10	6,006
2019	4,641.05	295	243	4,398	58.89	75
	27,839,948.55	4,536,791	3,742,330	24,097,619		403,577

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2088						
NET SALVAGE PERCENT.. 0						
1923	436,199.97	309,702	255,468	180,732	40.85	4,424
1941	3,067.89	1,962	1,618	1,449	46.21	31
1943	445.19	281	232	213	46.58	5
1947	12,218.40	7,429	6,128	6,090	49.00	124
1963	203.31	109	90	113	52.36	2
1976	3,892.59	1,811	1,494	2,399	54.01	44
1992	1,033.37	368	304	730	55.96	13
2000	31,829.26	9,151	7,549	24,281	57.00	426
2008	10,206,443.00	2,128,043	1,755,390	8,451,053	56.94	148,420
2013	10,331.83	1,539	1,269	9,062	57.11	159
	10,705,664.81	2,460,395	2,029,542	8,676,123		153,648

ROCK RUN DAM

INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2065  
NET SALVAGE PERCENT.. 0

1915	181,300.00	140,979	116,291	65,009	30.89	2,105
1985	470,440.45	232,398	191,701	278,739	38.92	7,162
1993	46,068.00	20,040	16,531	29,537	38.97	758
1996	722,840.00	294,702	243,095	479,745	39.23	12,229
2000	383,237.34	141,913	117,062	266,176	39.11	6,806
2008	13,218.88	3,648	3,009	10,210	39.35	259
2013	376,416.70	76,413	63,032	313,385	39.26	7,982
2014	1.01			1	39.31	
2020	40,262.99	2,887	2,381	37,882	38.84	975
	2,233,785.37	912,980	753,103	1,480,682		38,276

CEASETOWN DAM

INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2117  
NET SALVAGE PERCENT.. 0

2017	19,328,737.64	1,461,253	1,205,365	18,123,373	73.37	247,013
	19,328,737.64	1,461,253	1,205,365	18,123,373		247,013

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ELMHURST DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2117						
NET SALVAGE PERCENT.. 0						
2017	23,538,596.83	1,779,518	1,467,898	22,070,699	73.37	300,814
	23,538,596.83	1,779,518	1,467,898	22,070,699		300,814

OTHER COLLECTING AND IMPOUNDING RESERVOIRS  
SURVIVOR CURVE.. IOWA 75-R3  
NET SALVAGE PERCENT.. 0

1850	4,000.00	4,000	4,000			
1872	58,573.60	58,574	58,574			
1887	41,691.95	41,692	41,692			
1889	363,973.66	363,974	363,974			
1890	919.72	920	920			
1891	28,073.67	28,074	28,074			
1892	72,964.24	72,964	72,964			
1893	21,135.97	21,136	21,136			
1895	7,237.02	7,237	7,237			
1896	4,817.00	4,817	4,817			
1897	231,580.89	231,581	231,581			
1899	4,300.50	4,266	3,295	1,006	1.00	1,006
1900	0.01		0			
1902	19,788.54	19,634	15,163	4,626	0.95	4,626
1903	1,483.70	1,460	1,128	356	1.95	183
1904	6,208.51	6,132	4,736	1,473	1.48	995
1905	1,513.19	1,482	1,145	369	2.48	149
1906	2,848.52	2,800	2,162	686	2.05	335
1907	144,839.78	141,132	108,992	35,848	3.05	11,753
1908	10,658.94	10,419	8,046	2,613	2.65	986
1909	682.66	661	510	172	3.65	47
1911	3,773.26	3,677	2,840	934	2.94	318
1912	31,195.56	30,126	23,265	7,930	3.94	2,013
1914	12,863.21	12,338	9,528	3,335	4.64	719
1915	50,177.33	48,230	37,247	12,931	4.36	2,966
1916	14,900.42	14,349	11,081	3,819	4.11	929
1919	72,456.55	68,573	52,957	19,500	5.89	3,311
1920	740.31	702	542	198	5.70	35
1921	7,313.54	6,938	5,358	1,956	5.53	354
1922	804.62	756	584	221	6.53	34
1924	45,444.52	42,741	33,008	12,437	6.26	1,987

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1925	923.00	859	663	260	7.26	36
1927	5,568.36	5,185	4,004	1,564	7.09	221
1928	37,821.79	34,853	26,916	10,906	8.09	1,348
1930	1,030.30	949	733	297	8.01	37
1931	4,532.14	4,170	3,220	1,312	8.00	164
1935	94.29	85	66	29	9.09	3
1936	60.81	54	42	19	10.09	2
1937	179.62	161	124	55	10.15	5
1938	1,869.64	1,669	1,289	581	10.24	57
1939	499.89	445	344	156	10.34	15
1940	48.00	42	32	16	11.34	1
1941	417.00	366	283	134	11.46	12
1942	1,528.31	1,337	1,033	496	11.59	43
1943	189.24	165	127	62	11.74	5
1944	0.05		0			
1945	185,387.19	159,062	122,839	62,548	12.91	4,845
1946	18,237.81	15,588	12,038	6,200	13.09	474
1947	42,259.80	35,972	27,780	14,480	13.29	1,090
1948	105,879.92	88,939	68,685	37,195	14.29	2,603
1951	2,586.50	2,142	1,654	932	14.96	62
1953	244.63	199	154	91	16.21	6
1954	556.00	449	347	209	16.47	13
1956	29.00	23	18	11	17.75	1
1957	50,615.23	39,753	30,700	19,915	18.03	1,105
1958	14,936.39	11,553	8,922	6,014	19.03	316
1959	347,652.27	266,997	206,194	141,458	19.33	7,318
1960	322,173.80	245,593	189,664	132,510	19.64	6,747
1961	925.38	694	536	389	20.64	19
1962	7,307.15	5,438	4,200	3,108	20.97	148
1963	2,783.94	2,055	1,587	1,197	21.30	56
1964	109,470.10	79,442	61,351	48,119	22.30	2,158
1965	9,425.31	6,779	5,235	4,190	22.65	185
1966	0.72	1	1			
1967	44,616.61	31,232	24,120	20,497	24.00	854
1968	12,087.29	8,376	6,469	5,619	24.37	231
1971	440.77	293	226	214	26.12	8
1972	134.20	88	68	66	27.12	2
1973	1,903.66	1,228	948	955	27.52	35
1974	85.00	54	42	43	27.92	2
1975	24,477.44	15,274	11,796	12,682	28.92	439

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1976	4,239.62	2,610	2,016	2,224	29.34	76
1977	50.00	30	23	27	30.34	1
1978	2,561.00	1,521	1,175	1,386	30.76	45
1979	3,329.73	1,949	1,505	1,825	31.19	59
1980	7,781.00	4,450	3,437	4,344	32.19	135
1981	59,662.39	33,578	25,931	33,731	32.63	1,034
1982	9,268.57	5,092	3,932	5,336	33.63	159
1983	32,323.28	17,455	13,480	18,843	34.07	553
1984	12,551.13	6,608	5,103	7,448	35.07	212
1985	12,570.43	6,496	5,017	7,554	35.53	213
1986	79,804.85	40,453	31,241	48,564	35.99	1,349
1987	293,417.83	144,714	111,758	181,659	36.99	4,911
1988	6,093.28	2,943	2,273	3,820	37.46	102
1989	12,607.93	5,916	4,569	8,039	38.46	209
1990	7,641.23	3,505	2,707	4,934	38.94	127
1991	73,420.51	32,657	25,220	48,200	39.94	1,207
1992	549,943.90	238,676	184,322	365,621	40.43	9,043
1993	12,022.99	5,050	3,900	8,123	41.43	196
1994	647.79	265	205	443	41.92	11
1995	436,231.22	172,224	133,004	303,228	42.92	7,065
1996	26,395.17	10,120	7,815	18,580	43.42	428
1997	621,953.13	229,625	177,333	444,621	44.42	10,009
1998	9,060.00	3,239	2,501	6,559	44.93	146
2000	37,724.43	12,494	9,649	28,076	46.44	605
2001	111,242.44	35,242	27,216	84,026	47.44	1,771
2002	125,676.02	38,268	29,553	96,123	47.97	2,004
2003	6,180.00	1,792	1,384	4,796	48.97	98
2006	13,786.00	3,445	2,660	11,126	51.03	218
2007	23,343.75	5,490	4,240	19,104	52.03	367
2014	1,226,437.95	165,569	127,864	1,098,574	57.67	19,049
2016	7,768.42	821	634	7,134	59.23	120
2017	107,398.37	9,795	7,564	99,834	59.79	1,670



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2019	385,956.96	23,621	18,242	367,715	61.36	5,993
2020	634,072.79	29,294	22,623	611,450	61.94	9,872
9999	3,575.00-	1,705-	1,406-	2,169-		67-
	7,575,529.05	3,612,251	2,979,691	4,595,838		142,402
	135,471,361.47	28,197,665	23,899,693	111,571,669		1,905,744
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						58.5 1.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2077						
NET SALVAGE PERCENT.. 0						
1966	6,696.14	5,420	4,179	2,517	13.42	188
1997	4,076,795.17	2,035,136	1,569,115	2,507,680	26.08	96,153
1998	86,320.84	41,866	32,279	54,042	26.55	2,035
2004	37,517.86	14,613	11,267	26,251	29.78	881
2005	48,578.25	18,100	13,955	34,623	30.31	1,142
	4,255,908.26	2,115,135	1,630,795	2,625,113		100,399
MILL ROAD INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2077						
NET SALVAGE PERCENT.. 0						
1997	5,185,337.03	2,588,520	1,995,781	3,189,556	26.08	122,299
1998	67,078.68	32,533	25,083	41,995	26.55	1,582
2004	51,910.47	20,219	15,589	36,321	29.78	1,220
	5,304,326.18	2,641,272	2,036,453	3,267,873		125,101
SWATARA CREEK INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
1992	743,957.01	424,353	327,181	416,776	23.35	17,849
2007	52,227.42	17,799	13,723	38,504	30.95	1,244
2008	24,096.05	7,771	5,992	18,105	31.51	575
2018	210,583.17	25,059	19,321	191,262	37.02	5,166
	1,030,863.65	474,982	366,217	664,647		24,834
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1962	4,167.41	3,457	2,665	1,502	12.53	120
1970	1,783.13	1,389	1,071	712	15.03	47

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1990	18,120.03	10,823	8,345	9,775	22.25	439
1995	1,697,864.04	903,264	696,428	1,001,436	24.63	40,659
1996	16,079.46	8,336	6,427	9,652	25.08	385
	1,738,014.07	927,269	714,936	1,023,078		41,650

OTHER INTAKES  
SURVIVOR CURVE.. IOWA 50-S0.5  
NET SALVAGE PERCENT.. 0

1871	7,485.00	7,485	7,485			
1876	1,000.00	1,000	1,000			
1884	15,908.00	15,908	15,908			
1896	1,064.36	1,064	1,064			
1899	4,333.00	4,333	4,333			
1900	19,909.00	19,909	19,909			
1901	255.00	255	255			
1903	1,764.21	1,764	1,764			
1905	926.29	926	926			
1906	116.00	116	116			
1907	50.00	50	50			
1908	5,105.59	5,106	5,106			
1909	625.00	625	625			
1914	91.65	92	92			
1915	2,103.77	2,104	2,104			
1916	387.96	388	388			
1920	362.00	362	362			
1924	184.48	184	184			
1934	275.60	265	203	73	3.59	20
1937	1,649.48	1,560	1,192	457	4.91	93
1938	223.95	211	161	63	5.09	12
1948	4,170.00	3,753	2,868	1,302	8.33	156
1954	515.16	451	345	170	9.74	17
1955	1,225.24	1,066	815	411	10.12	41
1959	0.02		0			
1961	195,437.96	163,582	125,015	70,423	12.07	5,835
1962	2,445.04	2,028	1,550	895	12.53	71
1963	0.35		0			
1964	13,102.67	10,745	8,212	4,891	12.94	378

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER INTAKES						
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
1966	21,261.52	17,088	13,059	8,202	13.92	589
1967	34,966.21	28,001	21,399	13,567	13.93	974
1968	3,309.73	2,621	2,003	1,307	14.44	91
1969	341,369.96	269,136	205,683	135,687	14.49	9,364
1970	242.30	189	144	98	15.03	7
1972	2,403.96	1,839	1,405	999	15.67	64
1973	191,463.70	145,512	111,205	80,259	15.79	5,083
1974	695.59	521	398	297	16.36	18
1976	4,944.00	3,625	2,770	2,174	17.10	127
1979	4,591.44	3,253	2,486	2,105	18.11	116
1980	219.84	154	118	102	18.35	6
1982	0.25		0			
1983	590.00	399	305	285	19.17	15
1984	7,128.71	4,754	3,633	3,496	19.48	179
1985	708.02	465	355	353	19.80	18
1986	5,152.00	3,317	2,535	2,617	20.47	128
1987	373.00	236	180	193	20.82	9
1988	329.26	206	157	172	20.87	8
1989	29,733.17	18,298	13,984	15,749	21.25	741
1991	314,444.17	186,151	142,263	172,181	22.05	7,809
1992	13,345.24	7,736	5,912	7,433	22.48	331
1994	7,175.69	3,995	3,053	4,123	23.08	179
1996	994,262.16	528,848	404,163	590,099	23.76	24,836
1997	75,410.86	39,018	29,819	45,592	24.25	1,880
1998	4,168.18	2,105	1,609	2,559	24.50	104
1999	427,734.05	209,419	160,045	267,689	25.02	10,699
2000	3,236.92	1,541	1,178	2,059	25.31	81
2001	11,542.58	5,307	4,056	7,487	25.85	290
2002	111,458.00	49,621	37,922	73,536	26.17	2,810
2006	200,520.03	76,358	58,355	142,165	27.64	5,143
2007	433,877.13	157,584	120,431	313,446	28.05	11,175
2008	71,901.04	24,806	18,958	52,943	28.48	1,859
2011	35,533.38	10,234	7,821	27,712	29.67	934
2013	63,869.08	15,776	12,057	51,813	30.49	1,699
2014	6,733.23	1,515	1,158	5,575	31.00	180
2017	304,291.25	47,835	36,557	267,734	32.17	8,322
2019	145,315.45	15,694	11,994	133,322	33.04	4,035
2020	65,336.23	5,390	4,119	61,217	33.36	1,835

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER INTAKES						
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
2021	110,220.53	6,172	4,717	105,504	33.71	3,130
2023	691,222.60	4,977	3,804	687,419	34.23	20,082
9999	41,551.00-	17,748-	13,684-	27,867-		1,089-
	4,980,246.24	2,127,280	1,640,159	3,340,087		130,484
	17,309,358.40	8,285,938	6,388,560	10,920,798		422,468
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.9 2.44

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1900	1,510.00	1,510	1,510			
1901	687.32	687	687			
1904	1,700.99	1,701	1,701			
1905	11,557.00	11,557	11,557			
1907	60.00	60	60			
1908	11.00	11	11			
1910	6,358.00	6,358	6,358			
1912	850.80	851	851			
1913	1,496.00	1,496	1,496			
1914	685.91	686	686			
1915	2,515.00	2,499	1,977	538	0.70	538
1916	1,761.00	1,752	1,386	375	0.53	375
1918	1,184.00	1,169	925	259	1.38	188
1920	62.00	61	48	14	2.26	6
1922	2,819.00	2,733	2,162	657	3.17	207
1923	9,868.00	9,572	7,572	2,296	3.09	743
1924	8,365.00	8,033	6,355	2,010	4.09	491
1926	460.00	437	346	114	5.04	23
1927	1,178.84	1,120	886	293	5.01	58
1930	9.00	8	6	3	6.01	
1934	199.00	184	146	53	7.15	7
1935	1,250.00	1,144	905	345	8.15	42
1937	3,054.88	2,785	2,203	852	8.34	102
1938	241.00	217	172	69	9.34	7
1939	2,545.67	2,288	1,810	736	9.46	78
1940	74.75	67	53	22	9.59	2
1941	830.19	742	587	243	9.74	25
1945	4,321.00	3,775	2,986	1,335	11.29	118
1946	224.36	195	154	70	11.50	6
1948	865.57	740	585	281	12.72	22
1950	108.00	91	72	36	13.21	3
1951	608.00	512	405	203	13.47	15
1953	13,001.00	10,830	8,568	4,433	14.03	316
1954	14,821.28	12,272	9,708	5,113	14.33	357
1955	12,168.00	10,012	7,920	4,248	14.64	290
1956	1,603.07	1,310	1,036	567	14.97	38
1957	449.96	362	286	164	15.97	10
1958	2,594.00	2,074	1,641	953	16.30	58
1959	1,929.11	1,531	1,211	718	16.65	43
1960	46,187.99	36,664	29,005	17,183	16.37	1,050
1961	4,481.46	3,529	2,792	1,689	16.74	101

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1962	3,009.76	2,350	1,859	1,151	17.12	67
1963	8,669.74	6,710	5,308	3,362	17.52	192
1964	2,122.94	1,628	1,288	835	17.92	47
1965	13,699.16	10,409	8,234	5,465	18.34	298
1966	53,921.28	40,570	32,095	21,826	18.76	1,163
1967	4,217.40	3,141	2,485	1,732	19.19	90
1968	7,127.37	5,253	4,156	2,971	19.63	151
1969	56,597.45	41,565	32,882	23,715	19.53	1,214
1970	4,767.16	3,461	2,738	2,029	19.99	102
1971	31,889.13	22,884	18,103	13,786	20.46	674
1972	101,843.95	72,197	57,114	44,730	20.94	2,136
1973	94,331.88	66,504	52,611	41,721	20.92	1,994
1974	37,615.79	26,173	20,705	16,911	21.42	789
1975	9,107.78	6,252	4,946	4,162	21.93	190
1976	108,404.51	73,878	58,444	49,961	21.97	2,274
1977	20,240.47	13,593	10,753	9,487	22.49	422
1978	169,169.52	112,667	89,130	80,040	22.57	3,546
1979	40,281.48	26,409	20,892	19,389	23.11	839
1980	133,072.52	86,404	68,353	64,720	23.23	2,786
1981	119,430.83	76,245	60,317	59,114	23.79	2,485
1982	294,976.95	186,248	147,339	147,638	23.94	6,167
1983	168,734.75	104,616	82,761	85,974	24.52	3,506
1984	44,363.00	27,163	21,488	22,875	24.69	926
1985	60,868.97	36,777	29,094	31,775	24.89	1,277
1986	60,133.09	35,821	28,338	31,795	25.11	1,266
1987	233,265.74	136,041	107,621	125,645	25.73	4,883
1988	210,413.97	120,778	95,546	114,868	25.98	4,421
1989	66,388.63	37,470	29,642	36,747	26.24	1,400
1990	949,294.53	526,289	416,342	532,953	26.52	20,096
1991	91,173.68	49,598	39,236	51,938	26.82	1,937
1992	222,949.85	118,877	94,042	128,908	27.14	4,750
1993	80,770.05	42,162	33,354	47,416	27.47	1,726
1994	11,331.94	5,784	4,576	6,756	27.82	243
1995	25,861.85	12,890	10,197	15,665	28.18	556
1996	30,321.51	14,818	11,722	18,600	28.25	658
1997	77,313.24	36,786	29,101	48,212	28.64	1,683
1998	24,129.06	11,160	8,829	15,300	29.05	527
1999	40,204.97	18,140	14,350	25,855	29.19	886
2000	889,672.93	390,833	309,184	580,489	29.36	19,771
2001	240,340.60	102,049	80,730	159,611	29.81	5,354
2002	308,055.78	126,796	100,307	207,749	30.02	6,920

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2003	144,555.07	57,533	45,514	99,041	30.25	3,274
2004	994,772.65	381,794	302,034	692,739	30.50	22,713
2005	2,661.30	982	777	1,884	30.78	61
2006	147,235.79	52,063	41,187	106,049	31.08	3,412
2007	499,567.06	168,654	133,420	366,147	31.39	11,664
2008	314,912.32	101,559	80,342	234,570	31.51	7,444
2009	9,451.61	2,885	2,282	7,170	31.87	225
2010	43,906.18	12,671	10,024	33,882	32.05	1,057
2011	340,253.19	92,277	73,000	267,253	32.25	8,287
2012	51,262.14	12,969	10,260	41,002	32.48	1,262
2013	256,454.44	60,010	47,473	208,981	32.74	6,383
2014	165,507.17	35,452	28,046	137,461	33.02	4,163
2015	1,162,242.35	225,940	178,739	983,503	33.15	29,668
2016	98,238.58	17,054	13,491	84,748	33.32	2,543
2017	31,838.22	4,852	3,838	28,000	33.37	839
2018	97,990.59	12,690	10,039	87,952	33.61	2,617
2019	138,455.24	14,732	11,654	126,801	33.59	3,775
2020	262,341.46	21,486	16,998	245,343	33.63	7,295
2021	168,933.04	9,460	7,484	161,449	33.71	4,789
2022	1,737,464.30	50,386	39,860	1,697,604	33.48	50,705
2023	1,468.95	11	8	1,461	33.42	44
9999	71,610.27-	25,804-	20,444-	51,166-		1,721-
	11,912,683.74	4,292,670	3,401,063	8,511,621		286,230
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.7 2.40



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S0.5						
NET SALVAGE PERCENT.. 0						
1931	3,609.84	3,610	3,610			
1936	2,809.10	2,786	2,809			
1937	4,520.24	4,432	4,520			
1940	2,939.00	2,854	2,939			
1944	1.00	1	1			
1954	8,338.50	7,595	8,338			
1957	1,178.00	1,057	1,161	17	7.53	2
1958	5,336.00	4,752	5,220	116	7.99	15
1959	107.00	95	104	3	8.46	
1963	940.00	812	892	48	9.44	5
1965	6,019.00	5,132	5,638	381	10.03	38
1966	142.00	120	132	10	10.57	1
1967	7,319.00	6,148	6,754	565	10.67	53
1968	23,061.00	19,152	21,040	2,021	11.23	180
1969	45,202.40	37,346	41,028	4,174	11.36	367
1970	206.00	168	185	21	11.94	2
1972	7,872.85	6,344	6,969	904	12.29	74
1973	136.00	108	119	17	12.89	1
1974	52,315.00	41,271	45,340	6,975	13.11	532
1975	38,313.36	29,976	32,931	5,382	13.35	403
1980	25,076.66	18,547	20,376	4,701	15.14	311
1981	585.65	428	470	116	15.47	7
1982	11,137.43	8,037	8,829	2,308	15.82	146
1983	2,509.00	1,796	1,973	536	15.87	34
1991	39,570.00	24,945	27,404	12,166	18.76	649
1992	48,752.04	30,226	33,206	15,546	19.00	818
1993	23,243.53	14,086	15,475	7,769	19.50	398
1994	107,457.50	63,883	70,181	37,276	19.78	1,885
1995	1,076.42	627	689	387	20.08	19
1996	7,932.48	4,498	4,941	2,991	20.62	145
1997	1,040,121.31	576,019	632,809	407,312	20.95	19,442
1998	20,346.13	10,987	12,070	8,276	21.30	389
1999	250,124.14	131,465	144,426	105,698	21.66	4,880
2000	96,600.18	49,324	54,187	42,413	22.05	1,923
2001	3,572.21	1,768	1,942	1,630	22.44	73
2002	235,458.71	113,232	124,396	111,063	22.67	4,899
2003	241,761.04	112,177	123,237	118,524	23.10	5,131
2004	86,744.06	38,731	42,549	44,195	23.55	1,877
2005	261,676.97	112,573	123,672	138,005	23.84	5,789
2006	370,647.36	152,484	167,517	203,130	24.32	8,352
2007	106,124.17	41,770	45,888	60,236	24.65	2,444

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S0.5						
NET SALVAGE PERCENT.. 0						
2008	133,786.35	50,170	55,116	78,670	25.00	3,147
2009	129,823.10	45,983	50,516	79,307	25.53	3,106
2010	97,770.04	32,665	35,885	61,885	25.91	2,388
2011	401,056.23	125,611	137,995	263,061	26.31	9,999
2012	6,230,204.92	1,816,105	1,995,155	4,235,050	26.74	158,379
2013	5,285,686.55	1,427,135	1,567,836	3,717,851	27.04	137,494
2014	619,366.07	152,736	167,794	451,572	27.50	16,421
2015	627,659.41	140,094	153,906	473,753	27.84	17,017
2016	160,719.19	31,838	34,977	125,742	28.34	4,437
2017	266,682.99	46,083	50,626	216,057	28.72	7,523
2018	983,860.91	144,136	158,347	825,514	29.13	28,339
2019	340,229.59	40,555	44,553	295,677	29.56	10,003
2020	278,768.83	25,424	27,931	250,838	29.89	8,392
2021	71,837.35	4,454	4,893	66,944	30.26	2,212
2023	208,255.89	1,666	1,831	206,425	30.81	6,700
9999	118,273.00-	35,843-	39,370-	78,903-		2,964-
	18,908,316.70	5,730,174	6,293,958	12,614,359		473,877
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.6 2.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.2 PUMPING EQUIPMENT - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1957	4,070.65	3,815	3,326	745	4.42	169
1958	77.00	72	63	14	4.44	3
1981	1,612.84	1,240	1,081	532	12.64	42
1990	2,706.53	1,831	1,596	1,111	15.78	70
1991	5,320.12	3,541	3,087	2,233	16.08	139
1992	59,030.18	38,612	33,665	25,365	16.39	1,548
1993	14,692.00	9,432	8,224	6,468	16.73	387
1995	8,427.02	5,191	4,526	3,901	17.45	224
1996	75,209.70	45,487	39,659	35,551	17.64	2,015
1999	2,634.16	1,486	1,296	1,338	18.55	72
2001	39,528.53	21,132	18,424	21,105	19.15	1,102
2002	41,151.91	21,345	18,610	22,542	19.49	1,157
2003	1,012,540.64	508,295	443,169	569,372	19.84	28,698
2004	152,741.77	74,294	64,775	87,967	20.06	4,385
2005	392,735.41	183,800	160,250	232,485	20.46	11,363
2006	2,916,138.48	1,313,720	1,145,397	1,770,741	20.74	85,378
2007	599.66	259	226	374	21.04	18
2008	268,051.60	110,973	96,754	171,298	21.23	8,069
2009	9,243.96	3,637	3,171	6,073	21.59	281
2010	62,220.69	23,215	20,241	41,980	21.84	1,922
2011	102,348.78	36,109	31,482	70,867	22.01	3,220
2012	969,012.94	319,774	278,802	690,211	22.33	30,910
2013	293,934.16	90,238	78,676	215,258	22.57	9,537
2014	4,376,696.57	1,236,854	1,078,379	3,298,318	22.85	144,347
2015	433,156.07	111,581	97,284	335,872	23.06	14,565
2016	545,244.18	126,333	110,146	435,098	23.21	18,746
2017	163,231.18	33,299	29,033	134,198	23.41	5,733
2018	1,667,574.42	291,826	254,435	1,413,139	23.57	59,955
2019	858,668.63	123,992	108,105	750,564	23.70	31,669
2020	2,203,048.55	246,521	214,935	1,988,114	23.81	83,499
2021	1,461,324.22	112,814	98,360	1,362,964	23.91	57,004
9999	1,954,569.05-	549,508-	479,101-	1,475,468-		65,310-
	16,188,403.50	4,551,210	3,968,076	12,220,328		540,917

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.6 3.34

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.5 PUMPING EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1989	276.12	190	166	110	15.50	7
1995	501.09	309	269	232	17.45	13
1999	2,678.18	1,510	1,317	1,361	18.55	73
2000	184,223.06	100,844	87,923	96,300	19.02	5,063
2003	3,563.37	1,789	1,560	2,003	19.84	101
2004	19,148.80	9,314	8,121	11,028	20.06	550
2005	105,672.59	49,455	43,118	62,555	20.46	3,057
2006	71,689.73	32,296	28,158	43,532	20.74	2,099
2007	5,931.70	2,562	2,234	3,698	21.04	176
2010	72,266.50	26,963	23,508	48,758	21.84	2,233
2011	135,162.30	47,685	41,575	93,587	22.01	4,252
2012	2,019.10	666	581	1,438	22.33	64
2013	676,635.68	207,727	181,111	495,525	22.57	21,955
2014	8,220.79	2,323	2,025	6,196	22.85	271
2016	10,933.06	2,533	2,208	8,725	23.21	376
2017	4,085.46	833	726	3,359	23.41	143
2018	6,611.16	1,157	1,009	5,602	23.57	238
2019	740,083.93	106,868	93,175	646,909	23.70	27,296
2020	2,731,579.58	305,664	266,501	2,465,079	23.81	103,531
2021	2,593,207.56	200,196	174,545	2,418,663	23.91	101,157
2022	5,307,283.47	213,884	186,480	5,120,803	23.81	215,069
2023	365,569.48	3,802	3,315	362,254	23.79	15,227
	13,047,342.71	1,318,570	1,149,625	11,897,718		502,951

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.7 3.85

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.52 PUMPING EQUIPMENT - SOURCE OF SUPPLY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1995	500.74	308	269	232	17.45	13
1997	242.21	143	125	117	18.05	6
2007	330,048.42	142,581	124,312	205,736	21.04	9,778
2008	138,828.94	57,475	50,111	88,718	21.23	4,179
2009	107,365.12	42,237	36,825	70,540	21.59	3,267
2010	688,046.31	256,710	223,818	464,228	21.84	21,256
2011	743,640.36	262,356	228,741	514,899	22.01	23,394
2012	231,815.95	76,499	66,697	165,119	22.33	7,394
2013	1,332,904.58	409,202	356,772	976,133	22.57	43,249
2014	1,620,507.14	457,955	399,279	1,221,228	22.85	53,445
2015	1,418,234.40	365,337	318,527	1,099,707	23.06	47,689
2016	1,728,182.25	400,420	349,115	1,379,067	23.21	59,417
2017	2,132,558.86	435,042	379,302	1,753,257	23.41	74,894
2018	1,032,127.10	180,622	157,479	874,648	23.57	37,109
2019	347,288.25	50,148	43,723	303,565	23.70	12,809
2020	119,694.64	13,394	11,678	108,017	23.81	4,537
2021	268,274.05	20,711	18,057	250,217	23.91	10,465
	12,240,259.32	3,171,140	2,764,830	9,475,429		412,901
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.9 3.37

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1910	137.73	138	138			
1917	133.00	133	133			
1919	8,727.40	8,727	8,727			
1928	134.45	134	134			
1929	274.09	274	274			
1930	10.36	10	10			
1931	3,609.84	3,610	3,610			
1937	1,084.39	1,084	1,084			
1939	195.67	196	196			
1941	233.57	234	234			
1942	901.65	902	902			
1944	22.40	22	22			
1945	737.81	737	643	95	0.12	95
1946	36.51	36	31	6	0.52	6
1947	175.93	174	152	24	0.92	24
1948	1,721.87	1,692	1,475	247	1.34	184
1950	257.14	252	220	37	1.63	23
1951	14,946.31	14,528	12,666	2,280	2.07	1,101
1952	33,222.64	32,080	27,967	5,256	2.53	2,077
1953	14,955.45	14,342	12,503	2,452	2.99	820
1954	9,834.27	9,364	8,164	1,670	3.46	483
1955	2,307.03	2,196	1,914	393	3.43	115
1956	984.21	930	811	173	3.92	44
1957	15,384.02	14,418	12,570	2,814	4.42	637
1958	3,367.41	3,152	2,748	619	4.44	139
1959	30,581.95	28,380	24,742	5,840	4.97	1,175
1960	74,885.02	68,879	60,049	14,836	5.49	2,702
1961	172,778.06	158,541	138,217	34,561	5.57	6,205
1962	3,846.01	3,496	3,048	798	6.11	131
1963	22,013.95	19,813	17,273	4,741	6.67	711
1964	33,235.44	29,806	25,985	7,250	6.79	1,068
1965	199,630.46	177,152	154,442	45,188	7.36	6,140
1966	11,660.13	10,302	8,981	2,679	7.52	356
1967	28,880.66	25,392	22,137	6,744	7.69	877
1968	95,521.75	83,008	72,367	23,155	8.29	2,793
1969	336,092.73	290,384	253,158	82,935	8.50	9,757
1970	5,567.23	4,751	4,142	1,425	9.11	156
1971	51,979.05	44,057	38,409	13,570	9.35	1,451
1972	425,080.09	357,705	311,849	113,231	9.61	11,783
1973	5,713,935.55	4,771,136	4,159,496	1,554,440	9.88	157,332
1974	22,852.56	18,924	16,498	6,355	10.17	625

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1975	113,415.69	92,547	80,683	32,733	10.82	3,025
1976	72,968.72	58,988	51,426	21,543	11.14	1,934
1977	19,388.63	15,519	13,530	5,859	11.47	511
1978	9,787.72	7,752	6,758	3,030	11.82	256
1979	178,767.53	140,011	122,062	56,706	12.18	4,656
1980	150,308.57	116,985	101,988	48,321	12.25	3,945
1981	506,732.79	389,475	339,546	167,187	12.64	13,227
1982	700,388.66	531,245	463,142	237,247	13.05	18,180
1983	235,697.27	176,302	153,701	81,996	13.48	6,083
1984	314,495.98	233,042	203,167	111,329	13.63	8,168
1985	648,586.85	473,209	412,546	236,041	14.08	16,764
1986	416,712.98	299,117	260,771	155,942	14.55	10,718
1987	694,620.55	492,625	429,472	265,149	14.76	17,964
1988	305,870.14	214,109	186,661	119,209	15.00	7,947
1989	629,840.15	432,574	377,120	252,720	15.50	16,305
1990	4,404,508.55	2,979,650	2,597,671	1,806,838	15.78	114,502
1991	1,021,788.90	680,103	592,917	428,872	16.08	26,671
1992	1,175,752.15	769,059	670,469	505,283	16.39	30,829
1993	1,214,390.97	779,639	679,692	534,699	16.73	31,960
1994	343,463.55	216,142	188,433	155,031	17.08	9,077
1995	3,162,140.70	1,947,879	1,698,169	1,463,972	17.45	83,895
1996	1,081,569.17	654,133	570,276	511,293	17.64	28,985
1997	3,450,086.82	2,036,241	1,775,203	1,674,884	18.05	92,791
1998	1,058,295.76	611,166	532,817	525,479	18.29	28,730
1999	3,220,158.30	1,816,169	1,583,344	1,636,814	18.55	88,238
2000	2,461,862.16	1,347,623	1,174,863	1,286,999	19.02	67,666
2001	2,419,398.53	1,293,410	1,127,600	1,291,799	19.15	67,457
2002	1,318,397.32	683,853	596,186	722,211	19.49	37,055
2003	2,250,239.06	1,129,620	984,808	1,265,431	19.84	63,782
2004	383,907.57	186,733	162,795	221,113	20.06	11,023
2005	99,429.78	46,533	40,568	58,862	20.46	2,877
2006	248,585.93	111,988	97,632	150,954	20.74	7,278
2007	1,515,671.60	654,770	570,831	944,841	21.04	44,907
2008	334,620.09	138,533	120,774	213,846	21.23	10,073
2009	188,991.93	74,349	64,818	124,174	21.59	5,751
2010	241,344.53	90,046	78,502	162,843	21.84	7,456
2011	413,172.02	145,767	127,080	286,092	22.01	12,998
2012	466,418.48	153,918	134,186	332,232	22.33	14,878
2013	226,704.84	69,598	60,676	166,029	22.57	7,356
2014	142,593.48	40,297	35,131	107,462	22.85	4,703
2015	387,479.97	99,815	87,019	300,461	23.06	13,030

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
2016	301,993.38	69,972	61,002	240,991	23.21	10,383
2017	66,657.04	13,598	11,855	54,802	23.41	2,341
2018	902,376.61	157,916	137,671	764,706	23.57	32,444
2019	112,378.15	16,227	14,147	98,231	23.70	4,145
2020	117,333.16	13,130	11,447	105,886	23.81	4,447
2021	477,892.13	36,893	32,163	445,729	23.91	18,642
2022	117,663.33	4,742	4,134	113,529	23.81	4,768
2023	187,006.36	1,945	1,696	185,310	23.79	7,789
	47,853,790.34	28,946,048	25,237,269	22,616,521		1,337,620
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.9 2.80



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.54 PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1999	50,052.68	28,230	24,613	25,440	18.55	1,371
2000	490,971.15	268,758	234,323	256,648	19.02	13,494
2001	36,531.40	19,530	17,028	19,503	19.15	1,018
2002	538,352.70	279,244	243,465	294,888	19.49	15,130
2003	72,336.08	36,313	31,660	40,676	19.84	2,050
2004	292,005.04	142,031	123,833	168,172	20.06	8,383
2005	16,038.24	7,506	6,544	9,494	20.46	464
2006	189,538.24	85,387	74,447	115,091	20.74	5,549
2007	1,122,692.14	485,003	422,861	699,831	21.04	33,262
2008	693,194.93	286,983	250,212	442,983	21.23	20,866
2009	1,320,313.42	519,411	452,860	867,453	21.59	40,178
2010	294,909.64	110,031	95,933	198,977	21.84	9,111
2011	162,273.18	57,250	49,915	112,358	22.01	5,105
2012	147,718.84	48,747	42,501	105,218	22.33	4,712
2013	258,192.41	79,265	69,109	189,083	22.57	8,378
2015	107,975.32	27,814	24,250	83,725	23.06	3,631
2016	297,660.73	68,968	60,131	237,530	23.21	10,234
2017	157,968.28	32,226	28,097	129,871	23.41	5,548
2018	177,536.81	31,069	27,089	150,448	23.57	6,383
2019	27,912.06	4,031	3,514	24,398	23.70	1,029
2021	3,000.02	232	202	2,798	23.91	117
2022	250,727.13	10,104	8,810	241,917	23.81	10,160
	6,707,900.44	2,628,133	2,291,397	4,416,503		206,173

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.4 3.07

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW HERSHEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2067						
NET SALVAGE PERCENT.. 0						
1992	4,605,057.01	2,755,206	2,656,693	1,948,364	20.81	93,626
1993	236.04	138	133	103	21.28	5
1994	5,203.89	2,988	2,881	2,323	21.51	108
1995	830.13	467	450	380	21.75	17
1996	1,183.76	649	626	558	22.26	25
1998	5,798.79	3,015	2,907	2,892	23.08	125
2001	17,726.99	8,463	8,160	9,567	24.08	397
2008	30,628.68	10,980	10,587	20,041	26.84	747
2009	156,208.55	52,923	51,031	105,178	27.32	3,850
2012	3,190,991.80	888,053	856,300	2,334,691	28.53	81,833
2013	143,928.90	36,846	35,529	108,400	29.06	3,730
2014	144,316.86	33,770	32,563	111,754	29.46	3,793
2021	1,294,711.77	73,799	71,160	1,223,551	33.09	36,976
	9,596,823.17	3,867,297	3,729,021	5,867,802		225,232

BANGOR TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1989	2,860,588.15	1,818,762	1,753,732	1,106,856	19.48	56,820
1990	10,623.39	6,626	6,389	4,234	19.91	213
1994	8,028.91	4,633	4,467	3,562	21.25	168
2000	691.60	344	332	360	23.30	15
2007	6,598.67	2,523	2,433	4,166	25.84	161
2008	51,019.15	18,520	17,858	33,161	26.32	1,260
2009	13,787.45	4,748	4,578	9,209	26.65	346
2010	29,160.31	9,477	9,138	20,022	27.00	742
2012	25,731.93	7,274	7,014	18,718	27.91	671
2013	10,033.12	2,619	2,525	7,508	28.31	265
2014	10,972.92	2,617	2,523	8,449	28.74	294
	3,027,235.60	1,878,143	1,810,990	1,216,246		60,955

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
MOSHANNON VALLEY						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1988	2,378,740.29	1,681,769	1,621,637	757,104	14.50	52,214
1990	6,544.83	4,514	4,353	2,192	14.85	148
1993	8,633.92	5,724	5,519	3,115	15.25	204
1994	35,338.97	23,059	22,235	13,104	15.44	849
1995	21,272.50	13,640	13,152	8,120	15.67	518
2011	15,381.16	6,220	5,998	9,384	17.67	531
	2,465,911.67	1,734,926	1,672,893	793,019		54,464
NORRISTOWN PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
1997	3,019,786.27	1,664,506	1,604,992	1,414,795	21.17	66,830
1998	64,849.95	35,019	33,767	31,083	21.30	1,459
1999	312,258.00	164,123	158,255	154,003	21.66	7,110
2000	128,124.58	65,715	63,365	64,759	21.84	2,965
2001	405,208.19	201,470	194,266	210,942	22.25	9,481
	3,930,226.99	2,130,833	2,054,645	1,875,582		87,845
NORRISTOWN PLANT NO. 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
1982	316.42	230	222	95	15.50	6
1990	59,105.20	38,814	37,426	21,679	17.25	1,257
1995	1,320,282.91	798,507	769,956	550,327	18.30	30,073
1999	3,573,772.17	1,989,876	1,918,727	1,655,045	19.10	86,652
2004	9,652.67	4,695	4,527	5,126	20.06	256
2006	18,839.86	8,551	8,245	10,595	20.45	518
2010	35,600.00	13,514	13,031	22,569	21.25	1,062
2011	9,238.54	3,315	3,196	6,042	21.44	282
2012	111,639.37	37,578	36,234	75,405	21.68	3,478
2013	126,470.76	39,585	38,170	88,301	21.95	4,023
2014	92,686.99	26,777	25,820	66,867	22.15	3,019

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN PLANT NO. 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
2018	33,127.07	5,913	5,702	27,425	23.01	1,192
2019	110.86	16	15	95	23.25	4
2021	3,397,278.49	264,988	255,513	3,141,765	23.64	132,900
	8,788,121.31	3,232,359	3,116,785	5,671,336		264,722
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1969	592,011.90	476,333	459,302	132,710	13.11	10,123
1970	0.18		0			
1971	85.00	67	65	20	13.79	1
1972	77.00	60	58	19	13.94	1
1973	159.00	124	120	39	14.10	3
1977	915.82	682	658	258	15.73	16
1982	1,483.91	1,046	1,009	475	17.14	28
1984	2,142.27	1,470	1,417	725	17.82	41
1985	5,679.13	3,841	3,704	1,975	18.18	109
1986	274.00	183	176	98	18.25	5
1989	1,399.32	894	862	537	19.19	28
1990	675,240.20	423,376	408,238	267,002	19.63	13,602
1991	1,328,257.42	820,332	791,001	537,257	19.81	27,120
1992	142.08	86	83	59	20.28	3
1994	3,438.13	1,994	1,923	1,515	21.00	72
1995	41,956.14	23,848	22,995	18,961	21.26	892
2000	21,291.43	10,676	10,294	10,997	22.87	481
2001	8,729.22	4,263	4,111	4,619	23.05	200
2004	27,520.99	12,131	11,697	15,824	24.10	657
2007	0.06		0			
2008	38,004.78	14,081	13,578	24,427	25.49	958
2009	43,188.45	15,176	14,633	28,555	25.84	1,105
2011	1,847,904.99	574,329	553,794	1,294,111	26.61	48,633
2012	4,021.14	1,163	1,121	2,900	27.02	107

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2013	246,296.50	66,007	63,647	182,650	27.31	6,688
2014	12,654.23	3,098	2,987	9,667	27.76	348
2021	4,157,197.84	254,421	245,324	3,911,874	30.68	127,506
	9,060,071.13	2,709,681	2,612,796	6,447,275		238,727
ONEIDA VALLEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1972	812,923.54	646,762	623,637	189,287	13.10	14,449
1973	4,215.87	3,331	3,212	1,004	13.29	76
1974	84.31	66	64	21	13.50	2
1982	1,397,906.11	1,020,192	983,715	414,191	15.18	27,285
1983	985.80	714	688	297	15.25	19
1984	1,092.20	784	756	336	15.35	22
1985	1,762.52	1,252	1,207	555	15.48	36
1986	158,342.13	110,729	106,770	51,572	15.91	3,241
1987	5,291.21	3,657	3,526	1,765	16.08	110
1990	9,016.06	6,010	5,795	3,221	16.50	195
1994	11,504.67	7,207	6,949	4,555	17.30	263
1996	206,838.17	125,096	120,623	86,215	17.64	4,887
1997	211,238.37	125,222	120,745	90,494	17.86	5,067
1998	143,526.80	83,604	80,615	62,912	17.92	3,511
2006	3,287.36	1,537	1,482	1,805	19.36	93
2007	4,241.17	1,907	1,839	2,402	19.59	123
2008	44,084.18	19,044	18,363	25,721	19.72	1,304
2009	3,924.36	1,621	1,563	2,361	19.90	119
2012	12.52	4	4	9	20.55	
2013	55,551.77	18,110	17,462	38,089	20.67	1,843
2014	2,179.04	657	634	1,546	20.85	74
	3,078,008.16	2,177,506	2,099,649	978,359		62,719

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
TWO LICK CREEK TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2037						
NET SALVAGE PERCENT.. 0						
1906	1,384.00	1,384	1,384			
1909	3,521.00	3,521	3,521			
1910	203.00	203	203			
1924	1,765.00	1,765	1,765			
1927	135.95	134	129	7	1.09	6
1928	129.00	127	122	7	1.15	6
1935	11.26	11	11			
1958	29.15	26	25	4	8.53	
1963	1,322.35	1,150	1,109	214	8.97	24
1965	229,382.77	198,233	191,126	38,256	9.11	4,199
1966	70.40	61	59	12	9.23	1
1967	2.12	2	2			
1969	304,266.24	257,957	248,709	55,557	9.69	5,733
1972	0.36		0			
1973	0.55			1	10.24	
1977	0.27		0			
1982	1,210,091.45	952,584	918,434	291,658	11.08	26,323
1983	68,041.39	53,344	51,432	16,610	11.02	1,507
1987	17,693.12	13,440	12,958	4,735	11.39	416
1988	20,150.57	15,163	14,619	5,531	11.51	481
1989	76,072.02	56,902	54,862	21,210	11.45	1,852
1990	7,021.40	5,190	5,004	2,017	11.64	173
1992	11,166.13	8,100	7,810	3,357	11.74	286
1994	1,181,000.53	835,676	805,717	375,284	11.98	31,326
1996	5,063.26	3,500	3,375	1,689	12.06	140
1997	1,346.73	917	884	463	12.17	38
2000	1,658.35	1,079	1,040	618	12.34	50
2008	8,355.53	4,499	4,338	4,018	12.86	312
2009	44,551.46	23,140	22,310	22,241	12.95	1,717
2013	396,506.56	170,894	164,767	231,739	13.20	17,556
2014	57.46	23	22	35	13.27	3
	3,590,999.38	2,609,025	2,515,739	1,075,260		92,149

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW CASTLE FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2060						
NET SALVAGE PERCENT.. 0						
1903	17,503.17	17,503	17,503			
1929	43,855.65	43,286	41,726	2,130	1.24	1,718
1949	14,516.83	13,213	12,737	1,780	7.30	244
1952	53.74	48	46	7	7.74	1
1957	163.91	144	139	25	9.19	3
1959	27,442.45	23,710	22,856	4,587	10.07	456
1961	6.17	5	5	1	10.46	
1968	32.03	26	25	7	12.57	1
1970	511.02	409	394	117	13.23	9
1982	1,666.07	1,175	1,133	533	17.14	31
1985	1,680,738.91	1,143,239	1,102,038	578,701	17.87	32,384
1986	6,291.68	4,214	4,062	2,230	18.25	122
1987	2,974.55	1,960	1,889	1,085	18.64	58
1989	47,324.37	30,250	29,160	18,165	19.19	947
1992	836,312.24	508,143	489,830	346,482	20.02	17,307
1994	1,096.11	639	616	480	20.75	23
1995	3,900.84	2,228	2,148	1,753	21.02	83
1996	23,488.35	13,128	12,655	10,833	21.31	508
1997	20,494.09	11,190	10,787	9,707	21.62	449
1998	42,681.51	22,728	21,909	20,773	21.95	946
1999	151,639.25	78,610	75,777	75,862	22.30	3,402
2000	81,605.90	41,105	39,624	41,982	22.66	1,853
2006	2,632.42	1,079	1,040	1,592	24.49	65
2007	11,560.82	4,513	4,350	7,210	24.98	289
2008	3,214.95	1,196	1,153	2,062	25.32	81
2009	5,543.68	1,964	1,893	3,650	25.53	143
2012	233,587.43	68,348	65,885	167,703	26.59	6,307
2013	57,995.33	15,659	15,095	42,901	27.04	1,587
2014	711,008.00	175,974	169,632	541,376	27.36	19,787
	4,029,841.47	2,225,686	2,146,106	1,883,735		88,804

E.H. ALDRICH STATION  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2041  
NET SALVAGE PERCENT.. 0

1961	80,911.88	70,232	67,721	13,191	9.43	1,399
1962	5,350.86	4,602	4,437	913	9.92	92

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH STATION						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1963	479.89	412	397	83	9.93	8
1964	977.76	831	801	176	10.44	17
1966	240.00	202	195	45	10.57	4
1969	475,945.97	395,797	381,645	94,301	10.94	8,620
1970	4,015.31	3,320	3,201	814	11.10	73
1972	6,866.34	5,603	5,403	1,464	11.50	127
1975	15,658.45	12,552	12,103	3,555	11.88	299
1976	5,336.00	4,238	4,086	1,250	12.17	103
1979	5,834.00	4,544	4,382	1,452	12.50	116
1980	1,374.20	1,064	1,026	348	12.56	28
1981	8,541.92	6,529	6,296	2,246	12.95	173
1982	296,991.36	225,268	217,213	79,778	13.05	6,113
1983	48,573.14	36,527	35,221	13,352	13.19	1,012
1984	1,323.05	991	956	367	13.08	28
1986	1,829.56	1,340	1,292	537	13.51	40
1987	770.54	560	540	231	13.50	17
1988	1,916.04	1,375	1,326	590	13.78	43
1989	995.67	708	683	313	13.85	23
1990	12,231.45	8,597	8,290	3,942	13.95	283
1991	42,884.78	29,779	28,714	14,171	14.08	1,006
1992	1,006.23	689	664	342	14.25	24
1993	7,180,454.66	4,868,348	4,694,279	2,486,176	14.25	174,468
1994	16,957.32	11,311	10,907	6,051	14.48	418
1995	1,163,518.36	765,595	738,221	425,297	14.55	29,230
1996	136,637.49	88,541	85,375	51,262	14.67	3,494
1997	2,217,941.61	1,418,595	1,367,873	850,069	14.65	58,025
2000	62,308.54	37,690	36,342	25,966	15.02	1,729
2001	339,034.47	200,641	193,467	145,567	15.17	9,596
2006	14,081.71	7,325	7,063	7,019	15.68	448
2007	28,838.76	14,489	13,971	14,868	15.85	938
2012	4,153,926.68	1,672,371	1,612,575	2,541,352	16.32	155,720
2013	2,073,887.49	783,929	755,899	1,317,988	16.46	80,072
2014	191,425.87	67,363	64,954	126,471	16.58	7,628
2017	144,046.69	37,769	36,419	107,628	16.88	6,376
2018	139,569.24	31,752	30,617	108,953	16.98	6,417
2019	272,566.83	51,679	49,831	222,736	17.10	13,025
	19,155,250.12	10,873,158	10,484,385	8,670,865		567,232



PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE STATION TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1894	9,692.00	9,692	9,692			
1905	584.13	584	584			
1906	38,476.97	38,477	38,477			
1909	54.95	55	55			
1915	149.00	149	149			
1923	28,824.04	28,824	28,824			
1928	1,754.14	1,733	1,671	83	1.15	72
1929	1,618.00	1,597	1,540	78	1.24	63
1930	2,023.01	1,975	1,904	119	2.24	53
1931	37,143.90	36,223	34,920	2,224	2.34	950
1935	498.19	482	465	34	2.91	12
1937	50,237.31	47,957	46,232	4,005	4.09	979
1951	27,630.25	25,066	24,165	3,466	7.37	470
1952	66,350.50	59,828	57,676	8,674	7.74	1,121
1953	143,183.72	128,293	123,679	19,505	8.12	2,402
1954	39,536.75	35,192	33,926	5,610	8.52	658
1955	2,412.48	2,133	2,056	356	8.92	40
1957	565.19	496	478	87	9.19	9
1958	2,118.16	1,845	1,779	340	9.63	35
1959	209.59	181	174	35	10.07	3
1962	233.82	198	191	43	10.94	4
1963	603.47	511	493	111	10.92	10
1967	210.00	173	167	43	12.03	4
1968	3,514.01	2,860	2,757	757	12.57	60
1969	930.65	754	727	204	12.67	16
1971	355.64	285	275	81	12.94	6
1972	2,839.64	2,245	2,164	675	13.52	50
1975	176,525.54	136,419	131,513	45,013	14.11	3,190
1976	22,111.00	16,939	16,330	5,781	14.35	403
1978	0.03		0			
1979	0.08		0			
1980	962.00	711	685	277	15.14	18
1981	410.00	300	289	121	15.47	8
1982	57.40	41	40	18	15.82	1
1983	21,321.18	15,266	14,717	6,604	15.87	416
1985	76,193.86	53,275	51,359	24,835	16.35	1,519
1986	221.00	152	147	74	16.76	4
1987	1,190.45	810	781	410	16.91	24
1989	642,885.43	426,233	410,904	231,981	17.28	13,425

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE STATION TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	8,727,440.00	5,702,509	5,497,425	3,230,015	17.51	184,467
1991	3,825,446.72	2,460,527	2,372,037	1,453,410	17.75	81,882
1993	8,838.96	5,516	5,318	3,521	18.08	195
1994	5,821.03	3,562	3,434	2,387	18.39	130
1995	6,669.93	4,015	3,871	2,799	18.51	151
1996	4,476.61	2,635	2,540	1,936	18.87	103
1997	76,243.66	44,008	42,425	33,818	19.05	1,775
1998	7,751.49	4,380	4,222	3,529	19.25	183
2001	250,469.04	131,697	126,961	123,508	19.84	6,225
2006	39,725.44	17,829	17,188	22,538	20.88	1,079
2008	67,546.77	27,863	26,861	40,686	21.36	1,905
2009	785.87	309	298	488	21.59	23
2010	29,994.96	11,191	10,789	19,206	21.84	879
2012	11,514,274.26	3,812,376	3,675,268	7,839,006	22.22	352,791
2013	25,957.50	7,995	7,707	18,250	22.47	812
2014	92,604.55	26,253	25,309	67,296	22.75	2,958
2017	198,983.17	40,593	39,133	159,850	23.41	6,828
2018	195,195.65	34,062	32,837	162,359	23.65	6,865
	26,481,853.09	13,415,274	12,935,607	13,546,246		675,276

SUSQUEHANNA FILTER PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2070  
NET SALVAGE PERCENT.. 0

1920	2.00	2	2			
1927	119.00	118	114	5	1.09	5
1929	5,945.58	5,868	5,658	287	1.24	231
1931	5,319.00	5,187	5,002	317	2.34	135
1947	278.00	256	247	31	6.64	5
1954	493.00	439	423	70	8.52	8
1956	179.54	158	152	27	9.34	3
1957	631.36	554	534	97	9.19	11
1963	842.00	707	682	160	11.43	14
1973	26,394.70	20,456	19,725	6,670	14.52	459
1979	391.74	286	276	116	16.24	7
1982	7,848.56	5,503	5,306	2,542	17.48	145
1984	1,071.66	731	705	367	18.14	20

PENNSYLVANIA-AMERICAN WATER COMPANY  
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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SUSQUEHANNA FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1985	34,553.31	23,241	22,410	12,143	18.50	656
1986	19,163.69	12,692	12,238	6,925	18.87	367
1990	8,393.40	5,207	5,021	3,373	20.19	167
1995	1,937,167.63	1,084,814	1,046,026	891,141	22.00	40,506
1998	37.76	20	19	18	23.31	1
2008	12,798.62	4,531	4,369	8,430	27.37	308
2009	27,067.43	9,057	8,733	18,334	27.84	659
2010	27,009.76	8,532	8,227	18,783	28.15	667
2011	5,393.93	1,592	1,535	3,859	28.65	135
2012	68,345.06	18,720	18,051	50,294	29.16	1,725
2014	10,788.07	2,486	2,397	8,391	30.06	279
	2,200,234.80	1,211,157	1,167,852	1,032,383		46,513

YARDLEY - MILL ROAD TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2057  
NET SALVAGE PERCENT.. 0

1997	4,036,898.44	2,225,138	2,145,578	1,891,321	21.17	89,340
1998	636,566.96	343,746	331,455	305,112	21.30	14,325
1999	22,865.33	12,018	11,588	11,277	21.66	521
2001	3,473.57	1,727	1,665	1,808	22.25	81
2007	40,599.49	16,240	15,659	24,940	24.00	1,039
2008	19,404.61	7,393	7,129	12,276	24.37	504
2010	38,695.00	13,280	12,805	25,890	24.88	1,041
2012	12,166.56	3,654	3,523	8,643	25.63	337
2013	106,076.97	29,595	28,537	77,540	25.84	3,001
2014	22,389.82	5,723	5,518	16,871	26.21	644
2021	2,288,196.39	149,190	143,856	2,144,341	28.67	74,794
	7,227,333.14	2,807,704	2,707,314	4,520,019		185,627

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SCRANTON WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	6,068,557.86	3,965,196	3,823,420	2,245,138	17.51	128,220
1991	10,808.16	6,952	6,703	4,105	17.75	231
1992	63.36	40	39	25	18.02	1
1993	1,858.78	1,160	1,119	740	18.08	41
1994	2,129.12	1,303	1,256	873	18.39	47
1995	42,181.67	25,393	24,485	17,697	18.51	956
1998	71.71	41	40	32	19.25	2
1999	13,304.56	7,344	7,081	6,223	19.48	319
2000	35,457.33	19,083	18,401	17,057	19.74	864
2001	1,233.88	649	626	608	19.84	31
2003	779.79	387	373	407	20.32	20
2004	1,532.72	737	711	822	20.53	40
2007	36,939.80	15,899	15,331	21,609	21.17	1,021
2008	184,433.05	76,079	73,359	111,074	21.36	5,200
2009	133,091.40	52,358	50,486	82,605	21.59	3,826
2010	32,619.58	12,170	11,735	20,885	21.84	956
2012	31,903.15	10,563	10,185	21,718	22.22	977
2013	528.32	163	157	371	22.47	17
2014	77,664.18	22,018	21,231	56,433	22.75	2,481
2017	19,208.64	3,919	3,779	15,430	23.41	659
	6,694,367.06	4,221,454	4,070,515	2,623,852		145,909

BROWNELL WTP  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	2,297,805.71	1,501,386	1,447,703	850,102	17.51	48,550
1991	121,464.63	78,126	75,333	46,132	17.75	2,599
1992	1,960.79	1,240	1,196	765	18.02	42
1993	35.91	22	21	15	18.08	1
1995	601.31	362	349	252	18.51	14
1999	5.76	3	3	3	19.48	
2000	2,758.46	1,485	1,432	1,327	19.74	67
2001	375.44	197	190	185	19.84	9
2006	8,629.98	3,873	3,735	4,895	20.88	234
2007	58.48	25	24	34	21.17	2
2009	16,915.26	6,654	6,416	10,499	21.59	486

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWNELL WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2010	7,308.81	2,727	2,629	4,679	21.84	214
2012	119,943.23	39,713	38,293	81,650	22.22	3,675
2013	41,899.64	12,905	12,444	29,456	22.47	1,311
2014	19,329.32	5,480	5,284	14,045	22.75	617
2019	1,090.61	157	151	939	23.86	39
	2,640,183.34	1,654,355	1,595,203	1,044,980		57,860

CHINCHILLA WTP  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1893	14,836.59	14,837	14,837			
1907	187.12	187	187			
1910	1,427.96	1,428	1,428			
1921	42,429.29	42,429	42,429			
1990	1,459,927.15	953,916	917,982	541,946	17.51	30,951
1991	125,225.99	80,545	77,511	47,715	17.75	2,688
1992	1,469.28	929	894	575	18.02	32
1993	650.89	406	391	260	18.08	14
1994	2,419.58	1,481	1,425	994	18.39	54
1995	10,944.29	6,588	6,340	4,604	18.51	249
1997	674.81	390	375	300	19.05	16
1998	244.82	138	133	112	19.25	6
1999	163.20	90	87	77	19.48	4
2001	18,845.86	9,909	9,536	9,310	19.84	469
2005	80,991.72	37,613	36,196	44,796	20.76	2,158
2008	16,964.75	6,998	6,734	10,230	21.36	479
	1,777,403.30	1,157,884	1,116,484	660,919		37,120

NESBITT WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2048  
NET SALVAGE PERCENT.. 0

1988	3,047,363.02	2,069,159	1,995,176	1,052,187	16.55	63,576
1989	20,213.19	13,539	13,055	7,158	16.76	427

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NESBITT WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2048						
NET SALVAGE PERCENT.. 0						
1990	4,961.45	3,275	3,158	1,804	17.00	106
1991	16,130.80	10,530	10,153	5,977	17.02	351
1992	1,148.36	737	711	438	17.31	25
1993	6,916.77	4,378	4,221	2,695	17.39	155
1994	1,753.58	1,088	1,049	704	17.73	40
1995	17,326.81	10,576	10,198	7,129	17.87	399
1997	1,057.68	621	599	459	18.25	25
1998	3,562.34	2,048	1,975	1,588	18.48	86
1999	52,859.37	29,813	28,747	24,112	18.55	1,300
2000	14,759.96	8,114	7,824	6,936	18.84	368
2001	577.08	310	299	278	18.98	15
2007	20,878.82	9,253	8,922	11,957	20.10	595
2008	8,002.36	3,397	3,276	4,727	20.34	232
2009	39,060.79	15,859	15,292	23,769	20.48	1,161
2010	14,986.30	5,786	5,579	9,407	20.67	455
2012	81,800.26	27,984	26,983	54,817	21.15	2,592
2013	32,118.74	10,246	9,880	22,239	21.35	1,042
2014	28,769.10	8,493	8,189	20,580	21.49	958
2016	562,914.51	136,338	131,463	431,451	21.90	19,701
2018	85,920.60	15,723	15,161	70,760	22.32	3,170
	4,063,081.89	2,387,267	2,301,910	1,761,172		96,779

CRYSTAL LAKE WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2052  
NET SALVAGE PERCENT.. 0

1992	4,751,108.26	2,975,144	2,868,767	1,882,341	18.50	101,748
1993	54,356.78	33,429	32,234	22,123	18.78	1,178
1995	32,030.36	19,013	18,333	13,697	19.17	715
1997	3,078.16	1,753	1,690	1,388	19.66	71
1998	3,543.58	1,976	1,905	1,638	19.84	83
2000	3,463.67	1,832	1,766	1,697	20.48	83
2001	1,211.20	626	604	608	20.55	30
2007	5,025.88	2,115	2,039	2,987	22.02	136
2008	8,813.12	3,543	3,416	5,397	22.31	242
2009	33,412.18	12,770	12,313	21,099	22.63	932
2010	3,395.99	1,232	1,188	2,208	22.84	97

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2052 NET SALVAGE PERCENT.. 0						
2012	39,565.46	12,665	12,212	27,353	23.36	1,171
2013	53,719.47	16,008	15,436	38,284	23.56	1,625
2014	49,390.50	13,558	13,073	36,317	23.79	1,527
2019	2,864.92	393	379	2,486	25.15	99
	5,044,979.53	3,096,057	2,985,357	2,059,623		109,737

CEASETOWN WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2053  
NET SALVAGE PERCENT.. 0

1993	7,988,456.15	4,888,935	4,714,130	3,274,326	19.02	172,152
1994	44,194.91	26,530	25,581	18,613	19.31	964
1995	116,941.50	68,762	66,303	50,638	19.62	2,581
1997	111,789.69	63,072	60,817	50,973	20.08	2,538
1998	3,366.88	1,860	1,793	1,573	20.25	78
1999	532.85	288	278	255	20.44	12
2000	9,264.78	4,880	4,706	4,559	20.67	221
2001	43,265.97	22,178	21,385	21,881	20.92	1,046
2006	0.33		0			
2007	9,549.60	3,973	3,831	5,719	22.46	255
2008	2,264.03	900	868	1,396	22.74	61
2009	26,199.97	9,904	9,550	16,650	23.04	723
2010	165,181.88	59,267	57,148	108,034	23.23	4,651
2012	34,593.21	10,921	10,530	24,063	23.84	1,009
2013	128,885.26	37,763	36,413	92,473	24.13	3,832
2014	37,093.23	10,015	9,657	27,436	24.33	1,128
2019	8,081.58	1,086	1,047	7,034	25.76	273
	8,729,661.82	5,210,334	5,024,037	3,705,625		191,524

WATRES WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2053  
NET SALVAGE PERCENT.. 0

1993	8,769,938.43	5,367,202	5,175,296	3,594,642	19.02	188,993
1994	463,999.38	278,539	268,580	195,420	19.31	10,120

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
1995	152,290.96	89,547	86,345	65,946	19.62	3,361
1996	1,500.56	867	836	665	19.73	34
1998	91.08	50	48	43	20.25	2
2000	2,132.55	1,123	1,083	1,050	20.67	51
2001	3,188.33	1,634	1,576	1,613	20.92	77
2003	1,537.06	741	715	823	21.49	38
2008	38,154.92	15,167	14,625	23,530	22.74	1,035
2009	16,416.46	6,205	5,983	10,433	23.04	453
2010	6,304.52	2,262	2,181	4,123	23.23	177
2012	36,404.23	11,493	11,082	25,322	23.84	1,062
2013	70,933.95	20,784	20,041	50,893	24.13	2,109
2014	19,921.37	5,379	5,187	14,735	24.33	606
	9,582,813.80	5,800,993	5,593,577	3,989,237		208,118

HUNTSVILLE WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2075  
NET SALVAGE PERCENT.. 0

1999	5,824,071.00	2,921,354	2,816,900	3,007,171	23.85	126,087
2001	40,700.36	19,162	18,477	22,224	24.73	899
2007	10,162.55	3,740	3,606	6,556	27.48	239
2008	6,430.94	2,248	2,168	4,263	27.92	153
2009	20,153.37	6,659	6,421	13,732	28.37	484
2010	6,227.91	1,935	1,866	4,362	28.84	151
2012	14,664.07	3,952	3,811	10,853	29.82	364
2013	49,081.55	12,172	11,737	37,345	30.32	1,232
2014	41,390.35	9,350	9,016	32,375	30.84	1,050
	6,012,882.10	2,980,572	2,874,001	3,138,881		130,659

WEST SHORE REGIONAL TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2081  
NET SALVAGE PERCENT.. 0

1995	40,740.27	22,586	21,778	18,962	22.51	842
2006	5,492,101.10	2,110,065	2,034,619	3,457,482	27.25	126,880



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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST SHORE REGIONAL TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2081						
NET SALVAGE PERCENT.. 0						
2008	14,881.08	5,156	4,972	9,909	28.29	350
2009	10,105.34	3,311	3,193	6,913	28.74	241
2011	20,843.84	5,978	5,764	15,080	29.84	505
2012	159,124.19	42,359	40,844	118,280	30.32	3,901
2013	12,202.19	2,977	2,871	9,332	30.98	301
2014	523,557.86	116,387	112,226	411,332	31.49	13,062
2021	1,065,817.06	55,849	53,852	1,011,965	36.17	27,978
	7,339,372.93	2,364,668	2,280,119	5,059,254		174,060
MCMURRAY/SAXONBURG						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1992	45,446.78	27,473	26,491	18,956	20.28	935
2011	3,266,953.16	1,015,369	979,064	2,287,889	26.61	85,979
2012	3,336.82	965	930	2,406	27.02	89
2018	2,859,613.70	416,074	401,197	2,458,417	29.36	83,734
	6,175,350.46	1,459,881	1,407,682	4,767,668		170,737
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1992	110,697.56	66,917	64,524	46,173	20.28	2,277
2011	4,695,552.85	1,459,378	1,407,198	3,288,355	26.61	123,576
2012	14,769.41	4,273	4,120	10,649	27.02	394
2013	31,104.01	8,336	8,038	23,066	27.31	845
2014	33,548.23	8,213	7,919	25,629	27.76	923
2017	8,769.56	1,505	1,451	7,318	28.97	253
2019	145,941.79	17,280	16,662	129,280	29.78	4,341
	5,040,383.41	1,565,902	1,509,913	3,530,470		132,609

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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	38,365,682.82	4,968,356	4,790,711	33,574,972	33.61	998,958
2019	840,408.61	87,739	84,602	755,807	34.31	22,029
	39,206,091.43	5,056,095	4,875,313	34,330,778		1,020,987
MONTROSE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	5,095,728.34	659,897	636,302	4,459,426	33.61	132,682
2019	13,515.72	1,411	1,361	12,155	34.31	354
	5,109,244.06	661,308	637,663	4,471,581		133,036
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1888	4,319.09	4,319	4,319			
1895	2,105.61	2,106	2,106			
1902	3,652.00	3,652	3,652			
1904	4,936.00	4,936	4,936			
1906	10,099.40	10,099	10,099			
1908	2,461.05	2,461	2,461			
1909	472.28	472	472			
1910	3,087.53	3,088	3,088			
1912	26.50	26	27			
1914	30.00	30	30			
1915	47.10	47	47			
1917	1,446.09	1,446	1,446			
1918	297.26	297	297			
1921	1,932.91	1,933	1,933			
1922	0.32		0			
1923	265,311.81	265,312	265,312			
1924	90,322.54	90,323	90,323			
1926	44.00	44	44			
1927	378.43	378	378			
1928	20,047.10	20,047	20,047			

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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1930	3,544.35	3,544	3,544			
1931	4,019.43	4,019	4,019			
1932	16.80	17	17			
1933	212.87	211	203	10	0.91	10
1934	114.24	113	109	6	1.09	6
1937	519.55	509	489	30	1.72	17
1938	275.05	269	259	16	1.96	8
1941	290.96	282	271	20	2.75	7
1942	13.00	13	13			
1944	104.76	100	96	9	3.64	2
1946	1,076.08	1,027	987	89	3.65	24
1947	8,786.40	8,347	8,024	763	4.00	191
1948	183.72	174	167	16	4.37	4
1950	107.70	101	97	11	4.52	2
1951	111,670.85	104,524	100,476	11,195	4.92	2,275
1952	1,270.21	1,181	1,135	135	5.34	25
1953	245,118.99	226,490	217,717	27,402	5.76	4,757
1954	40,806.53	37,730	36,269	4,538	5.63	806
1955	27,213.35	24,982	24,014	3,199	6.07	527
1956	25,003.38	22,783	21,901	3,103	6.53	475
1957	10,398.25	9,471	9,104	1,294	6.46	200
1958	115,609.78	104,453	100,407	15,203	6.94	2,191
1959	41,625.14	37,563	36,108	5,517	6.92	797
1960	8,841.76	7,910	7,604	1,238	7.42	167
1961	214.35	190	183	32	7.93	4
1962	9,138.26	8,083	7,770	1,368	7.97	172
1963	421.99	370	356	66	8.49	8
1964	1,925.43	1,681	1,616	310	8.57	36
1965	9,065.31	7,834	7,531	1,535	9.11	168
1966	2,217.82	1,896	1,823	395	9.67	41
1967	11,280.31	9,602	9,230	2,050	9.79	209
1968	536.42	451	434	103	10.36	10
1969	21,831.35	18,273	17,565	4,266	10.52	406
1970	983.27	813	782	202	11.10	18
1971	1,995.36	1,629	1,566	429	11.69	37
1972	30,857.67	25,022	24,053	6,805	11.89	572
1973	280,635.28	224,508	215,812	64,823	12.50	5,186
1974	147.41	116	112	36	13.11	3
1975	15,305.09	11,901	11,440	3,865	13.73	282
1976	1,757.11	1,354	1,302	456	13.98	33

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1977	3,419.41	2,595	2,494	925	14.61	63
1978	12,447.17	9,298	8,938	3,509	15.24	230
1979	5,563.62	4,088	3,930	1,634	15.88	103
1980	3,355.01	2,438	2,344	1,011	16.17	63
1981	4,947.04	3,532	3,395	1,552	16.82	92
1982	16,431.01	11,520	11,074	5,357	17.48	306
1983	91,728.98	63,110	60,666	31,063	18.14	1,712
1984	37,576.21	25,353	24,371	13,205	18.80	702
1985	361,182.50	240,186	230,883	130,300	19.14	6,808
1986	392,463.96	255,573	245,674	146,790	19.82	7,406
1987	35,369.70	22,538	21,665	13,705	20.50	669
1988	121,917.08	75,954	73,012	48,905	21.18	2,309
1989	610,557.78	371,585	357,193	253,365	21.87	11,585
1990	378,132.57	224,611	215,911	162,221	22.56	7,191
1991	117,190.70	67,877	65,248	51,943	23.25	2,234
1992	6,360.67	3,589	3,450	2,911	23.95	122
1993	3,913.77	2,149	2,066	1,848	24.64	75
1994	838,787.19	447,577	430,241	408,546	25.35	16,116
1995	83,595.06	43,302	41,625	41,970	26.05	1,611
1996	492,810.81	247,490	237,904	254,907	26.76	9,526
1997	168,967.38	82,152	78,970	89,997	27.48	3,275
1998	1,106.19	520	500	606	28.19	21
1999	23.87	11	11	13	28.91	
2000	2,221.27	971	933	1,288	29.63	43
2001	721.32	303	291	430	30.36	14
2002	774,707.69	312,362	300,263	474,444	31.08	15,265
2003	174,532.44	67,370	64,761	109,772	31.81	3,451
2004	31,501.32	11,611	11,161	20,340	32.55	625
2005	40,669.07	14,275	13,722	26,947	33.28	810
2006	761,367.68	253,688	243,862	517,506	34.02	15,212
2007	347,241.89	109,451	105,212	242,030	34.76	6,963
2008	273,311.47	81,174	78,030	195,282	35.51	5,499
2009	341,171.12	94,573	90,910	250,261	36.51	6,855
2010	1,800.57	466	448	1,353	37.25	36
2011	105,136.85	25,233	24,256	80,881	38.00	2,128
2012	1,261,748.47	278,973	268,168	993,581	38.75	25,641
2013	858,147.43	173,346	166,632	691,516	39.50	17,507
2014	274,340.84	50,122	48,181	226,160	40.26	5,617
2016	163,029.40	23,281	22,379	140,650	42.02	3,347
2017	233,590.08	28,732	27,619	205,971	42.78	4,815

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
2018	1,129,077.93	116,295	111,791	1,017,287	43.54	23,364
2019	1,945,869.60	161,118	154,877	1,790,992	44.31	40,420
2020	686,748.95	43,059	41,391	645,358	44.85	14,389
2021	1,728,512.91	72,598	69,786	1,658,727	45.62	36,360
9999	27,162.27-	9,038-	8,715-	18,447-		531-
	16,342,286.31	5,437,563	5,243,141	11,099,145		319,725
	226,390,011.47	93,927,082	90,568,697	135,821,312		5,579,125
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.3 2.46

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.18 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1982	50,562.15	50,562	50,562			
1997	52,683.58	52,684	52,684			
	103,245.73	103,246	103,246			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.19 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1983	72,520.43	72,520	72,520			
1984	121,617.90	121,618	121,618			
1985	126,432.86	126,433	126,433			
1986	103,281.57	103,282	103,282			
1987	104,997.90	104,998	104,998			
1988	44,292.18	44,292	44,292			
1989	6,520.49	6,520	6,520			
1991	1,937.55	1,938	1,938			
1994	36.73	37	37			
1996	174,603.42	174,603	174,603			
1997	243,625.95	243,626	243,626			
1998	175,497.41	175,497	175,497			
1999	471,219.17	471,219	471,219			
2004	475,875.22	475,875	475,875			
2005	604,791.57	604,792	604,792			
2007	198,308.24	198,308	198,308			
2008	114,399.73	114,400	114,400			
2015	11,632.92	9,306	1,344	10,289	2.00	5,144
2021	616,354.70	123,271	17,798	598,557	8.00	74,820
	3,667,945.94	3,172,535	3,059,100	608,846		79,964
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.6 2.18

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-R0.5						
NET SALVAGE PERCENT.. 0						
1917	978.00	978	978			
1928	456.40	456	456			
1929	45.50	46	46			
1935	33.55	34	34			
1940	8.13	8	8			
1945	29.17	28	27	2	2.65	1
1947	7,302.60	6,937	6,689	614	4.00	154
1949	80.97	76	73	8	4.74	2
1950	204.80	191	184	21	5.12	4
1951	48.93	45	43	6	5.52	1
1953	62.36	57	55	7	6.34	1
1955	10,196.33	9,291	8,959	1,237	6.63	187
1957	562.75	505	487	76	7.53	10
1958	39,891.80	35,524	34,253	5,639	7.99	706
1962	6,154.17	5,331	5,140	1,014	9.42	108
1963	823.57	712	687	137	9.44	15
1964	7,636.81	6,533	6,299	1,338	9.97	134
1965	37,339.44	31,619	30,488	6,851	10.49	653
1966	1,688.98	1,425	1,374	315	10.57	30
1967	688.22	574	553	135	11.11	12
1968	799.21	664	640	159	11.23	14
1969	2,258.71	1,854	1,788	471	11.79	40
1970	8,536.97	6,968	6,719	1,818	11.94	152
1971	15,632.78	12,600	12,149	3,484	12.52	278
1972	32,603.76	26,106	25,172	7,432	12.69	586
1973	256,480.10	202,619	195,372	61,108	13.29	4,598
1974	31,941.16	25,042	24,146	7,795	13.50	577
1975	42,769.93	33,258	32,068	10,702	13.73	779
1976	1,073,863.59	822,687	793,263	280,601	14.35	19,554
1977	28,840.00	21,890	21,107	7,733	14.61	529
1978	51,212.94	38,487	37,110	14,103	14.88	948
1979	19,376.89	14,409	13,894	5,483	15.17	361
1980	60,262.01	44,052	42,476	17,786	15.82	1,124
1981	192,254.16	138,884	133,917	58,337	16.14	3,614
1982	7,527.22	5,370	5,178	2,349	16.47	143
1983	72,692.91	51,176	49,346	23,347	16.82	1,388
1984	292,693.25	203,188	195,921	96,772	17.18	5,633
1985	975,342.46	667,134	643,273	332,069	17.56	18,911
1986	2,015,391.19	1,357,164	1,308,623	706,768	17.95	39,374
1987	719,004.40	476,269	459,235	259,769	18.35	14,156
1988	108,892.48	71,270	68,721	40,171	18.48	2,174



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 42-R0.5						
NET SALVAGE PERCENT.. 0						
1989	781,726.82	502,338	484,371	297,356	18.91	15,725
1990	435,976.16	274,796	264,968	171,008	19.36	8,833
1991	703,892.04	434,724	419,176	284,716	19.81	14,372
1992	4,299,099.40	2,612,133	2,518,707	1,780,392	20.02	88,931
1993	99,614.98	59,171	57,055	42,560	20.51	2,075
1994	739,039.18	430,786	415,378	323,661	20.75	15,598
1995	4,638,977.20	2,649,784	2,555,011	2,083,966	21.02	99,142
1996	2,064,870.70	1,148,481	1,107,404	957,467	21.54	44,451
1997	3,330,337.85	1,809,706	1,744,980	1,585,358	21.85	72,556
1998	2,072,021.04	1,098,171	1,058,894	1,013,127	22.17	45,698
1999	7,194,288.92	3,712,253	3,579,480	3,614,809	22.51	160,587
2000	1,257.81	631	608	650	22.87	28
2001	2,457,933.54	1,200,455	1,157,519	1,300,415	23.05	56,417
2002	77,713.84	36,720	35,407	42,307	23.44	1,805
2003	1,964,206.88	899,607	867,431	1,096,776	23.67	46,336
2004	1,987,873.10	880,031	848,556	1,139,317	23.92	47,630
2005	2,175,149.75	927,919	894,731	1,280,419	24.19	52,932
2006	567,328.98	232,435	224,122	343,207	24.49	14,014
2007	2,188,647.43	861,452	830,641	1,358,006	24.65	55,092
2008	1,515,174.45	570,463	550,060	965,114	24.84	38,853
2009	204,255.18	73,205	70,587	133,668	25.06	5,334
2010	540,736.64	184,175	177,588	363,149	25.17	14,428
2011	1,214,021.39	390,429	376,465	837,556	25.31	33,092
2012	1,199,878.83	362,963	349,981	849,898	25.36	33,513
2013	357,629.77	101,209	97,589	260,041	25.34	10,262
2014	520,435.28	136,302	131,427	389,008	25.36	15,339
2015	3,987,083.51	960,090	925,751	3,061,333	25.22	121,385
2016	5,576,675.55	1,214,042	1,170,620	4,406,056	25.15	175,191
2017	2,581,460.05	501,836	483,887	2,097,573	24.86	84,375
2018	389,934.46	66,094	63,730	326,204	24.50	13,314
2019	3,542,077.58	507,226	489,084	3,052,994	23.93	127,580
2020	7,678,861.29	882,301	850,745	6,828,116	23.11	295,462
2021	10,060,465.68	841,055	810,974	9,249,492	21.92	421,966
2022	17,058,416.76	825,627	796,097	16,262,320	19.66	827,178
2023	2,871,305.97	41,921	40,422	2,830,884	16.82	168,305
9999	42,367.00-	13,035-	12,569-	29,798-		1,373-
	103,158,609.61	31,738,957	30,603,828	72,554,782		3,343,377

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.7 3.24

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.29 PURIFICATION SYSTEM - CHEMICAL TREATMENT PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY ACCRUED						
NET SALVAGE PERCENT.. 0						
1985	8,167.87	8,168	8,168			
	8,167.87	8,168	8,168			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.3 GRANULAR ACTIVATED CARBON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 11-L0.5						
NET SALVAGE PERCENT.. 0						
1992	755.89	710	637	119	2.00	60
1994	3,127.19	2,911	2,614	513	2.15	239
1995	22,529.51	20,880	18,747	3,783	2.21	1,712
1996	19,021.10	17,513	15,724	3,297	2.33	1,415
1998	24,638.62	22,360	20,076	4,563	2.55	1,789
1999	9,019.00	8,117	7,288	1,731	2.67	648
2000	295,626.49	263,817	236,864	58,762	2.77	21,214
2001	606,833.55	535,349	480,654	126,180	2.94	42,918
2002	259,574.29	226,764	203,596	55,978	3.04	18,414
2003	38,501.51	33,188	29,797	8,705	3.20	2,720
2007	133,689.45	107,807	96,793	36,896	3.84	9,608
2008	22,525.60	17,773	15,957	6,569	4.01	1,638
2009	290,056.89	223,344	200,526	89,531	4.18	21,419
2010	252,059.62	189,070	169,753	82,307	4.33	19,009
2011	762,598.64	553,647	497,083	265,516	4.53	58,613
2012	400,634.51	280,725	252,044	148,591	4.70	31,615
2013	1,334,285.01	896,640	805,034	529,251	4.88	108,453
2014	648,647.47	415,653	373,187	275,460	5.04	54,655
2015	42,995.05	26,038	23,378	19,617	5.21	3,765
2016	110,250.14	62,435	56,056	54,194	5.36	10,111
2017	448,612.29	234,176	210,251	238,361	5.49	43,417
2018	1,504,916.77	708,063	635,723	869,194	5.63	154,386
2019	1,347,102.38	551,234	494,917	852,185	5.78	147,437
2020	651,913.48	219,043	196,664	455,249	5.93	76,770
2021	768,470.48	190,581	171,110	597,360	6.06	98,574
2022	2,686,287.56	378,767	340,070	2,346,218	6.09	385,257
2023	19,493.78	776	697	18,797	6.03	3,117
	12,704,166.27	6,187,381	5,555,240	7,148,926		1,318,973
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.4 10.38

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R3						
NET SALVAGE PERCENT.. 0						
1991	6,216,777.58	5,411,083	6,216,778			
1997	592,975.99	460,980	531,001	61,975	7.44	8,330
1999	1,625,577.08	1,197,725	1,379,655	245,922	8.57	28,696
2000	774,393.70	553,924	638,063	136,331	9.15	14,900
2002	3,162.77	2,119	2,441	722	10.35	70
2003	256,272.33	165,552	190,699	65,573	10.96	5,983
2004	54,091.81	33,504	38,593	15,499	11.67	1,328
2005	13,991.19	8,311	9,573	4,418	12.30	359
2013	15,021.77	5,363	6,178	8,844	18.01	491
2014	585,687.37	189,763	218,587	367,100	18.78	19,547
2015	1,027,405.88	298,359	343,678	683,728	19.55	34,973
2016	3,708,242.13	950,052	1,094,361	2,613,881	20.32	128,636
2017	16,493.28	3,652	4,207	12,286	21.10	582
	14,890,092.88	9,280,387	10,673,814	4,216,279		243,895
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.3 1.64

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1900	155,293.70	152,809	146,562	8,732	2.00	4,366
1906	5,215.73	5,004	4,799	417	4.95	84
1907	47,398.97	45,636	43,770	3,629	4.48	810
1911	21,166.48	20,150	19,326	1,840	5.65	326
1912	4,869.35	4,594	4,406	463	6.65	70
1922	37,493.82	34,461	33,052	4,442	8.89	500
1923	14,266.34	12,982	12,451	1,815	9.89	184
1924	1,161.00	1,057	1,014	147	9.70	15
1929	2,421.17	2,162	2,074	347	11.26	31
1931	5,400.00	4,769	4,574	826	12.17	68
1933	65.00	57	55	10	13.09	1
1935	289.70	252	242	48	13.01	4
1938	6,799.96	5,838	5,599	1,201	14.01	86
1940	15,697.76	13,290	12,747	2,951	15.04	196
1941	8,321.81	7,029	6,742	1,580	15.09	105
1943	65.00	54	52	13	16.15	1
1949	20,647.24	16,654	15,973	4,674	17.74	263
1950	11,222.42	9,012	8,644	2,578	17.91	144
1951	84,607.38	67,618	64,854	19,753	18.09	1,092
1952	1,055.33	832	798	257	19.09	13
1953	767,149.49	601,445	576,858	190,291	19.29	9,865
1954	172,265.66	134,316	128,825	43,441	19.50	2,228
1955	59,109.20	45,821	43,948	15,161	19.72	769
1956	48,733.30	37,549	36,014	12,719	19.96	637
1957	84,603.91	64,773	62,125	22,479	20.21	1,112
1958	76,375.43	58,084	55,710	20,665	20.47	1,010
1959	167,086.54	126,184	121,026	46,061	20.75	2,220
1960	24,594.73	18,284	17,537	7,058	21.75	325
1961	401,860.35	296,493	284,373	117,487	22.03	5,333
1962	187,270.36	137,082	131,478	55,792	22.33	2,499
1963	15,182.04	11,022	10,571	4,611	22.64	204
1964	45,660.48	32,866	31,522	14,138	22.97	615
1965	56,591.91	40,373	38,723	17,869	23.30	767
1966	395,068.78	279,235	267,820	127,249	23.65	5,381
1967	798,194.72	558,736	535,895	262,300	24.00	10,929
1968	283,136.03	197,771	189,686	93,450	23.74	3,936
1969	84,459.71	58,379	55,993	28,467	24.12	1,180
1970	69,969.80	47,838	45,882	24,088	24.52	982
1971	377,069.90	254,899	244,479	132,591	24.92	5,321
1972	173,525.11	115,932	111,193	62,332	25.34	2,460
1973	3,537,472.80	2,334,732	2,239,290	1,298,183	25.76	50,395

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1974	695,684.14	453,377	434,843	260,841	26.19	9,960
1975	390,540.59	251,196	240,927	149,614	26.63	5,618
1976	351,039.60	224,385	215,212	135,828	26.53	5,120
1977	206,523.03	130,151	124,831	81,692	26.99	3,027
1978	447,887.40	278,138	266,768	181,119	27.46	6,596
1979	297,675.32	182,058	174,616	123,059	27.94	4,404
1980	1,077.30	649	622	455	28.43	16
1981	53,859.69	32,122	30,809	23,051	28.42	811
1982	890,580.37	522,147	500,802	389,778	28.93	13,473
1983	1,392,338.73	801,987	769,202	623,137	29.44	21,166
1984	32,388.90	18,442	17,688	14,701	29.49	499
1985	1,740,960.68	972,501	932,746	808,215	30.03	26,914
1986	1,636,486.58	896,140	859,506	776,981	30.57	25,416
1987	229,882.37	124,136	119,061	110,821	30.67	3,613
1988	3,064,458.15	1,619,566	1,553,359	1,511,099	31.23	48,386
1989	5,112,176.18	2,659,354	2,550,641	2,561,535	31.36	81,682
1990	6,134,740.75	3,117,675	2,990,226	3,144,515	31.94	98,451
1991	673,096.86	336,010	322,274	350,823	32.10	10,929
1992	1,316,505.21	640,743	614,550	701,955	32.69	21,473
1993	7,655,819.25	3,651,826	3,502,542	4,153,277	32.89	126,278
1994	2,029,447.84	941,664	903,169	1,126,279	33.50	33,620
1995	1,586,740.83	719,746	690,323	896,418	33.73	26,576
1996	3,326,830.45	1,473,121	1,412,901	1,913,929	33.98	56,325
1997	2,282,069.17	979,008	938,987	1,343,082	34.61	38,806
1998	1,217,249.89	508,202	487,427	729,823	34.88	20,924
1999	5,103,799.29	2,070,101	1,985,477	3,118,322	35.17	88,664
2000	3,496,994.15	1,367,325	1,311,430	2,185,564	35.82	61,015
2001	5,035,983.93	1,905,616	1,827,715	3,208,269	36.14	88,773
2002	2,276,354.48	831,780	797,777	1,478,577	36.47	40,542
2003	2,411,912.94	848,993	814,287	1,597,626	36.82	43,390
2004	1,521,508.36	514,574	493,539	1,027,969	37.18	27,648
2005	3,737,956.90	1,211,098	1,161,589	2,576,368	37.56	68,593
2006	2,882,960.94	891,988	855,524	2,027,437	37.95	53,424
2007	1,535,575.60	452,073	433,592	1,101,984	38.35	28,735
2008	236,283.67	65,923	63,228	173,056	38.76	4,465
2009	24,847.54	6,540	6,273	18,575	39.19	474
2010	797,791.47	197,054	188,999	608,792	39.63	15,362
2011	259,432.54	59,773	57,330	202,103	40.08	5,042
2012	224,267.92	47,859	45,903	178,365	40.55	4,399
2013	4,270,664.76	837,050	802,832	3,467,833	41.02	84,540
2014	6,070,680.40	1,087,259	1,042,812	5,027,868	41.25	121,888

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2015	376,902.04	60,606	58,128	318,774	41.75	7,635
2016	8,407,763.94	1,194,743	1,145,902	7,261,862	42.26	171,838
2017	5,267,135.15	651,018	624,405	4,642,730	42.54	109,138
2018	3,556,318.34	371,635	356,443	3,199,875	42.85	74,676
2019	3,423,573.89	288,950	277,138	3,146,436	43.39	72,515
2020	2,148,630.60	137,942	132,303	2,016,328	43.73	46,109
2021	2,323,540.53	100,842	96,719	2,226,822	44.08	50,518
2022	3,453,764.37	76,328	73,208	3,380,556	44.25	76,397
2023	35,321.52	198	189	35,133	44.39	791
9999	2,905,114.51-	1,033,688-	991,431-	1,913,684-		52,164-
	117,009,748.45	41,633,998	39,932,025	77,077,723		2,101,017
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						36.7 1.80

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.1 ELEVATED TANKS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1992	189,738.86	92,346	88,571	101,168	32.69	3,095
1994	0.01					
2007	112,587.14	33,146	31,791	80,796	38.35	2,107
2008	452,291.74	126,189	121,030	331,262	38.76	8,546
2009	610,424.47	160,664	154,096	456,328	39.19	11,644
2010	1,113,481.79	275,030	263,787	849,695	39.63	21,441
2011	1.21			1	40.08	
2012	70,427.57	15,029	14,415	56,013	40.55	1,381
2013	7,305,295.40	1,431,838	1,373,305	5,931,990	41.02	144,612
2014	402,306.06	72,053	69,108	333,198	41.25	8,078
2015	75,692.00	12,171	11,673	64,019	41.75	1,533
2017	22,485.50	2,779	2,665	19,820	42.54	466
2018	41,920.13	4,381	4,202	37,718	42.85	880
2019	3,889.76	328	315	3,575	43.39	82
2021	3,744,315.33	162,503	155,860	3,588,455	44.08	81,408
	14,144,856.97	2,388,457	2,290,818	11,854,039		285,273
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.6 2.02



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.2 GROUND LEVEL FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2007	729,975.76	214,905	206,120	523,856	38.35	13,660
2008	37,653.40	10,505	10,076	27,577	38.76	711
2009	21,769.28	5,730	5,496	16,273	39.19	415
2010	13,139.81	3,246	3,113	10,027	39.63	253
2011	261,613.14	60,276	57,812	203,801	40.08	5,085
2012	1,944,284.21	414,910	397,949	1,546,335	40.55	38,134
2013	5,126,495.63	1,004,793	963,717	4,162,779	41.02	101,482
2014	4,119,155.97	737,741	707,583	3,411,573	41.25	82,705
2015	141,079.99	22,686	21,759	119,321	41.75	2,858
2016	1,686,605.76	239,667	229,869	1,456,737	42.26	34,471
2017	150,532.79	18,606	17,845	132,688	42.54	3,119
2018	115,120.43	12,030	11,538	103,582	42.85	2,417
2019	33,498.57	2,827	2,711	30,788	43.39	710
2021	3,737,383.20	162,202	155,572	3,581,811	44.08	81,257
	18,118,307.94	2,910,124	2,791,160	15,327,148		367,277
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.7 2.03

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.3 BELOW GRADE FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2007	173,959.09	51,214	49,120	124,839	38.35	3,255
2010	31,397.64	7,755	7,438	23,960	39.63	605
2011	100,934.51	23,255	22,304	78,631	40.08	1,962
2014	280,555.88	50,248	48,194	232,362	41.25	5,633
2016	231,860.11	32,947	31,601	200,259	42.26	4,739
	818,707.23	165,419	158,657	660,050		16,194
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						40.8 1.98

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.4 CLEARWELL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2012	12,768,982.03	2,724,901	2,613,509	10,155,473	40.55	250,443
2018	32,063.64	3,351	3,214	28,850	42.85	673
2019	5,254.37	443	425	4,829	43.39	111
	12,806,300.04	2,728,695	2,617,148	10,189,152		251,227
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						40.6 1.96

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1959	427.00	427	427			
1961	3,005.00	3,005	3,005			
1962	646.00	646	646			
1963	501.00	501	501			
1984	69,262.85	69,263	69,263			
1990	105,687.39	105,687	105,687			
1997	138,050.00	138,050	138,050			
2002	764,914.30	764,914	764,914			
2003	135,772.35	135,772	135,772			
2004	456,940.96	456,941	456,941			
2007	263,798.12	263,798	263,798			
2015	272,106.38	217,685	135,749	136,357	2.00	68,178
2021	92,812.80	18,563	11,576	81,237	8.00	10,155
	2,303,924.15	2,175,252	2,086,329	217,595		78,333
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.8 3.40

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1983	7,199.23	7,199	7,199			
1984	26,862.85	26,863	26,863			
1986	31,550.43	31,550	31,550			
1987	14,581.80	14,582	14,582			
1989	37,490.69	37,491	37,491			
1991	39,583.25	39,583	39,583			
1994	44,519.20	44,519	44,519			
1996	176,668.43	176,668	176,668			
1997	1,106,434.97	1,106,435	1,106,435			
1998	243,741.29	243,741	243,741			
1999	465,161.88	465,162	465,162			
2000	103,352.55	103,353	103,353			
2001	1,262,286.55	1,262,287	1,262,287			
2004	736,540.63	736,541	736,541			
2005	2,772,132.56	2,772,133	2,772,133			
2006	1,898,932.85	1,898,933	1,898,933			
2007	1,611,757.81	1,611,758	1,611,758			
2008	1,742,652.76	1,742,653	1,742,653			
2009	387,058.80	387,059	387,059			
2010	7,332.39	7,332	7,332			
2011	1,233,227.05	1,233,227	1,233,227			
2012	3,394,359.12	3,394,359	3,394,359			
2013	1,350,299.88	1,350,300	1,350,300			
2014	772,333.61	695,100	607,006	165,328	1.00	165,328
2015	3,817,936.25	3,054,349	2,667,253	1,150,683	2.00	575,342
2016	800,361.02	560,253	489,249	311,112	3.00	103,704
2017	602,080.95	361,249	315,466	286,615	4.00	71,654
2018	2,787,180.26	1,393,590	1,216,972	1,570,208	5.00	314,042
2019	1,065,127.17	426,051	372,055	693,072	6.00	115,512
2020	3,609,228.96	1,082,769	945,543	2,663,686	7.00	380,527
2021	4,311,190.90	862,238	752,962	3,558,229	8.00	444,779
2022	4,651,769.10	465,177	406,222	4,245,547	9.00	471,727
	41,110,935.19	27,594,504	26,466,456	14,644,479		2,642,615
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.5 6.43

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1843	72.34	72	72			
1868	3,815.50	3,726	2,208	1,608	3.73	431
1869	235.00	232	138	97	2.25	43
1870	8,505.01	8,328	4,936	3,569	3.25	1,098
1871	2,423.76	2,358	1,398	1,026	4.25	241
1872	47,715.48	46,112	27,331	20,384	5.25	3,883
1873	9,244.21	9,013	5,342	3,902	3.85	1,014
1874	40,344.01	39,073	23,159	17,185	4.85	3,543
1875	4,224.18	4,064	2,409	1,815	5.85	310
1876	8,018.69	7,780	4,611	3,408	4.52	754
1877	159.13	153	91	68	5.52	12
1878	6,503.35	6,224	3,689	2,814	6.52	432
1879	4,559.72	4,399	2,607	1,953	5.25	372
1880	300.77	288	171	130	6.25	21
1882	93.32	89	53	40	6.06	7
1883	98.23	94	56	42	7.06	6
1884	2,710.09	2,562	1,519	1,191	8.06	148
1885	30,240.08	28,795	17,067	13,173	6.93	1,901
1886	41,598.97	39,324	23,308	18,291	7.93	2,307
1887	47,831.62	44,885	26,604	21,228	8.93	2,377
1888	116,191.19	109,801	65,081	51,110	7.86	6,503
1889	154,882.44	145,280	86,110	68,772	8.86	7,762
1890	284,153.79	264,547	156,802	127,352	9.86	12,916
1891	124,805.87	116,968	69,329	55,477	8.85	6,269
1892	88,431.95	82,251	48,752	39,680	9.85	4,028
1893	308,187.16	284,457	168,603	139,584	10.85	12,865
1894	65,538.94	60,873	36,081	29,458	9.89	2,979
1895	7,508.92	6,920	4,102	3,407	10.89	313
1896	461,368.18	427,734	253,526	207,842	9.99	20,805
1897	79,830.18	73,428	43,522	36,308	10.99	3,304
1898	84,431.57	77,044	45,665	38,767	11.99	3,233
1899	401,311.30	368,243	218,264	183,047	11.14	16,432
1900	1,386,114.08	1,261,641	747,797	638,317	12.14	52,580
1901	211,685.63	193,692	114,805	96,881	11.33	8,551
1902	189,647.04	172,105	102,010	87,637	12.33	7,108
1903	348,828.31	313,945	186,081	162,747	13.33	12,209
1904	138,513.31	125,271	74,250	64,263	12.58	5,108
1905	512,613.36	459,712	272,479	240,134	13.58	17,683
1906	295,672.22	266,371	157,883	137,789	12.87	10,706
1907	1,778,349.27	1,588,422	941,486	836,863	13.87	60,336
1908	506,173.79	448,217	265,666	240,508	14.87	16,174

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1909	333,797.66	296,813	175,926	157,872	14.21	11,110
1910	280,423.48	247,165	146,499	133,924	15.21	8,805
1911	146,488.97	129,613	76,824	69,665	14.58	4,778
1912	282,283.51	247,534	146,718	135,566	15.58	8,701
1913	158,623.04	139,588	82,736	75,887	15.00	5,059
1914	461,950.17	402,821	238,759	223,191	16.00	13,949
1915	275,065.23	240,627	142,624	132,441	15.46	8,567
1916	1,138,589.63	986,816	584,903	553,687	16.46	33,638
1917	141,408.24	121,413	71,964	69,444	17.46	3,977
1918	81,288.96	69,990	41,484	39,805	16.95	2,348
1919	133,473.58	113,826	67,467	66,007	17.95	3,677
1920	262,582.04	224,481	133,054	129,528	17.48	7,410
1921	255,830.21	216,586	128,374	127,456	18.48	6,897
1922	225,911.89	191,664	113,603	112,309	18.05	6,222
1923	1,719,693.35	1,444,542	856,206	863,487	19.05	45,327
1924	932,150.19	784,404	464,930	467,220	18.65	25,052
1925	737,052.64	613,965	363,908	373,145	19.65	18,990
1926	1,945,121.28	1,603,752	950,572	994,549	20.65	48,162
1927	246,955.34	203,886	120,847	126,108	20.28	6,218
1928	378,524.70	309,255	183,301	195,224	21.28	9,174
1929	198,335.85	162,199	96,138	102,198	20.94	4,881
1930	161,597.25	130,748	77,497	84,100	21.94	3,833
1931	236,336.46	191,338	113,409	122,927	21.64	5,681
1932	71,414.12	57,188	33,896	37,518	22.64	1,657
1933	40,977.13	32,823	19,455	21,522	22.36	963
1934	83,027.54	65,766	38,981	44,047	23.36	1,886
1935	144,155.76	114,171	67,671	76,485	23.11	3,310
1936	109,537.53	85,768	50,836	58,702	24.11	2,435
1937	175,012.97	136,965	81,182	93,831	23.89	3,928
1938	81,625.28	63,137	37,422	44,203	24.89	1,776
1939	167,456.58	129,410	76,704	90,753	24.70	3,674
1940	128,533.28	98,148	58,174	70,359	25.70	2,738
1941	120,166.50	91,639	54,316	65,850	25.53	2,579
1942	96,210.33	72,475	42,957	53,253	26.53	2,007
1943	81,102.01	60,989	36,149	44,953	26.38	1,704
1944	43,462.71	32,275	19,130	24,333	27.38	889
1945	239,433.58	175,553	104,053	135,381	28.38	4,770
1946	337,365.23	246,783	146,273	191,092	28.26	6,762
1947	292,602.71	211,259	125,217	167,386	29.26	5,721
1948	287,717.97	207,157	122,786	164,932	29.17	5,654
1949	123,648.46	87,840	52,064	71,584	30.17	2,373

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1950	193,504.88	137,021	81,215	112,290	30.09	3,732
1951	443,508.68	309,746	183,592	259,917	31.09	8,360
1952	410,891.37	285,898	169,457	241,434	31.04	7,778
1953	1,057,335.33	725,332	429,917	627,418	32.04	19,582
1954	1,389,872.68	949,422	562,739	827,134	32.01	25,840
1955	3,049,018.21	2,052,599	1,216,612	1,832,406	33.01	55,511
1956	1,667,677.16	1,117,344	662,270	1,005,407	33.00	30,467
1957	2,425,088.64	1,600,559	948,680	1,476,409	34.00	43,424
1958	2,171,666.11	1,425,699	845,037	1,326,629	34.01	39,007
1959	2,399,045.56	1,550,743	919,153	1,479,893	35.01	42,271
1960	2,931,453.67	1,883,752	1,116,533	1,814,921	35.04	51,796
1961	3,926,347.46	2,483,022	1,471,731	2,454,616	36.04	68,108
1962	1,481,539.15	930,851	551,732	929,807	36.09	25,764
1963	2,074,852.53	1,282,259	760,018	1,314,835	37.09	35,450
1964	4,989,327.28	3,061,451	1,814,576	3,174,751	37.15	85,458
1965	4,819,300.76	2,907,002	1,723,032	3,096,269	38.15	81,160
1966	4,881,223.09	2,921,412	1,731,573	3,149,650	38.24	82,365
1967	5,838,927.10	3,433,289	2,034,971	3,803,956	39.24	96,941
1968	5,809,488.94	3,386,932	2,007,495	3,801,994	39.34	96,644
1969	4,641,097.84	2,656,564	1,574,592	3,066,506	40.34	76,017
1970	3,889,671.80	2,205,833	1,307,436	2,582,236	40.46	63,822
1971	5,456,617.53	3,036,062	1,799,528	3,657,090	41.46	88,208
1972	8,598,251.64	4,735,917	2,807,062	5,791,190	41.59	139,245
1973	8,551,582.82	4,660,613	2,762,428	5,789,155	41.74	138,696
1974	5,098,347.41	2,723,027	1,613,986	3,484,361	42.74	81,525
1975	6,064,436.46	3,202,022	1,897,895	4,166,541	42.91	97,100
1976	9,879,789.92	5,107,851	3,027,514	6,852,276	43.91	156,053
1977	6,306,043.54	3,219,866	1,908,472	4,397,572	44.09	99,741
1978	10,074,382.16	5,032,154	2,982,647	7,091,735	45.09	157,280
1979	8,933,640.60	4,402,498	2,609,438	6,324,203	45.29	139,638
1980	12,672,580.03	6,103,115	3,617,424	9,055,156	46.29	195,618
1981	8,398,124.46	3,985,750	2,362,425	6,035,699	46.50	129,800
1982	6,174,087.05	2,860,455	1,695,442	4,478,645	47.50	94,287
1983	10,057,637.32	4,586,283	2,718,371	7,339,266	47.72	153,799
1984	15,017,795.17	6,735,481	3,992,239	11,025,556	47.96	229,891
1985	18,921,590.89	8,268,735	4,901,026	14,020,565	48.96	286,368
1986	25,411,102.79	10,906,445	6,464,443	18,946,660	49.21	385,016
1987	26,916,645.52	11,240,391	6,662,379	20,254,267	50.21	403,391
1988	35,532,963.62	14,550,749	8,624,486	26,908,478	50.47	533,158
1989	33,662,242.33	13,505,292	8,004,826	25,657,416	50.75	505,565
1990	34,198,724.98	13,316,984	7,893,212	26,305,513	51.75	508,319



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1991	21,982,787.32	8,371,045	4,961,667	17,021,120	52.03	327,140
1992	25,679,334.40	9,473,106	5,614,878	20,064,456	53.03	378,360
1993	36,562,355.10	13,162,448	7,801,616	28,760,739	53.33	539,298
1994	40,731,558.56	14,292,704	8,471,539	32,260,020	53.64	601,417
1995	48,836,577.01	16,545,832	9,807,007	39,029,570	54.64	714,304
1996	40,922,277.82	13,479,798	7,989,715	32,932,563	54.97	599,101
1997	35,913,567.57	11,485,159	6,807,457	29,106,111	55.30	526,331
1998	89,857,576.97	27,631,205	16,377,504	73,480,073	56.30	1,305,152
1999	55,158,562.53	16,415,188	9,729,572	45,428,991	56.65	801,924
2000	57,551,318.10	16,546,004	9,807,109	47,744,209	57.00	837,618
2001	64,389,150.49	17,848,673	10,579,224	53,809,926	57.37	937,945
2002	65,904,733.37	17,438,392	10,336,044	55,568,689	58.37	952,008
2003	24,186,567.50	6,143,388	3,641,295	20,545,272	58.74	349,766
2004	62,379,780.99	15,170,763	8,991,980	53,387,801	59.12	903,041
2005	59,717,698.55	13,866,450	8,218,890	51,498,809	59.52	865,235
2006	18,070,649.02	3,993,613	2,367,085	15,703,564	59.92	262,076
2007	78,533,321.92	16,460,584	9,756,479	68,776,843	60.34	1,139,822
2008	98,888,492.39	19,579,921	11,605,366	87,283,126	60.76	1,436,523
2009	91,513,356.49	17,039,787	10,099,783	81,413,573	61.19	1,330,505
2010	95,170,409.51	16,578,685	9,826,480	85,343,930	61.63	1,384,779
2011	117,331,522.21	19,007,707	11,266,204	106,065,318	62.07	1,708,802
2012	108,656,450.47	16,255,005	9,634,629	99,021,821	62.53	1,583,589
2013	143,739,635.98	19,692,330	11,671,993	132,067,643	62.99	2,096,645
2014	133,160,543.09	16,658,384	9,873,719	123,286,824	62.94	1,958,799
2015	167,254,097.23	18,732,459	11,103,060	156,151,037	63.43	2,461,785
2016	174,904,315.68	17,385,489	10,304,687	164,599,629	63.42	2,595,390
2017	117,896,462.53	10,186,254	6,037,573	111,858,890	63.44	1,763,223
2018	154,607,607.22	11,286,355	6,689,622	147,917,985	63.49	2,329,784
2019	164,533,192.73	9,740,365	5,773,287	158,759,906	63.57	2,497,403
2020	182,097,632.77	8,303,652	4,921,722	177,175,911	62.79	2,821,722
2021	128,469,610.32	4,008,252	2,375,762	126,093,848	62.10	2,030,497
2022	197,761,059.05	3,243,281	1,922,350	195,838,709	59.98	3,265,067
2023	74,782,233.08	329,042	195,028	74,587,205	56.57	1,318,494
9999	297,928,642.07-	56,302,492-	33,371,486-	264,557,156-		4,515,018-
	3,056,793,085.70	577,672,113	342,396,516	2,714,396,570		46,324,768
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						58.6 1.52

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
1937	21,877.75	19,944	17,157	4,721	8.34	566
1938	2,030.97	1,847	1,589	442	8.46	52
1939	33,672.51	30,548	26,279	7,394	8.59	861
1940	73,392.60	66,398	57,119	16,274	8.74	1,862
1941	49,510.89	44,659	38,418	11,093	8.91	1,245
1942	48,333.27	43,456	37,383	10,950	9.09	1,205
1943	22,143.02	19,840	17,067	5,076	9.29	546
1944	13,571.14	12,115	10,422	3,149	9.50	331
1945	25,239.97	22,443	19,307	5,933	9.72	610
1946	95,252.24	84,346	72,558	22,694	9.96	2,279
1947	193,545.81	170,630	146,784	46,762	10.21	4,580
1948	260,058.86	228,202	196,310	63,749	10.47	6,089
1949	281,138.50	245,490	211,182	69,956	10.75	6,508
1950	304,499.67	264,519	227,551	76,949	11.03	6,976
1951	396,269.64	339,524	292,074	104,196	12.03	8,661
1952	482,770.96	411,321	353,837	128,934	12.33	10,457
1953	463,347.62	392,455	337,608	125,740	12.64	9,948
1954	505,050.78	425,152	365,735	139,316	12.97	10,741
1955	663,278.99	554,767	477,236	186,043	13.30	13,988
1956	705,221.17	585,898	504,017	201,204	13.65	14,740
1957	681,991.08	562,643	484,011	197,980	14.00	14,141
1958	914,358.22	748,859	644,203	270,155	14.37	18,800
1959	981,814.24	798,019	686,493	295,321	14.74	20,035
1960	990,778.23	798,964	687,306	303,472	15.12	20,071
1961	899,104.39	719,104	618,606	280,498	15.52	18,073
1962	961,959.71	762,834	656,225	305,735	15.92	19,204
1963	838,792.19	659,291	567,153	271,639	16.34	16,624
1964	708,507.12	551,785	474,671	233,836	16.76	13,952
1965	1,053,865.76	812,952	699,339	354,527	17.19	20,624
1966	1,047,438.73	800,034	688,226	359,213	17.63	20,375
1967	1,090,270.82	824,245	709,054	381,217	18.07	21,097
1968	1,244,074.68	930,568	800,518	443,557	18.53	23,937
1969	1,346,218.56	995,932	856,747	489,472	18.99	25,775
1970	1,454,879.74	1,056,388	908,754	546,126	19.99	27,320
1971	1,686,825.28	1,210,466	1,041,299	645,526	20.46	31,551
1972	1,809,652.92	1,282,863	1,103,578	706,075	20.94	33,719
1973	2,374,998.90	1,662,499	1,430,158	944,841	21.43	44,090
1974	1,380,736.03	953,951	820,633	560,103	21.92	25,552
1975	818,773.26	558,076	480,083	338,690	22.42	15,107
1976	1,066,784.48	716,986	616,784	450,000	22.93	19,625
1977	1,469,607.24	973,468	837,422	632,185	23.44	26,970

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
1978	2,015,029.48	1,314,807	1,131,058	883,971	23.97	36,878
1979	3,095,429.62	1,988,504	1,710,603	1,384,827	24.49	56,547
1980	2,780,582.36	1,745,650	1,501,689	1,278,893	25.49	50,172
1981	2,688,171.83	1,659,677	1,427,731	1,260,441	26.03	48,423
1982	2,642,581.86	1,603,519	1,379,421	1,263,161	26.57	47,541
1983	2,979,757.58	1,775,936	1,527,742	1,452,016	27.11	53,560
1984	3,517,346.06	2,057,647	1,770,083	1,747,263	27.67	63,146
1985	3,858,565.52	2,214,045	1,904,624	1,953,942	28.23	69,215
1986	4,654,285.21	2,617,570	2,251,755	2,402,530	28.79	83,450
1987	6,578,079.47	3,623,206	3,116,849	3,461,230	29.36	117,889
1988	7,230,100.75	3,871,719	3,330,631	3,899,470	30.36	128,441
1989	7,654,176.11	4,007,727	3,447,632	4,206,544	30.94	135,958
1990	8,573,938.75	4,385,570	3,772,670	4,801,269	31.52	152,325
1991	6,291,786.52	3,140,860	2,701,913	3,589,874	32.10	111,834
1992	6,602,223.10	3,213,302	2,764,231	3,837,992	32.69	117,406
1993	9,759,821.95	4,626,156	3,979,633	5,780,189	33.29	173,631
1994	7,877,867.02	3,632,484	3,124,830	4,753,037	33.89	140,249
1995	10,837,980.15	4,855,415	4,176,852	6,661,128	34.50	193,076
1996	11,478,299.98	4,989,617	4,292,299	7,186,001	35.11	204,671
1997	10,879,880.79	4,582,606	3,942,169	6,937,712	35.73	194,171
1998	47,695,795.86	19,316,797	16,617,200	31,078,596	36.73	846,137
1999	14,006,518.18	5,479,350	4,713,590	9,292,928	37.35	248,807
2000	14,047,300.06	5,298,642	4,558,136	9,489,164	37.98	249,846
2001	16,500,380.30	5,989,638	5,152,563	11,347,817	38.61	293,909
2002	30,146,179.72	10,508,958	9,040,291	21,105,889	39.24	537,867
2003	3,673,471.49	1,226,939	1,055,470	2,618,001	39.88	65,647
2004	1,874,482.61	598,335	514,715	1,359,768	40.52	33,558
2005	18,971,840.10	5,771,234	4,964,682	14,007,158	41.17	340,227
2006	85,031.35	24,574	21,140	63,891	41.82	1,528
2007	12,559,913.19	3,436,392	2,956,143	9,603,770	42.48	226,077
2008	26,095,779.84	6,732,711	5,791,789	20,303,991	43.14	470,653
2009	23,508,850.30	5,693,844	4,898,107	18,610,743	43.80	424,903
2010	18,212,369.87	4,119,638	3,543,903	14,668,467	44.47	329,851
2011	19,091,229.27	4,009,158	3,448,863	15,642,366	45.14	346,530
2012	21,870,754.66	4,258,236	3,663,131	18,207,624	45.50	400,168
2013	22,829,361.22	4,063,626	3,495,719	19,333,642	46.18	418,658
2014	20,685,433.05	3,332,423	2,866,704	17,818,729	46.87	380,173
2015	21,621,647.78	3,130,815	2,693,271	18,928,377	47.25	400,601
2016	28,175,345.75	3,589,539	3,087,887	25,087,459	47.95	523,200
2017	25,617,232.42	2,828,142	2,432,898	23,184,334	48.35	479,511
2018	24,178,520.03	2,248,602	1,934,351	22,244,169	48.76	456,197

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
2019	26,753,345.74	2,011,852	1,730,688	25,022,658	49.19	508,694
2020	33,216,512.39	1,903,306	1,637,312	31,579,200	49.36	639,773
2021	30,981,093.18	1,208,263	1,039,404	29,941,689	49.28	607,583
2022	38,278,521.36	769,398	661,871	37,616,650	48.75	771,624
2023	13,202,763.63	69,975	60,196	13,142,568	47.14	278,799
9999	26,992,757.39-	7,342,725-	6,316,551-	20,676,206-		498,955-
	678,344,458.01	184,527,160	158,738,784	519,605,674		12,539,036
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					41.4	1.85

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L1.5						
NET SALVAGE PERCENT.. 0						
1973	1,364.57	1,310	1,114	251	2.08	121
1991	666,732.00	576,056	489,893	176,839	5.04	35,087
1992	142,112.23	121,591	103,404	38,708	5.23	7,401
1993	229,230.64	193,929	164,922	64,309	5.46	11,778
1994	193,983.93	162,578	138,261	55,723	5.60	9,951
1995	212,345.95	175,992	149,668	62,678	5.78	10,844
1996	48,984.67	40,074	34,080	14,905	6.00	2,484
1997	1,232,027.37	996,217	847,209	384,818	6.15	62,572
1998	10,720,047.56	8,549,238	7,270,499	3,449,549	6.35	543,236
1999	1,726,118.38	1,354,658	1,152,037	574,081	6.58	87,246
2000	1,737,793.81	1,342,967	1,142,095	595,699	6.76	88,121
2001	3,578,122.51	2,723,667	2,316,279	1,261,844	6.90	182,876
2002	1,886,813.82	1,410,582	1,199,596	687,218	7.09	96,928
2003	237,938.88	174,647	148,524	89,415	7.25	12,333
2004	1,970.47	1,419	1,207	763	7.39	103
2005	2,445,852.28	1,725,793	1,467,660	978,192	7.51	130,252
2006	102,021.65	70,242	59,736	42,286	7.69	5,499
2007	3,173,615.96	2,127,592	1,809,361	1,364,255	7.87	173,349
2008	3,249,152.74	2,115,198	1,798,821	1,450,332	8.04	180,390
2009	7,715,429.89	4,860,721	4,133,686	3,581,744	8.22	435,735
2010	11,228,416.78	6,816,772	5,797,164	5,431,253	8.41	645,809
2011	16,332,148.93	9,485,712	8,066,902	8,265,247	8.66	954,417
2012	13,000,280.85	7,178,755	6,105,004	6,895,277	8.92	773,013
2013	9,232,130.11	4,800,708	4,082,650	5,149,480	9.23	557,907
2014	6,553,012.46	3,172,969	2,698,377	3,854,635	9.59	401,943
2015	12,599,430.63	5,604,227	4,765,984	7,833,447	9.99	784,129
2016	15,182,293.34	6,100,245	5,187,810	9,994,483	10.42	959,163
2017	15,651,772.89	5,559,510	4,727,955	10,923,818	10.89	1,003,105
2018	12,917,295.05	3,946,234	3,355,982	9,561,313	11.37	840,925
2019	17,503,492.28	4,403,879	3,745,176	13,758,316	11.90	1,156,161
2020	10,229,468.43	1,988,609	1,691,166	8,538,302	12.43	686,911
2021	8,074,066.22	1,075,466	914,605	7,159,461	13.02	549,882
2022	20,739,188.35	1,426,856	1,213,436	19,525,752	13.53	1,443,145
2023	14,672,952.46	261,179	222,114	14,450,838	13.83	1,044,891
9999	1,824,706.75-	740,171-	629,461-	1,195,246-		113,444-
	221,392,901.34	89,805,421	76,372,916	145,019,985		13,764,263
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.5 6.22

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1882	236.21	236	236			
1886	347.76	348	348			
1889	488.25	488	488			
1890	710.80	711	711			
1891	2,511.34	2,511	2,511			
1892	3,660.98	3,661	3,661			
1893	2,869.27	2,869	2,869			
1894	2,180.37	2,180	2,180			
1895	4,197.12	4,197	4,197			
1896	1,626.15	1,626	1,626			
1897	242.19	242	242			
1898	2,471.82	2,472	2,472			
1899	124.66	125	125			
1900	89.52	90	90			
1901	98.72	99	99			
1902	40.23	40	40			
1903	45.56	46	46			
1904	158.32	158	158			
1905	84.22	84	84			
1906	481.68	482	482			
1907	298.16	298	298			
1908	581.08	581	581			
1909	990.21	990	990			
1910	1,025.36	1,025	1,025			
1911	623.13	516	317	306	23.14	13
1912	2,284.01	2,282	1,400	884	0.11	884
1913	937.10	937	937			
1914	1,325.60	1,315	807	519	0.89	519
1915	1,674.16	1,663	1,020	654	0.70	654
1916	1,194.75	1,189	729	466	0.53	466
1917	1,876.84	1,850	1,135	742	1.53	485
1918	1,577.89	1,557	955	623	1.38	451
1919	2,851.83	2,788	1,710	1,142	2.38	480
1920	1,861.40	1,821	1,117	744	2.26	329
1921	1,972.68	1,932	1,185	788	2.17	363
1922	2,605.87	2,527	1,550	1,056	3.17	333
1923	3,800.53	3,687	2,262	1,539	3.09	498
1924	3,471.65	3,368	2,066	1,406	3.04	462
1925	4,938.45	4,791	2,939	1,999	3.01	664
1926	4,118.60	3,955	2,426	1,693	4.01	422
1927	4,590.73	4,407	2,703	1,888	4.00	472

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1928	3,161.98	3,034	1,861	1,301	4.01	324
1929	5,262.51	4,996	3,065	2,198	5.01	439
1930	4,617.78	4,380	2,687	1,931	5.04	383
1931	4,047.14	3,835	2,352	1,695	5.09	333
1932	2,612.90	2,473	1,517	1,096	5.15	213
1933	2,140.41	2,003	1,229	911	6.15	148
1934	4,671.62	4,366	2,678	1,994	6.24	320
1935	5,527.94	5,156	3,163	2,365	6.34	373
1936	7,727.40	7,193	4,412	3,315	6.46	513
1937	10,595.44	9,841	6,036	4,559	6.59	692
1938	5,935.25	5,499	3,373	2,562	6.74	380
1939	9,390.09	8,676	5,322	4,068	6.91	589
1940	7,977.06	7,283	4,467	3,510	7.91	444
1941	5,392.07	4,908	3,011	2,381	8.09	294
1942	1,733.22	1,572	964	769	8.29	93
1943	1,780.31	1,609	987	793	8.50	93
1944	2,009.74	1,810	1,110	900	8.72	103
1945	1,582.21	1,419	870	712	8.96	79
1946	2,830.94	2,529	1,551	1,280	9.21	139
1947	10,081.53	8,964	5,499	4,583	9.47	484
1948	8,775.27	7,766	4,764	4,011	9.75	411
1949	25,232.98	22,220	13,630	11,603	10.03	1,157
1950	5,633.09	4,935	3,027	2,606	10.33	252
1951	31,151.77	27,139	16,647	14,505	10.64	1,363
1952	26,650.55	23,085	14,160	12,491	10.97	1,139
1953	24,001.28	20,665	12,676	11,325	11.30	1,002
1954	30,039.54	25,702	15,766	14,274	11.65	1,225
1955	27,653.84	23,506	14,419	13,235	12.00	1,103
1956	37,637.34	31,773	19,490	18,147	12.37	1,467
1957	52,652.36	44,133	27,071	25,581	12.74	2,008
1958	63,080.20	52,483	32,193	30,887	13.12	2,354
1959	80,716.60	66,640	40,877	39,840	13.52	2,947
1960	82,904.42	67,899	41,649	41,255	13.92	2,964
1961	77,634.73	63,055	38,678	38,957	14.34	2,717
1962	69,033.61	55,586	34,097	34,937	14.76	2,367
1963	95,661.32	76,338	46,826	48,835	15.19	3,215
1964	106,808.62	84,443	51,798	55,011	15.63	3,520
1965	106,111.72	83,085	50,965	55,147	16.07	3,432
1966	108,405.50	84,036	51,548	56,858	16.53	3,440
1967	141,280.04	108,390	66,487	74,793	16.99	4,402
1968	145,224.66	110,226	67,613	77,612	17.46	4,445

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1969	151,546.30	114,569	70,277	81,269	17.43	4,663
1970	124,014.73	92,676	56,848	67,167	17.92	3,748
1971	180,870.30	133,555	81,923	98,947	18.42	5,372
1972	183,276.42	133,663	81,989	101,287	18.93	5,351
1973	243,112.54	175,041	107,371	135,742	19.44	6,983
1974	315,542.95	224,193	137,520	178,023	19.97	8,915
1975	309,825.05	217,125	133,185	176,640	20.49	8,621
1976	536,167.67	370,438	227,228	308,940	21.03	14,690
1977	301,870.83	205,514	126,063	175,808	21.57	8,151
1978	462,912.47	310,383	190,390	272,522	22.11	12,326
1979	533,256.30	354,295	217,325	315,931	22.23	14,212
1980	464,154.20	303,371	186,088	278,066	22.79	12,201
1981	326,875.12	210,050	128,845	198,030	23.36	8,477
1982	469,487.34	296,434	181,833	287,654	23.94	12,016
1983	591,926.66	366,995	225,116	366,811	24.52	14,960
1984	561,199.54	341,434	209,436	351,764	25.10	14,015
1985	617,607.61	368,465	226,017	391,591	25.69	15,243
1986	775,600.19	456,286	279,887	495,713	25.89	19,147
1987	839,794.85	483,722	296,716	543,079	26.50	20,494
1988	892,884.90	503,141	308,628	584,257	27.11	21,551
1989	1,117,807.19	615,688	377,664	740,143	27.73	26,691
1990	1,174,730.49	631,888	387,602	787,128	28.35	27,765
1991	985,908.46	517,405	317,377	668,531	28.98	23,069
1992	1,344,447.49	691,853	424,384	920,063	29.24	31,466
1993	1,184,125.03	593,247	363,899	820,226	29.88	27,451
1994	1,573,350.20	766,536	470,195	1,103,155	30.52	36,145
1995	1,707,954.32	808,204	495,754	1,212,200	31.17	38,890
1996	1,617,734.13	746,908	458,155	1,159,579	31.48	36,835
1997	1,745,606.86	780,635	478,843	1,266,764	32.14	39,414
1998	1,623,851.20	702,316	430,802	1,193,049	32.80	36,373
1999	2,070,882.57	869,771	533,520	1,537,363	33.14	46,390
2000	1,231,492.28	498,508	305,786	925,706	33.82	27,372
2001	1,781,689.01	693,790	425,572	1,356,117	34.50	39,308
2002	1,603,413.28	602,723	369,712	1,233,701	34.87	35,380
2003	2,189,703.96	788,293	483,541	1,706,163	35.56	47,980
2004	2,119,385.98	732,884	449,553	1,669,833	35.95	46,449
2005	209,441.35	68,990	42,319	167,122	36.64	4,561
2006	5,687,399.10	1,788,687	1,097,185	4,590,214	37.05	123,892
2007	3,293,335.48	980,097	601,194	2,692,141	37.76	71,296
2008	4,371,421.32	1,232,741	756,166	3,615,255	38.19	94,665
2009	4,579,487.08	1,218,144	747,212	3,832,275	38.63	99,205



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
2010	4,257,779.65	1,057,207	648,493	3,609,287	39.36	91,699
2011	3,540,055.13	819,877	502,914	3,037,141	39.81	76,291
2012	4,651,603.44	997,769	612,034	4,039,569	40.28	100,287
2013	5,199,983.16	1,024,397	628,367	4,571,616	40.76	112,159
2014	4,658,293.51	838,493	514,334	4,143,960	41.00	101,072
2015	7,727,258.25	1,248,725	765,971	6,961,287	41.50	167,742
2016	7,689,450.25	1,103,436	676,850	7,012,600	41.78	167,846
2017	6,057,277.00	755,948	463,700	5,593,577	42.08	132,927
2018	5,449,875.34	574,962	352,683	5,097,192	42.39	120,245
2019	7,220,530.62	620,966	380,902	6,839,629	42.51	160,895
2020	7,100,727.29	468,648	287,470	6,813,257	42.45	160,501
2021	8,385,237.32	380,690	233,516	8,151,721	42.05	193,858
2022	11,619,856.80	278,877	171,064	11,448,793	40.67	281,505
2023	4,427,043.00	28,333	17,379	4,409,664	38.51	114,507
9999	7,384,143.36-	1,743,383-	1,069,929-	6,314,214-		168,662-
	134,208,552.33	31,686,398	19,446,220	114,762,332		3,065,466
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.4 2.28

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.1 OFFICE FURNITURE AND EQUIPMENT - FURNITURE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	8,614.50	7,322	3,699	4,916	3.00	1,639
2007	90,026.71	72,021	36,383	53,644	4.00	13,411
2008	76,984.00	57,738	29,168	47,816	5.00	9,563
2010	10,963.48	7,126	3,600	7,363	7.00	1,052
2011	34,863.33	20,918	10,567	24,296	8.00	3,037
2012	104,725.37	57,599	29,097	75,628	9.00	8,403
2013	475,451.73	237,726	120,092	355,360	10.00	35,536
2014	1,427,408.53	642,334	324,488	1,102,921	11.00	100,266
2015	105,224.65	42,090	21,263	83,962	12.00	6,997
2016	154,380.75	54,033	27,296	127,085	13.00	9,776
2017	87,557.93	26,267	13,269	74,289	14.00	5,306
2018	2,016,595.25	504,149	254,681	1,761,914	15.00	117,461
2019	1,190,614.34	238,123	120,292	1,070,322	16.00	66,895
2020	278,241.94	41,736	21,084	257,158	17.00	15,127
2021	419,508.42	41,951	21,192	398,316	18.00	22,129
2022	831,377.33	41,569	20,999	810,378	19.00	42,651
2023	488,173.71	6,102	3,083	485,091	19.75	24,562
	7,800,711.97	2,098,804	1,060,253	6,740,459		483,811
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.9 6.20

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.2 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL  
EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2018	1,173,475.88	1,173,476	1,173,476			
2019	1,294,189.39	1,035,352	389,691	904,498	1.00	904,498
2020	2,402,513.20	1,441,508	542,563	1,859,950	2.00	929,975
2021	2,215,572.58	886,229	333,563	1,882,010	3.00	627,337
2022	5,160,104.61	1,032,021	388,438	4,771,667	4.00	1,192,917
2023	2,274,857.15	113,743	42,811	2,232,046	4.75	469,904
	14,520,712.81	5,682,329	2,870,542	11,650,171		4,124,631
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.8						28.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.3 OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	2,324,148.83	2,324,149	2,324,149			
2018	3,797,691.35	3,797,691	3,797,691			
2019	20,014,689.48	16,011,752	6,749,778	13,264,911	1.00	13,264,911
2020	17,145,049.52	10,287,030	4,336,513	12,808,537	2.00	6,404,268
2021	16,784,591.24	6,713,836	2,830,227	13,954,364	3.00	4,651,455
2022	14,702,503.96	2,940,501	1,239,573	13,462,931	4.00	3,365,733
2023	5,483,750.72	274,188	115,584	5,368,167	4.75	1,130,140
	80,252,425.10	42,349,147	21,393,515	58,858,910		28,816,507
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.0						35.91

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.31 OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE -  
ENTERPRISE SOLUTIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	481,376.73	481,377	481,377			
2014	852,486.31	767,238	182,791	669,695	1.00	669,695
2015	58,280.82	46,625	11,108	47,173	2.00	23,586
2018	157,049.62	78,525	18,709	138,341	5.00	27,668
	1,549,193.48	1,373,765	693,985	855,208		720,949
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.2						46.54

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.5 OFFICE FURNITURE AND EQUIPMENT - OTHER OFFICE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	9,454.95	3,782	1,911	7,544	6.00	1,257
9999	354.00-	142-	72-	282-		47-
	9,100.95	3,640	1,839	7,262		1,210
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.0 13.29

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341 TRANSPORTATION EQUIPMENT - NOT CLASSIFIED

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
1986	349.00	349	349			
2020	2,238.67	766	1,206	1,033	5.76	179
	2,587.67	1,115	1,555	1,033		179
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.8 6.92

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.1 TRANSPORTATION EQUIPMENT - LIGHT DUTY TRUCKS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2011	13,156.44	10,767	13,156			
2012	1,444,384.62	1,151,897	1,444,385			
2013	4,459,577.12	3,456,172	4,459,577			
2014	49,576.70	37,123	49,577			
2015	868,493.13	620,451	868,493			
2016	1,406,720.42	939,408	1,348,023	58,697	3.48	16,867
2017	26,230.86	15,927	22,855	3,376	3.88	870
2018	2,042,645.52	1,085,666	1,557,899	484,747	4.41	109,920
2019	9,504,347.39	4,204,723	6,033,654	3,470,693	5.04	688,630
2020	8,395,547.43	2,873,796	4,123,813	4,271,734	5.76	741,620
2021	10,800,582.16	2,527,336	3,626,653	7,173,929	6.55	1,095,256
2022	9,759,732.47	1,162,384	1,667,987	8,091,745	7.40	1,093,479
2023	3,120,854.04	93,626	134,351	2,986,503	8.08	369,617
	51,891,848.30	18,179,276	25,350,423	26,541,425		4,116,259
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.4 7.93



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.2 TRANSPORTATION EQUIPMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2012	209,536.68	167,106	209,537			
2013	3,042,582.07	2,358,001	3,042,582			
2014	1,011,929.20	757,733	1,011,929			
2015	603,415.74	431,080	603,416			
2016	2,878,515.66	1,922,273	2,769,078	109,438	3.48	31,448
2017	2,354,164.64	1,429,449	2,059,154	295,011	3.88	76,034
2018	5,954,398.21	3,164,763	4,558,912	1,395,486	4.41	316,437
2019	8,314.30	3,678	5,298	3,016	5.04	598
2020	666,086.16	228,001	328,441	337,645	5.76	58,619
2021	64,659.55	15,130	21,795	42,865	6.55	6,544
	16,793,602.21	10,477,214	14,610,142	2,183,460		489,680
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.5 2.92

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.3 TRANSPORTATION EQUIPMENT - AUTOS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2010	5,850.22	4,905	5,631	219	2.50	88
2011	9,394.63	7,689	8,827	568	2.66	214
2012	1,833,463.96	1,462,188	1,678,620	154,844	2.79	55,500
2019	146,881.00	64,980	74,598	72,283	5.04	14,342
	1,995,589.81	1,539,762	1,767,676	227,914		70,144
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.2 3.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.4 TRANSPORTATION EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
1961	374.92	375	375			
1977	403.11	403	403			
1978	265.00	265	265			
1998	8,060.31	7,919	8,060			
1999	1,561.47	1,521	1,561			
2006	4,626.70	4,192	4,627			
2007	18,169.65	16,222	18,170			
2008	92,592.34	81,111	92,592			
2009	25,526.94	21,907	25,527			
2010	53,306.39	44,697	53,306			
2011	81,120.09	66,389	81,120			
2012	318,512.86	254,014	318,513			
2013	1,116,160.77	865,025	1,116,161			
2014	718,980.22	538,372	718,980			
2015	178,690.77	127,657	178,691			
2016	954,565.45	637,459	942,256	12,309	3.48	3,537
2017	120,461.68	73,144	108,117	12,345	3.88	3,182
2018	2,505,965.54	1,331,921	1,968,770	537,196	4.41	121,813
2019	697,759.80	308,689	456,287	241,473	5.04	47,911
2020	473,035.57	161,920	239,341	233,695	5.76	40,572
2021	78,210.92	18,301	27,051	51,160	6.55	7,811
2022	47,744.96	5,686	8,405	39,340	7.40	5,316
2023	88,611.43	2,658	3,929	84,682	8.08	10,480
	7,584,706.89	4,569,847	6,372,507	1,212,200		240,622

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.0 3.17

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 342 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	1,009.93	808	416	594	4.00	148
2008	23,325.31	17,494	9,003	14,322	5.00	2,864
2014	61,104.50	27,497	14,152	46,952	11.00	4,268
2016	92,745.16	32,461	16,706	76,039	13.00	5,849
2017	48,514.27	14,554	7,490	41,024	14.00	2,930
2018	57,628.55	14,407	7,415	50,214	15.00	3,348
2019	88,222.86	17,645	9,081	79,142	16.00	4,946
2020	2,304.60	346	178	2,127	17.00	125
2021	12,195.19	1,220	628	11,567	18.00	643
2022	80,982.31	4,049	2,084	78,898	19.00	4,153
2023	1,757.57	22	11	1,747	19.75	88
	469,790.25	130,503	67,164	402,626		29,362
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.7 6.25

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2002	947.22	947	947			
2004	128,429.61	122,008	96,600	31,830	1.00	31,830
2005	225,100.69	202,591	160,402	64,699	2.00	32,350
2006	284,927.96	242,189	191,754	93,174	3.00	31,058
2007	546,753.24	437,403	346,316	200,437	4.00	50,109
2008	241,902.08	181,427	143,646	98,256	5.00	19,651
2009	93,688.77	65,582	51,925	41,764	6.00	6,961
2010	678,599.35	441,090	349,235	329,364	7.00	47,052
2011	1,146,192.08	687,715	544,501	601,691	8.00	75,211
2012	2,320,365.62	1,276,201	1,010,437	1,309,929	9.00	145,548
2013	2,929,204.68	1,464,602	1,159,604	1,769,601	10.00	176,960
2014	1,038,682.01	467,407	370,071	668,611	11.00	60,783
2015	1,783,290.65	713,316	564,771	1,218,520	12.00	101,543
2016	4,209,228.78	1,473,230	1,166,435	3,042,794	13.00	234,061
2017	5,196,885.71	1,559,066	1,234,397	3,962,489	14.00	283,035
2018	2,736,698.84	684,175	541,698	2,195,001	15.00	146,333
2019	1,310,548.63	262,110	207,527	1,103,022	16.00	68,939
2020	4,357,645.66	653,647	517,527	3,840,119	17.00	225,889
2021	4,886,827.60	488,683	386,917	4,499,911	18.00	249,995
2022	6,451,897.64	322,595	255,416	6,196,482	19.00	326,131
2023	2,679,198.06	33,490	26,515	2,652,683	19.75	134,313
9999	61.00-	17-	13-	48-		3-
	43,246,953.88	11,779,457	9,326,628	33,920,326		2,447,749

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.9 5.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1965	7.69	8	8			
1977	53.16	53	53			
1978	90.41	90	90			
1979	2.31	2	2			
1980	12.57	13	13			
1982	543.93	544	544			
1983	179.21	179	179			
1984	922.99	923	923			
1985	1,790.83	1,791	1,791			
1986	2,280.13	2,280	2,280			
1987	13.17	13	13			
1988	2,020.45	2,020	2,020			
1989	1,022.45	1,022	1,022			
1990	1,420.72	1,421	1,421			
1991	1,953.95	1,954	1,954			
1992	822.48	822	822			
1994	1,362.08	1,362	1,362			
1995	922.77	923	923			
1996	1,292.22	1,292	1,292			
1997	49.02	49	49			
1998	748.48	748	748			
1999	2,129.09	2,129	2,129			
2000	1,952.06	1,952	1,952			
2001	165.98	166	166			
2002	8,220.02	8,220	8,220			
2003	2,743.78	2,744	2,744			
2004	103,310.33	98,145	35,143	68,167	1.00	68,167
2005	17,344.50	15,610	5,590	11,754	2.00	5,877
2006	128,711.88	109,405	39,175	89,537	3.00	29,846
2007	103,111.94	82,490	29,538	73,574	4.00	18,394
2008	53,452.75	40,090	14,355	39,098	5.00	7,820
2009	196,304.71	137,413	49,204	147,101	6.00	24,517
2010	107,001.34	69,551	24,905	82,096	7.00	11,728
2011	214,311.99	128,587	46,044	168,268	8.00	21,034
2012	86,552.44	47,604	17,046	69,506	9.00	7,723
2013	30,519.21	15,260	5,464	25,055	10.00	2,506
2014	57,772.94	25,998	9,309	48,464	11.00	4,406
2015	17,712.59	7,085	2,537	15,176	12.00	1,265
2016	44,332.75	15,516	5,556	38,777	13.00	2,983
2017	94,878.08	28,463	10,192	84,686	14.00	6,049
2018	291,357.49	72,839	26,082	265,275	15.00	17,685

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	152,368.57	30,474	10,912	141,457	16.00	8,841
2020	212,824.35	31,924	11,431	201,393	17.00	11,847
2021	110,412.37	11,041	3,954	106,458	18.00	5,914
2022	116,937.65	5,847	2,094	114,844	19.00	6,044
2023	90,081.23	1,126	403	89,678	19.75	4,541
	2,262,021.06	1,007,188	381,654	1,880,367		267,187
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.0						11.81

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-S0.5						
NET SALVAGE PERCENT.. 0						
1951	29.64	30	30			
1967	1,931.23	1,931	1,931			
1968	1,032.10	1,032	1,032			
1969	817.92	818	818			
1970	6,734.16	6,734	6,734			
1972	6,321.41	6,321	6,321			
1975	281.75	282	282			
1977	596.25	596	596			
1978	1,790.00	1,790	1,790			
1980	7,445.82	7,446	7,446			
1982	2,452.73	2,434	2,369	84	0.32	84
1984	1,722.07	1,679	1,634	88	1.00	88
1985	16,792.81	16,208	15,777	1,016	1.37	742
1986	14,013.50	13,429	13,072	942	1.61	585
1987	4,748.59	4,496	4,377	372	2.02	184
1988	10,221.10	9,587	9,332	889	2.31	385
1989	13,115.87	12,174	11,851	1,265	2.63	481
1990	9,498.15	8,714	8,482	1,016	2.97	342
1991	12,096.57	10,993	10,701	1,396	3.21	435
1992	18,034.45	16,157	15,728	2,306	3.60	641
1993	77,817.09	68,868	67,038	10,779	3.90	2,764
1994	152,889.96	133,901	130,343	22,547	4.11	5,486
1995	148,235.10	127,838	124,441	23,794	4.47	5,323
1996	79,553.28	67,660	65,862	13,691	4.75	2,882
1997	41,095.55	34,405	33,491	7,605	5.06	1,503
1998	55,083.04	45,306	44,102	10,981	5.40	2,034
1999	255,047.45	205,670	200,206	54,841	5.76	9,521
2001	45,944.17	35,579	34,634	11,310	6.41	1,764
2002	107,988.70	81,866	79,691	28,298	6.70	4,224
2003	170,236.10	125,975	122,628	47,608	7.03	6,772
2004	19,131.90	13,777	13,411	5,721	7.39	774
2005	33,181.89	23,234	22,617	10,565	7.71	1,370
2006	13,570.69	9,228	8,983	4,588	8.00	574
2007	5,629.80	3,693	3,595	2,035	8.39	243
2008	47,316.03	29,951	29,155	18,161	8.70	2,087
2009	61,841.82	37,575	36,577	25,265	9.04	2,795
2010	16,615.93	9,634	9,378	7,238	9.42	768
2012	21,347.57	11,107	10,812	10,536	10.14	1,039
2013	21,465.79	10,454	10,176	11,290	10.53	1,072
2014	100,707.30	45,500	44,291	56,416	10.92	5,166
2015	5,982.85	2,479	2,413	3,570	11.31	316



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-S0.5						
NET SALVAGE PERCENT.. 0						
2016	126,868.88	47,512	46,250	80,619	11.69	6,896
2017	26,612.95	8,830	8,595	18,018	12.08	1,492
2018	292,687.82	83,562	81,342	211,346	12.51	16,894
2019	13,003.54	3,074	2,992	10,012	12.92	775
2022	53,275.45	3,532	3,438	49,837	14.08	3,540
	2,122,806.77	1,393,061	1,356,764	766,043		92,041
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.3 4.34

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	258.22	207	180	78	3.00	26
2012	3,640.24	2,669	2,315	1,325	4.00	331
2013	99,778.07	66,519	57,698	42,080	5.00	8,416
2015	17,452.26	9,308	8,074	9,378	7.00	1,340
2016	35,790.32	16,702	14,487	21,303	8.00	2,663
2018	11,496.50	3,832	3,324	8,172	10.00	817
2019	412,414.77	109,979	95,395	317,020	11.00	28,820
2020	299,532.41	59,906	51,962	247,570	12.00	20,631
2021	425,092.22	56,678	49,162	375,930	13.00	28,918
2022	680,468.10	45,367	39,351	641,117	14.00	45,794
2023	245,445.26	4,092	3,549	241,896	14.75	16,400
	2,231,368.37	375,259	325,497	1,905,871		154,156
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.4 6.91

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.1 COMMUNICATION EQUIPMENT - NON-TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,768.85	3,769	3,769			
2009	94.16	88	76	18	1.00	18
2010	1,083.00	939	814	269	2.00	134
2011	18,194.10	14,555	12,621	5,573	3.00	1,858
2012	39,624.20	29,058	25,196	14,428	4.00	3,607
2013	721,836.04	481,226	417,276	304,560	5.00	60,912
2014	138,898.47	83,339	72,264	66,634	6.00	11,106
2015	3,007.59	1,604	1,391	1,617	7.00	231
2017	75,197.83	30,079	26,082	49,116	9.00	5,457
2018	602,810.61	200,935	174,233	428,578	10.00	42,858
2019	729,975.54	194,663	168,794	561,182	11.00	51,017
2020	1,640,804.93	328,161	284,552	1,356,253	12.00	113,021
2021	2,131,641.07	284,212	246,444	1,885,197	13.00	145,015
2022	1,549,647.04	103,315	89,585	1,460,062	14.00	104,290
2023	638,436.28	10,643	9,229	629,207	14.75	42,658
	8,295,019.71	1,766,586	1,532,326	6,762,694		582,182

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.6 7.02

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.19 COMMUNICATION EQUIPMENT - REMOTE CONTROL AND INSTRUMENTATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	76,336.93	76,337	76,337			
2014	96,947.90	87,253	75,121	21,827	1.00	21,827
2015	113,844.36	91,075	78,412	35,432	2.00	17,716
2016	717,219.42	502,054	432,248	284,971	3.00	94,990
2017	318,372.46	191,023	164,463	153,909	4.00	38,477
2018	760,200.33	380,100	327,251	432,949	5.00	86,590
2019	64,999.04	26,000	22,385	42,614	6.00	7,102
2020	535,905.67	160,772	138,418	397,488	7.00	56,784
2021	275,985.00	55,197	47,523	228,462	8.00	28,558
2022	710,843.82	71,084	61,200	649,644	9.00	72,183
2023	351,096.41	8,777	7,557	343,539	9.75	35,235
	4,021,751.34	1,649,672	1,430,915	2,590,836		459,462
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.6 11.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.20 COMMUNICATION EQUIPMENT - TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	71,723.53	64,551	55,991	15,733	1.00	15,733
2015	11,214.16	8,971	7,781	3,433	2.00	1,716
2016	21,782.06	15,247	13,225	8,557	3.00	2,852
2017	35,766.67	21,460	18,615	17,152	4.00	4,288
2018	66,703.59	33,352	28,929	37,775	5.00	7,555
2020	63,300.51	18,990	16,472	46,829	7.00	6,690
2022	24,688.05	2,469	2,142	22,546	9.00	2,505
	295,178.57	165,040	143,155	152,024		41,339
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.7 14.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1998	37,475.05	37,475	37,475			
1999	500.00	480	334	166	1.00	166
2000	11,327.73	10,422	7,258	4,070	2.00	2,035
2001	1,124,164.98	989,265	688,927	435,238	3.00	145,079
2002	237,394.60	199,411	138,870	98,525	4.00	24,631
2003	269,249.53	215,400	150,005	119,245	5.00	23,849
2004	589,851.03	448,287	312,188	277,663	6.00	46,277
2005	409,678.13	294,968	205,416	204,262	7.00	29,180
2006	32,215.49	21,907	15,256	16,959	8.00	2,120
2008	148,764.62	89,259	62,160	86,605	10.00	8,660
2009	15,603.42	8,738	6,085	9,518	11.00	865
2010	25,913.81	13,475	9,384	16,530	12.00	1,378
2011	67,243.18	32,277	22,478	44,765	13.00	3,443
2012	211,006.25	92,843	64,656	146,350	14.00	10,454
2013	1,921,577.23	768,631	535,277	1,386,300	15.00	92,420
2014	304,208.62	109,515	76,267	227,942	16.00	14,246
2015	242,341.45	77,549	54,005	188,336	17.00	11,079
2016	777,191.88	217,614	151,547	625,645	18.00	34,758
2017	546,849.76	131,244	91,399	455,451	19.00	23,971
2018	1,208,042.02	241,608	168,256	1,039,786	20.00	51,989
2019	736,997.02	117,920	82,120	654,877	21.00	31,185
2020	6,298,678.56	755,841	526,369	5,772,310	22.00	262,378
2021	4,955,441.76	396,435	276,078	4,679,364	23.00	203,451
2022	7,440,610.10	297,624	207,267	7,233,343	24.00	301,389
2023	651,368.46	6,514	4,536	646,832	24.75	26,135
9999	4,085.00-	806-	563-	3,522-		195-
	28,259,609.68	5,573,896	3,893,050	24,366,560		1,350,943
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.0 4.78

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 348 OTHER TANGIBLE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2003	5,843.07	4,674	4,618	1,225	5.00	245
2004	20,479.05	15,564	15,376	5,103	6.00	850
2006	12,840.00	8,731	8,626	4,214	8.00	527
2007	694,887.82	444,728	439,365	255,523	9.00	28,391
2015	1,360.35	435	430	930	17.00	55
2019	52,243.29	8,359	8,258	43,985	21.00	2,095
2020	7,924.33	951	939	6,985	22.00	318
	795,577.91	483,442	477,612	317,966		32,481
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						9.8 4.08

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**PART III. EXPERIENCED NET SALVAGE**



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2018 TRANSACTION YEAR				
303.14		2,459.00		2,459.00-
303.20	3,403.00	2,459.00-		2,459.00
303.99	3,048,679.10			
304.15	418,741.29	180,812.86	1,582.30	179,230.56-
304.20	826,847.57	39,684.28	13,853.00	25,831.28-
304.30	3,343,551.59	1,091,908.37	14,493.83	1,077,414.54-
304.36		43,138.55		43,138.55-
304.61	1,190,125.08			
304.62	212,881.55	6,567.28	729.22	5,838.06-
304.63	97,245.82	3,068.49		3,068.49-
305.00	37,756.93			
306.00	435,005.84			
307.00	135,155.83	1,391.04		1,391.04-
310.00	136,000.96	11,634.03		11,634.03-
311.00	2,605,575.81	191,399.40		191,399.40-
320.00	2,785,622.92	619,426.48	512.50	618,913.98-
320.30	151,056.10			
320.37	139,807.51	29,963.00		29,963.00-
330.00	2,001,901.91	2,820,506.21	162.78	2,820,343.43-
331.00	11,895,753.65	11,746,655.36	25,598.82	11,721,056.54-
333.00	824,179.27	1,300,493.65	214.01-	1,300,707.66-
334.00	23,592,959.23	913,142.15	115,629.32	797,512.83-
335.00	1,170,097.38	309,652.61	2,311.49	307,341.12-
340.00	11,184,047.18	30,861.14	8,779.58	22,081.56-
341.00	2,856,376.65	148,702.02	205,163.90	56,461.88
342.00	1,575.35	245.80		245.80-
343.00	1,655,262.98	7,924.48		7,924.48-
344.00	60,254.06	4,823.99		4,823.99-
345.00	89,513.05	860.13		860.13-
346.00	4,784,239.73	30,002.27	132.58	29,869.69-
347.00	816,838.00	20,027.66		20,027.66-
348.00		29.21-		29.21
	76,500,455.34	19,552,862.04	388,735.31	19,164,126.73-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
301.00	7,992.94			
303.20	2,860.93			
303.61	802,954.77			
303.99		3,062.78		3,062.78-
304.15	438,188.39	387,837.75	27,560.73	360,277.02-
304.20	711,682.94	147,277.43	31,830.10	115,447.33-
304.30	10,188,998.34	148,391.82	66,260.61	82,131.21-
304.36	36,384.91	546.00		546.00-
304.61	3,543,001.13	1,304,656.48	1,864,549.94	559,893.46
304.62	374,098.54	54,481.40	192,159.79	137,678.39
304.63	48,158.12	8,030.27	25,209.50	17,179.23
305.00	9,293.68	1,266,548.34		1,266,548.34-
306.00	490,056.62	17,003.99		17,003.99-
307.00	1,348,867.50	118,341.25		118,341.25-
310.00	146,073.90	42,462.99		42,462.99-
311.00	4,971,723.99	1,092,490.18	13,739.63	1,078,750.55-
320.00	7,520,341.84	924,729.91	229.83	924,500.08-
320.30	2,975,108.37	423,003.27		423,003.27-
320.37	869,130.34	90,807.00	23.00	90,784.00-
330.00	7,714,591.97	2,686,207.69		2,686,207.69-
331.00	37,950,027.53	21,381,790.52	13,124.96	21,368,665.56-
333.00	7,266,231.40	1,897,743.49	9,792.38	1,887,951.11-
334.00	12,410,016.53	2,727,391.38	93,029.52	2,634,361.86-
335.00	3,216,730.86	908,970.88	4,063.03	904,907.85-
340.00	22,635,487.21	122,477.36	10,745.87	111,731.49-
341.00	1,770,594.69	761,298.60	261,902.01	499,396.59-
342.00	146,389.56	9,682.12		9,682.12-
343.00	3,341,150.75	57,836.24	48,579.17	9,257.07-
344.00	633,161.26	14,919.23		14,919.23-
345.00	276,184.11	15,876.66	12,288.18	3,588.48-
346.00	2,186,921.89	87,193.50		87,193.50-
347.00	1,370,647.26	73,665.55	8,306.50	65,359.05-
348.00		808.08		808.08-
	135,403,052.27	36,775,532.16	2,683,394.75	34,092,137.41-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
303.61			4,483.73	4,483.73
304.15	549,086.47	577,956.65	210.38	577,746.27-
304.20	8,384.32	71,775.96		71,775.96-
304.30	409,196.21	788,178.99		788,178.99-
304.61	35,517.97	12,850.31		12,850.31-
304.62	72,882.00	8.81-		8.81
304.63		23.48		23.48-
305.00		24,577.59		24,577.59-
306.00	4,621.01	6,896.40		6,896.40-
307.00	44,317.44	42,111.55		42,111.55-
310.00	8,443.54	3,593.30		3,593.30-
311.00	482,184.81	248,120.57		248,120.57-
320.00	1,647,036.23	695,879.64	214.05-	696,093.69-
320.30	146,562.96	76,375.47		76,375.47-
330.00	316,910.67	1,196,558.00		1,196,558.00-
331.00	32,399,513.98	12,998,210.71	25,703.04	12,972,507.67-
333.00	1,279,015.58	2,528,314.54		2,528,314.54-
334.00	4,974,584.57	1,486,703.66	42,569.41	1,444,134.25-
335.00	1,427,031.44	1,720,769.32	3,093.12	1,717,676.20-
340.00	12,731,491.25	23,848.17	613.87	23,234.30-
341.00	203,634.46	97,003.97	456,214.35	359,210.38
342.00	13,022.51	122.40		122.40-
343.00	191,196.62	50,715.40	3,000.00	47,715.40-
344.00	39,028.26	13,845.30		13,845.30-
345.00	681.55			
346.00	950,181.45	44,631.89		44,631.89-
347.00	145,584.81	16,130.65		16,130.65-
348.00	823.15			
	58,080,933.26	22,725,185.11	535,673.85	22,189,511.26-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2021 TRANSACTION YEAR				
303.20	20,254.74			
303.61			4,483.73-	4,483.73-
304.15	126,490.86	666,811.69		666,811.69-
304.20	2,974.34	37,171.02		37,171.02-
304.30	496,969.98	137,849.62		137,849.62-
304.61		1,346.07	4,483.73	3,137.66
304.62		18,876.94		18,876.94-
305.00	10,586.76	467.17		467.17-
306.00	507.53	450.15		450.15-
307.00	36,953.56	5,700.51		5,700.51-
311.00	270,914.29	193,743.82		193,743.82-
320.00	2,230,482.23	890,085.40		890,085.40-
320.30	33,915.10	1,370.70		1,370.70-
320.37	10,486.03			
330.00	256,778.51	1,561,680.99		1,561,680.99-
331.00	15,748,750.26	8,196,453.86	282,490.53	7,913,963.33-
333.00	7,520,801.90	2,681,541.01	1,799.10	2,679,741.91-
334.00	5,495,660.10	1,021,270.85	331,737.56	689,533.29-
335.00	2,860,930.58	1,074,172.62	11,562.11	1,062,610.51-
340.00	35,664,062.09	78,720.20	325.05	78,395.15-
341.00		16,299.55-	219,365.56	235,665.11
343.00	162,936.71	40,863.25		40,863.25-
344.00		5,126.37		5,126.37-
346.00	738,074.13	49,301.95		49,301.95-
347.00	203,387.56	8,339.46		8,339.46-
348.00	5,662.47			
	71,897,579.73	16,655,044.10	847,279.91	15,807,764.19-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
304.15	981,518.44	850,320.81		850,320.81-
304.20	545,894.57	23,865.76		23,865.76-
304.30	2,017,524.85	52,542.41		52,542.41-
304.36	662.50			
304.61		6,818.30		6,818.30-
304.62	193,622.53	46,017.09		46,017.09-
304.63	3,204.02	79,910.95		79,910.95-
305.00	228,547.61	299,889.33		299,889.33-
306.00	152,202.89			
307.00	158,236.88	55,144.80		55,144.80-
310.00	4,791.22			
311.00	1,206,205.82	350,411.61		350,411.61-
320.00	3,732,867.80	1,520,577.41		1,520,577.41-
320.30	32,480.56	299,375.44		299,375.44-
320.37	18,895.53			
330.00	287,248.73	3,396,011.14		3,396,011.14-
331.00	19,475,471.04	13,983,952.63	111,611.62	13,872,341.01-
333.00	6,765,263.95	2,505,397.99	2,218.42	2,503,179.57-
334.00	9,009,490.02	3,625,834.72	54,380.07	3,571,454.65-
335.00	1,654,590.34	1,281,342.15	6,290.78	1,275,051.37-
340.00	45,059,382.50	67,823.74	8,592.94	59,230.80-
341.00		1,127.48	820,242.37	819,114.89
342.00	63,146.52			
343.00	237,075.29	38,089.15		38,089.15-
344.00	680,132.13	8,395.86		8,395.86-
345.00	332,927.29	590.23		590.23-
346.00	352,393.47	165,439.94		165,439.94-
347.00	260,681.45	105,946.50		105,946.50-
	93,454,457.95	28,764,825.44	1,003,336.20	27,761,489.24-
TOTAL	435,336,478.55	124,473,448.85	5,458,420.02	119,015,028.83-

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**EXHIBIT NO. 11-B - DEPRECIATION STUDY**

**WATER OPERATIONS  
AS OF JUNE 30, 2024**

Exhibit No. 11-B  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
MECHANICSBURG, PENNSYLVANIA

WATER OPERATIONS

2024 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WATER PLANT  
AS OF JUNE 30, 2024

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-B  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER OPERATIONS

2024 DEPRECIATION STUDY  
CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WATER PLANT  
AS OF JUNE 30, 2024

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania





**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant. The results of our study as of June 30, 2024 are presented in the attached report. The results of our study as of June 30, 2023 are presented in our report, "2023 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of June 30, 2023." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of June 30, 2024.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle  
075543.100

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## **PART I. INTRODUCTION**

# **PENNSYLVANIA-AMERICAN WATER COMPANY**

## **WATER OPERATIONS**

### **DEPRECIATION STUDY**

#### **PART I. INTRODUCTION**

##### **SCOPE**

This report presents the results of the depreciation study prepared for Pennsylvania-American Water Company (the Company) as applied to water plant in service as of June 30, 2024. The study results include annual depreciation rates and amounts for regulatory reporting. The regulatory rates and amounts are based on the straight line remaining life method of depreciation. The report also describes the concepts, methods and basic judgments which underlie recommended annual depreciation accrual rates and amounts related to current water plant in service.

##### **PLAN OF REPORT**

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life and net salvage studies. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents a summary by depreciable group of annual depreciation accrual rates and amounts. Part VI, Service Life Statistics, presents the statistical analysis of service life estimates; Part VII, Detailed Depreciation Calculations, presents the detailed tabulations of annual depreciation; and Part VIII, Experienced and Estimated Net Salvage, presents the cost of removal and gross salvage recorded for the period 2019-2023.

## **BASIS OF THE STUDY**

### **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line remaining life method using the equal life group procedure. For certain General Plant accounts, the annual depreciation is based on amortization accounting. Both types of calculations were based on original cost, attained ages of plant in service and the estimated service life characteristics of each depreciable group.

### **Service Life Estimates**

The service life estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans,

policies and outlook, a general knowledge of the water utility industry, and comparisons of the service life estimates from our studies of other water utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for water plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and estimates of future experience yielded estimated survivor curves from which the average service lives were derived.

The Company's service life estimates used in the depreciation calculation incorporated historical data compiled through December 2021 from the property records of the Company. This represents the last service life study approved. Such data included plant additions, retirements, transfers and other activity. Generally, retirement data for the years through 2021 were used in the actuarial life table computations which were the primary statistical support of the service life estimates.

A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirement was obtained through discussions with operating and management personnel conducted during the course of the service life study. Information regarding plans for the future was incorporated in the interpretation and extrapolation of the statistical analyses.

## **DEVELOPMENT OF NET ORIGINAL COST**

The original cost data used in this study were obtained from the Company's continuing property records and work order system which show in detail the original cost of the property including descriptions, locations and years of installation of property units. The net original cost was developed from the original cost data by deducting customer advances, contributions in aid of construction and excluded property.

The excluded property consists of: (1) a portion of the cost of the White Deer filter plant excluded pursuant to the Commission's Order at R-832511 adopted July 20, 1984 in the amount of \$942,914; (2) the cost of utility plant in the Berwick District excluded in compliance with recommendations made by the Commission Bureau of Audits in a continuing property records audit completed in 1989 in the amount of \$180,764; and (3) an exclusion to reflect the removal of contractor retention balances from amounts on which an Allowance for Funds Used During Construction was calculated in the amount of \$434,336 pursuant to the Commission's Order at R-932670 adopted July 21, 1994.

The development of net original cost by plant account is set forth in Table 1 on pages V-5 and V-6.



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## **PART II. ESTIMATION OF SURVIVOR CURVES**

## **PART II. ESTIMATION OF SURVIVOR CURVES**

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

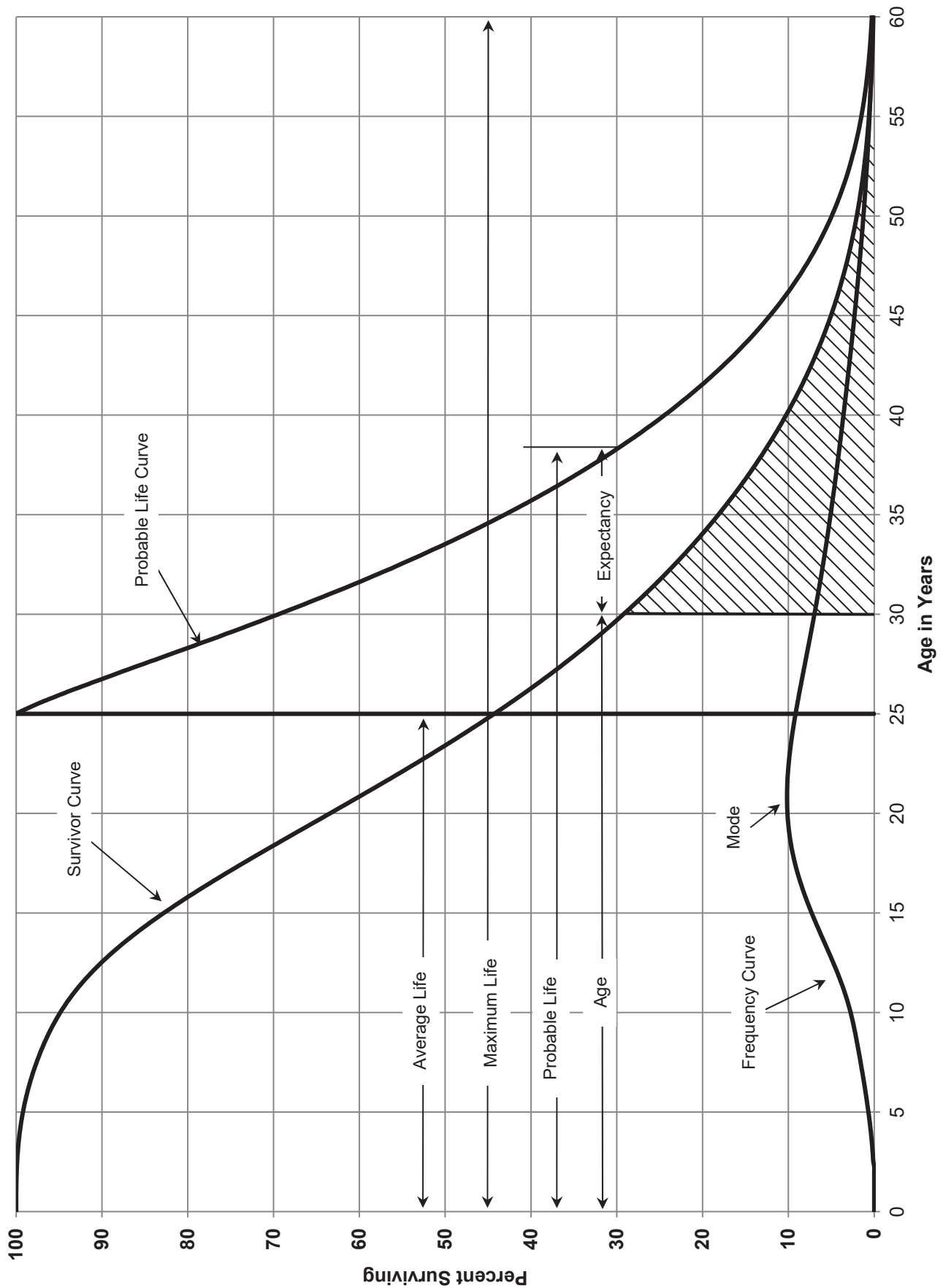
The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

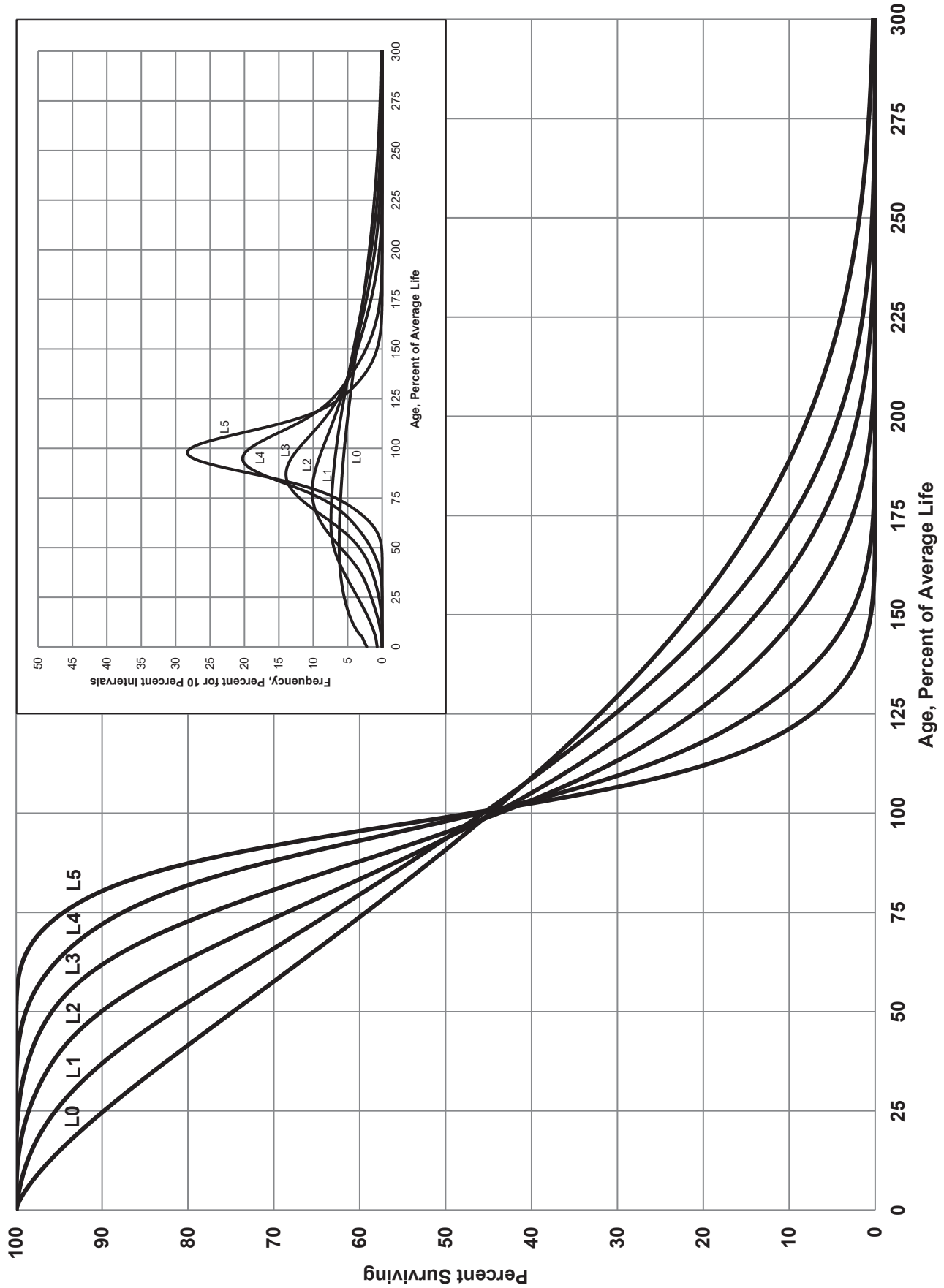
### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

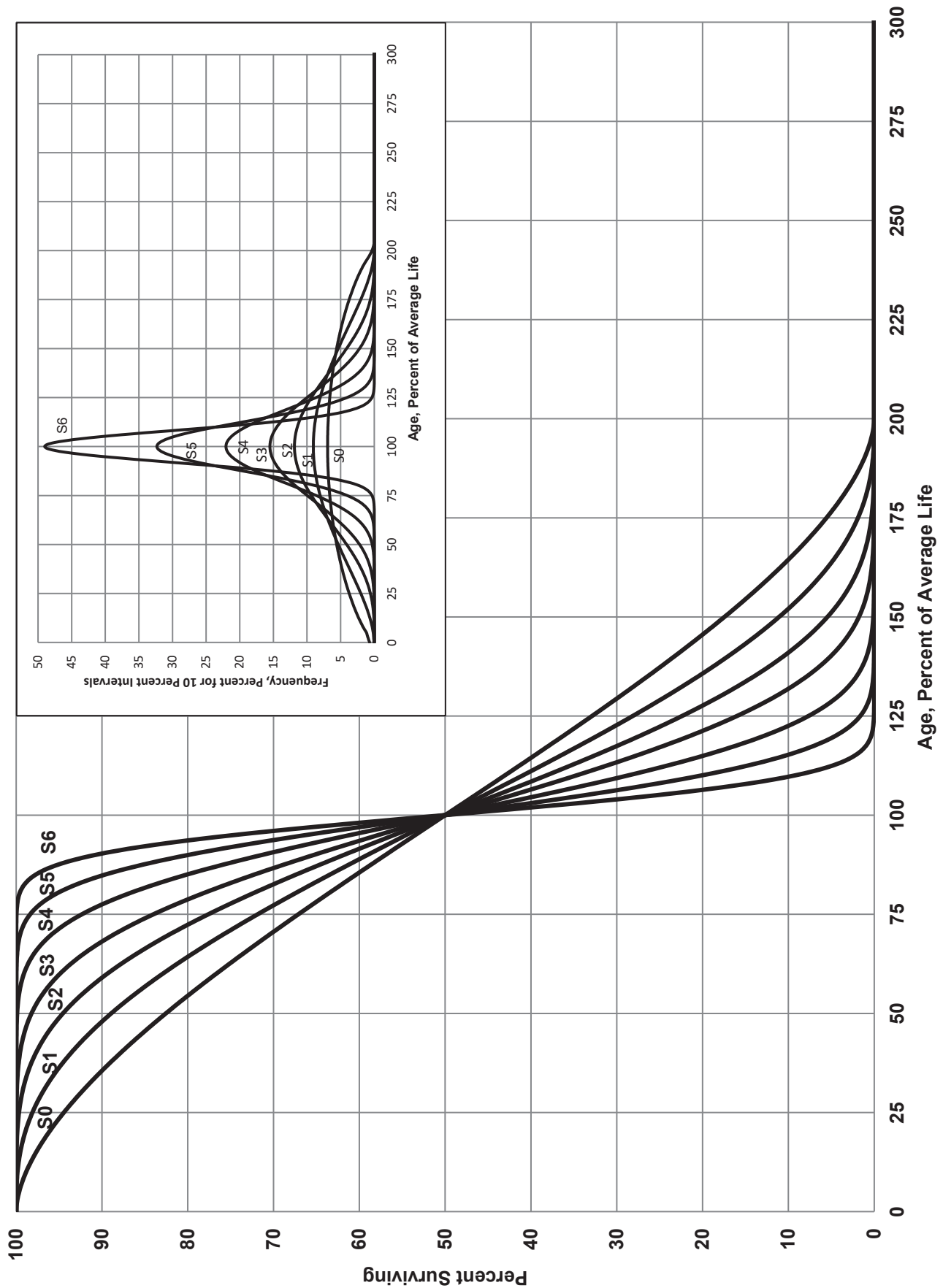
The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.



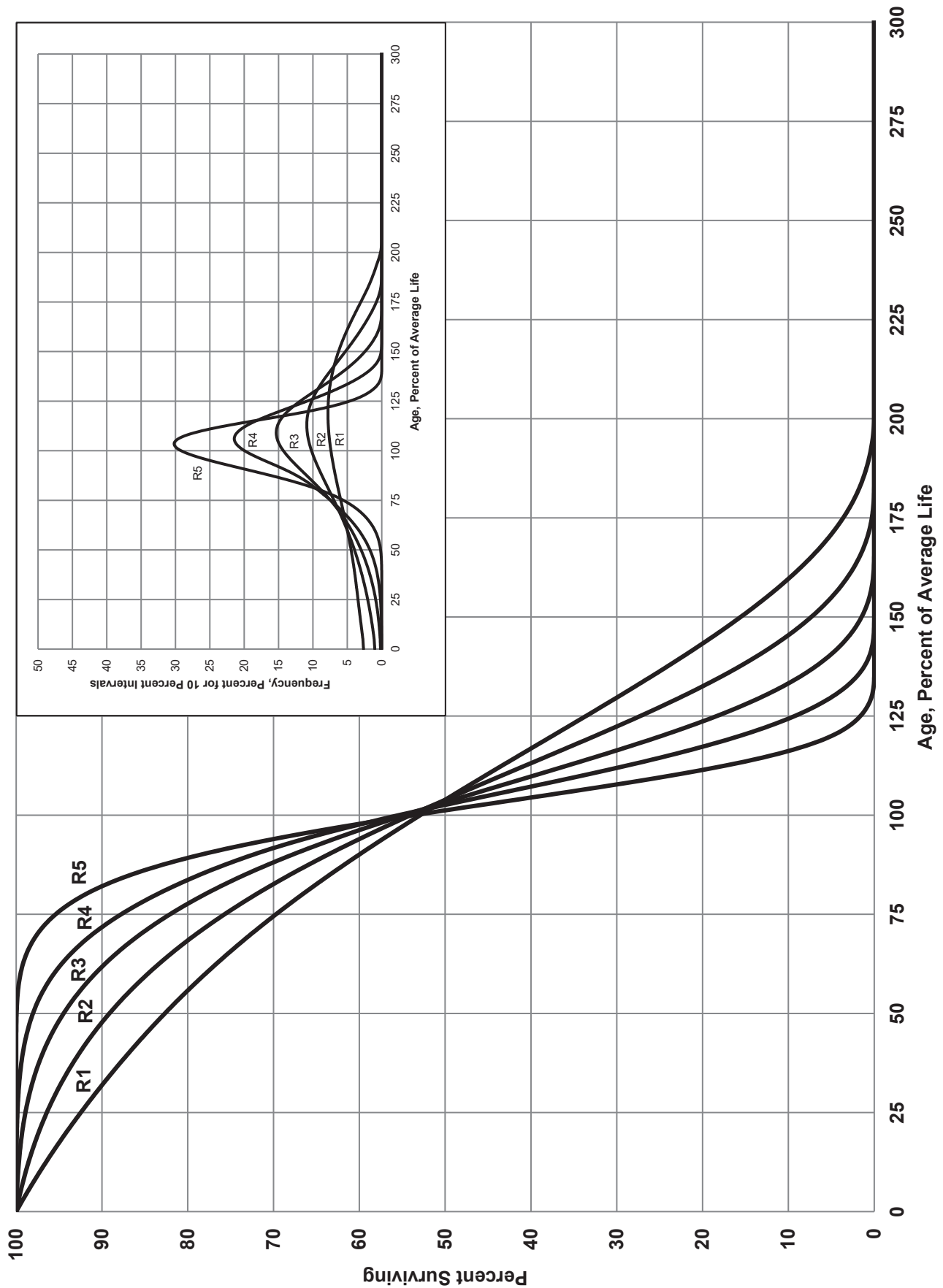
**FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES**



**FIGURE 2. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES**



**FIGURE 3. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES**



**FIGURE 4. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES**

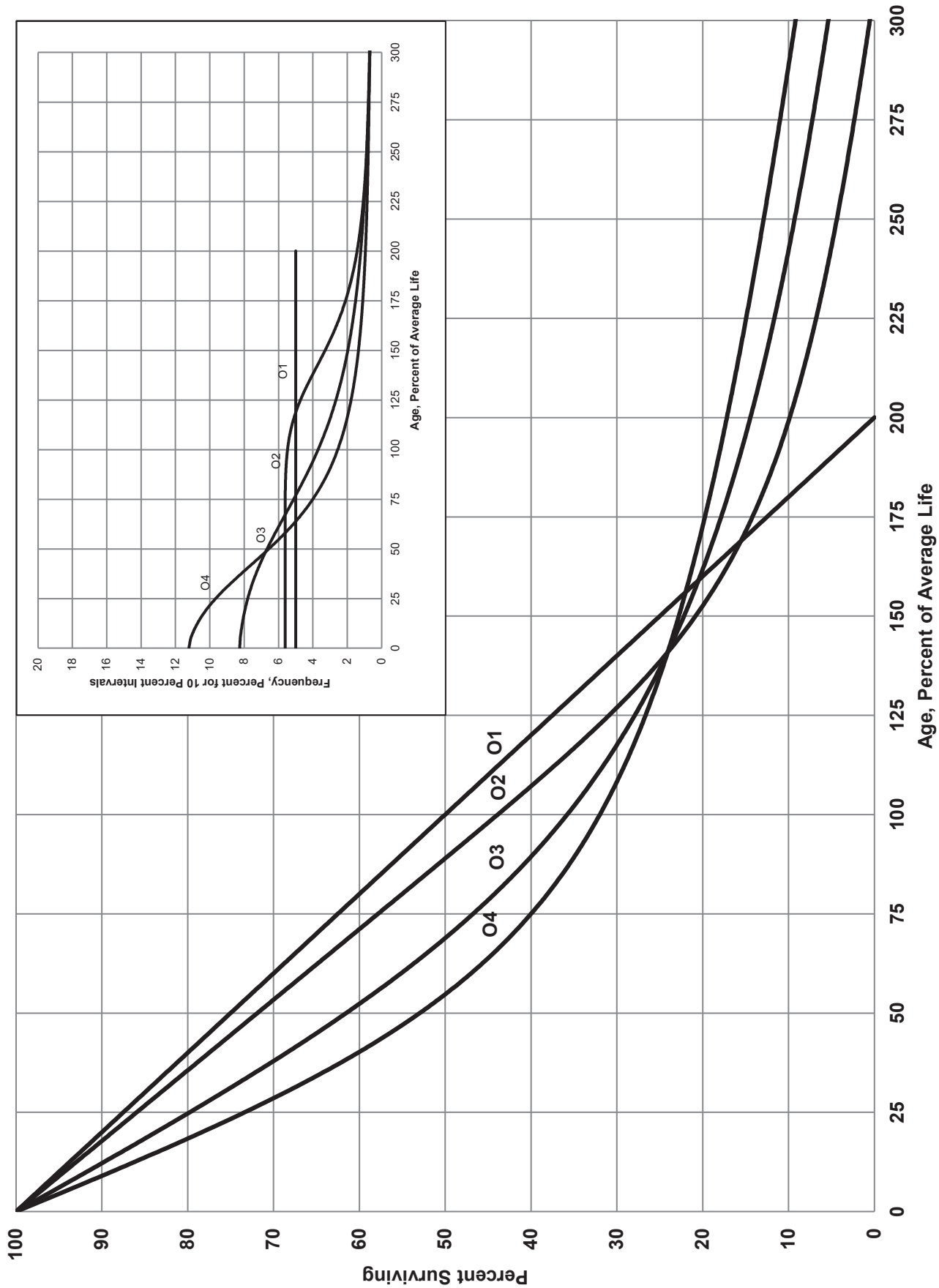


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES



These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

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<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

## **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2015-2024 for which there were placements during the years 2010-2024. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2010 were retired in 2015. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2015 retirements of 2010 installations and ending with the 2024 retirements of the 2019 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL

Experience Band 2015-2024 Placement Band 2010-2024

Year	Retirements, Thousands of Dollars													Total During		Age Interval
	During Year													Age Interval	Age Interval	
Placed	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(11)	(12)	(13)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
2010	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½			
2011	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½			
2012	11	12	13	14	16	17	19	21	22	18	64	11½-12½				
2013	8	9	10	11	11	13	14	15	16	17	83	10½-11½				
2014	9	10	11	12	13	14	16	17	19	20	93	9½-10½				
2015	4	9	10	11	12	13	14	15	16	20	105	8½-9½				
2016		5	11	12	13	14	15	16	18	20	113	7½-8½				
2017			6	12	13	15	16	17	19	19	124	6½-7½				
2018				6	13	15	16	17	19	19	131	5½-6½				
2019					13	15	16	17	19	20	143	4½-5½				
2020					7	14	16	17	19	23	146	3½-4½				
2021					8	8	18	20	22	25	150	2½-3½				
2022					9	9	9	11	23	25	151	1½-2½				
2023					11	11	11	11	11	24	153	½-1½				
2024					13	13	13	13	13	13	80	0-½				
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>					

**SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL**

Experience Band 2015-2024		Placement Band 2010-2024													
		Acquisitions, Transfers and Sales, Thousands of Dollars													
Year Placed	During Year											Total During Age Interval	Age Interval		
	2015 (2)	2016 (3)	2017 (4)	2018 (5)	2019 (6)	2020 (7)	2021 (8)	2022 (9)	2023 (10)	2024 (11)	(12)			(13)	
2010	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	-	-	-	13½-14½
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2013	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	-	-	-	60	10½-11½
2014	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	-	-	-	9½-10½
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2018	-	-	-	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	5½-6½
2019	-	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	-	-	4½-5½
2020	-	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	-	-	10	3½-4½
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2022	-	-	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	-	(121)	1½-2½
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)				

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

**Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2015 through 2024 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2020 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

**SCHEDULE 3. PLANT EXPOSED TO RETIREMENT**  
**JANUARY 1 OF EACH YEAR 2015-2024**  
**SUMMARIZED BY AGE INTERVAL**

Year Placed	Exposures, Thousands of Dollars										Total at		Age Interval	
	Annual Survivors at the Beginning of the Year										Beginning of			Age Interval
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Age Interval	Age Interval		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
2010	255	245	234	222	209	195	239	216	192	167	167	167	13½-14½	
2011	279	268	256	243	228	212	194	174	153	131	323	323	12½-13½	
2012	307	296	284	271	257	241	224	205	184	162	531	531	11½-12½	
2013	338	330	321	311	300	289	276	262	242	226	823	823	10½-11½	
2014	376	367	357	346	334	321	307	297	280	261	1,097	1,097	9½-10½	
2015	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	1,503	8½-9½	
2016		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	1,952	7½-8½	
2017			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	2,463	6½-7½	
2018				580 <sup>a</sup>	574	561	546	530	501	482	3,057	3,057	5½-6½	
2019					660 <sup>a</sup>	653	639	623	628	609	3,789	3,789	4½-5½	
2020						750 <sup>a</sup>	742	724	685	663	4,332	4,332	3½-4½	
2021							850 <sup>a</sup>	841	821	799	4,955	4,955	2½-3½	
2022								960 <sup>a</sup>	949	926	5,719	5,719	1½-2½	
2023									1,080 <sup>a</sup>	1,069	6,579	6,579	½-1½	
2024										1,220 <sup>a</sup>	7,490	7,490	0-½	
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>44,780</b>	<b>44,780</b>		

<sup>a</sup>Additions during the year

Experience Band 2015-2024

Placement Band 2010-2024

For the entire experience band 2015-2024, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2015-2024

Placement Band 2010-2024

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
Total	<u>44,780</u>	<u>1,606</u>			35.66

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.



The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

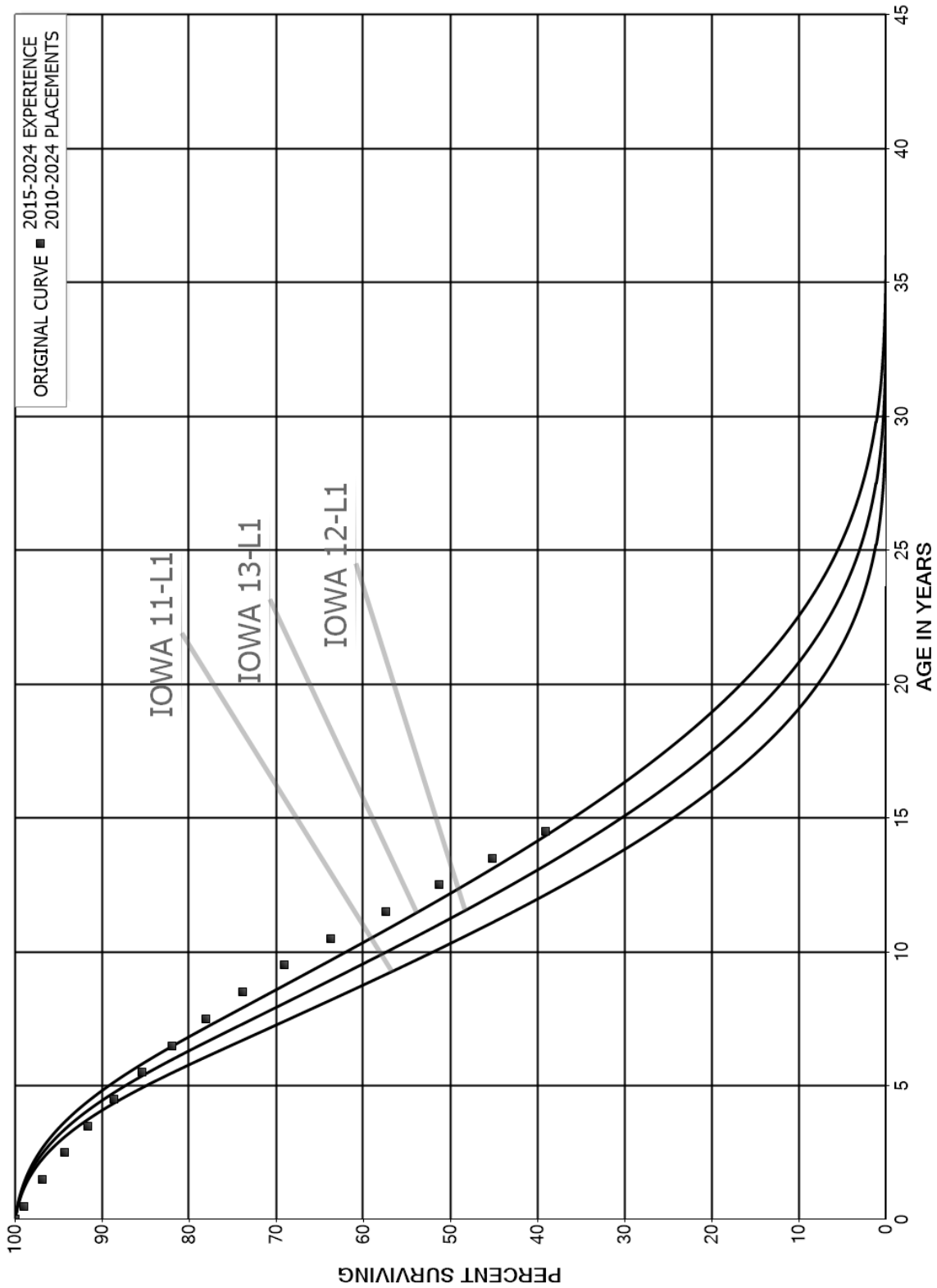


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

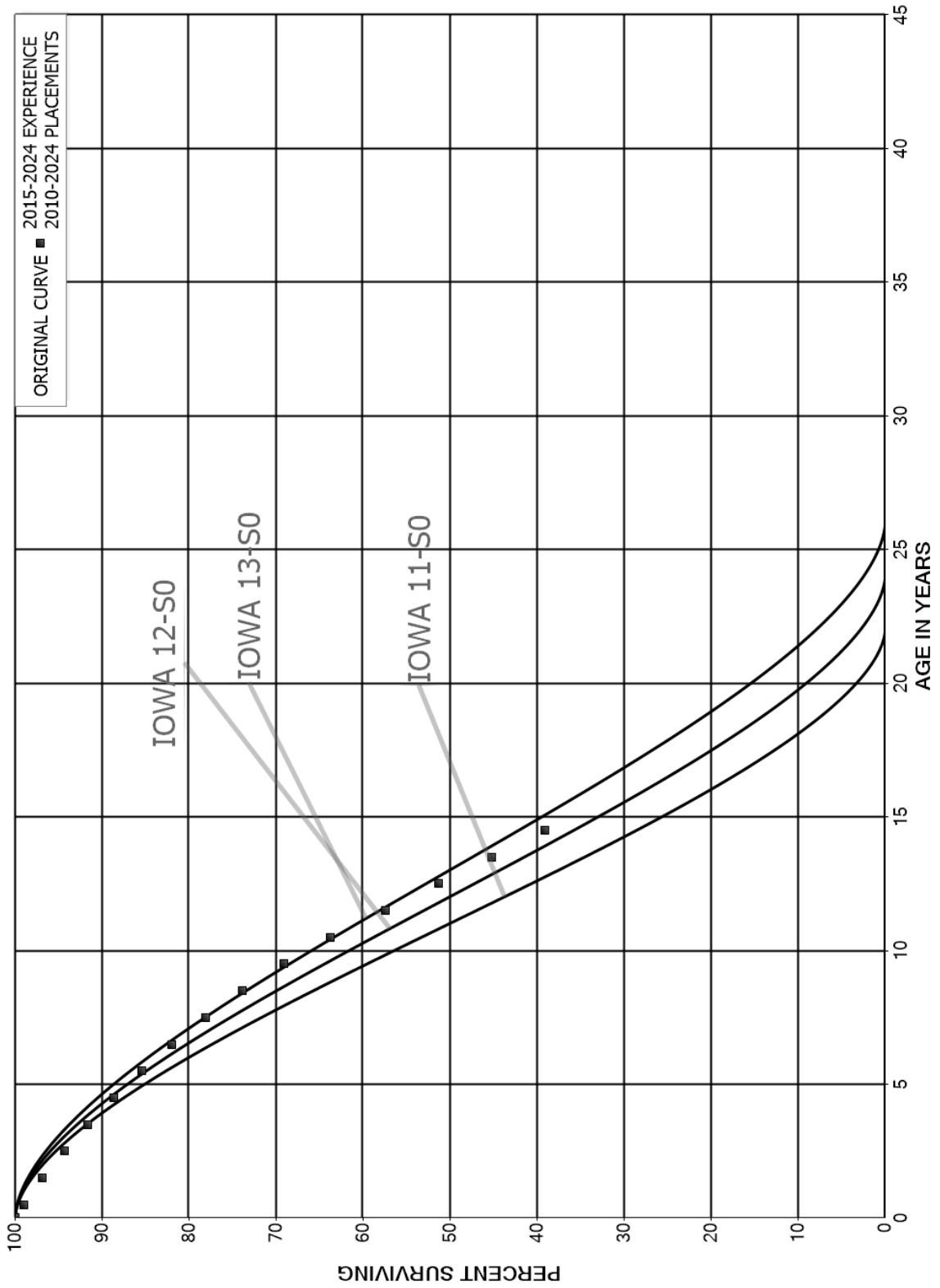


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

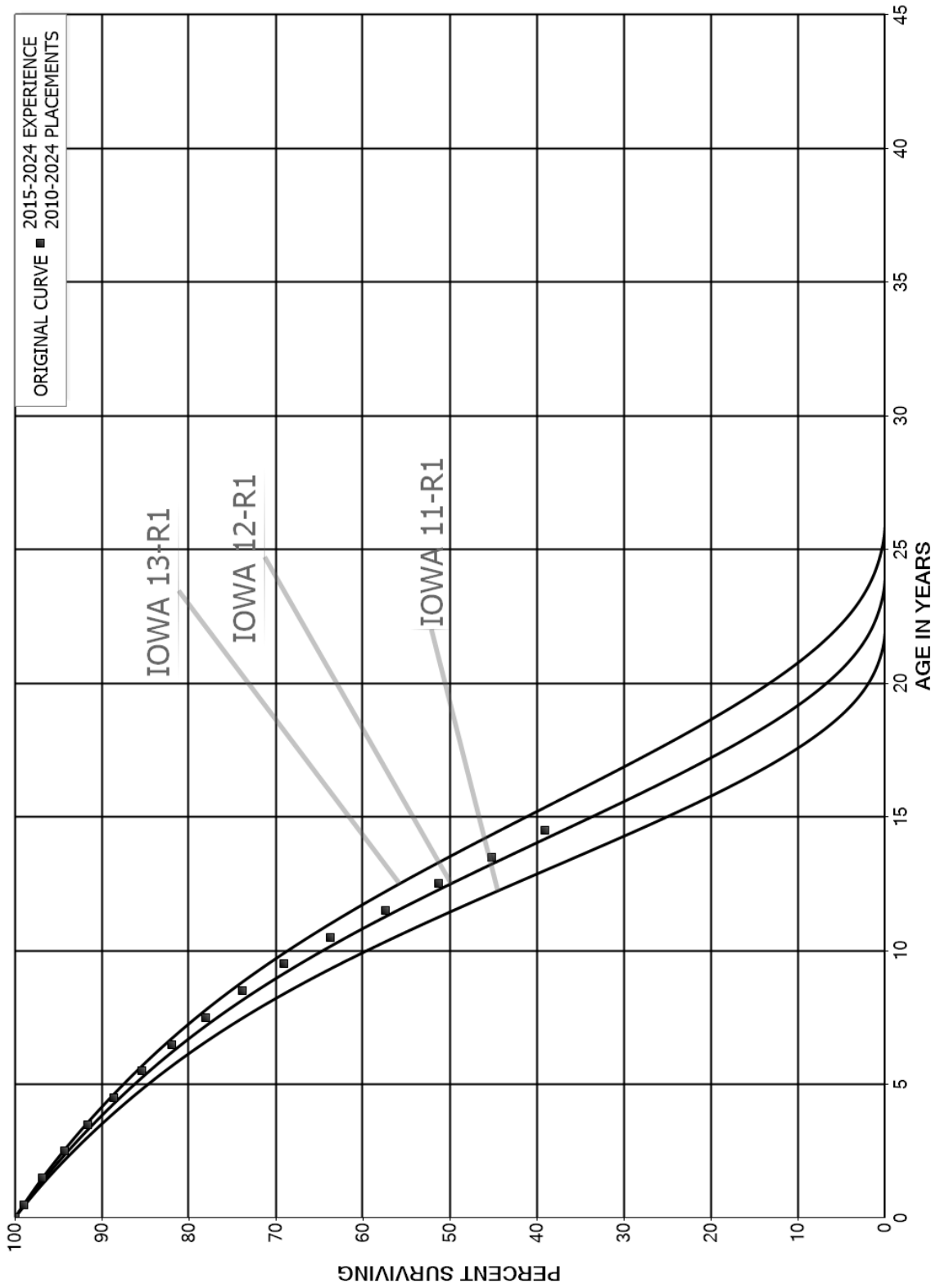
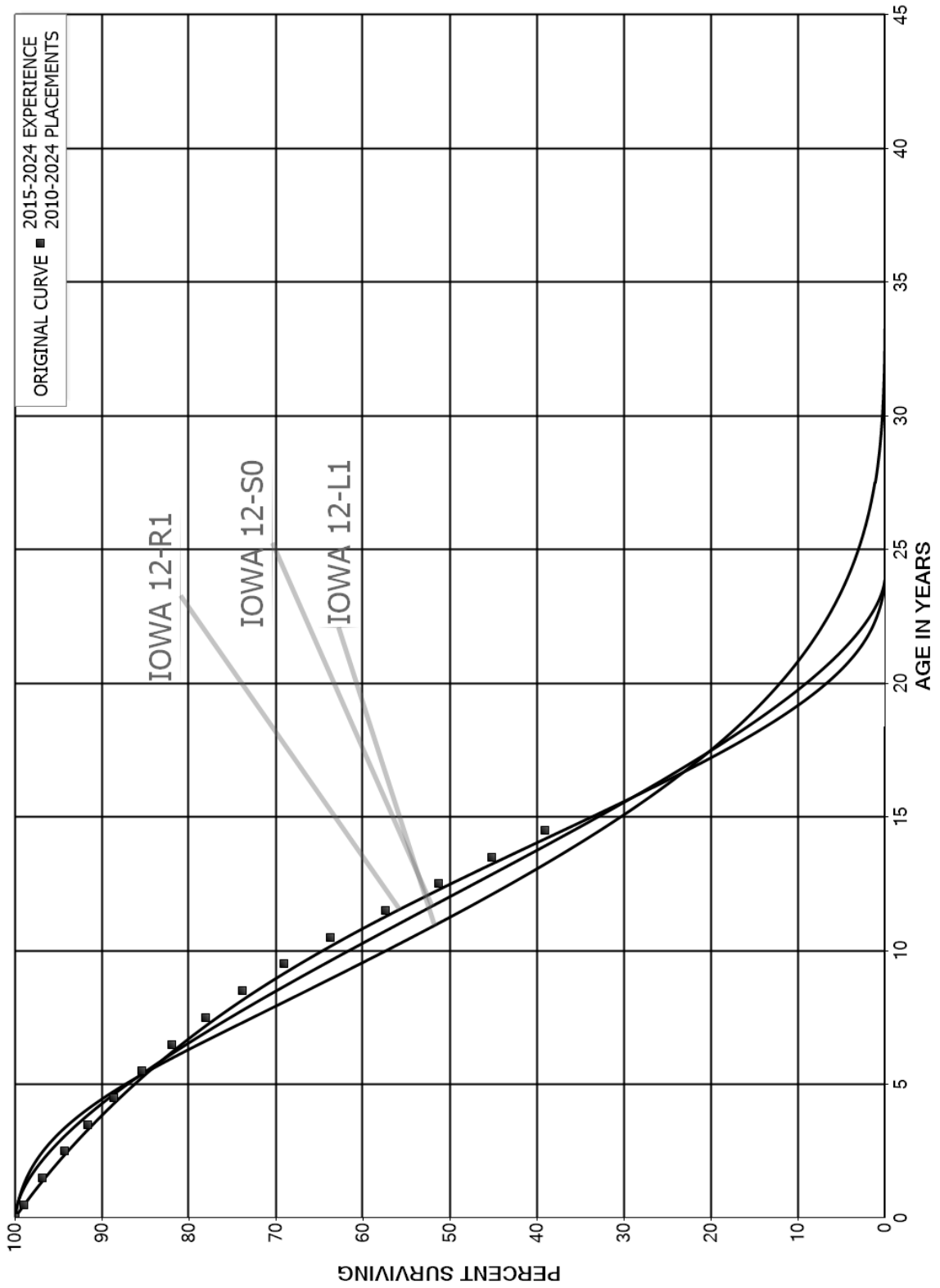


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



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## **PART III. SERVICE LIFE CONSIDERATIONS**

## PART III. SERVICE LIFE CONSIDERATIONS

### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips are conducted for each service life study. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the past field trips.

#### January 28, 2020

- McKeesport Wastewater Treatment Plant
- West Shore Pump Station
- 28<sup>th</sup> Street Pump Station
- Long Run Pump Station
- Dravosburg Wastewater Treatment Plant
- Duquesne Wastewater Treatment Plant

#### August 22, 2012

- Capital Operations Center (Mechanicsburg)
- Slate Hill Road Tank
- Slate Hill Road Booster Station
- Westport Booster Station
- Silver Springs Water Treatment Plant
- Hershey Corporate Office
- Hershey Water Treatment Plant (G. C. Smith)
- Swatara Creek Raw Water Pump Station
- Westford Crossing Booster Station and Tank

August 20, 2012

Scranton Water Treatment Plant  
Williams Bridge Standpipe  
Oakmont Booster Station  
Mill Street Pump Station  
Nesbitt Dam  
Nesbitt Water Treatment Plant  
Watres Water Treatment Plant  
Mill Creek Standpipes  
Gardner Creek Pump Station

July 28, 2008

Claysville Water Treatment Plant  
Jack Clutter Dam  
Jack Clutter Pump Station  
Saw Mill Pump House  
School Street Dam  
Claysville Tank

December 20, 2006

West Shore Regional Treatment Plant

August 19, 2002

Brownsville Treatment Plant  
E. H. Aldrich Treatment Plant  
Shire Oaks Relay Station and Standpipe  
Hays Mine Treatment Plant  
Beck's Run Raw Water Plant  
New Castle Treatment Plant  
Butler Treatment Plant

August 20, 2002

Huntsville Treatment Plant  
Huntsville Raw Water Plant  
Brownell Treatment Plant  
Scranton Treatment Plant  
Nesbitt Treatment Plant

July 12-13, 2001

Norristown Raw Water Plant  
Norristown Treatment Plant  
Swatara Creek Raw Water Plant  
Hershey Treatment Plant



January 14, 1997

Norristown District Office  
DeKalb Standpipes and Pump Station  
Norristown Treatment Plant  
Forest Avenue Booster Station  
Providence Road Booster Station  
West Norriton Standpipe  
Church Road Tank  
Yardley Operations Center  
Yardley Treatment Plant

December 3, 1996

Capital Operations and Customer Service Center  
Yellow Breeches Treatment Plant  
Evergreen Road Booster Station  
Enola Standpipe  
Silver Springs Treatment Plant  
New Kingston Booster Station  
Slate Hill Standpipe  
Old Hershey Treatment Plant  
New Hershey Treatment Plant  
North Hills Reservoir  
Mt. Alem Reservoir  
Scranton Treatment Plant  
Chinchilla Treatment Plant  
Williams Bridge Reservoir  
Edella Road Pump Station  
Griffin Reservoir  
Brownell Treatment Plant  
Route 106 Booster Station  
Fallbrook Treatment Plant

December 4, 1996

Nesbitt Treatment Plant  
Ceasetown Treatment Plant  
Hillside Treatment Plant  
Crystal Lake Treatment Plant

December 10, 1996

Lawrence Operations Center  
New Castle Treatment Plant  
McQuisten Standpipe and Booster Station  
Neshannock Standpipe  
Shenango Booster Station  
Butler Treatment Plant  
North Butler Booster Station  
Lick Hill Standpipe  
Indiana Treatment Plant  
Pleasant Hills Standpipe and Booster Station  
Whitewoods Booster Station  
West End Standpipe

December 11, 1996

Cook Lane Distribution Center  
Hays Mine Treatment Plant  
Beck's Run Raw Water Plant  
Mt. Washington Booster Station  
E. H. Aldrich Treatment Plant  
Shire Oaks Relay Station and Standpipe  
Rocky Ridge Standpipes and Booster Station  
Bethel Park Distribution Center  
Castle Shannon Standpipe

## **SERVICE LIFE CONSIDERATIONS**

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data, current Company policies and outlook as determined during field reviews of the property and other conversations with management, and the survivor curve estimates from other water companies.

For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group. The judgments for a life span group were made by

estimating the life of the major facility in the group and assigning lives to the related items of property which terminate at the probable retirement date of the major facility.

The life span estimates for structures and equipment in Accounts 303, 304, 305, 306 and 320 were based on the type of construction, attained age and specific plans of management. The following tabulation sets forth the estimated life span for each life span group.

<u>Life Span Group</u>	<u>Life Span</u>
<u>Account 303.35, Waste Handling and Treatment Land</u>	
Sanitary Landfill	50
<u>Account 304.20, Power and Pumping Structures</u>	
Booster Stations	50,60
<u>Account 304.30, Purification Buildings</u>	
Filter Plants	60-80
Tank Painting	10
Waste Handling and Treatment Structures	50
<u>Account 304.61, Office Buildings</u>	
Regional Offices	45
Corporate Office	65
<u>Account 304.62, Stores, Shop and Garage Structures</u>	
Distribution Centers	45, 50
<u>Account 305.00, Collecting and Impounding Reservoirs</u>	
Large Reservoirs	100, 120, 150
<u>Account 306.00, Lake, River and Other Intakes</u>	
Intakes	80

<u>Life Span Group</u>	<u>Life Span</u>
<u>Account 320.10, Purification System - Large Structures</u>	
Filters and Related Structures	55-75
Painting	10

For capitalized painting, the expectation is that there will be very minor retirements prior to the final retirement of the group. A square survivor curve, that is, no dispersion of retirements, was estimated for these groups. For the reservoirs, intakes, structures and filters, the expectation is that there will be retirements prior to the final retirement of the plant. Interim survivor curves were estimated for the plant based on prior studies and judgment. The interim survivor curves are as follows:

<u>Account</u>		<u>Interim Survivor Group</u>
303.35	Waste Handling and Treatment Land	100-R3
304.20	Power and Pumping Structures	75-S0.5
304.30	Purification Buildings	55-S1
304.36	Waste Handling and Treatment Structure	55-S1
304.61	Office Buildings	55-S0
304.62	Stores, Shop and Garage Structures	55-S0.5
305.00	Collecting and Impounding Reservoirs	130-R2
306.00	Lake, River and Other Intakes	55-S1.5
320.10	Purification System - Large Structures	50-S1

The average survivor curves estimated for depreciable groups with numerous similar items were based on statistical analyses, Company policies, and previous estimates made for this and other companies. For 28 of the mass plant accounts and subaccounts for which survivor curves were estimated, the statistical analysis resulted in good indications of the survivor patterns experienced. Generally, the statistical analyses were the primary bases for the estimates for the following accounts:

	<u>Property Group</u>	<u>Survivor Curve</u>
304.15	Other Water Source Structures	50-S0.5
304.63	Miscellaneous Structure and Improvements	35-S0.5
307.00	Wells and Springs	55-S0
310.00	Power Generation Equipment	45-S0.5
311.20 - 311.54	Electric Pumping Equipment	39-S0
320.20	Purification System – Chemical Treatment	42-R0.5
320.30	Granular Activated Carbon	11-L0.5
320.37	Waste Handling and Treatment – Equipment	30-R3
330.00 - 330.40	Distribution Reservoirs and Standpipes	65-S0.5
331.00	Mains and Accessories	90-R2
333.00	Services	65-R2.5
334.00	Meters and Meter Installations	20-L1.5
335.00	Fire Hydrants	60-R2
341.00 - 341.40	Transportation Equipment	10-L2.5
345.00	Power Operated Equipment	21-S0.5

The average survivor curve estimate for Account 334.00, Meters and Meter Installations, is the 20-L1.5 which reflects the Company policy that retirements of installations will be based on the retirement of the meter.

The average survivor curves for the remaining minor depreciable accounts and subaccounts were based on judgment incorporating the size and nature of the property and the previous studies for this and other companies.

The amortization periods selected for general plant Accounts 340.00, 342.00, 343.00, 346.00, 347.00 and 348.00 are discussed in the section, “Amortization of General Plant Accounts.”

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**PART IV. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**

## PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

### BOOK RESERVE

The book reserve as of June 30, 2023, is the result of a bringforward of the book reserves established by the Commission for each of the companies that were merged to become Pennsylvania-American Water Company in the following rate orders:

<u>Company</u>	<u>Order Entered</u>	<u>Docket No.</u>
Keystone Water Company	March 29, 1985	R-842755
Riverton Consolidated Water Company	March 21, 1985	R-842675
Western Pennsylvania Water Company	January 24, 1985	R-842621

The book reserve activity subsequent to those dates consists of accruals, retirements, cost of removal, gross salvage and other debits and credits recorded to the book reserve through June 30, 2023. The actual reserve as recorded on the books of Pennsylvania Gas & Water and previously used for ratemaking purposes, was recorded as a credit to the Company's book reserve at the date of acquisition. The projected book reserve as of June 30, 2024, is a bringforward of the June 30, 2023 book reserve based on projected accruals, retirements, cost of removal, gross salvage and other credits.

### CALCULATION OF DEPRECIATION

The annual depreciation accruals as of June 30, 2024, are based on the straight line remaining life method and the equal life group procedure. For the purpose of calculating the remaining life accruals as of June 30, 2024, the book reserve is allocated among vintages in proportion to the calculated accrued depreciation as of June 30, 2024.

**Group Depreciation Procedures.** A group procedure for depreciation is appropriate when considering more than a single item of property. Normally, the items within a group do not have identical service lives, but have lives that are dispersed over a range of time.

In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

In the equal life group procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. This procedure eliminates the need to base depreciation on average lives, inasmuch as each group is equivalent to a unit having a single life. The full costs of short-lived units are accrued during their lives, leaving no deferral of accruals required to be added to the annual costs associated with long-lived units. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life group.

**Remaining Life Annual Accruals.** For the purpose of calculating remaining life accrual rates as of June 30, 2024, the estimated book depreciation reserve for each plant



account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation based on the equal life group procedure follow. The detailed calculations are set forth in the Results of Study section of the report.

**Equal Life Group Procedure.** In the equal life group procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the composite remaining life for the surviving original cost of that vintage. The composite remaining life is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left( \frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}}$$

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accruals}}$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc. Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

The annual accrual rate for each account is equal to the sum of the remaining life annual accruals for all vintages divided by the account's total original cost. The account's "composite remaining life" is calculated by dividing the sum of the future book accruals for all vintages by the sum of the remaining life annual accruals for all vintages.

The calculated accrued depreciation in the equal life group procedure also represents that portion of depreciable cost which will not be allocated to expense through future accruals. However, the calculation is based at the equal life group level rather than the vintage group level and does not require the use of averages. The equal life group accrued depreciation ratio is calculated as follows:

$$Ratio = 1 - \left( \frac{Remaining\ Life}{Service\ Life} \right)$$

Inasmuch as service life minus remaining life equals age, when averages are not employed, the foregoing equation reduces to:

$$Ratio = \left( \frac{Age}{Service\ Life} \right)$$

## **CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION**

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most

of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is appropriate for certain General Plant accounts that represent numerous units of property, but a very small portion of depreciable water plant in service. The accounts and their amortization periods are as follows:

Account	Amortization Period, Years
340, Office Furniture and Equipment	
Furniture	20
Computers and Peripheral Equipment	5
Computer Software	5
Computer Software – Enterprise Solutions	10
Other Office Equipment	10
342, Stores Equipment	20
343, Tools and Work Equipment	20
344, Laboratory Equipment	20
346, Communication Equipment	
Equipment	15
Non-Telephone	15
Remote Control and Instrumentation	10
Telephone	10
347, Miscellaneous Equipment	25
348, Other Tangible Equipment	25

The annual amortization amount is determined by dividing the original cost for vintages whose age is less than the amortization period by the period of amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period.

### **NET SALVAGE**

Experienced net salvage is incorporated in the results of the study as it was reported on the Company's books and records for the period January 1, 2019 through

June 30, 2023, and estimated for the period July 1, 2023 through December 31, 2023. The calculation of the amortization is shown in Table 5 on page V-16. The amounts of gross salvage and removal cost by account for each year are set forth in the section beginning on page VIII-2.

Net salvage is presented in this manner to determine the amount of net salvage to be amortized to the cost of service for ratemaking purposes. In order to be consistent with this manner of recognizing net salvage, no adjustments for net salvage were made to the annual depreciation calculated for the individual accounts.

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## **PART V. RESULTS OF STUDY**

## **PART V. RESULTS OF STUDY**

### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and net salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the equal life group procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the water plant in service as of June 30, 2024. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to June 30, 2024, is reasonable for a period of three to five years.

### **DESCRIPTION OF DETAILED TABULATIONS**

Table 1 presents the development of the net original cost used in the study. The results of the depreciation study are summarized in Table 2 which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 3 presents the bringforward to June 30, 2024 of the book reserve as of June 30, 2023. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months

ended June 30, 2024. Table 5 presents the amortization of experienced and estimated net salvage, by account, based on the five-year period, 2019-2023. The total amortization amount is incorporated in the total annual accrual in Table 2.

Supporting statistical data for the estimates of average service lives and survivor curves, the annual depreciation calculations, and gross salvage and cost of removal for the years 2019-2023 are presented in three sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3. The tabulations of experienced and estimated net salvage, by year and account for the five-year period 2019-2023, are presented in the section beginning on page VIII-2.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to

develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to net original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

Detailed tabulations setting forth the cost of removal, gross salvage and net salvage amounts, by account and year, are presented in the third section. The net salvage amounts, by account and year, are carried forward to Table 5, which presents the five-year amortization of net salvage.



PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2024 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2024 (6)
<b>INTANGIBLE PLANT</b>					
301.00 ORGANIZATION	766,405.12				766,405.12
302.00 FRANCHISES AND CONSENTS	2,404,599.20				2,404,599.20
303.00 MISCELLANEOUS INTANGIBLE PLANT	15,572.16				15,572.16
<b>TOTAL INTANGIBLE PLANT</b>	<b>3,186,576.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3,186,576.48</b>
<b>NONDEPRECIABLE PLANT</b>					
303.20 POWER AND PUMPING LAND	6,169,782.02				6,169,782.02
303.30 PURIFICATION LAND	708,155.10				708,155.10
303.40 TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	3,747,278.24		215,927.20		3,531,351.04
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPE LAND	2,107,863.83				2,107,863.83
303.51 TRANSMISSION AND DISTRIBUTION - LAND	1,865,772.73				1,865,772.73
303.52 TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	5,338,245.56				5,338,245.56
303.61 OFFICE LAND	3,221,899.78				3,221,899.78
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>23,158,997.26</b>	<b>0.00</b>	<b>215,927.20</b>	<b>0.00</b>	<b>22,943,070.06</b>
<b>DEPRECIABLE PLANT</b>					
303.14 WATER RIGHTS - HIBERNIA	1,942,822.51				1,942,822.51
303.35 WASTE HANDLING AND TREATMENT LAND	155,025.17				155,025.17
303.99 COMPREHENSIVE PLANNING STUDIES	11,838,420.51				11,838,420.51
304.15 OTHER WATER SOURCE STRUCTURES	103,236,517.17				103,236,517.17
304.20 POWER AND PUMPING STRUCTURES	110,347,832.32		1,289,607.60	41,310.00	109,016,914.72
304.30 PURIFICATION BUILDINGS	346,091,210.80		281,872.62	230,375.00	345,578,963.18
304.36 WASTE HANDLING AND TREATMENT STRUCTURE	25,230,121.46				25,230,121.46
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	1,403,438.95				1,403,438.95
304.39 PURIFICATION BUILDINGS - TANK PAINTING	119,362.95				119,362.95
304.61 STORES, SHOP AND GARAGE BUILDINGS	43,743,584.85		60,000.00	12,834.00	43,670,750.85
304.62 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	70,282,371.83		576.00		70,281,795.83
305.00 COLLECTING AND IMPOUNDING RESERVOIRS	8,983,176.16				8,983,176.16
306.00 LAKE, RIVER AND OTHER INTAKES	138,407,174.63		3,575.00		138,403,599.63
307.00 WELLS AND SPRINGS	17,832,896.90		41,551.00		17,791,345.90
310.00 POWER GENERATION EQUIPMENT	12,487,787.82		71,610.27		12,416,177.55
311.20 PUMPING EQUIPMENT - ELECTRIC	25,301,776.49		118,273.00	26,561.00	25,156,942.49
311.50 PUMPING EQUIPMENT - OTHER	25,187,421.80		1,954,569.05	116,716.00	23,116,136.75
311.52 PUMPING EQUIPMENT - SOURCE OF SUPPLY	16,571,799.32				16,571,799.32
311.53 PUMPING EQUIPMENT - WATER TREATMENT	12,940,570.90				12,940,570.90
311.54 PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION	47,853,790.34				47,853,790.34
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	6,707,900.44				6,707,900.44
320.18 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	262,248,495.53		27,162.27	627,852.00	261,593,481.26
320.19 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	103,245.73				103,245.73
320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT	3,667,945.94				3,667,945.94
320.29 PURIFICATION SYSTEM - CHEMICAL TREATMENT	118,775,922.85		42,367.00		118,733,555.85
320.30 GRANULAR ACTIVATED CARBON	8,167.87				8,167.87
	13,459,406.97				13,459,406.97

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	ORIGINAL COST	CUSTOMER	CONTRIBUTIONS	EXCLUDED	NET ORIGINAL COST
	AS OF JUNE 30, 2024 (2)	ADVANCES (3)	IN AID OF CONSTRUCTION (4)	PROPERTY (5)	AS OF JUNE 30, 2024 (6)
320.37	15,531,581.93				15,531,581.93
330.00	133,883,627.32		3,115,059.10		130,768,568.22
330.10	14,144,856.97				14,144,856.97
330.20	19,913,409.67				19,913,409.67
330.30	818,707.23				818,707.23
330.40	12,806,300.04				12,806,300.04
330.58	2,303,924.15				2,303,924.15
330.59	45,744,045.26				45,744,045.26
331.00	3,629,756,123.82	48,391,011.36	253,374,712.99	502,366.00	3,327,488,033.47
333.00	746,349,688.27	11,443,823.85	15,827,671.95		719,078,190.47
334.00	251,100,503.66		1,872,625.15		249,227,878.51
335.00	152,728,748.00	1,914,936.19	5,535,339.03		145,278,472.78
340.10	8,638,585.84				8,638,585.84
340.20	17,320,326.29				17,320,326.29
340.30	91,455,720.27				91,455,720.27
340.31	1,067,816.75				1,067,816.75
340.50	9,454.95		354.00		9,100.95
341.00	2,587.67				2,587.67
341.10	61,327,985.93				61,327,985.93
341.20	16,793,602.21				16,793,602.21
341.30	1,995,589.81				1,995,589.81
341.40	7,584,706.89				7,584,706.89
342.00	469,790.25				469,790.25
343.00	48,134,497.49		12,841.25		48,121,656.24
344.00	2,229,299.11				2,229,299.11
345.00	2,122,806.77				2,122,806.77
346.00	3,768,803.66		56,552.67		3,712,250.99
346.10	9,649,123.69				9,649,123.69
346.19	4,902,319.79				4,902,319.79
346.20	309,958.34				309,958.34
347.00	36,249,420.69		4,085.00		36,245,335.69
348.00	795,577.91				795,577.91
<b>TOTAL DEPRECIABLE PLANT</b>	<b>6,764,837,676.84</b>	<b>61,749,773.40</b>	<b>283,690,404.95</b>	<b>1,558,014.00</b>	<b>6,417,839,486.49</b>
<b>TOTAL UTILITY PLANT IN SERVICE</b>	<b>6,791,183,252.58</b>	<b>61,749,773.40</b>	<b>283,906,332.15</b>	<b>1,558,014.00</b>	<b>6,443,989,133.03</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2024

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF JUNE 30, 2024	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	RATE	COMPOSITE REMAINING LIFE
	<b>INTANGIBLE PLANT</b>							
301.00	ORGANIZATION	NONDEPR.	766,405.12					
302.00	FRANCHISES AND CONSENTS	NONDEPR.	2,404,599.20					
303.00	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	15,572.16					
	<b>TOTAL INTANGIBLE PLANT</b>		<b>3,186,576.48</b>					
	<b>NONDEPRECIABLE PLANT</b>							
303.20	POWER AND PUMPING LAND	NONDEPR.	6,169,782.02					
303.30	PURIFICATION LAND	NONDEPR.	708,155.10					
303.40	TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.	3,531,351.04					
303.50	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	2,107,863.83					
303.51	TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.	1,865,772.73					
303.52	TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.	5,338,245.56					
303.61	OFFICE LAND	NONDEPR.	3,221,899.78					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>22,943,070.06</b>					
	<b>DEPRECIABLE PLANT</b>							
303.14	WATER RIGHTS - HIBERNIA	25-SQ	1,942,822.51	1,942,823	0	0	-	-
303.35	WASTE HANDLING AND TREATMENT LAND	100-R3	155,025.17	133,178	21,847	1,303	0.84	16.8
303.99	COMPREHENSIVE PLANNING STUDIES	5-SQ	11,838,420.51	9,027,061	2,811,360	1,429,604	12.08	2.0
304.15	OTHER WATER SOURCE STRUCTURES	50-SO.5	103,236,517.17	8,694,594	94,541,923	2,987,555	2.89	31.6
304.20	POWER AND PUMPING STRUCTURES	75-SO.5	56,459,488.67	9,393,614	47,065,855	1,610,727	2.85	29.2
	LARGE STRUCTURES	55-R3	52,557,446.05	9,065,637	43,491,809	1,400,230	2.66	31.1
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.2</b>		109,016,914.72	18,459,251	90,557,664	3,010,957	2.76	30.1
304.30	PURIFICATION BUILDINGS	55-S1	294,444,269.51	106,630,080	187,814,190	7,280,247	2.47	25.8
	LARGE STRUCTURES	60-R3	51,134,693.67	14,186,360	36,948,334	921,961	1.80	40.1
	OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.3</b>		345,578,963.18	120,816,440	224,762,524	8,202,208	2.37	27.4
304.36	WASTE HANDLING AND TREATMENT STRUCTURES	55-S1	25,230,121.46	8,232,332	16,997,789	751,733	2.98	22.6
304.38	WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ	1,403,438.95	467,566	935,873	135,908	9.68	6.9
304.39	PURIFICATION BUILDINGS - TANK PAINTING	10-SQ	119,362.95	115,844	3,519	3,519	2.95	1.0
304.61	OFFICE BUILDINGS	55-S0	27,589,751.28	6,804,093	20,785,658	992,729	3.60	20.9
	LARGE STRUCTURES	50-R3	16,080,999.57	4,195,737	11,885,263	370,385	2.30	32.1
	OTHER OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.61</b>		43,670,750.85	10,999,830	32,670,921	1,363,114	3.12	24.0
304.62	STORES, SHOP AND GARAGE BUILDINGS	55-SO.5	58,751,831.95	16,666,286	42,085,547	1,434,911	2.44	29.3
	LARGE STRUCTURES	45-R3	11,529,963.88	4,018,892	7,511,072	221,245	1.92	33.9
	OTHER OTHER STRUCTURES							
	<b>TOTAL ACCOUNT 304.62</b>		70,281,795.83	20,685,178	49,596,619	1,656,156	2.36	29.9
304.63	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	35-SO.5	8,983,176.16	3,313,011	5,670,165	241,603	2.69	23.5
	MISCELLANEOUS STRUCTURES AND IMPROVEMENTS							
	<b>TOTAL ACCOUNT 304</b>		707,521,041.27	191,784,046	515,736,987	18,352,753	2.59	28.1

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2024

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2024 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	RATE (7)	COMPOSITE REMAINING LIFE (8)
305.00	COLLECTING AND IMPOUNDING RESERVOIRS LARGE RESERVOIRS OTHER RESERVOIRS	130-R2 75-R3	129,635,756.24 8,677,843.39	22,219,353 2,875,666	107,416,404 5,892,177	1,792,397 161,363	1.38 1.84	59.9 36.5
	TOTAL ACCOUNT 305		138,403,599.63	25,095,019	113,308,581	1,953,760	1.41	58.0
306.00	LAKE, RIVER AND OTHER INTAKES LARGE RESERVOIRS OTHER RESERVOIRS	55-S1.5 50-S0.5	12,329,112.16 5,462,233.74	5,020,651 1,689,487	7,308,461 3,772,747	289,212 142,680	2.35 2.61	25.3 26.4
	TOTAL ACCOUNT 306		17,791,345.90	6,710,138	11,081,208	431,892	2.43	25.7
307.00	WELLS AND SPRINGS	55-S0	12,416,177.55	3,612,473	8,803,705	294,151	2.37	29.9
310.00	POWER GENERATION EQUIPMENT	45-S0.5	25,156,942.49	5,546,185	19,610,757	708,425	2.82	27.7
311.20	PUMPING EQUIPMENT	39-S0	23,116,136.75	3,183,068	19,933,069	869,482	3.76	22.9
311.50	ELECTRIC	39-S0	16,571,799.32	770,023	15,801,776	666,390	4.02	23.7
311.52	OTHER	39-S0	12,940,570.90	3,000,408	9,940,163	435,454	3.37	22.8
311.53	SOURCE OF SUPPLY	39-S0	47,853,790.34	26,577,175	21,276,615	1,275,910	2.67	16.7
311.54	WATER TREATMENT	39-S0	6,707,900.44	2,497,330	4,210,570	199,009	2.97	21.2
	TRANSMISSION AND DISTRIBUTION							
	TOTAL ACCOUNT 311		107,190,197.75	36,028,004	71,162,193	3,446,245	3.22	20.6
320.10	PURIFICATION SYSTEM LARGE STRUCTURES LARGE STRUCTURES OTHER OTHER STRUCTURES	50-S1 55-R3	245,991,456.85 15,602,024.41	84,182,848 3,846,140	161,808,607 11,755,884	6,639,257 319,366	2.70 2.05	24.4 36.8
	TOTAL ACCOUNT 320.1		261,593,481.26	88,028,988	173,564,491	6,958,623	2.66	24.9
320.18	LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
320.19	LARGE STRUCTURES PAINT	10-SQ	3,667,945.94	3,139,061	528,885	80,974	2.21	6.5
320.20	CHEMICAL TREATMENT	42-R0.5	118,733,555.85	30,308,513	88,425,043	4,062,816	3.42	21.8
320.29	CHEMICAL TREATMENT PAINT		8,167.87	8,168	0	0	-	-
320.30	GRANULAR ACTIVATED CARBON	11-L0.5	13,459,406.97	6,870,691	6,588,716	1,203,541	8.94	5.5
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3	15,531,581.93	10,789,269	4,742,313	271,461	1.75	17.5
	TOTAL ACCOUNT 320		413,097,385.55	139,247,936	273,849,448	12,577,415	3.04	21.8
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	130,768,568.22	42,731,163	88,037,405	2,346,480	1.79	37.5
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	14,144,856.97	2,576,544	11,568,313	281,257	1.99	41.1
330.20	GROUND LEVEL FACILITIES	65-S0.5	19,913,409.67	2,447,602	17,465,808	419,151	2.10	41.7
330.30	BELOW GRADE FACILITIES	65-S0.5	818,707.23	174,867	643,840	15,945	1.95	40.4
330.40	CLEARWELL	65-S0.5	12,866,300.04	2,868,151	9,998,149	247,909	1.94	40.1
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	2,303,924.15	2,164,662	139,262	79,453	3.45	5.5
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	45,744,045.26	28,235,459	17,508,586	3,183,288	6.96	5.5
	TOTAL ACCOUNT 330		226,499,811.54	81,198,448	145,301,363	6,573,483	2.90	22.1
331.00	MAINS AND ACCESSORIES	90-R2	3,327,488,033.47	317,168,189	3,010,319,844	50,981,834	1.53	59.0
333.00	SERVICES	65-R2.5	719,078,190.47	165,593,656	553,484,534	13,326,988	1.85	41.5
334.00	METERS AND METER INSTALLATIONS	20-L1.5	249,227,878.51	86,478,411	162,749,468	15,106,859	6.06	10.8
335.00	FIRE HYDRANTS	60-R2	145,278,472.78	20,657,896	124,620,577	3,298,422	2.27	37.8

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2024

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2024 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	RATE (7)	COMPOSITE REMAINING LIFE (8)
340.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	8,638,585.84	1,627,429	7,011,157	519,152	6.01	13.5
	FURNITURE	5-SQ	17,320,326.29	4,881,170	12,439,156	4,764,289	27.51	2.6
	COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	91,455,720.27	32,442,490	59,013,230	28,190,991	30.82	2.1
	COMPUTER SOFTWARE - ENTERPRISE SOLUTIONS	10-SQ	1,067,816.75	343,459	724,358	361,319	33.84	2.0
	OTHER OFFICE EQUIPMENT	10-SQ	9,100.95	3,049	6,052	1,210	13.29	5.0
	TOTAL ACCOUNT 340		118,491,550.10	39,297,597	79,193,953	33,936,961	28.56	2.3
341.00	TRANSPORTATION EQUIPMENT	10-L2.5	2,587.67	1,734	854	169	6.53	5.1
	NOT CLASSIFIED	10-L2.5	61,327,985.93	28,279,582	33,048,404	5,419,866	8.84	6.1
	LIGHT DUTY TRUCKS	10-L2.5	16,793,602.21	15,100,515	1,693,087	429,555	2.56	3.9
	EQUIPMENT	10-L2.5	1,995,589.81	1,837,721	157,869	50,896	2.55	3.1
	AUTOS	10-L2.5	7,584,706.89	6,612,942	971,765	218,934	2.89	4.4
	OTHER							
	TOTAL ACCOUNT 341		87,704,472.51	51,832,494	35,871,979	6,119,420	6.98	5.9
342.00	STORES EQUIPMENT	20-SQ	469,790.25	98,512	371,278	29,146	6.20	12.7
343.00	TOOLS AND WORK EQUIPMENT	20-SQ	48,121,656.24	11,953,618	36,168,038	2,664,312	5.54	13.6
344.00	LABORATORY EQUIPMENT	20-SQ	2,229,299.11	624,008	1,605,291	202,752	9.09	7.9
345.00	POWER OPERATED EQUIPMENT	21-SQ.5	2,122,806.77	1,449,816	672,991	81,581	3.84	8.2
346.00	COMMUNICATION EQUIPMENT	15-SQ	3,712,250.99	671,739	3,040,512	243,507	6.56	12.5
	EQUIPMENT	15-SQ	9,649,123.69	2,158,396	7,490,728	670,327	6.95	11.2
	NON-TELEPHONE	10-SQ	4,902,319.79	1,864,142	3,038,178	536,905	10.95	5.7
	REMOTE CONTROL AND INSTRUMENTATION	10-SQ	309,958.34	185,515	124,443	27,166	8.76	4.6
	TELEPHONE							
	TOTAL ACCOUNT 346		18,573,652.81	4,879,792	13,693,861	1,477,905	7.96	9.3
347.00	MISCELLANEOUS EQUIPMENT	25-SQ	36,245,335.69	5,438,554	30,806,782	1,674,196	4.62	18.4
348.00	OTHER TANGIBLE EQUIPMENT	25-SQ	795,577.91	510,231	285,347	32,464	4.08	8.8
	TOTAL DEPRECIABLE PLANT		6,417,839,486.49	1,206,308,085	5,211,531,402	174,601,851	2.72	
	AMORTIZATION OF NET SALVAGE					26,209,026		
	TOTAL UTILITY PLANT IN SERVICE		6,443,969,133.03	1,206,308,085	5,211,531,402	200,810,877		

\* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

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**TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023**

Account (1)	BOOK RESERVE BALANCE AS OF		PROJECTED DEPRECIATION ACCURUALS (3)	PROJECTED RETIREMENTS (4)	PROJECTED COST OF REMOVAL (5)	PROJECTED SALVAGE (6)	ADJUSTMENTS AND ACQUISITIONS (7)	PROJECTED BOOK RESERVE BALANCE AS OF 06/30/2024 (8)
	06/30/2023 (2)							
303.14	1,942,823							1,942,823
303.35	131,860	1,318						133,178
303.61		(1,110)					1,110	0
303.99	7,254,665	1,772,396						9,027,061
304.15	7,841,590	3,461,488		1,380,150	1,242,135	13,802		8,694,594
304.20	16,609,855	3,063,237		1,003,174	230,730	20,063		18,459,251
304.30	113,690,307	8,316,559		1,149,942	80,496	11,499	28,512	120,816,440
304.36	7,463,436	768,896						8,232,332
304.38	331,573	135,993						467,566
304.39	112,323	3,521						115,844
304.61	10,070,623	1,136,665		234,487	86,760	114,899	(1,110)	10,999,830
304.62	19,435,733	1,610,420		392,364	66,702	98,091		20,685,178
304.63	3,630,315	169,369		467,955	28,077	9,359		3,313,011
305.00	23,899,693	2,270,488		647,688	427,474			25,095,019
306.00	6,388,560	433,365		106,464	5,323			6,710,138
307.00	3,401,063	337,082		111,214	14,458			3,612,473
310.00	6,293,958	575,328		1,084,889	238,676		464	5,546,185
311.20	3,968,076	1,081,876		1,530,233	336,651			3,183,068
311.50	1,149,625	570,168		778,500	171,270			770,023
311.52	2,764,830	424,297		154,688	34,031			3,000,408
311.53	25,237,269	1,339,906						26,577,175
311.54	2,291,397	205,933						2,497,330
320.10	90,568,697	7,024,676		7,775,923	1,788,462			88,028,988
320.18	103,246							103,246
320.19	3,059,100	79,961						3,139,061
320.20	30,603,828	3,594,653		3,163,130	727,520		682	30,308,513
320.29	8,168							8,168

**PENNSYLVANIA-AMERICAN WATER COMPANY  
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**TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023**

Account (1)	BOOK RESERVE BALANCE AS OF		PROJECTED DEPRECIATION ACCURUALS	PROJECTED RETIREMENTS	PROJECTED COST OF REMOVAL	PROJECTED SALVAGE	ADJUSTMENTS AND ACQUISITIONS	PROJECTED BOOK RESERVE BALANCE AS OF	
	06/30/2023 (2)	06/30/2024 (8)						06/30/2023 (2)	06/30/2024 (8)
320.30	5,555,240		1,523,977	166,821	41,705			6,870,691	
320.37	10,673,814		271,320	141,695	14,170			10,789,269	
330.00	39,932,025		4,338,253	864,834	726,461		52,180	42,731,163	
330.10	2,290,818		285,726					2,576,544	
330.20	2,791,160		386,022	396,511	333,069			2,447,602	
330.30	158,657		16,210					174,867	
330.40	2,617,148		251,003					2,868,151	
330.58	2,086,329		78,333					2,164,662	
330.59	26,466,456		2,792,388	1,023,385				28,235,459	
331.00	342,396,516		63,053,375	56,063,568	32,516,870		298,736	317,168,189	
333.00	158,738,784		15,227,348	6,043,953	2,417,581		89,058	165,593,656	
334.00	76,372,916		16,651,371	5,345,570	1,336,392	106,911	29,175	86,478,411	
335.00	19,446,220		4,345,024	2,041,116	1,122,614		30,382	20,657,896	
340.10	1,060,253		567,176					1,627,429	
340.20	2,870,542		3,184,104	1,173,476				4,881,170	
340.30	21,393,515		17,170,815	6,121,840				32,442,490	
340.31	693,985		130,851	481,377				343,459	
340.50	1,839		1,210					3,049	
341.00	1,555		179					1,734	
341.10	25,350,423		4,263,113	2,084,303	41,686	792,035		28,279,582	
341.20	14,610,142		490,373					15,100,515	
341.30	1,767,676		70,045					1,837,721	
341.40	6,372,507		240,435					6,612,942	

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023**

Account	BOOK RESERVE BALANCE AS OF 06/30/2023 (2)	PROJECTED DEPRECIATION ACCRUALS (3)	PROJECTED RETIREMENTS (4)	PROJECTED COST OF REMOVAL (5)	PROJECTED SALVAGE (6)	ADJUSTMENTS AND ACQUISITIONS (7)	PROJECTED BOOK RESERVE BALANCE AS OF 06/30/2024 (8)
	+	-	-	+	+	+	=
342.00	67,164	31,348					98,512
343.00	9,326,628	2,615,966	947			11,971	11,953,618
344.00	381,654	275,076	32,722				624,008
345.00	1,356,764	93,052					1,449,816
346.00	325,497	280,128				66,114	671,739
346.10	1,532,326	629,839	3,769				2,158,396
346.19	1,430,915	509,564	76,337				1,864,142
346.20	143,155	42,360					185,515
347.00	3,893,050	1,582,979	37,475				5,438,554
348.00	477,612	32,619					510,231
<b>TOTAL</b>	<b>1,170,835,898</b>	<b>179,808,067</b>	<b>102,080,504</b>	<b>44,029,313</b>	<b>1,166,659</b>	<b>607,274</b>	<b>1,206,308,085</b>



PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2023 (2)	NET ORIGINAL COST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS $(5)=((2)+(3))/2$ (4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS $(7)=(5)+(6)$
303.14	1,942,822.51	1,942,822.51	-			0
303.35	155,025.17	155,025.17	0.85	1,318		1,318
303.61	3,221,899.78	3,221,899.78			(1,110)	(1,110)
303.99	11,052,834.26	11,838,420.51	15.48	1,771,783	613	1,772,396
304.15	95,740,074.67	103,236,517.17	2.89	2,875,212	586,276	3,461,488
304.20	104,475,304.40	109,016,914.72	2.81	2,999,566	63,671	3,063,237
304.30	334,664,186.82	345,578,963.18	2.35	7,992,857	323,702	8,316,559
304.36	25,230,121.46	25,230,121.46	3.03	764,473	4,423	768,896
304.38	1,403,438.95	1,403,438.95	9.69	135,993		135,993
304.39	119,362.95	119,362.95	2.95	3,521		3,521
304.61	42,609,172.14	43,670,750.85	2.89	1,246,745	(110,080)	1,136,665
304.62	68,073,470.37	70,281,795.83	2.37	1,639,510	(29,090)	1,610,420
304.63	6,864,629.49	8,983,176.16	1.98	156,893	12,476	169,369
305.00	135,471,361.47	138,403,599.63	1.41	1,930,818	339,670	2,270,488
306.00	17,309,358.40	17,791,345.90	2.44	428,229	5,136	433,365
307.00	11,912,683.74	12,416,177.55	2.40	291,946	45,136	337,082
310.00	18,908,316.70	25,156,942.49	2.51	553,019	22,309	575,328
311.20	16,188,403.50	23,116,136.75	3.34	656,386	425,490	1,081,876
311.50	13,047,342.71	16,571,799.32	3.85	570,168		570,168
311.52	12,240,259.32	12,940,570.90	3.37	424,297		424,297
311.53	47,853,790.34	47,853,790.34	2.80	1,339,906		1,339,906
311.54	6,707,900.44	6,707,900.44	3.07	205,933		205,933
320.10	226,390,011.47	261,593,481.26	2.46	6,002,197	1,022,479	7,024,676
320.18	103,245.73	103,245.73	-			0
320.19	3,667,945.94	3,667,945.94	2.18	79,961		79,961
320.20	103,158,609.61	118,733,555.85	3.24	3,594,653		3,594,653
320.29	8,167.87	8,167.87	-			0

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024**

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2023 (2)	NET ORIGINAL COST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS $(5)=((2)+(3))/2$ *(4) (5)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
320.30	12,704,166.27	13,459,406.97	10.38	1,357,889	166,088	1,523,977
320.37	14,890,092.88	15,531,581.93	1.64	249,458	21,862	271,320
330.00	117,009,748.45	130,768,568.22	1.80	2,230,005	2,108,248	4,338,253
330.10	14,144,856.97	14,144,856.97	2.02	285,726		285,726
330.20	18,118,307.94	19,913,409.67	2.03	386,022		386,022
330.30	818,707.23	818,707.23	1.98	16,210		16,210
330.40	12,806,300.04	12,806,300.04	1.96	251,003		251,003
330.58	2,303,924.15	2,303,924.15	3.40	78,333		78,333
330.59	41,110,935.19	45,744,045.26	6.43	2,792,388		2,792,388
331.00	3,056,793,085.70	3,327,488,033.47	1.52	48,520,537	14,532,838	63,053,375
333.00	678,344,458.01	719,078,190.47	1.85	12,926,159	2,301,189	15,227,348
334.00	221,392,901.34	249,227,878.51	6.22	14,636,306	2,015,065	16,651,371
335.00	134,208,552.33	145,278,472.78	2.28	3,186,152	1,158,872	4,345,024
340.10	7,800,711.97	8,638,585.84	6.20	509,618	57,558	567,176
340.20	14,520,712.81	17,320,326.29	20.00 *	3,184,104		3,184,104
340.30	80,252,425.10	91,455,720.27	20.00 *	17,170,815		17,170,815
340.31	1,549,193.48	1,067,816.75	10.00 *	130,851		130,851
340.50	9,100.95	9,100.95	13.29	1,210		1,210
341.00	2,587.67	2,587.67	6.92	179		179
341.10	51,891,848.30	61,327,985.93	7.93	4,489,166	(226,053)	4,263,113
341.20	16,793,602.21	16,793,602.21	2.92	490,373		490,373
341.30	1,995,589.81	1,995,589.81	3.51	70,045		70,045
341.40	7,584,706.89	7,584,706.89	3.17	240,435		240,435

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2023 (2)	NET ORIGINAL COST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS $(5) = ((2) + (3)) / 2 * (4)$	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7) = (5) + (6)
342.00	469,790.25	469,790.25	6.25	29,362	1,986	31,348
343.00	43,246,953.88	48,121,656.24	5.66	2,585,732	30234	2,615,966
344.00	2,262,021.06	2,229,299.11	11.81	265,212	9,864	275,076
345.00	2,122,806.77	2,122,806.77	4.34	92,130	922	93,052
346.00	2,231,368	3,712,251	6.91	205,352	74,776	280,128
346.10	8,295,020	9,649,124	7.02	629,839		629,839
346.19	4,021,751	4,902,320	11.42	509,564		509,564
346.20	295,179	309,958	14	42,360		42,360
347.00	28,259,610	36,245,336	4.78	1,541,668	41,311	1,582,979
348.00	795,578	795,578	4.08	32,460	159	32,619
TOTAL	<u>5,907,566,333.44</u>	<u>6,421,061,386.27</u>		<u>154,802,047</u>	<u>25,006,020</u>	<u>179,808,067</u>

\* UTILIZING ACCRUAL RATE CONSISTENT WITH AMORTIZATION PERIOD TO MITIGATE ANOMALOUS CALCULATED ACCRUAL RATE.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

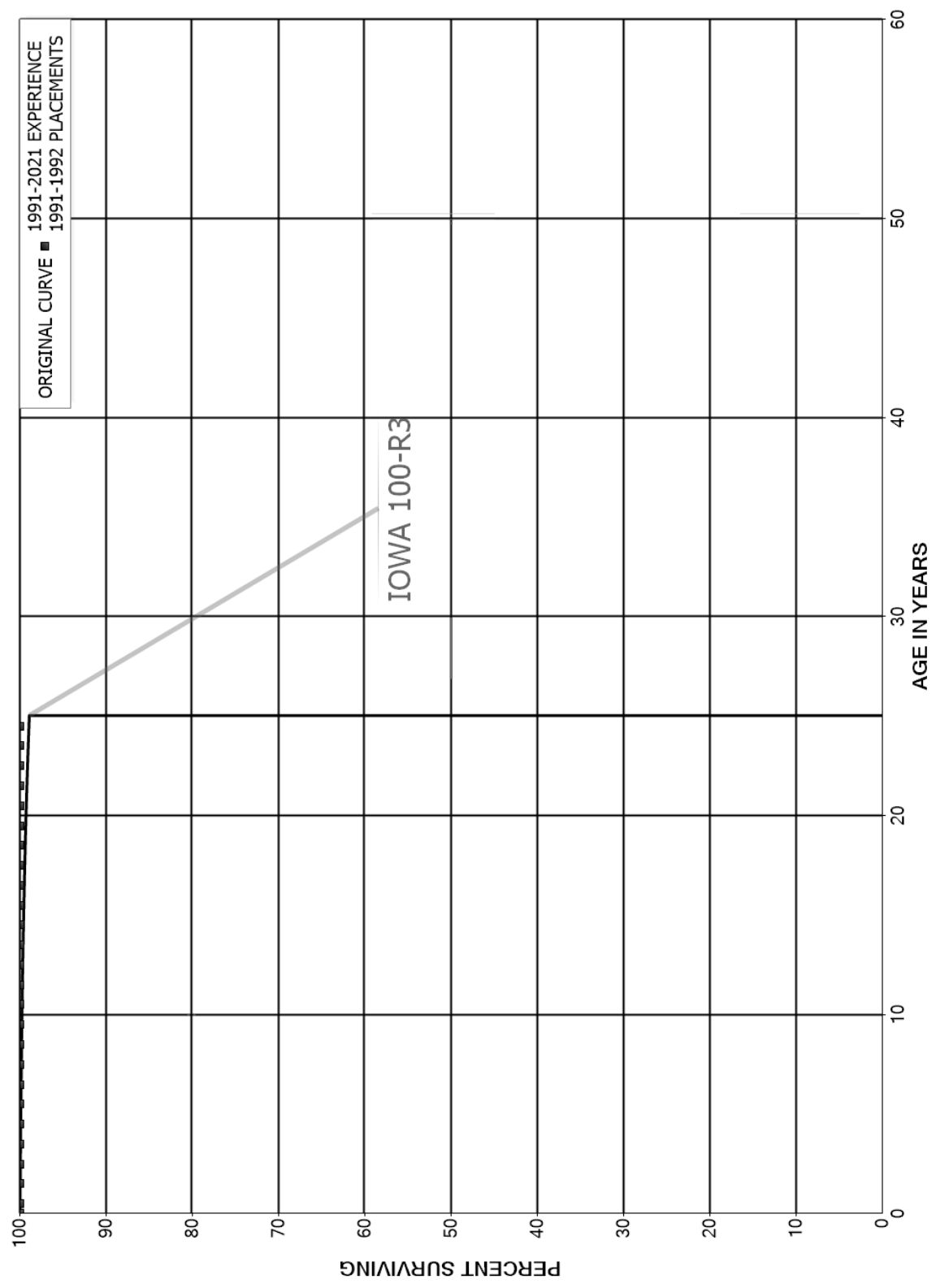
ACCOUNT (1)	2019			2020			2021			2022			PROJECTED 2023			NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)	GROSS SALVAGE (10)	COST OF REMOVAL (11)	GROSS SALVAGE (10)	COST OF REMOVAL (11)			
303.61		3,062.78	4,483.73			(4,483.73)								15.00	11,093.00	2,219	
303.99		387,837.75		577,956.65	666,811.69									796,762.50	(3,062.78)	(613)	
304.15	27,560.73	147,277.43	210.38	71,775.96	37,171.02									124,387.00	(3,228,371.54)	(645,674)	
304.20	31,830.10	148,391.82		788,178.99	137,849.62									43,949.00	(362,615.33)	(72,523)	
304.30	66,260.61	546.00													(1,098,901.52)	(219,780)	
304.36		1,864,549.94		12,850.31	1,346.07									43,380.00	(546.00)	(109)	
304.61	304.61	192,159.79	54,481.40	(8.81)	18,876.94	4,483.73								557,431.81	11,486		
304.62	25,209.50	8,030.27		23.48	467.17									223,944.66	44,789		
304.63		1,266,548.34												18,770.50	(58,937.15)	(11,787)	
305.00		17,003.99		6,896.40	450.15									213,737.00	(1,805,219.43)	(361,044)	
306.00		118,341.25		42,111.55	5,700.51									7,366.00	(27,012.04)	(5,402)	
307.00		42,462.99		3,593.30										119,338.00	(228,664.11)	(45,733)	
310.00		1,092,490.18		248,120.57	193,743.82									321,442.00	(165,394.29)	(33,079)	
311.00	13,739.63	924,729.91	(214.05)	695,879.64	890,085.40									1,543,362.00	(2,192,468.55)	(438,494)	
320.00	229.83	423,003.27		76,375.47	1,370.70									60,630.50	(5,574,618.58)	(1,114,924)	
320.30		90,807.00												7,085.00	(860,755.38)	(172,151)	
320.37	23.00	2,686,207.69		1,196,558.00	1,561,680.99									581,223.00	(97,869.00)	(19,574)	
330.00	13,124.96	21,381,790.52	25,703.04	12,998,210.71	8,196,453.86									21,364,445.00	(9,421,680.82)	(1,884,336)	
331.00	9,792.38	1,897,743.49		2,528,314.54	2,681,541.01									2,514,107.50	(77,479,844.57)	(15,495,969)	
333.00	93,029.52	2,727,391.38		1,486,703.66	1,021,270.85									2,786,541.00	(12,111,988.63)	(2,422,398)	
334.00	4,063.03	908,970.88		1,720,769.32	1,074,172.62									3,425.00	(11,013,655.35)	(2,202,731)	
335.00	10,745.87	122,477.36		23,848.17	78,720.20									35,034.00	(6,321,127.93)	(1,264,226)	
340.00	261,902.01	761,298.60	456,214.35	97,003.97	16,299.55									280,904.74	(280,904.74)	(56,181)	
341.00		9,682.12		122.40										21,140.00	1,289,471.27	257,894	
342.00		57,836.24		50,715.40	40,863.25									24,009.00	(9,804.52)	(1,961)	
343.00	12,288.18	15,876.66		13,845.30	5,126.37									9,236.00	(158,486.87)	(31,697)	
344.00		87,193.50		44,631.89	590.23									24,794.00	(51,522.76)	(10,305)	
345.00	8,306.50	73,665.55		16,130.65	8,339.46									58,690.00	(4,178.71)	(836)	
346.00														60,221.00	(371,319.28)	(74,264)	
347.00															(197,306.66)	(39,461)	
348.00															(808.08)	(162)	
<b>TOTAL</b>	<b>2,683,394.75</b>	<b>36,775,532.16</b>	<b>535,673.85</b>	<b>22,725,185.11</b>	<b>16,655,044.10</b>	<b>847,279.91</b>	<b>16,655,044.10</b>	<b>28,764,825.44</b>	<b>970,014.73</b>	<b>32,164,236.50</b>	<b>970,014.73</b>	<b>32,164,236.50</b>	<b>(131,045,123.88)</b>	<b>(26,209,026)</b>			

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART VI. SERVICE LIFE STATISTICS**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



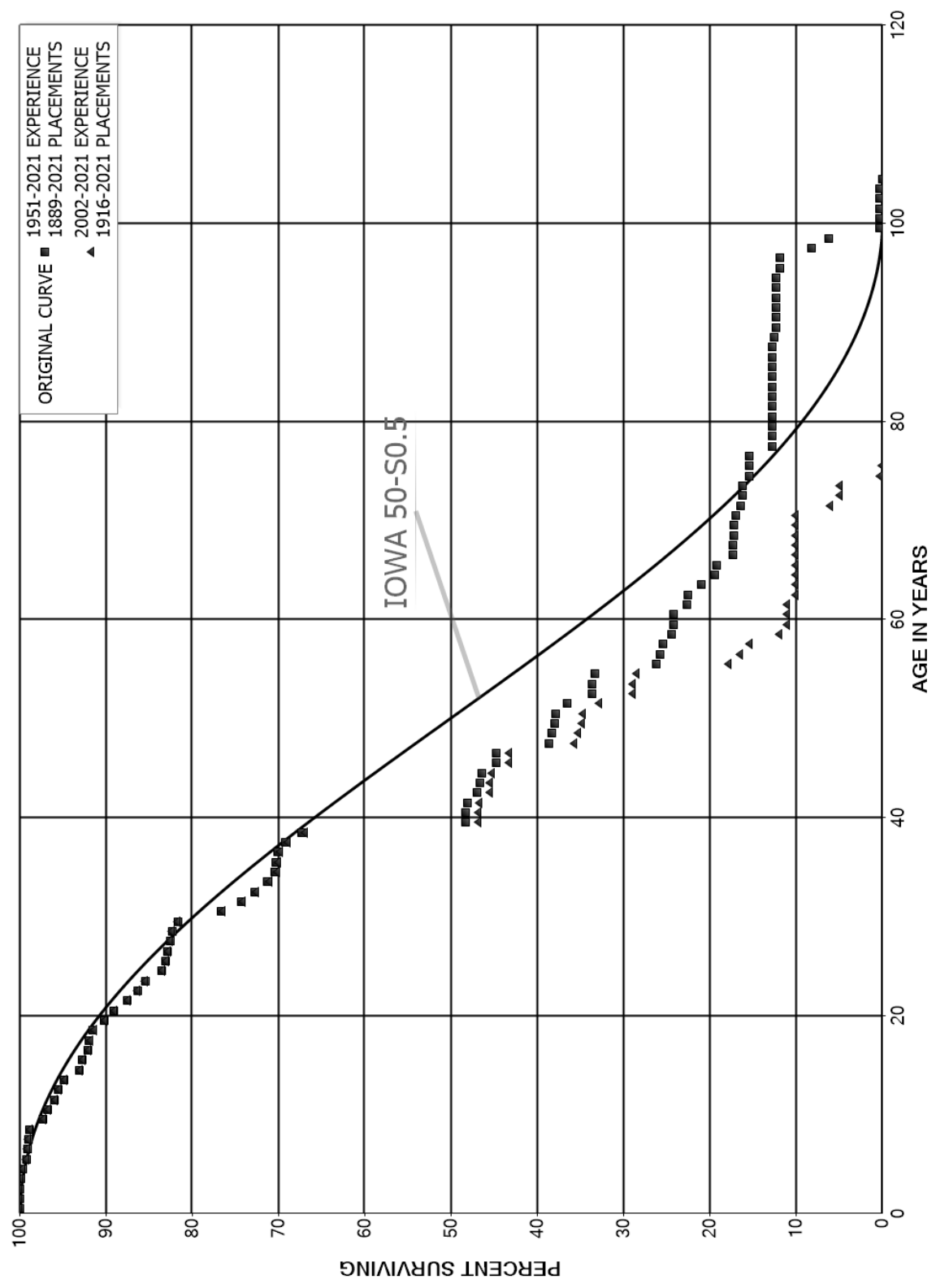
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-1992			EXPERIENCE BAND 1991-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	155,025		0.0000	1.0000	100.00
0.5	155,025		0.0000	1.0000	100.00
1.5	155,025		0.0000	1.0000	100.00
2.5	155,025		0.0000	1.0000	100.00
3.5	155,025		0.0000	1.0000	100.00
4.5	155,025		0.0000	1.0000	100.00
5.5	155,025		0.0000	1.0000	100.00
6.5	155,025		0.0000	1.0000	100.00
7.5	155,025		0.0000	1.0000	100.00
8.5	155,025		0.0000	1.0000	100.00
9.5	155,025		0.0000	1.0000	100.00
10.5	155,025		0.0000	1.0000	100.00
11.5	155,025		0.0000	1.0000	100.00
12.5	155,025		0.0000	1.0000	100.00
13.5	155,025		0.0000	1.0000	100.00
14.5	155,025		0.0000	1.0000	100.00
15.5	155,025		0.0000	1.0000	100.00
16.5	155,025		0.0000	1.0000	100.00
17.5	155,025		0.0000	1.0000	100.00
18.5	155,025		0.0000	1.0000	100.00
19.5	155,025		0.0000	1.0000	100.00
20.5	155,025		0.0000	1.0000	100.00
21.5	155,025		0.0000	1.0000	100.00
22.5	155,025		0.0000	1.0000	100.00
23.5	155,025		0.0000	1.0000	100.00
24.5	155,025		0.0000	1.0000	100.00
25.5	155,025		0.0000	1.0000	100.00
26.5	155,025		0.0000	1.0000	100.00
27.5	155,025		0.0000	1.0000	100.00
28.5	155,025		0.0000	1.0000	100.00
29.5	70,430		0.0000	1.0000	100.00
30.5					100.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	49,663,669	2,098	0.0000	1.0000	100.00
0.5	43,403,049	12,748	0.0003	0.9997	100.00
1.5	38,087,101	26,951	0.0007	0.9993	99.97
2.5	34,635,960	27,675	0.0008	0.9992	99.90
3.5	33,643,583	50,579	0.0015	0.9985	99.82
4.5	31,251,942	139,814	0.0045	0.9955	99.67
5.5	29,571,716	36,625	0.0012	0.9988	99.22
6.5	28,650,208	44,191	0.0015	0.9985	99.10
7.5	28,297,335	42,549	0.0015	0.9985	98.94
8.5	25,175,266	388,113	0.0154	0.9846	98.80
9.5	24,425,373	145,806	0.0060	0.9940	97.27
10.5	24,505,465	195,346	0.0080	0.9920	96.69
11.5	13,009,590	58,599	0.0045	0.9955	95.92
12.5	12,903,001	86,500	0.0067	0.9933	95.49
13.5	11,457,682	219,966	0.0192	0.9808	94.85
14.5	9,650,541	31,654	0.0033	0.9967	93.03
15.5	9,192,156	66,788	0.0073	0.9927	92.72
16.5	8,093,235	13,929	0.0017	0.9983	92.05
17.5	7,898,116	37,836	0.0048	0.9952	91.89
18.5	5,582,476	80,174	0.0144	0.9856	91.45
19.5	4,705,147	57,368	0.0122	0.9878	90.14
20.5	4,791,299	85,411	0.0178	0.9822	89.04
21.5	4,754,450	61,840	0.0130	0.9870	87.45
22.5	4,587,105	48,753	0.0106	0.9894	86.31
23.5	4,296,961	97,910	0.0228	0.9772	85.40
24.5	4,252,945	21,258	0.0050	0.9950	83.45
25.5	3,785,951	10,491	0.0028	0.9972	83.03
26.5	3,565,317	12,657	0.0035	0.9965	82.80
27.5	2,271,715	5,913	0.0026	0.9974	82.51
28.5	2,124,255	17,086	0.0080	0.9920	82.29
29.5	1,827,333	113,416	0.0621	0.9379	81.63
30.5	1,194,031	36,388	0.0305	0.9695	76.57
31.5	1,002,655	19,833	0.0198	0.9802	74.23
32.5	845,833	17,748	0.0210	0.9790	72.76
33.5	842,852	10,268	0.0122	0.9878	71.24
34.5	850,760	1,648	0.0019	0.9981	70.37
35.5	783,971	2,477	0.0032	0.9968	70.23
36.5	688,650	7,825	0.0114	0.9886	70.01
37.5	691,056	19,235	0.0278	0.9722	69.22
38.5	648,934	183,192	0.2823	0.7177	67.29

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	490,312		0.0000	1.0000	48.29
40.5	304,141	1,713	0.0056	0.9944	48.29
41.5	262,431	5,791	0.0221	0.9779	48.02
42.5	176,070	1,131	0.0064	0.9936	46.96
43.5	171,578	1,056	0.0062	0.9938	46.66
44.5	170,336	6,019	0.0353	0.9647	46.37
45.5	163,235	121	0.0007	0.9993	44.73
46.5	162,854	22,036	0.1353	0.8647	44.70
47.5	150,949	1,532	0.0102	0.9898	38.65
48.5	149,315	1,324	0.0089	0.9911	38.26
49.5	128,099	314	0.0025	0.9975	37.92
50.5	115,811	4,191	0.0362	0.9638	37.83
51.5	110,009	8,620	0.0784	0.9216	36.46
52.5	100,759	8	0.0001	0.9999	33.60
53.5	87,182	787	0.0090	0.9910	33.60
54.5	86,925	18,486	0.2127	0.7873	33.30
55.5	49,974	857	0.0172	0.9828	26.22
56.5	46,805	596	0.0127	0.9873	25.77
57.5	46,209	1,864	0.0403	0.9597	25.44
58.5	44,346	490	0.0110	0.9890	24.41
59.5	40,729		0.0000	1.0000	24.14
60.5	40,729	2,498	0.0613	0.9387	24.14
61.5	41,671	232	0.0056	0.9944	22.66
62.5	41,439	2,808	0.0678	0.9322	22.53
63.5	38,631	2,900	0.0751	0.9249	21.01
64.5	35,731	495	0.0139	0.9861	19.43
65.5	35,236	3,440	0.0976	0.9024	19.16
66.5	31,111		0.0000	1.0000	17.29
67.5	29,966	259	0.0086	0.9914	17.29
68.5	29,707		0.0000	1.0000	17.14
69.5	29,707	398	0.0134	0.9866	17.14
70.5	29,309	991	0.0338	0.9662	16.91
71.5	24,337	291	0.0119	0.9881	16.34
72.5	24,046		0.0000	1.0000	16.14
73.5	24,731	1,138	0.0460	0.9540	16.14
74.5	23,593	53	0.0022	0.9978	15.40
75.5	23,540		0.0000	1.0000	15.37
76.5	24,660	4,305	0.1746	0.8254	15.37
77.5	20,355		0.0000	1.0000	12.68
78.5	20,355		0.0000	1.0000	12.68

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	20,753		0.0000	1.0000	12.68
80.5	20,753		0.0000	1.0000	12.68
81.5	20,394		0.0000	1.0000	12.68
82.5	20,394		0.0000	1.0000	12.68
83.5	20,394		0.0000	1.0000	12.68
84.5	20,394		0.0000	1.0000	12.68
85.5	20,394		0.0000	1.0000	12.68
86.5	20,394		0.0000	1.0000	12.68
87.5	20,394	270	0.0132	0.9868	12.68
88.5	20,124	392	0.0195	0.9805	12.52
89.5	19,732		0.0000	1.0000	12.27
90.5	19,732		0.0000	1.0000	12.27
91.5	19,302		0.0000	1.0000	12.27
92.5	19,302		0.0000	1.0000	12.27
93.5	19,302		0.0000	1.0000	12.27
94.5	19,302	728	0.0377	0.9623	12.27
95.5	18,574		0.0000	1.0000	11.81
96.5	18,574	5,741	0.3091	0.6909	11.81
97.5	12,833	3,139	0.2446	0.7554	8.16
98.5	9,694	9,296	0.9589	0.0411	6.16
99.5	398		0.0000	1.0000	0.25
100.5	398		0.0000	1.0000	0.25
101.5	398		0.0000	1.0000	0.25
102.5	398		0.0000	1.0000	0.25
103.5	398	398	1.0000		0.25
104.5					

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1916-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	48,443,159	1,898	0.0000	1.0000	100.00
0.5	41,996,836	12,278	0.0003	0.9997	100.00
1.5	36,912,225	26,951	0.0007	0.9993	99.97
2.5	33,588,558	27,675	0.0008	0.9992	99.89
3.5	32,639,030	47,829	0.0015	0.9985	99.81
4.5	30,259,723	139,814	0.0046	0.9954	99.67
5.5	28,656,303	36,625	0.0013	0.9987	99.20
6.5	27,901,854	43,600	0.0016	0.9984	99.08
7.5	27,573,483	42,181	0.0015	0.9985	98.92
8.5	24,462,759	383,768	0.0157	0.9843	98.77
9.5	23,983,479	145,800	0.0061	0.9939	97.22
10.5	24,086,101	194,014	0.0081	0.9919	96.63
11.5	12,773,236	58,599	0.0046	0.9954	95.85
12.5	12,754,332	86,500	0.0068	0.9932	95.41
13.5	11,311,122	219,966	0.0194	0.9806	94.77
14.5	9,491,103	31,654	0.0033	0.9967	92.92
15.5	9,084,819	66,666	0.0073	0.9927	92.61
16.5	8,045,333	13,603	0.0017	0.9983	91.93
17.5	7,850,456	37,636	0.0048	0.9952	91.78
18.5	5,547,614	78,262	0.0141	0.9859	91.34
19.5	4,681,076	56,239	0.0120	0.9880	90.05
20.5	4,768,357	85,035	0.0178	0.9822	88.97
21.5	4,731,884	60,616	0.0128	0.9872	87.38
22.5	4,566,113	47,282	0.0104	0.9896	86.26
23.5	4,278,655	97,854	0.0229	0.9771	85.37
24.5	4,235,265	21,258	0.0050	0.9950	83.42
25.5	3,768,271	10,067	0.0027	0.9973	83.00
26.5	3,548,061	12,657	0.0036	0.9964	82.78
27.5	2,254,459	5,913	0.0026	0.9974	82.48
28.5	2,106,999	16,936	0.0080	0.9920	82.26
29.5	1,787,446	113,416	0.0635	0.9365	81.60
30.5	1,156,017	36,234	0.0313	0.9687	76.43
31.5	964,088	19,833	0.0206	0.9794	74.03
32.5	807,265	17,595	0.0218	0.9782	72.51
33.5	804,359	10,268	0.0128	0.9872	70.93
34.5	807,589	1,394	0.0017	0.9983	70.02
35.5	741,053	2,402	0.0032	0.9968	69.90
36.5	645,286	7,825	0.0121	0.9879	69.67
37.5	650,007	18,948	0.0292	0.9708	68.83
38.5	607,739	182,950	0.3010	0.6990	66.82

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	449,717		0.0000	1.0000	46.71
40.5	265,231	694	0.0026	0.9974	46.71
41.5	225,600	5,791	0.0257	0.9743	46.58
42.5	140,206		0.0000	1.0000	45.39
43.5	136,845	486	0.0036	0.9964	45.39
44.5	134,757	6,019	0.0447	0.9553	45.23
45.5	128,738		0.0000	1.0000	43.21
46.5	125,378	22,036	0.1758	0.8242	43.21
47.5	113,363	1,457	0.0129	0.9871	35.61
48.5	111,804	1,324	0.0118	0.9882	35.16
49.5	90,588	314	0.0035	0.9965	34.74
50.5	78,300	4,191	0.0535	0.9465	34.62
51.5	72,499	8,620	0.1189	0.8811	32.77
52.5	63,248	8	0.0001	0.9999	28.87
53.5	49,958	787	0.0158	0.9842	28.87
54.5	48,900	18,486	0.3780	0.6220	28.41
55.5	11,949	857	0.0717	0.9283	17.67
56.5	8,781	596	0.0679	0.9321	16.40
57.5	8,185	1,864	0.2277	0.7723	15.29
58.5	6,321	490	0.0775	0.9225	11.81
59.5	2,705		0.0000	1.0000	10.89
60.5	2,705		0.0000	1.0000	10.89
61.5	2,705	232	0.0858	0.9142	10.89
62.5	2,473		0.0000	1.0000	9.96
63.5	2,473		0.0000	1.0000	9.96
64.5	2,473		0.0000	1.0000	9.96
65.5	2,473		0.0000	1.0000	9.96
66.5	2,473		0.0000	1.0000	9.96
67.5	2,473		0.0000	1.0000	9.96
68.5	2,473		0.0000	1.0000	9.96
69.5	2,473		0.0000	1.0000	9.96
70.5	2,473	991	0.4008	0.5992	9.96
71.5	1,482	291	0.1962	0.8038	5.97
72.5	1,191		0.0000	1.0000	4.80
73.5	1,191	1,138	0.9555	0.0445	4.80
74.5	53	53	1.0000		0.21
75.5					
76.5	1,120		0.0000		
77.5	1,120		0.0000		
78.5	1,120		0.0000		

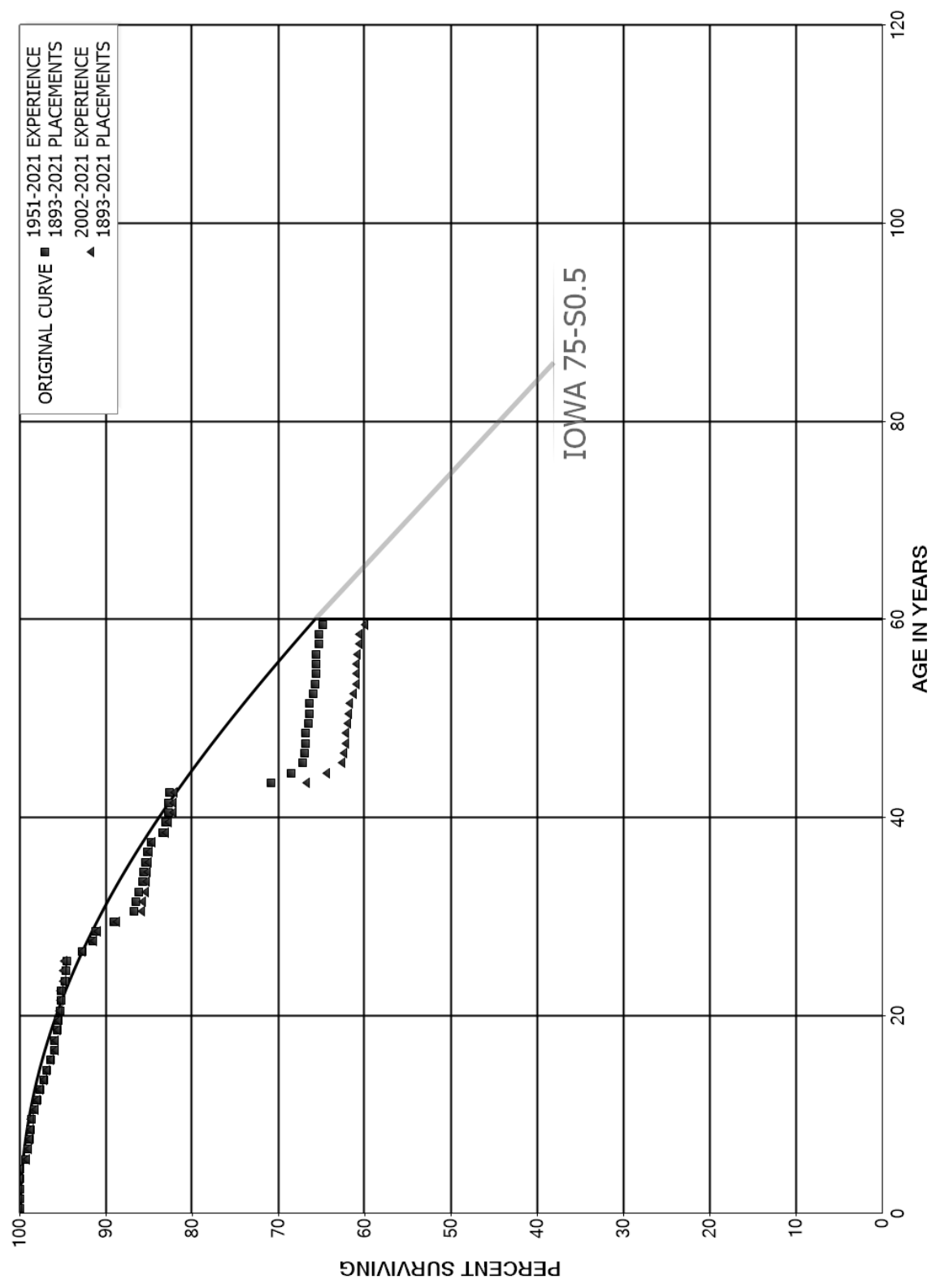
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,120		0.0000		
80.5	19,296		0.0000		
81.5	19,296		0.0000		
82.5	19,296		0.0000		
83.5	19,296		0.0000		
84.5	19,296		0.0000		
85.5	19,694		0.0000		
86.5	19,694		0.0000		
87.5	19,694		0.0000		
88.5	19,694	392	0.0199		
89.5	19,302		0.0000		
90.5	19,302		0.0000		
91.5	19,302		0.0000		
92.5	19,302		0.0000		
93.5	19,302		0.0000		
94.5	19,302	728	0.0377		
95.5	18,574		0.0000		
96.5	18,574	5,741	0.3091		
97.5	12,833	3,139	0.2446		
98.5	9,694	9,296	0.9589		
99.5	398		0.0000		
100.5	398		0.0000		
101.5	398		0.0000		
102.5	398		0.0000		
103.5	398	398	1.0000		
104.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	117,335,365		0.0000	1.0000	100.00
0.5	111,625,126	65,859	0.0006	0.9994	100.00
1.5	111,295,275	4,091	0.0000	1.0000	99.94
2.5	111,549,278	24,786	0.0002	0.9998	99.94
3.5	96,905,259	10,207	0.0001	0.9999	99.92
4.5	96,442,639	612,026	0.0063	0.9937	99.90
5.5	93,463,156	205,051	0.0022	0.9978	99.27
6.5	92,338,474	179,673	0.0019	0.9981	99.05
7.5	86,500,250	81,811	0.0009	0.9991	98.86
8.5	76,460,732	105,746	0.0014	0.9986	98.77
9.5	51,973,397	194,551	0.0037	0.9963	98.63
10.5	51,221,529	166,838	0.0033	0.9967	98.26
11.5	51,068,819	158,389	0.0031	0.9969	97.94
12.5	51,133,077	217,225	0.0042	0.9958	97.64
13.5	49,787,587	185,827	0.0037	0.9963	97.22
14.5	45,444,753	200,028	0.0044	0.9956	96.86
15.5	41,799,976	187,134	0.0045	0.9955	96.43
16.5	41,374,647	36,157	0.0009	0.9991	96.00
17.5	40,914,342	127,481	0.0031	0.9969	95.92
18.5	34,132,130	58,300	0.0017	0.9983	95.62
19.5	33,877,148	65,845	0.0019	0.9981	95.46
20.5	33,003,088	39,228	0.0012	0.9988	95.27
21.5	31,300,564	3,164	0.0001	0.9999	95.16
22.5	26,073,446	100,700	0.0039	0.9961	95.15
23.5	25,292,207	30,835	0.0012	0.9988	94.78
24.5	20,080,236	25,827	0.0013	0.9987	94.66
25.5	19,074,278	370,749	0.0194	0.9806	94.54
26.5	16,384,511	210,146	0.0128	0.9872	92.70
27.5	16,107,140	65,172	0.0040	0.9960	91.52
28.5	13,305,161	297,348	0.0223	0.9777	91.15
29.5	11,222,312	300,448	0.0268	0.9732	89.11
30.5	10,624,674	28,137	0.0026	0.9974	86.72
31.5	7,397,330	28,659	0.0039	0.9961	86.49
32.5	6,424,351	30,234	0.0047	0.9953	86.16
33.5	6,044,409	8,190	0.0014	0.9986	85.75
34.5	4,921,248	12,561	0.0026	0.9974	85.64
35.5	4,754,022	14,106	0.0030	0.9970	85.42
36.5	3,815,106	19,104	0.0050	0.9950	85.16
37.5	3,665,476	56,225	0.0153	0.9847	84.74
38.5	3,445,320	13,726	0.0040	0.9960	83.44



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	3,273,374	14,321	0.0044	0.9956	83.11
40.5	3,017,595	690	0.0002	0.9998	82.74
41.5	2,915,802	4,435	0.0015	0.9985	82.72
42.5	2,870,131	408,983	0.1425	0.8575	82.60
43.5	2,372,272	76,829	0.0324	0.9676	70.83
44.5	2,323,153	45,486	0.0196	0.9804	68.53
45.5	2,229,207	6,658	0.0030	0.9970	67.19
46.5	2,119,397	4,730	0.0022	0.9978	66.99
47.5	1,998,904	819	0.0004	0.9996	66.84
48.5	1,938,454	8,611	0.0044	0.9956	66.81
49.5	1,841,921	2,138	0.0012	0.9988	66.52
50.5	1,725,105	1,932	0.0011	0.9989	66.44
51.5	1,669,127	9,658	0.0058	0.9942	66.37
52.5	1,556,309	6,918	0.0044	0.9956	65.98
53.5	1,546,653	1,016	0.0007	0.9993	65.69
54.5	1,450,656	17	0.0000	1.0000	65.65
55.5	1,401,677	1,784	0.0013	0.9987	65.64
56.5	1,466,080	5,254	0.0036	0.9964	65.56
57.5	1,076,797	56	0.0001	0.9999	65.33
58.5	1,027,925	7,496	0.0073	0.9927	65.32
59.5	1,004,476	810	0.0008	0.9992	64.85
60.5	925,032	6,653	0.0072	0.9928	64.79
61.5	897,092		0.0000	1.0000	64.33
62.5	872,528	6,954	0.0080	0.9920	64.33
63.5	850,991	521	0.0006	0.9994	63.82
64.5	832,802		0.0000	1.0000	63.78
65.5	805,454		0.0000	1.0000	63.78
66.5	697,347	14,106	0.0202	0.9798	63.78
67.5	529,864		0.0000	1.0000	62.49
68.5	500,573		0.0000	1.0000	62.49
69.5	488,415		0.0000	1.0000	62.49
70.5	457,674		0.0000	1.0000	62.49
71.5	457,159	171	0.0004	0.9996	62.49
72.5	458,144	650	0.0014	0.9986	62.46
73.5	385,585	2,057	0.0053	0.9947	62.37
74.5	373,392	133	0.0004	0.9996	62.04
75.5	369,614		0.0000	1.0000	62.02
76.5	368,177		0.0000	1.0000	62.02
77.5	367,524		0.0000	1.0000	62.02
78.5	367,456		0.0000	1.0000	62.02

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	363,346		0.0000	1.0000	62.02
80.5	409,196		0.0000	1.0000	62.02
81.5	408,929		0.0000	1.0000	62.02
82.5	405,864		0.0000	1.0000	62.02
83.5	402,635		0.0000	1.0000	62.02
84.5	401,655		0.0000	1.0000	62.02
85.5	400,386		0.0000	1.0000	62.02
86.5	398,090	283	0.0007	0.9993	62.02
87.5	397,591	311	0.0008	0.9992	61.98
88.5	397,247	604	0.0015	0.9985	61.93
89.5	392,305	215	0.0005	0.9995	61.83
90.5	384,030	5,375	0.0140	0.9860	61.80
91.5	374,346		0.0000	1.0000	60.93
92.5	360,746		0.0000	1.0000	60.93
93.5	318,481	40,918	0.1285	0.8715	60.93
94.5	276,636		0.0000	1.0000	53.11
95.5	282,342		0.0000	1.0000	53.11
96.5	282,188		0.0000	1.0000	53.11
97.5	248,779		0.0000	1.0000	53.11
98.5	240,673		0.0000	1.0000	53.11
99.5	229,131		0.0000	1.0000	53.11
100.5	228,486	124	0.0005	0.9995	53.11
101.5	222,799		0.0000	1.0000	53.08
102.5	219,179		0.0000	1.0000	53.08
103.5	185,205		0.0000	1.0000	53.08
104.5	185,205	5,350	0.0289	0.9711	53.08
105.5	179,855		0.0000	1.0000	51.54
106.5	178,700		0.0000	1.0000	51.54
107.5	178,700		0.0000	1.0000	51.54
108.5	178,700		0.0000	1.0000	51.54
109.5	177,351		0.0000	1.0000	51.54
110.5	161,286		0.0000	1.0000	51.54
111.5	147,450		0.0000	1.0000	51.54
112.5	138,787	723	0.0052	0.9948	51.54
113.5	130,406	194	0.0015	0.9985	51.27
114.5	130,212		0.0000	1.0000	51.20
115.5	123,762		0.0000	1.0000	51.20
116.5	118,254		0.0000	1.0000	51.20
117.5	116,233		0.0000	1.0000	51.20
118.5	116,233		0.0000	1.0000	51.20

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	116,233		0.0000	1.0000	51.20
120.5	108,738		0.0000	1.0000	51.20
121.5	108,380		0.0000	1.0000	51.20
122.5	108,380		0.0000	1.0000	51.20
123.5	108,380		0.0000	1.0000	51.20
124.5	101,273		0.0000	1.0000	51.20
125.5	98,090		0.0000	1.0000	51.20
126.5	98,090		0.0000	1.0000	51.20
127.5	3,249		0.0000	1.0000	51.20
128.5					51.20

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	87,364,445		0.0000	1.0000	100.00
0.5	80,643,465	65,821	0.0008	0.9992	100.00
1.5	81,693,487	3,488	0.0000	1.0000	99.92
2.5	87,106,454	24,534	0.0003	0.9997	99.91
3.5	73,308,187	10,207	0.0001	0.9999	99.89
4.5	77,991,804	603,065	0.0077	0.9923	99.87
5.5	75,516,674	200,432	0.0027	0.9973	99.10
6.5	76,696,582	102,317	0.0013	0.9987	98.84
7.5	71,212,001	39,812	0.0006	0.9994	98.70
8.5	63,159,797	43,820	0.0007	0.9993	98.65
9.5	40,486,705	193,628	0.0048	0.9952	98.58
10.5	39,971,738	110,698	0.0028	0.9972	98.11
11.5	43,129,915	141,377	0.0033	0.9967	97.84
12.5	43,891,695	192,162	0.0044	0.9956	97.52
13.5	43,051,366	157,542	0.0037	0.9963	97.09
14.5	40,007,636	195,959	0.0049	0.9951	96.74
15.5	36,835,134	186,055	0.0051	0.9949	96.26
16.5	37,632,922	35,113	0.0009	0.9991	95.78
17.5	37,401,721	52,887	0.0014	0.9986	95.69
18.5	30,851,709	57,249	0.0019	0.9981	95.55
19.5	30,964,777	24,262	0.0008	0.9992	95.37
20.5	30,392,309	29,731	0.0010	0.9990	95.30
21.5	28,792,786		0.0000	1.0000	95.21
22.5	23,570,349	78,238	0.0033	0.9967	95.21
23.5	22,873,709	20,026	0.0009	0.9991	94.89
24.5	17,687,908	9,580	0.0005	0.9995	94.81
25.5	16,743,554	370,749	0.0221	0.9779	94.75
26.5	14,086,504	209,692	0.0149	0.9851	92.66
27.5	13,843,508	60,036	0.0043	0.9957	91.28
28.5	10,974,578	277,673	0.0253	0.9747	90.88
29.5	9,060,904	297,117	0.0328	0.9672	88.58
30.5	9,006,479	5,126	0.0006	0.9994	85.68
31.5	5,881,292	27,350	0.0047	0.9953	85.63
32.5	4,991,961	1,975	0.0004	0.9996	85.23
33.5	4,657,535	7,275	0.0016	0.9984	85.20
34.5	3,643,386	4,564	0.0013	0.9987	85.06
35.5	3,512,119	5,689	0.0016	0.9984	84.96
36.5	2,588,804	9,621	0.0037	0.9963	84.82
37.5	2,839,230	53,267	0.0188	0.9812	84.50
38.5	2,673,469	10,837	0.0041	0.9959	82.92

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,484,406	14,321	0.0058	0.9942	82.58
40.5	2,294,209	690	0.0003	0.9997	82.11
41.5	2,191,331	3,596	0.0016	0.9984	82.08
42.5	2,155,537	403,150	0.1870	0.8130	81.95
43.5	1,685,738	58,604	0.0348	0.9652	66.62
44.5	1,624,017	44,992	0.0277	0.9723	64.30
45.5	1,557,839	5,446	0.0035	0.9965	62.52
46.5	1,558,408	4,730	0.0030	0.9970	62.30
47.5	1,591,347	38	0.0000	1.0000	62.12
48.5	1,567,906	7,829	0.0050	0.9950	62.11
49.5	1,473,465	2,138	0.0015	0.9985	61.80
50.5	1,372,024	1,799	0.0013	0.9987	61.71
51.5	1,331,187	9,164	0.0069	0.9931	61.63
52.5	1,221,102	6,918	0.0057	0.9943	61.21
53.5	1,269,407	231	0.0002	0.9998	60.86
54.5	1,181,148	17	0.0000	1.0000	60.85
55.5	1,132,641	1,739	0.0015	0.9985	60.85
56.5	1,103,560	4,999	0.0045	0.9955	60.76
57.5	711,813	56	0.0001	0.9999	60.48
58.5	663,009	7,496	0.0113	0.9887	60.48
59.5	642,969		0.0000	1.0000	59.79
60.5	564,779	6,653	0.0118	0.9882	59.79
61.5	537,105		0.0000	1.0000	59.09
62.5	511,286	6,954	0.0136	0.9864	59.09
63.5	492,978	521	0.0011	0.9989	58.29
64.5	475,768		0.0000	1.0000	58.22
65.5	449,823		0.0000	1.0000	58.22
66.5	342,952	14,106	0.0411	0.9589	58.22
67.5	175,686		0.0000	1.0000	55.83
68.5	146,427		0.0000	1.0000	55.83
69.5	138,608		0.0000	1.0000	55.83
70.5	115,927		0.0000	1.0000	55.83
71.5	119,721		0.0000	1.0000	55.83
72.5	131,686	59	0.0004	0.9996	55.83
73.5	63,486		0.0000	1.0000	55.80
74.5	54,561	133	0.0024	0.9976	55.80
75.5	54,480		0.0000	1.0000	55.67
76.5	53,197		0.0000	1.0000	55.67
77.5	88,382		0.0000	1.0000	55.67
78.5	99,951		0.0000	1.0000	55.67

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	107,384		0.0000	1.0000	55.67
80.5	107,586		0.0000	1.0000	55.67
81.5	155,644		0.0000	1.0000	55.67
82.5	156,200		0.0000	1.0000	55.67
83.5	186,945		0.0000	1.0000	55.67
84.5	185,965		0.0000	1.0000	55.67
85.5	184,696		0.0000	1.0000	55.67
86.5	183,554	283	0.0015	0.9985	55.67
87.5	183,055		0.0000	1.0000	55.58
88.5	183,022	604	0.0033	0.9967	55.58
89.5	179,429	215	0.0012	0.9988	55.40
90.5	187,219	5,375	0.0287	0.9713	55.33
91.5	191,371		0.0000	1.0000	53.74
92.5	191,785		0.0000	1.0000	53.74
93.5	195,674	40,918	0.2091	0.7909	53.74
94.5	153,829		0.0000	1.0000	42.51
95.5	159,754		0.0000	1.0000	42.51
96.5	165,831		0.0000	1.0000	42.51
97.5	132,422		0.0000	1.0000	42.51
98.5	124,316		0.0000	1.0000	42.51
99.5	112,774		0.0000	1.0000	42.51
100.5	119,624		0.0000	1.0000	42.51
101.5	114,419		0.0000	1.0000	42.51
102.5	110,799		0.0000	1.0000	42.51
103.5	76,825		0.0000	1.0000	42.51
104.5	83,932	5,350	0.0637	0.9363	42.51
105.5	81,764		0.0000	1.0000	39.80
106.5	80,610		0.0000	1.0000	39.80
107.5	175,451		0.0000	1.0000	39.80
108.5	178,700		0.0000	1.0000	39.80
109.5	177,351		0.0000	1.0000	39.80
110.5	161,286		0.0000	1.0000	39.80
111.5	147,450		0.0000	1.0000	39.80
112.5	138,787	723	0.0052	0.9948	39.80
113.5	130,406	194	0.0015	0.9985	39.59
114.5	130,212		0.0000	1.0000	39.53
115.5	123,762		0.0000	1.0000	39.53
116.5	118,254		0.0000	1.0000	39.53
117.5	116,233		0.0000	1.0000	39.53
118.5	116,233		0.0000	1.0000	39.53

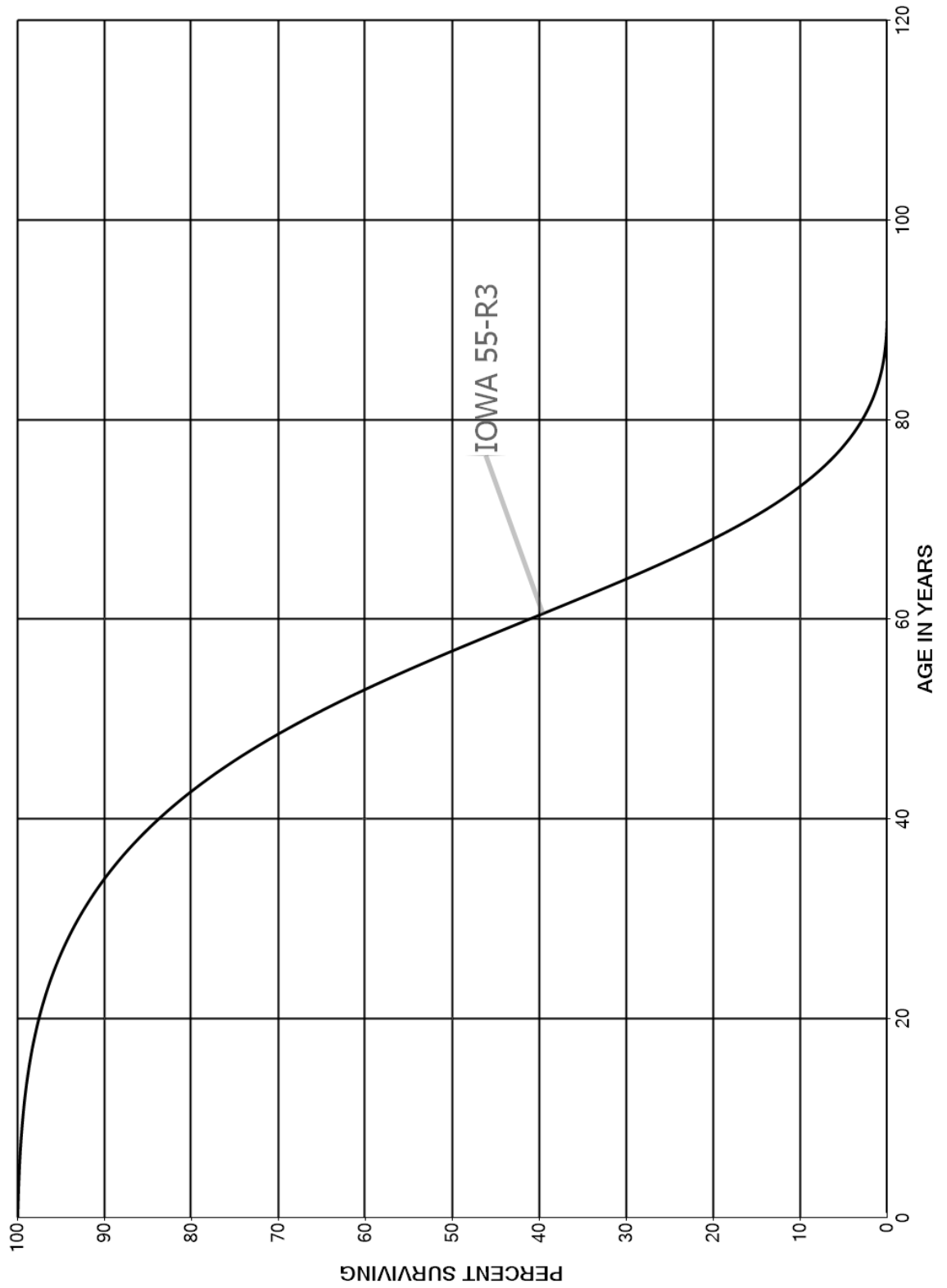
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - LARGE

ORIGINAL LIFE TABLE, CONT.

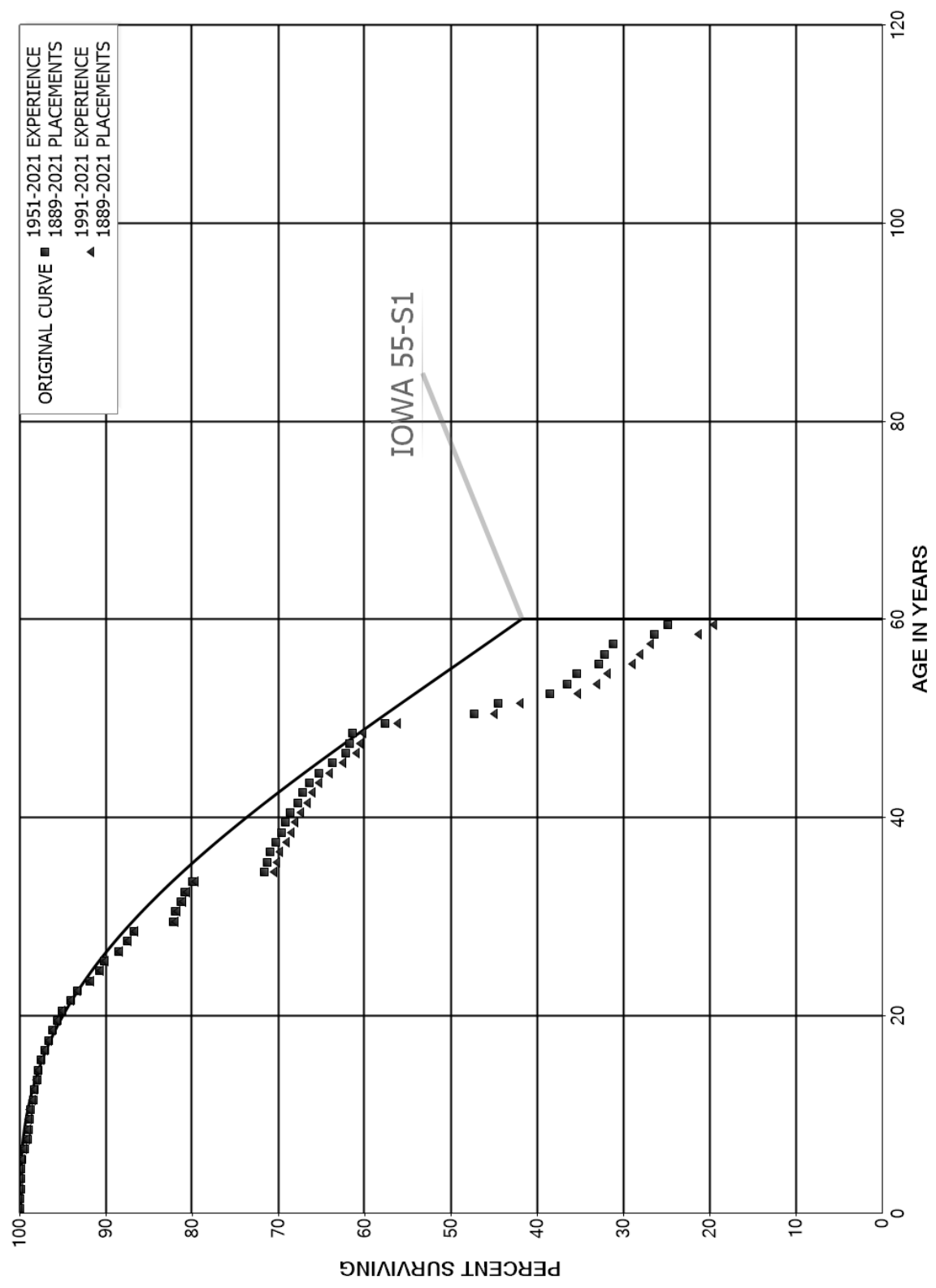
PLACEMENT BAND 1893-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	116,233		0.0000	1.0000	39.53
120.5	108,738		0.0000	1.0000	39.53
121.5	108,380		0.0000	1.0000	39.53
122.5	108,380		0.0000	1.0000	39.53
123.5	108,380		0.0000	1.0000	39.53
124.5	101,273		0.0000	1.0000	39.53
125.5	98,090		0.0000	1.0000	39.53
126.5	98,090		0.0000	1.0000	39.53
127.5	3,249		0.0000	1.0000	39.53
128.5					39.53

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.20 POWER AND PUMPING STRUCTURES - OTHER  
 SMOOTH SURVIVOR CURVE





PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	332,928,816	5,551	0.0000	1.0000	100.00
0.5	293,698,577	20,709	0.0001	0.9999	100.00
1.5	296,519,828	351,612	0.0012	0.9988	99.99
2.5	294,222,893	156,261	0.0005	0.9995	99.87
3.5	263,072,356	70,597	0.0003	0.9997	99.82
4.5	252,396,588	283,954	0.0011	0.9989	99.79
5.5	249,712,958	741,086	0.0030	0.9970	99.68
6.5	252,361,135	704,029	0.0028	0.9972	99.38
7.5	245,098,077	407,787	0.0017	0.9983	99.11
8.5	246,896,500	276,600	0.0011	0.9989	98.94
9.5	193,927,601	177,918	0.0009	0.9991	98.83
10.5	178,112,087	566,031	0.0032	0.9968	98.74
11.5	171,285,147	265,551	0.0016	0.9984	98.43
12.5	170,683,706	495,554	0.0029	0.9971	98.27
13.5	169,392,366	290,269	0.0017	0.9983	97.99
14.5	164,717,787	517,847	0.0031	0.9969	97.82
15.5	147,239,049	669,035	0.0045	0.9955	97.51
16.5	146,327,552	668,331	0.0046	0.9954	97.07
17.5	143,711,794	627,290	0.0044	0.9956	96.63
18.5	131,319,241	752,521	0.0057	0.9943	96.21
19.5	129,322,578	736,344	0.0057	0.9943	95.65
20.5	121,063,733	1,333,428	0.0110	0.9890	95.11
21.5	117,110,515	909,341	0.0078	0.9922	94.06
22.5	108,920,152	1,796,068	0.0165	0.9835	93.33
23.5	106,282,623	1,238,247	0.0117	0.9883	91.79
24.5	100,534,575	576,446	0.0057	0.9943	90.72
25.5	98,587,069	1,880,219	0.0191	0.9809	90.20
26.5	91,094,955	952,596	0.0105	0.9895	88.48
27.5	88,419,719	843,031	0.0095	0.9905	87.56
28.5	69,834,344	3,652,280	0.0523	0.9477	86.72
29.5	54,791,699	147,958	0.0027	0.9973	82.19
30.5	42,215,460	353,628	0.0084	0.9916	81.97
31.5	22,460,034	109,558	0.0049	0.9951	81.28
32.5	19,613,661	221,482	0.0113	0.9887	80.88
33.5	12,011,241	1,255,065	0.1045	0.8955	79.97
34.5	10,549,319	44,265	0.0042	0.9958	71.61
35.5	10,435,921	50,608	0.0048	0.9952	71.31
36.5	9,547,462	96,793	0.0101	0.9899	70.97
37.5	9,401,555	80,827	0.0086	0.9914	70.25
38.5	9,138,780	60,957	0.0067	0.9933	69.64

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,414,284	74,738	0.0089	0.9911	69.18
40.5	8,312,234	97,287	0.0117	0.9883	68.56
41.5	8,195,282	70,203	0.0086	0.9914	67.76
42.5	8,108,263	91,736	0.0113	0.9887	67.18
43.5	8,004,062	141,059	0.0176	0.9824	66.42
44.5	7,847,315	188,147	0.0240	0.9760	65.25
45.5	11,116,656	264,634	0.0238	0.9762	63.69
46.5	10,532,966	76,174	0.0072	0.9928	62.17
47.5	10,449,693	54,046	0.0052	0.9948	61.72
48.5	3,868,878	237,456	0.0614	0.9386	61.40
49.5	2,661,867	479,036	0.1800	0.8200	57.63
50.5	2,161,034	123,891	0.0573	0.9427	47.26
51.5	2,036,632	277,387	0.1362	0.8638	44.55
52.5	1,614,518	83,724	0.0519	0.9481	38.48
53.5	1,273,365	39,426	0.0310	0.9690	36.49
54.5	1,211,130	85,406	0.0705	0.9295	35.36
55.5	1,160,430	25,083	0.0216	0.9784	32.86
56.5	1,140,204	35,919	0.0315	0.9685	32.15
57.5	1,103,861	168,837	0.1530	0.8470	31.14
58.5	933,346	54,474	0.0584	0.9416	26.38
59.5	875,342	39,588	0.0452	0.9548	24.84
60.5	754,765	11,967	0.0159	0.9841	23.72
61.5	639,756	9,404	0.0147	0.9853	23.34
62.5	630,281	2,202	0.0035	0.9965	23.00
63.5	625,510	29,652	0.0474	0.9526	22.92
64.5	596,225	130,311	0.2186	0.7814	21.83
65.5	465,867	17,823	0.0383	0.9617	17.06
66.5	432,319	3,005	0.0070	0.9930	16.41
67.5	365,104	157	0.0004	0.9996	16.29
68.5	346,391	5,237	0.0151	0.9849	16.28
69.5	354,195	4,176	0.0118	0.9882	16.04
70.5	344,470	773	0.0022	0.9978	15.85
71.5	343,696	9,909	0.0288	0.9712	15.81
72.5	335,302	0	0.0000	1.0000	15.36
73.5	335,851	50	0.0001	0.9999	15.36
74.5	335,610		0.0000	1.0000	15.36
75.5	338,781		0.0000	1.0000	15.36
76.5	330,117	17	0.0001	0.9999	15.36
77.5	329,849	4	0.0000	1.0000	15.36
78.5	329,857	840	0.0025	0.9975	15.35

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	328,959	5,286	0.0161	0.9839	15.32
80.5	333,543	468	0.0014	0.9986	15.07
81.5	359,205	10,519	0.0293	0.9707	15.05
82.5	348,686	17,395	0.0499	0.9501	14.61
83.5	329,662	26,479	0.0803	0.9197	13.88
84.5	322,957	206	0.0006	0.9994	12.76
85.5	322,751	5,951	0.0184	0.9816	12.76
86.5	316,458	173	0.0005	0.9995	12.52
87.5	314,778	700	0.0022	0.9978	12.51
88.5	314,078	1,854	0.0059	0.9941	12.49
89.5	312,224	633	0.0020	0.9980	12.41
90.5	309,739	20,583	0.0665	0.9335	12.39
91.5	288,543	254	0.0009	0.9991	11.56
92.5	285,097	4,842	0.0170	0.9830	11.55
93.5	278,478		0.0000	1.0000	11.36
94.5	278,478	7,611	0.0273	0.9727	11.36
95.5	270,867	3,481	0.0129	0.9871	11.05
96.5	267,386	16,354	0.0612	0.9388	10.91
97.5	209,825	27,595	0.1315	0.8685	10.24
98.5	176,085	1,835	0.0104	0.9896	8.89
99.5	173,956	15,273	0.0878	0.9122	8.80
100.5	151,133	45	0.0003	0.9997	8.03
101.5	151,088	8,751	0.0579	0.9421	8.02
102.5	142,337	743	0.0052	0.9948	7.56
103.5	140,770	9,445	0.0671	0.9329	7.52
104.5	129,726	21,449	0.1653	0.8347	7.02
105.5	108,277	1,762	0.0163	0.9837	5.86
106.5	106,474	112	0.0011	0.9989	5.76
107.5	105,549	22,493	0.2131	0.7869	5.75
108.5	77,019	1,154	0.0150	0.9850	4.53
109.5	75,639		0.0000	1.0000	4.46
110.5	75,639	24,687	0.3264	0.6736	4.46
111.5	49,996		0.0000	1.0000	3.00
112.5	49,593	3,254	0.0656	0.9344	3.00
113.5	45,812		0.0000	1.0000	2.81
114.5	45,812		0.0000	1.0000	2.81
115.5	39,991		0.0000	1.0000	2.81
116.5	39,991	6,556	0.1639	0.8361	2.81
117.5	33,435		0.0000	1.0000	2.35
118.5	31,512		0.0000	1.0000	2.35

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT  
STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021			EXPERIENCE BAND 1951-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	18,162	1,414	0.0779	0.9221	2.35	
120.5	16,692	43	0.0025	0.9975	2.16	
121.5	13,731		0.0000	1.0000	2.16	
122.5	13,731		0.0000	1.0000	2.16	
123.5	13,731		0.0000	1.0000	2.16	
124.5	13,731	760	0.0553	0.9447	2.16	
125.5	12,971		0.0000	1.0000	2.04	
126.5	12,971		0.0000	1.0000	2.04	
127.5	12,971		0.0000	1.0000	2.04	
128.5	12,281		0.0000	1.0000	2.04	
129.5	12,281	246	0.0200	0.9800	2.04	
130.5	12,035		0.0000	1.0000	2.00	
131.5	12,035		0.0000	1.0000	2.00	
132.5					2.00	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1991-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	285,152,914	5,551	0.0000	1.0000	100.00
0.5	270,292,847	20,616	0.0001	0.9999	100.00
1.5	276,513,274	351,458	0.0013	0.9987	99.99
2.5	282,291,327	156,182	0.0006	0.9994	99.86
3.5	251,927,252	65,469	0.0003	0.9997	99.81
4.5	241,769,583	280,443	0.0012	0.9988	99.78
5.5	242,433,036	739,048	0.0030	0.9970	99.67
6.5	245,410,618	703,979	0.0029	0.9971	99.36
7.5	238,370,372	405,631	0.0017	0.9983	99.08
8.5	240,800,599	272,668	0.0011	0.9989	98.91
9.5	187,971,679	175,888	0.0009	0.9991	98.80
10.5	172,228,130	564,516	0.0033	0.9967	98.70
11.5	165,549,518	264,651	0.0016	0.9984	98.38
12.5	164,991,208	493,890	0.0030	0.9970	98.22
13.5	163,715,476	286,654	0.0018	0.9982	97.93
14.5	159,079,744	513,197	0.0032	0.9968	97.76
15.5	142,377,877	666,808	0.0047	0.9953	97.44
16.5	141,538,960	645,121	0.0046	0.9954	96.99
17.5	138,973,106	626,490	0.0045	0.9955	96.54
18.5	127,941,621	746,894	0.0058	0.9942	96.11
19.5	126,060,522	736,344	0.0058	0.9942	95.55
20.5	117,811,145	1,331,717	0.0113	0.9887	94.99
21.5	114,895,100	908,867	0.0079	0.9921	93.92
22.5	107,087,329	1,793,000	0.0167	0.9833	93.17
23.5	104,456,372	1,238,247	0.0119	0.9881	91.61
24.5	98,724,326	575,234	0.0058	0.9942	90.53
25.5	96,856,506	1,876,529	0.0194	0.9806	90.00
26.5	89,328,560	952,560	0.0107	0.9893	88.26
27.5	86,610,135	841,615	0.0097	0.9903	87.32
28.5	68,050,573	3,651,804	0.0537	0.9463	86.47
29.5	53,629,304	146,691	0.0027	0.9973	81.83
30.5	41,053,823	349,808	0.0085	0.9915	81.60
31.5	21,338,214	109,257	0.0051	0.9949	80.91
32.5	18,525,962	221,482	0.0120	0.9880	80.49
33.5	10,942,014	1,252,959	0.1145	0.8855	79.53
34.5	9,491,251	43,765	0.0046	0.9954	70.42
35.5	9,687,538	50,608	0.0052	0.9948	70.10
36.5	9,021,276	96,793	0.0107	0.9893	69.73
37.5	9,129,690	80,563	0.0088	0.9912	68.98
38.5	8,870,343	60,866	0.0069	0.9931	68.38

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1991-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,181,300	74,633	0.0091	0.9909	67.91
40.5	8,075,732	97,287	0.0120	0.9880	67.29
41.5	7,962,846	70,203	0.0088	0.9912	66.48
42.5	7,879,225	91,736	0.0116	0.9884	65.89
43.5	7,775,650	141,059	0.0181	0.9819	65.12
44.5	7,581,432	188,048	0.0248	0.9752	63.94
45.5	10,850,962	264,634	0.0244	0.9756	62.36
46.5	10,268,837	76,174	0.0074	0.9926	60.84
47.5	10,186,394	54,046	0.0053	0.9947	60.38
48.5	3,587,480	237,456	0.0662	0.9338	60.06
49.5	2,379,821	479,036	0.2013	0.7987	56.09
50.5	1,873,811	123,891	0.0661	0.9339	44.80
51.5	1,749,409	277,387	0.1586	0.8414	41.84
52.5	1,341,813	83,724	0.0624	0.9376	35.20
53.5	1,000,459	39,426	0.0394	0.9606	33.01
54.5	938,224	85,406	0.0910	0.9090	31.71
55.5	848,626	24,951	0.0294	0.9706	28.82
56.5	832,807	35,585	0.0427	0.9573	27.97
57.5	796,797	166,441	0.2089	0.7911	26.78
58.5	628,679	54,474	0.0866	0.9134	21.18
59.5	593,550	39,588	0.0667	0.9333	19.35
60.5	474,621	11,890	0.0251	0.9749	18.06
61.5	348,170	9,404	0.0270	0.9730	17.61
62.5	347,373	2,202	0.0063	0.9937	17.13
63.5	342,602	29,652	0.0866	0.9134	17.02
64.5	313,317	130,311	0.4159	0.5841	15.55
65.5	182,959	17,823	0.0974	0.9026	9.08
66.5	227,906	3,005	0.0132	0.9868	8.20
67.5	217,748	107	0.0005	0.9995	8.09
68.5	199,084	2,134	0.0107	0.9893	8.08
69.5	209,992	4,176	0.0199	0.9801	8.00
70.5	200,266	455	0.0023	0.9977	7.84
71.5	199,811	9,871	0.0494	0.9506	7.82
72.5	192,292	0	0.0000	1.0000	7.43
73.5	194,310	50	0.0003	0.9997	7.43
74.5	194,387		0.0000	1.0000	7.43
75.5	196,449		0.0000	1.0000	7.43
76.5	195,551	17	0.0001	0.9999	7.43
77.5	195,283	4	0.0000	1.0000	7.43
78.5	207,836	840	0.0040	0.9960	7.43

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021

EXPERIENCE BAND 1991-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	206,938	5,286	0.0255	0.9745	7.40
80.5	214,546	468	0.0022	0.9978	7.21
81.5	240,719	10,519	0.0437	0.9563	7.20
82.5	232,490	17,395	0.0748	0.9252	6.88
83.5	213,465	26,479	0.1240	0.8760	6.37
84.5	244,366	206	0.0008	0.9992	5.58
85.5	244,160	5,951	0.0244	0.9756	5.57
86.5	237,867	173	0.0007	0.9993	5.44
87.5	237,449	700	0.0029	0.9971	5.43
88.5	260,825	1,854	0.0071	0.9929	5.42
89.5	259,677	633	0.0024	0.9976	5.38
90.5	261,524	20,583	0.0787	0.9213	5.37
91.5	240,328	238	0.0010	0.9990	4.94
92.5	236,898	4,776	0.0202	0.9798	4.94
93.5	230,544		0.0000	1.0000	4.84
94.5	230,544	7,611	0.0330	0.9670	4.84
95.5	257,827	3,481	0.0135	0.9865	4.68
96.5	254,345	16,354	0.0643	0.9357	4.62
97.5	196,784	27,595	0.1402	0.8598	4.32
98.5	163,044	1,835	0.0113	0.9887	3.71
99.5	160,915	15,273	0.0949	0.9051	3.67
100.5	138,092	45	0.0003	0.9997	3.32
101.5	151,088	8,751	0.0579	0.9421	3.32
102.5	142,337	743	0.0052	0.9948	3.13
103.5	140,770	9,445	0.0671	0.9329	3.11
104.5	129,726	21,449	0.1653	0.8347	2.90
105.5	108,277	1,762	0.0163	0.9837	2.42
106.5	106,474	112	0.0011	0.9989	2.38
107.5	105,549	22,493	0.2131	0.7869	2.38
108.5	77,019	1,154	0.0150	0.9850	1.87
109.5	75,639		0.0000	1.0000	1.85
110.5	75,639	24,687	0.3264	0.6736	1.85
111.5	49,996		0.0000	1.0000	1.24
112.5	49,593	3,254	0.0656	0.9344	1.24
113.5	45,812		0.0000	1.0000	1.16
114.5	45,812		0.0000	1.0000	1.16
115.5	39,991		0.0000	1.0000	1.16
116.5	39,991	6,556	0.1639	0.8361	1.16
117.5	33,435		0.0000	1.0000	0.97
118.5	31,512		0.0000	1.0000	0.97



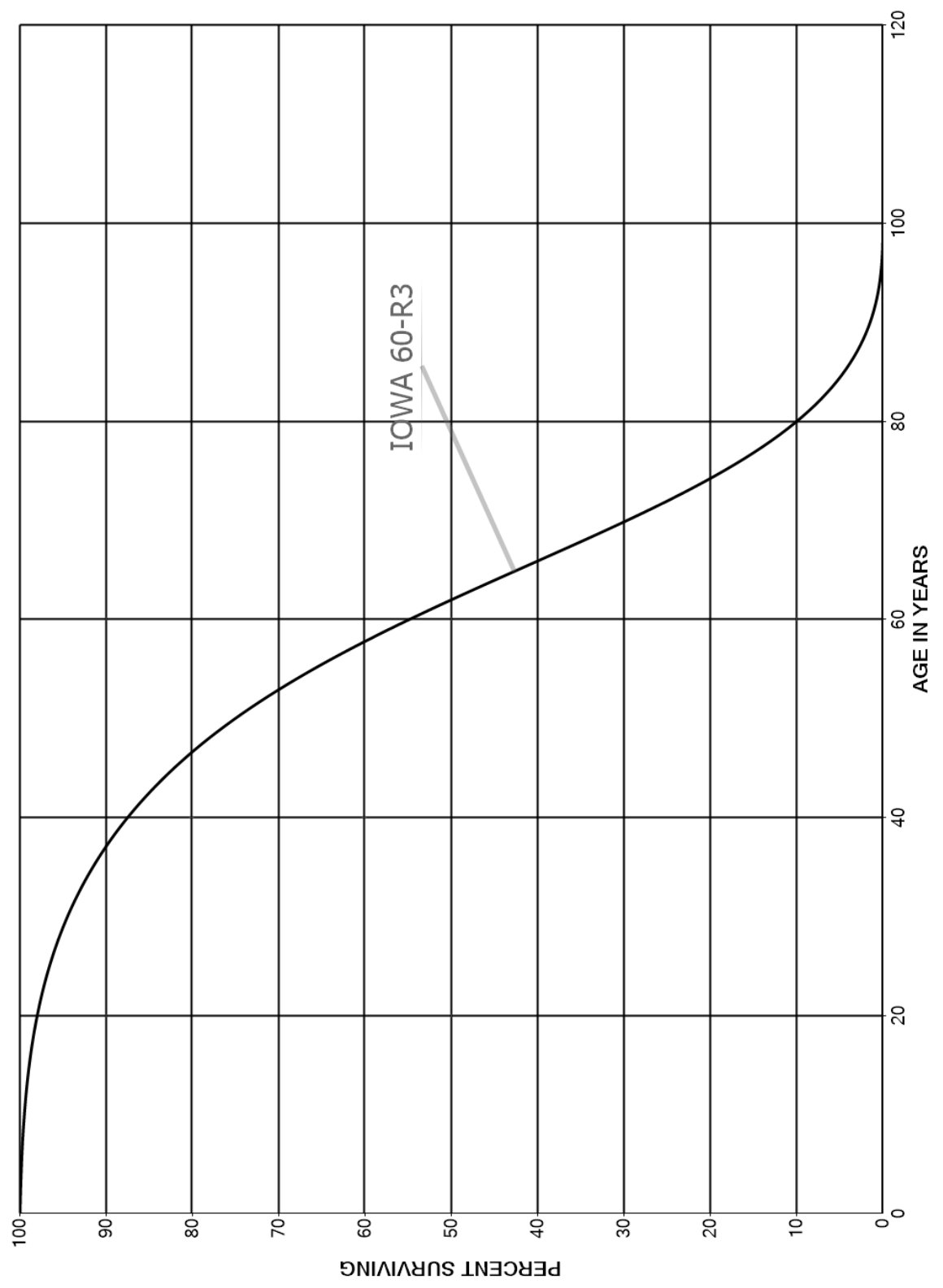
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 304.30 AND 304.36 PURIFICATION, WASTE HANDLING AND TREATMENT  
STRUCTURES

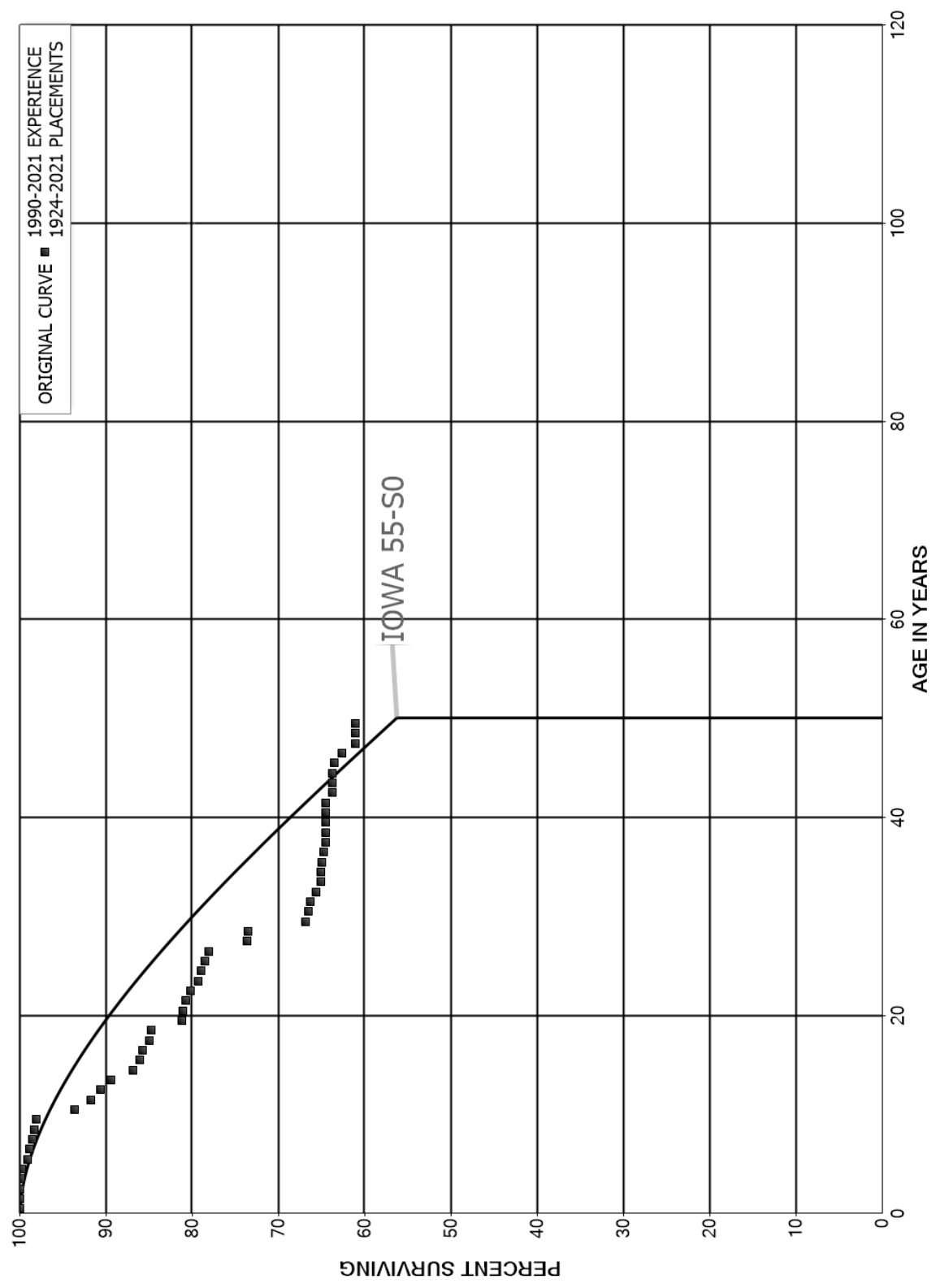
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2021			EXPERIENCE BAND 1991-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	18,162	1,414	0.0779	0.9221	0.97	
120.5	16,692	43	0.0025	0.9975	0.90	
121.5	13,731		0.0000	1.0000	0.89	
122.5	13,731		0.0000	1.0000	0.89	
123.5	13,731		0.0000	1.0000	0.89	
124.5	13,731	760	0.0553	0.9447	0.89	
125.5	12,971		0.0000	1.0000	0.84	
126.5	12,971		0.0000	1.0000	0.84	
127.5	12,971		0.0000	1.0000	0.84	
128.5	12,281		0.0000	1.0000	0.84	
129.5	12,281	246	0.0200	0.9800	0.84	
130.5	12,035		0.0000	1.0000	0.83	
131.5	12,035		0.0000	1.0000	0.83	
132.5					0.83	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.30 PURIFICATION BUILDINGS - OTHER  
 SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.61 OFFICE BUILDINGS - LARGE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.61 OFFICE BUILDINGS - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1924-2021

EXPERIENCE BAND 1990-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	41,380,769		0.0000	1.0000	100.00
0.5	44,088,926	10,320	0.0002	0.9998	100.00
1.5	44,336,093	20,035	0.0005	0.9995	99.98
2.5	43,635,061	39,693	0.0009	0.9991	99.93
3.5	19,990,405	16,310	0.0008	0.9992	99.84
4.5	19,510,096	142,870	0.0073	0.9927	99.76
5.5	17,976,989	39,489	0.0022	0.9978	99.03
6.5	17,687,523	47,849	0.0027	0.9973	98.81
7.5	17,436,133	45,013	0.0026	0.9974	98.54
8.5	16,775,985	32,170	0.0019	0.9981	98.29
9.5	16,438,960	749,138	0.0456	0.9544	98.10
10.5	15,389,301	306,128	0.0199	0.9801	93.63
11.5	15,020,979	189,232	0.0126	0.9874	91.77
12.5	14,615,580	188,079	0.0129	0.9871	90.61
13.5	14,028,620	404,629	0.0288	0.9712	89.45
14.5	13,480,953	132,559	0.0098	0.9902	86.87
15.5	12,854,570	37,582	0.0029	0.9971	86.01
16.5	12,346,428	112,817	0.0091	0.9909	85.76
17.5	12,191,462	36,049	0.0030	0.9970	84.98
18.5	11,963,605	497,820	0.0416	0.9584	84.73
19.5	11,313,475	21,307	0.0019	0.9981	81.20
20.5	10,822,026	45,004	0.0042	0.9958	81.05
21.5	10,140,598	69,086	0.0068	0.9932	80.71
22.5	10,055,189	104,076	0.0104	0.9896	80.16
23.5	9,919,148	49,073	0.0049	0.9951	79.33
24.5	9,719,501	54,012	0.0056	0.9944	78.94
25.5	8,079,015	41,183	0.0051	0.9949	78.50
26.5	7,956,448	453,035	0.0569	0.9431	78.10
27.5	7,160,035	9,823	0.0014	0.9986	73.65
28.5	7,218,804	657,457	0.0911	0.9089	73.55
29.5	6,460,262	28,830	0.0045	0.9955	66.85
30.5	6,374,424	28,761	0.0045	0.9955	66.55
31.5	6,611,457	64,999	0.0098	0.9902	66.25
32.5	5,558,718	44,124	0.0079	0.9921	65.60
33.5	4,836,906		0.0000	1.0000	65.08
34.5	2,859,662	5,354	0.0019	0.9981	65.08
35.5	1,309,626	4,580	0.0035	0.9965	64.96
36.5	1,236,164	3,664	0.0030	0.9970	64.73
37.5	1,231,598	349	0.0003	0.9997	64.54
38.5	1,196,464		0.0000	1.0000	64.52

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.61 OFFICE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-2021			EXPERIENCE BAND 1990-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	835,418	350	0.0004	0.9996	64.52	
40.5	789,258	1	0.0000	1.0000	64.50	
41.5	789,157	9,586	0.0121	0.9879	64.50	
42.5	749,818		0.0000	1.0000	63.71	
43.5	749,818	0	0.0000	1.0000	63.71	
44.5	303,227	1,089	0.0036	0.9964	63.71	
45.5	256,451	3,391	0.0132	0.9868	63.48	
46.5	246,533	6,299	0.0255	0.9745	62.64	
47.5	240,234		0.0000	1.0000	61.04	
48.5	238,597	68	0.0003	0.9997	61.04	
49.5	177,068	89	0.0005	0.9995	61.03	
50.5	167,959	2,639	0.0157	0.9843	61.00	
51.5	154,198		0.0000	1.0000	60.04	
52.5	152,925		0.0000	1.0000	60.04	
53.5	95,469		0.0000	1.0000	60.04	
54.5	47,291		0.0000	1.0000	60.04	
55.5	46,166		0.0000	1.0000	60.04	
56.5	34,208		0.0000	1.0000	60.04	
57.5	33,128		0.0000	1.0000	60.04	
58.5	83		0.0000	1.0000	60.04	
59.5	83		0.0000	1.0000	60.04	
60.5	62		0.0000	1.0000	60.04	
61.5	13		0.0000	1.0000	60.04	
62.5	13		0.0000	1.0000	60.04	
63.5					60.04	
64.5						
65.5						
66.5						
67.5						
68.5						
69.5						
70.5						
71.5						
72.5						
73.5						
74.5						
75.5	215		0.0000			
76.5	215		0.0000			
77.5	1,060		0.0000			
78.5	1,060		0.0000			

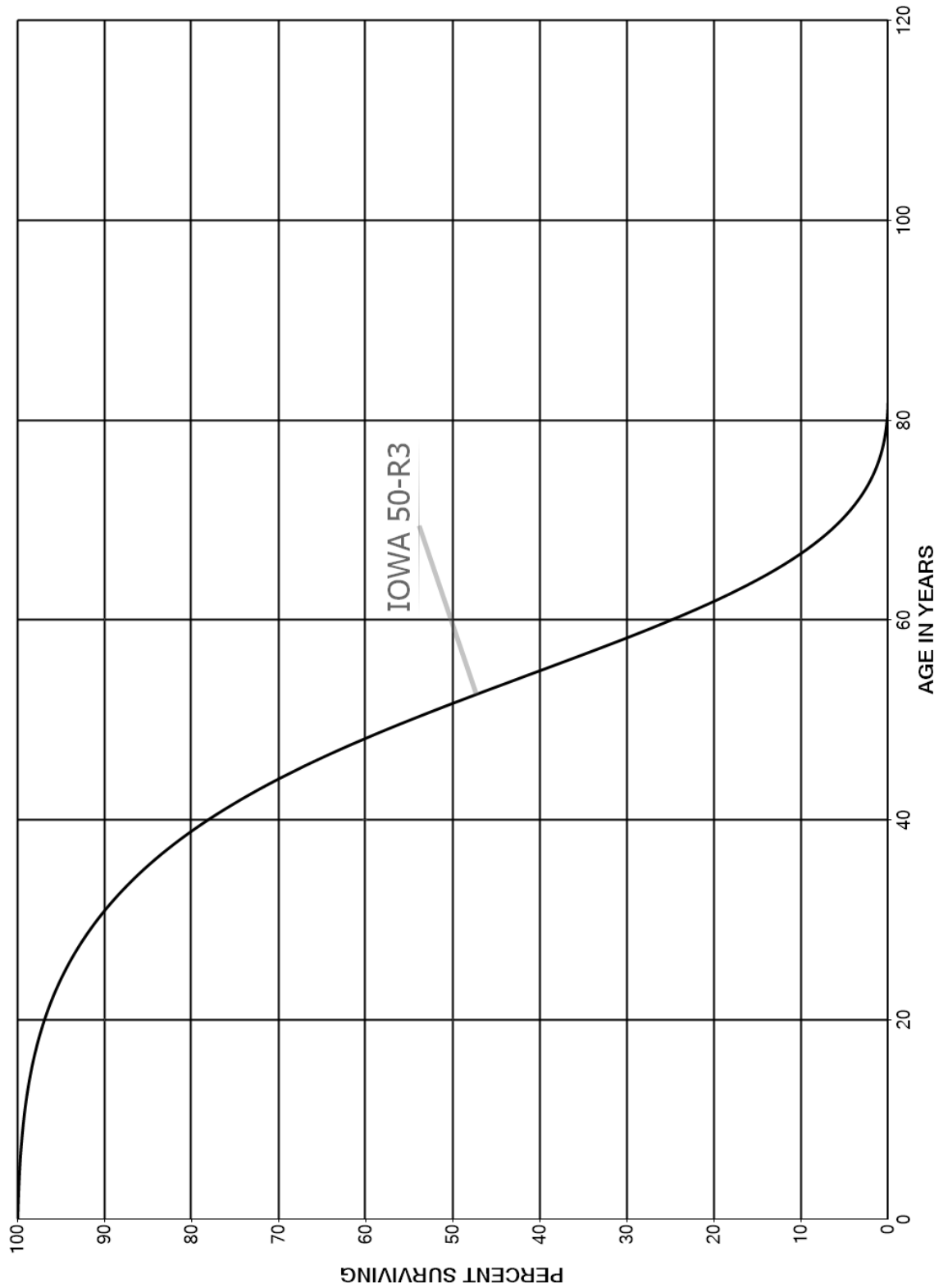
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.61 OFFICE BUILDINGS - LARGE

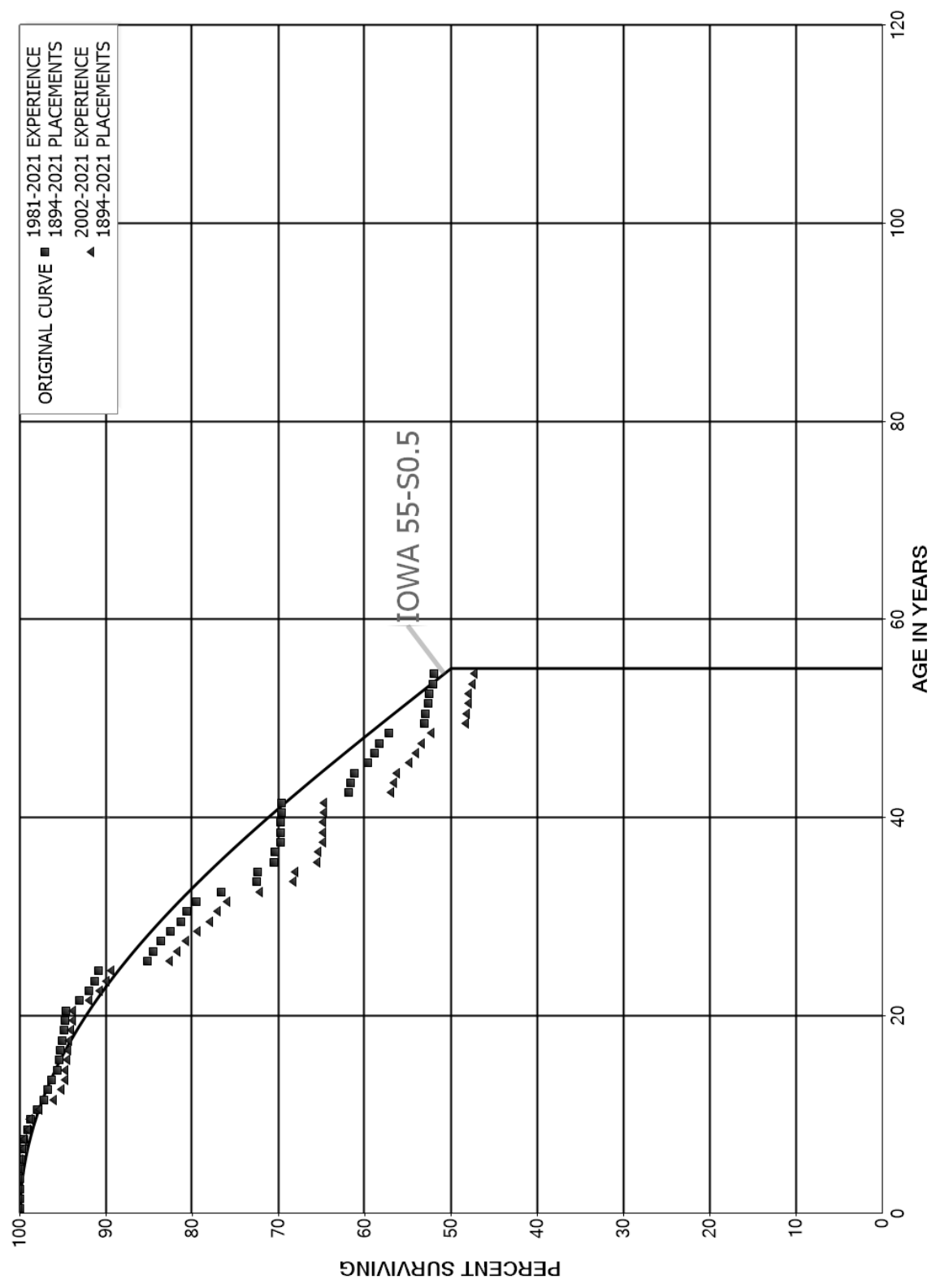
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-2021			EXPERIENCE BAND 1990-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,060		0.0000		
80.5	1,060		0.0000		
81.5	1,060		0.0000		
82.5	1,060		0.0000		
83.5	1,060		0.0000		
84.5	1,060		0.0000		
85.5	1,060		0.0000		
86.5	1,060		0.0000		
87.5	1,060		0.0000		
88.5	1,060		0.0000		
89.5	1,060		0.0000		
90.5	1,060		0.0000		
91.5	1,060		0.0000		
92.5	1,060		0.0000		
93.5	1,060		0.0000		
94.5	1,060		0.0000		
95.5	845		0.0000		
96.5	845		0.0000		
97.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.61 OFFICE BUILDINGS - OTHER  
 SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2021

EXPERIENCE BAND 1981-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	67,421,568		0.0000	1.0000	100.00
0.5	56,659,968		0.0000	1.0000	100.00
1.5	56,229,314	3,043	0.0001	0.9999	100.00
2.5	49,446,076	20,003	0.0004	0.9996	99.99
3.5	29,550,003	1,568	0.0001	0.9999	99.95
4.5	29,516,959	26,813	0.0009	0.9991	99.95
5.5	29,509,764	95,207	0.0032	0.9968	99.86
6.5	28,783,769	14,716	0.0005	0.9995	99.54
7.5	11,554,449	54,457	0.0047	0.9953	99.48
8.5	11,439,444	37,064	0.0032	0.9968	99.02
9.5	9,261,426	64,328	0.0069	0.9931	98.70
10.5	8,938,054	71,923	0.0080	0.9920	98.01
11.5	8,789,062	49,530	0.0056	0.9944	97.22
12.5	8,314,692	35,256	0.0042	0.9958	96.67
13.5	7,799,964	55,000	0.0071	0.9929	96.26
14.5	7,483,473	18,255	0.0024	0.9976	95.58
15.5	8,241,935	8,698	0.0011	0.9989	95.35
16.5	8,194,269	18,389	0.0022	0.9978	95.25
17.5	8,173,326	14,042	0.0017	0.9983	95.04
18.5	8,189,658	16,250	0.0020	0.9980	94.87
19.5	8,165,500	4,081	0.0005	0.9995	94.69
20.5	7,791,560	129,985	0.0167	0.9833	94.64
21.5	7,533,176	86,183	0.0114	0.9886	93.06
22.5	7,304,477	52,642	0.0072	0.9928	91.99
23.5	7,175,203	34,912	0.0049	0.9951	91.33
24.5	7,002,405	436,090	0.0623	0.9377	90.89
25.5	6,423,021	53,512	0.0083	0.9917	85.23
26.5	6,370,782	64,700	0.0102	0.9898	84.52
27.5	6,237,850	84,950	0.0136	0.9864	83.66
28.5	6,137,096	92,370	0.0151	0.9849	82.52
29.5	5,697,047	48,463	0.0085	0.9915	81.28
30.5	4,945,691	69,484	0.0140	0.9860	80.59
31.5	3,870,165	136,345	0.0352	0.9648	79.45
32.5	3,299,680	176,577	0.0535	0.9465	76.65
33.5	2,357,132	5,075	0.0022	0.9978	72.55
34.5	1,535,995	40,198	0.0262	0.9738	72.40
35.5	1,382,186	3,115	0.0023	0.9977	70.50
36.5	1,226,064	11,342	0.0093	0.9907	70.34
37.5	1,161,638		0.0000	1.0000	69.69
38.5	1,186,370		0.0000	1.0000	69.69

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021

EXPERIENCE BAND 1981-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,180,303	1,649	0.0014	0.9986	69.69
40.5	1,196,799	523	0.0004	0.9996	69.59
41.5	1,193,440	132,496	0.1110	0.8890	69.56
42.5	1,057,135	4,285	0.0041	0.9959	61.84
43.5	1,052,914	6,789	0.0064	0.9936	61.59
44.5	1,043,086	26,486	0.0254	0.9746	61.19
45.5	980,992	12,526	0.0128	0.9872	59.64
46.5	968,316	10,005	0.0103	0.9897	58.88
47.5	956,432	18,327	0.0192	0.9808	58.27
48.5	924,876	66,504	0.0719	0.9281	57.15
49.5	849,694	1,502	0.0018	0.9982	53.04
50.5	843,974	5,199	0.0062	0.9938	52.95
51.5	841,558	1,750	0.0021	0.9979	52.62
52.5	837,008	6,962	0.0083	0.9917	52.51
53.5	827,830	2,549	0.0031	0.9969	52.08
54.5	794,365	61	0.0001	0.9999	51.92
55.5	774,789	123	0.0002	0.9998	51.91
56.5	121,388	1,782	0.0147	0.9853	51.90
57.5	116,431	426	0.0037	0.9963	51.14
58.5	119,867	55	0.0005	0.9995	50.96
59.5	116,484		0.0000	1.0000	50.93
60.5	114,147	2,747	0.0241	0.9759	50.93
61.5	109,316		0.0000	1.0000	49.71
62.5	108,588		0.0000	1.0000	49.71
63.5	106,035	4,463	0.0421	0.9579	49.71
64.5	99,222		0.0000	1.0000	47.61
65.5	88,130	111	0.0013	0.9987	47.61
66.5	87,878	194	0.0022	0.9978	47.55
67.5	76,994		0.0000	1.0000	47.45
68.5	82,119		0.0000	1.0000	47.45
69.5	82,119		0.0000	1.0000	47.45
70.5	81,248	2,148	0.0264	0.9736	47.45
71.5	90,602	45	0.0005	0.9995	46.20
72.5	104,297	161	0.0015	0.9985	46.17
73.5	103,058		0.0000	1.0000	46.10
74.5	105,335	69	0.0007	0.9993	46.10
75.5	105,265		0.0000	1.0000	46.07
76.5	105,682		0.0000	1.0000	46.07
77.5	105,682		0.0000	1.0000	46.07
78.5	105,682		0.0000	1.0000	46.07

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 1981-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	75,941		0.0000	1.0000	46.07
80.5	75,941		0.0000	1.0000	46.07
81.5	75,751		0.0000	1.0000	46.07
82.5	75,751		0.0000	1.0000	46.07
83.5	75,751		0.0000	1.0000	46.07
84.5	75,456	635	0.0084	0.9916	46.07
85.5	74,821	506	0.0068	0.9932	45.68
86.5	74,305		0.0000	1.0000	45.37
87.5	74,305		0.0000	1.0000	45.37
88.5	74,305		0.0000	1.0000	45.37
89.5	74,305	637	0.0086	0.9914	45.37
90.5	73,667		0.0000	1.0000	44.99
91.5	73,667	6,226	0.0845	0.9155	44.99
92.5	54,346	97	0.0018	0.9982	41.18
93.5	90,569		0.0000	1.0000	41.11
94.5	90,286	1,065	0.0118	0.9882	41.11
95.5	74,385		0.0000	1.0000	40.63
96.5	74,385		0.0000	1.0000	40.63
97.5	74,384		0.0000	1.0000	40.63
98.5	74,384		0.0000	1.0000	40.63
99.5	74,346		0.0000	1.0000	40.63
100.5	74,346		0.0000	1.0000	40.63
101.5	74,346	298	0.0040	0.9960	40.63
102.5	74,048		0.0000	1.0000	40.46
103.5	74,048		0.0000	1.0000	40.46
104.5	74,048		0.0000	1.0000	40.46
105.5	74,048		0.0000	1.0000	40.46
106.5	74,048		0.0000	1.0000	40.46
107.5	74,048	38,473	0.5196	0.4804	40.46
108.5	35,575		0.0000	1.0000	19.44
109.5	31,254	2,970	0.0950	0.9050	19.44
110.5	28,284		0.0000	1.0000	17.59
111.5	28,284		0.0000	1.0000	17.59
112.5	14,777		0.0000	1.0000	17.59
113.5	3,747		0.0000	1.0000	17.59
114.5	3,747		0.0000	1.0000	17.59
115.5	1,470		0.0000	1.0000	17.59
116.5	1,470		0.0000	1.0000	17.59
117.5	1,470		0.0000	1.0000	17.59
118.5	1,470		0.0000	1.0000	17.59

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 1981-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	1,470		0.0000	1.0000	17.59
120.5	1,470		0.0000	1.0000	17.59
121.5	1,470		0.0000	1.0000	17.59
122.5	1,470		0.0000	1.0000	17.59
123.5	1,470		0.0000	1.0000	17.59
124.5	1,470		0.0000	1.0000	17.59
125.5	1,470		0.0000	1.0000	17.59
126.5	1,470		0.0000	1.0000	17.59
127.5					17.59

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	60,384,192		0.0000	1.0000	100.00
0.5	49,892,024		0.0000	1.0000	100.00
1.5	49,581,560	3,043	0.0001	0.9999	100.00
2.5	42,971,994	7,058	0.0002	0.9998	99.99
3.5	23,105,888		0.0000	1.0000	99.98
4.5	23,319,088	26,246	0.0011	0.9989	99.98
5.5	23,505,489	85,323	0.0036	0.9964	99.86
6.5	22,759,903	14,716	0.0006	0.9994	99.50
7.5	5,607,553	29,133	0.0052	0.9948	99.44
8.5	5,514,290	12,967	0.0024	0.9976	98.92
9.5	3,753,521	40,076	0.0107	0.9893	98.69
10.5	4,229,832	70,970	0.0168	0.9832	97.64
11.5	5,205,851	48,663	0.0093	0.9907	96.00
12.5	5,535,654	25,956	0.0047	0.9953	95.10
13.5	5,784,136		0.0000	1.0000	94.65
14.5	6,530,733	16,057	0.0025	0.9975	94.65
15.5	6,739,289	7,088	0.0011	0.9989	94.42
16.5	6,879,228	12,254	0.0018	0.9982	94.32
17.5	6,920,913	14,042	0.0020	0.9980	94.15
18.5	6,919,294	16,250	0.0023	0.9977	93.96
19.5	6,916,745	3,365	0.0005	0.9995	93.74
20.5	6,540,438	129,917	0.0199	0.9801	93.70
21.5	6,286,717	85,192	0.0136	0.9864	91.84
22.5	6,066,137	52,642	0.0087	0.9913	90.59
23.5	5,931,735	34,912	0.0059	0.9941	89.80
24.5	5,736,509	436,090	0.0760	0.9240	89.28
25.5	5,182,902	52,883	0.0102	0.9898	82.49
26.5	5,121,879	62,632	0.0122	0.9878	81.65
27.5	5,007,338	84,799	0.0169	0.9831	80.65
28.5	4,920,649	92,295	0.0188	0.9812	79.28
29.5	4,497,223	47,884	0.0106	0.9894	77.80
30.5	3,743,781	54,153	0.0145	0.9855	76.97
31.5	2,697,956	134,870	0.0500	0.9500	75.85
32.5	2,165,035	117,107	0.0541	0.9459	72.06
33.5	1,339,487	5,075	0.0038	0.9962	68.16
34.5	574,264	20,797	0.0362	0.9638	67.91
35.5	465,349	816	0.0018	0.9982	65.45
36.5	1,163,100	11,342	0.0098	0.9902	65.33
37.5	1,106,523		0.0000	1.0000	64.70
38.5	1,102,061		0.0000	1.0000	64.70

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,096,592	1,649	0.0015	0.9985	64.70
40.5	1,095,900	432	0.0004	0.9996	64.60
41.5	1,098,921	132,496	0.1206	0.8794	64.57
42.5	964,048	4,285	0.0044	0.9956	56.79
43.5	962,207	5,289	0.0055	0.9945	56.53
44.5	960,054	26,486	0.0276	0.9724	56.22
45.5	907,915	12,526	0.0138	0.9862	54.67
46.5	895,545	10,005	0.0112	0.9888	53.92
47.5	894,351	18,327	0.0205	0.9795	53.32
48.5	862,795	66,504	0.0771	0.9229	52.22
49.5	787,614	1,502	0.0019	0.9981	48.20
50.5	782,764	5,199	0.0066	0.9934	48.11
51.5	774,290		0.0000	1.0000	47.79
52.5	767,616	6,962	0.0091	0.9909	47.79
53.5	759,233	2,549	0.0034	0.9966	47.35
54.5	710,903		0.0000	1.0000	47.19
55.5	709,286	123	0.0002	0.9998	47.19
56.5	55,964	1,782	0.0318	0.9682	47.19
57.5	51,008	342	0.0067	0.9933	45.68
58.5	48,498	55	0.0011	0.9989	45.38
59.5	74,900		0.0000	1.0000	45.33
60.5	72,791	2,747	0.0377	0.9623	45.33
61.5	68,151		0.0000	1.0000	43.62
62.5	67,422		0.0000	1.0000	43.62
63.5	64,869	4,463	0.0688	0.9312	43.62
64.5	58,351		0.0000	1.0000	40.61
65.5	47,260	68	0.0014	0.9986	40.61
66.5	48,530	127	0.0026	0.9974	40.56
67.5	37,713		0.0000	1.0000	40.45
68.5	37,713		0.0000	1.0000	40.45
69.5	37,713		0.0000	1.0000	40.45
70.5	36,842	234	0.0063	0.9937	40.45
71.5	33,968	45	0.0013	0.9987	40.19
72.5	46,759	161	0.0034	0.9966	40.14
73.5	47,697		0.0000	1.0000	40.00
74.5	47,979	69	0.0014	0.9986	40.00
75.5	62,819		0.0000	1.0000	39.94
76.5	62,170		0.0000	1.0000	39.94
77.5	62,808		0.0000	1.0000	39.94
78.5	62,808		0.0000	1.0000	39.94

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	39,331		0.0000	1.0000	39.94
80.5	39,331		0.0000	1.0000	39.94
81.5	39,141		0.0000	1.0000	39.94
82.5	39,141		0.0000	1.0000	39.94
83.5	39,141		0.0000	1.0000	39.94
84.5	38,846		0.0000	1.0000	39.94
85.5	38,846		0.0000	1.0000	39.94
86.5	37,366		0.0000	1.0000	39.94
87.5	37,366		0.0000	1.0000	39.94
88.5	37,366		0.0000	1.0000	39.94
89.5	41,986	637	0.0152	0.9848	39.94
90.5	41,348		0.0000	1.0000	39.34
91.5	41,348	6,226	0.1506	0.8494	39.34
92.5	35,534	73	0.0021	0.9979	33.41
93.5	47,284		0.0000	1.0000	33.35
94.5	47,001		0.0000	1.0000	33.35
95.5	72,915		0.0000	1.0000	33.35
96.5	72,915		0.0000	1.0000	33.35
97.5	72,914		0.0000	1.0000	33.35
98.5	72,914		0.0000	1.0000	33.35
99.5	72,876		0.0000	1.0000	33.35
100.5	72,876		0.0000	1.0000	33.35
101.5	72,876	298	0.0041	0.9959	33.35
102.5	72,578		0.0000	1.0000	33.21
103.5	72,578		0.0000	1.0000	33.21
104.5	72,578		0.0000	1.0000	33.21
105.5	72,578		0.0000	1.0000	33.21
106.5	72,578		0.0000	1.0000	33.21
107.5	74,048	38,473	0.5196	0.4804	33.21
108.5	35,575		0.0000	1.0000	15.95
109.5	31,254	2,970	0.0950	0.9050	15.95
110.5	28,284		0.0000	1.0000	14.44
111.5	28,284		0.0000	1.0000	14.44
112.5	14,777		0.0000	1.0000	14.44
113.5	3,747		0.0000	1.0000	14.44
114.5	3,747		0.0000	1.0000	14.44
115.5	1,470		0.0000	1.0000	14.44
116.5	1,470		0.0000	1.0000	14.44
117.5	1,470		0.0000	1.0000	14.44
118.5	1,470		0.0000	1.0000	14.44

PENNSYLVANIA-AMERICAN WATER COMPANY

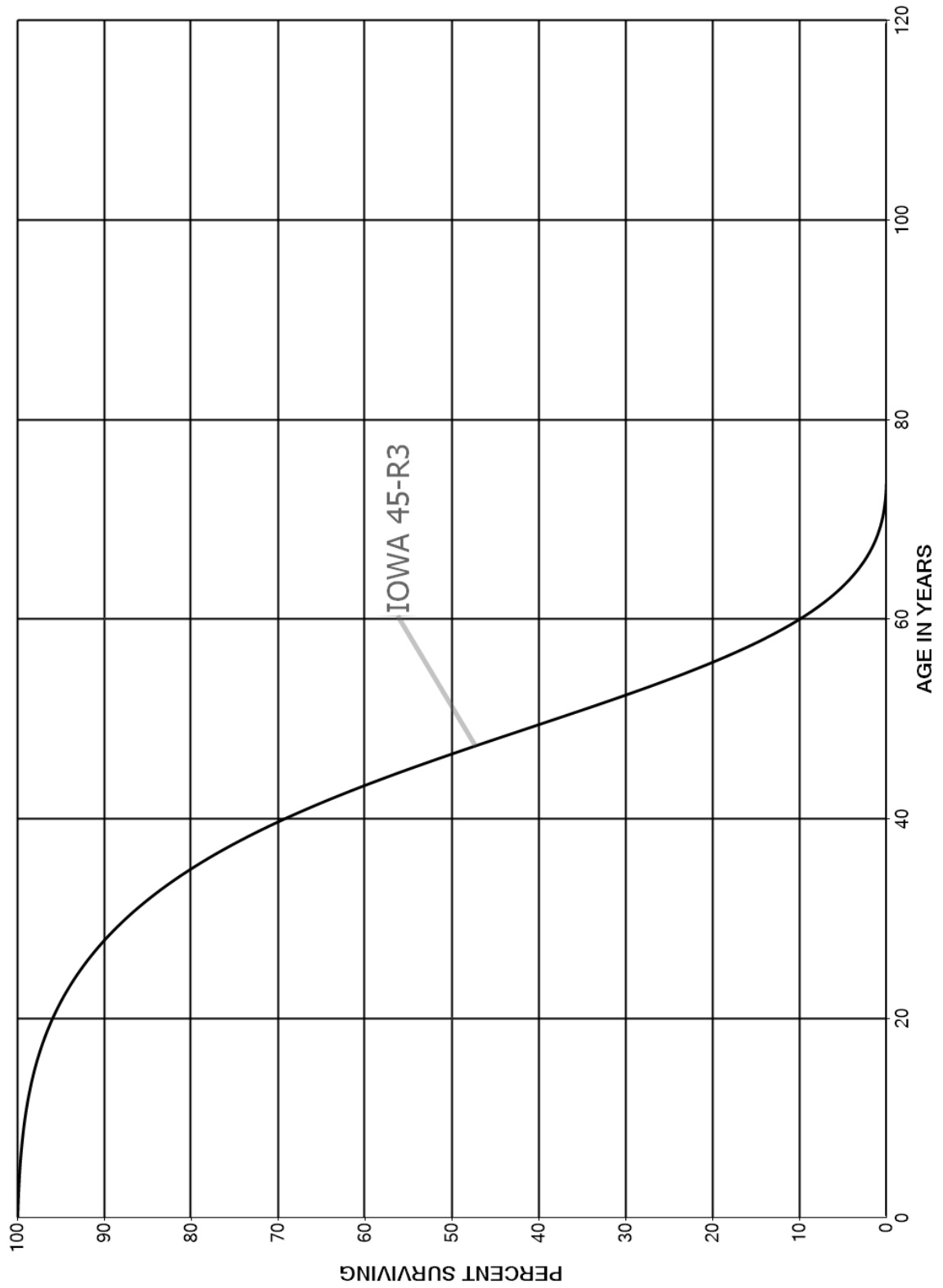
ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS - LARGE

ORIGINAL LIFE TABLE, CONT.

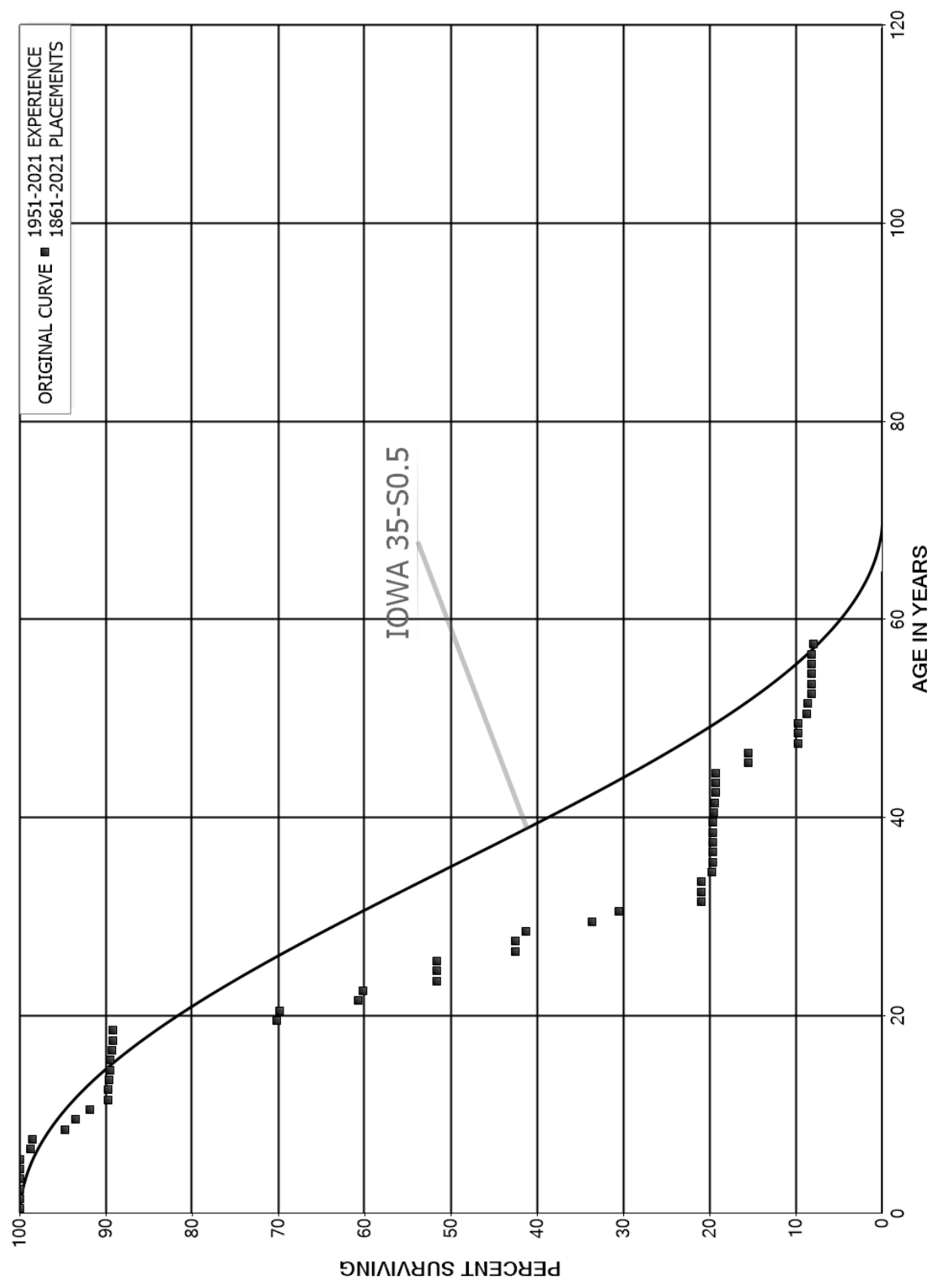
PLACEMENT BAND 1894-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	1,470		0.0000	1.0000	14.44
120.5	1,470		0.0000	1.0000	14.44
121.5	1,470		0.0000	1.0000	14.44
122.5	1,470		0.0000	1.0000	14.44
123.5	1,470		0.0000	1.0000	14.44
124.5	1,470		0.0000	1.0000	14.44
125.5	1,470		0.0000	1.0000	14.44
126.5	1,470		0.0000	1.0000	14.44
127.5					14.44



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.62 STORES SHOP AND GARAGE BUILDINGS - OTHER  
 SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1861-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,446,079		0.0000	1.0000	100.00
0.5	4,425,501		0.0000	1.0000	100.00
1.5	4,420,438		0.0000	1.0000	100.00
2.5	4,416,315		0.0000	1.0000	100.00
3.5	3,646,909		0.0000	1.0000	100.00
4.5	3,275,744		0.0000	1.0000	100.00
5.5	2,790,896	34,059	0.0122	0.9878	100.00
6.5	2,049,421	5,276	0.0026	0.9974	98.78
7.5	2,032,100	78,669	0.0387	0.9613	98.53
8.5	1,879,531	24,690	0.0131	0.9869	94.71
9.5	1,796,410	32,173	0.0179	0.9821	93.47
10.5	1,762,519	39,289	0.0223	0.9777	91.79
11.5	1,573,931	683	0.0004	0.9996	89.75
12.5	1,546,577	1,630	0.0011	0.9989	89.71
13.5	1,279,232	839	0.0007	0.9993	89.61
14.5	819,235		0.0000	1.0000	89.55
15.5	754,870	2,210	0.0029	0.9971	89.55
16.5	572,437	700	0.0012	0.9988	89.29
17.5	365,257		0.0000	1.0000	89.18
18.5	298,746	63,771	0.2135	0.7865	89.18
19.5	234,974	932	0.0040	0.9960	70.15
20.5	241,890	31,477	0.1301	0.8699	69.87
21.5	211,127	1,929	0.0091	0.9909	60.78
22.5	209,198	30,027	0.1435	0.8565	60.22
23.5	177,611		0.0000	1.0000	51.58
24.5	167,875		0.0000	1.0000	51.58
25.5	132,928	23,348	0.1756	0.8244	51.58
26.5	109,580		0.0000	1.0000	42.52
27.5	109,580	3,311	0.0302	0.9698	42.52
28.5	106,268	19,520	0.1837	0.8163	41.23
29.5	85,248	8,072	0.0947	0.9053	33.66
30.5	75,533	23,596	0.3124	0.6876	30.47
31.5	51,936		0.0000	1.0000	20.95
32.5	50,970		0.0000	1.0000	20.95
33.5	61,069	3,481	0.0570	0.9430	20.95
34.5	53,844	279	0.0052	0.9948	19.76
35.5	51,563		0.0000	1.0000	19.66
36.5	51,563	2	0.0000	1.0000	19.66
37.5	51,561		0.0000	1.0000	19.66
38.5	50,513		0.0000	1.0000	19.66

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1861-2021			EXPERIENCE BAND 1951-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	50,513	294	0.0058	0.9942	19.66	
40.5	50,076	485	0.0097	0.9903	19.54	
41.5	49,591	46	0.0009	0.9991	19.35	
42.5	49,564	2	0.0000	1.0000	19.33	
43.5	51,018		0.0000	1.0000	19.33	
44.5	51,018	10,051	0.1970	0.8030	19.33	
45.5	40,966		0.0000	1.0000	15.52	
46.5	37,968	14,255	0.3755	0.6245	15.52	
47.5	23,712		0.0000	1.0000	9.70	
48.5	23,687		0.0000	1.0000	9.70	
49.5	23,106	2,244	0.0971	0.9029	9.70	
50.5	20,379	366	0.0180	0.9820	8.75	
51.5	19,752	867	0.0439	0.9561	8.60	
52.5	18,804		0.0000	1.0000	8.22	
53.5	18,804		0.0000	1.0000	8.22	
54.5	18,373		0.0000	1.0000	8.22	
55.5	33,451	125	0.0037	0.9963	8.22	
56.5	33,327	984	0.0295	0.9705	8.19	
57.5	34,858		0.0000	1.0000	7.95	
58.5	33,792		0.0000	1.0000	7.95	
59.5	33,605		0.0000	1.0000	7.95	
60.5	33,605		0.0000	1.0000	7.95	
61.5	32,271		0.0000	1.0000	7.95	
62.5	32,131	343	0.0107	0.9893	7.95	
63.5	30,332		0.0000	1.0000	7.86	
64.5	30,333		0.0000	1.0000	7.86	
65.5	30,333		0.0000	1.0000	7.86	
66.5	30,333	198	0.0065	0.9935	7.86	
67.5	28,169		0.0000	1.0000	7.81	
68.5	28,169		0.0000	1.0000	7.81	
69.5	27,667		0.0000	1.0000	7.81	
70.5	27,666		0.0000	1.0000	7.81	
71.5	27,666		0.0000	1.0000	7.81	
72.5	27,666	15,078	0.5450	0.4550	7.81	
73.5	12,588		0.0000	1.0000	3.55	
74.5	12,588		0.0000	1.0000	3.55	
75.5	13,588		0.0000	1.0000	3.55	
76.5	13,588		0.0000	1.0000	3.55	
77.5	13,588		0.0000	1.0000	3.55	
78.5	13,544		0.0000	1.0000	3.55	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1861-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,971		0.0000	1.0000	3.55
80.5	12,280		0.0000	1.0000	3.55
81.5	12,280		0.0000	1.0000	3.55
82.5	12,280		0.0000	1.0000	3.55
83.5	12,280		0.0000	1.0000	3.55
84.5	12,280		0.0000	1.0000	3.55
85.5	10,838		0.0000	1.0000	3.55
86.5	10,838	1	0.0001	0.9999	3.55
87.5	10,837		0.0000	1.0000	3.55
88.5	10,837		0.0000	1.0000	3.55
89.5	11,950		0.0000	1.0000	3.55
90.5	11,950		0.0000	1.0000	3.55
91.5	6,826		0.0000	1.0000	3.55
92.5	6,112		0.0000	1.0000	3.55
93.5	6,112		0.0000	1.0000	3.55
94.5	5,948		0.0000	1.0000	3.55
95.5	5,948		0.0000	1.0000	3.55
96.5	5,948		0.0000	1.0000	3.55
97.5	5,948		0.0000	1.0000	3.55
98.5	5,948		0.0000	1.0000	3.55
99.5	5,948		0.0000	1.0000	3.55
100.5	5,948	2,951	0.4961	0.5039	3.55
101.5	2,114		0.0000	1.0000	1.79
102.5	2,114		0.0000	1.0000	1.79
103.5	2,114		0.0000	1.0000	1.79
104.5	1,114		0.0000	1.0000	1.79
105.5	1,113		0.0000	1.0000	1.79
106.5	1,113		0.0000	1.0000	1.79
107.5	1,113		0.0000	1.0000	1.79
108.5	1,113		0.0000	1.0000	1.79
109.5	1,113		0.0000	1.0000	1.79
110.5	1,113		0.0000	1.0000	1.79
111.5	1,113		0.0000	1.0000	1.79
112.5	1,113		0.0000	1.0000	1.79
113.5	1,113		0.0000	1.0000	1.79
114.5	1,113		0.0000	1.0000	1.79
115.5	1,113		0.0000	1.0000	1.79
116.5	1,113		0.0000	1.0000	1.79
117.5	1,113		0.0000	1.0000	1.79
118.5	1,113		0.0000	1.0000	1.79

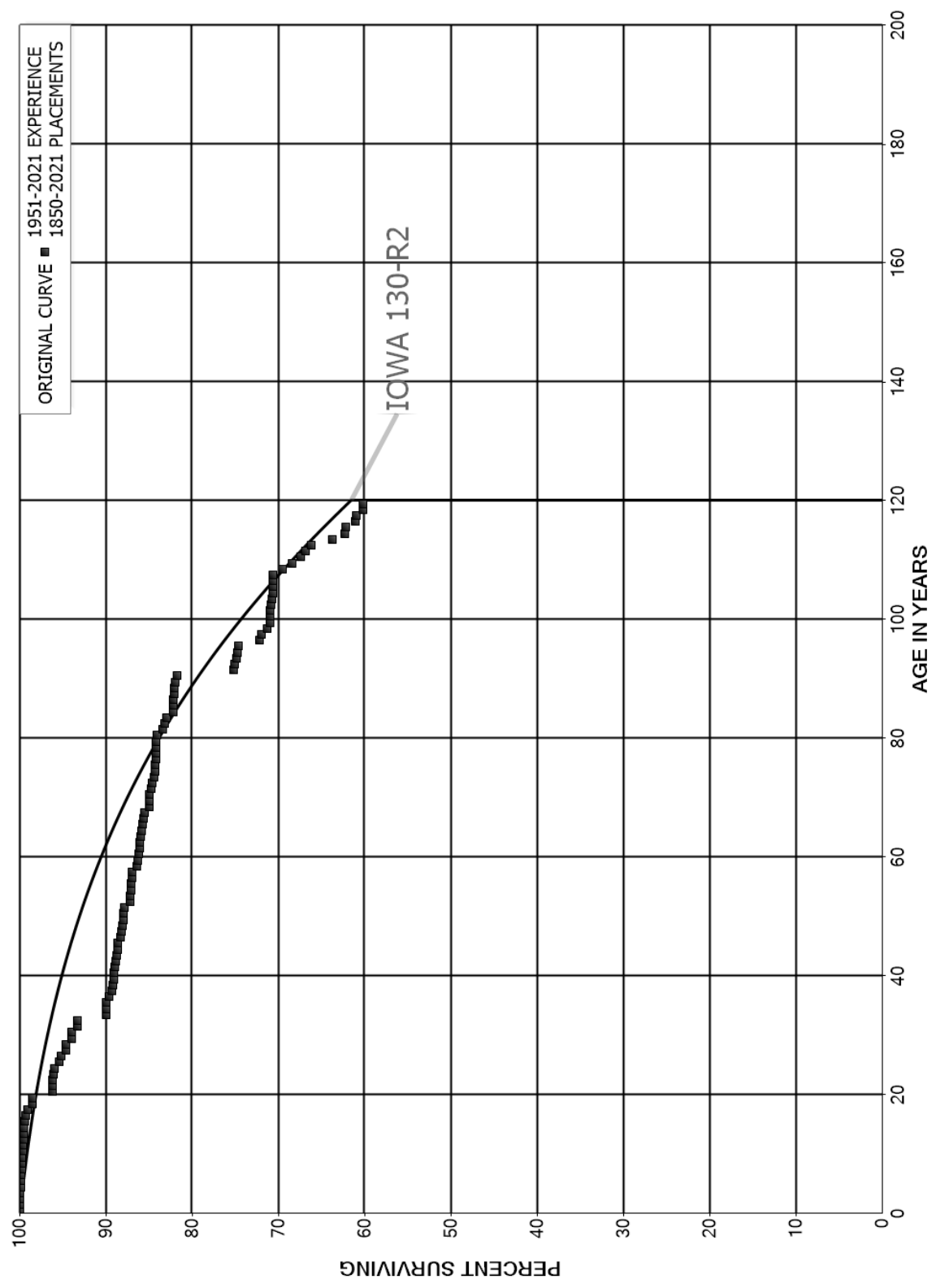
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1861-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	1,113		0.0000	1.0000	1.79
120.5	1,113		0.0000	1.0000	1.79
121.5	1,113		0.0000	1.0000	1.79
122.5	1,113		0.0000	1.0000	1.79
123.5	1,113		0.0000	1.0000	1.79
124.5	1,113		0.0000	1.0000	1.79
125.5	1,113		0.0000	1.0000	1.79
126.5	1,113		0.0000	1.0000	1.79
127.5	1,113		0.0000	1.0000	1.79
128.5	1,113		0.0000	1.0000	1.79
129.5	1,113		0.0000	1.0000	1.79
130.5	1,113		0.0000	1.0000	1.79
131.5	1,113		0.0000	1.0000	1.79
132.5	1,113		0.0000	1.0000	1.79
133.5	1,113		0.0000	1.0000	1.79
134.5	1,113		0.0000	1.0000	1.79
135.5	1,113		0.0000	1.0000	1.79
136.5	1,113		0.0000	1.0000	1.79
137.5	1,113		0.0000	1.0000	1.79
138.5	1,113		0.0000	1.0000	1.79
139.5	1,113		0.0000	1.0000	1.79
140.5	1,113		0.0000	1.0000	1.79
141.5	1,113		0.0000	1.0000	1.79
142.5	1,113		0.0000	1.0000	1.79
143.5	1,113		0.0000	1.0000	1.79
144.5	1,113		0.0000	1.0000	1.79
145.5	1,113		0.0000	1.0000	1.79
146.5	1,113		0.0000	1.0000	1.79
147.5	1,113		0.0000	1.0000	1.79
148.5	1,113		0.0000	1.0000	1.79
149.5	1,113		0.0000	1.0000	1.79
150.5	1,113		0.0000	1.0000	1.79
151.5	1,113		0.0000	1.0000	1.79
152.5	1,113		0.0000	1.0000	1.79
153.5	1,113		0.0000	1.0000	1.79
154.5	1,113		0.0000	1.0000	1.79
155.5	1,113	19	0.0167	0.9833	1.79
156.5	1,094		0.0000	1.0000	1.76
157.5	1,094		0.0000	1.0000	1.76
158.5	1,094		0.0000	1.0000	1.76
159.5	1,094		0.0000	1.0000	1.76
160.5					1.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - LARGE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1850-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	135,719,753		0.0000	1.0000	100.00
0.5	136,088,022	16,065	0.0001	0.9999	100.00
1.5	135,347,191	1,429	0.0000	1.0000	99.99
2.5	134,741,783	2,822	0.0000	1.0000	99.99
3.5	125,398,011	197,085	0.0016	0.9984	99.99
4.5	83,337,342	1,930	0.0000	1.0000	99.83
5.5	83,390,336	21,179	0.0003	0.9997	99.83
6.5	83,392,509	65,285	0.0008	0.9992	99.80
7.5	82,257,032	3,124	0.0000	1.0000	99.72
8.5	73,209,476	1,567	0.0000	1.0000	99.72
9.5	46,293,992	56,149	0.0012	0.9988	99.72
10.5	38,650,846	2,948	0.0001	0.9999	99.60
11.5	38,650,267	15,423	0.0004	0.9996	99.59
12.5	38,634,944	2,681	0.0001	0.9999	99.55
13.5	28,416,894	2,637	0.0001	0.9999	99.54
14.5	28,397,889	41,271	0.0015	0.9985	99.53
15.5	28,771,809	34,846	0.0012	0.9988	99.39
16.5	28,740,870	55,106	0.0019	0.9981	99.27
17.5	28,709,297	154,225	0.0054	0.9946	99.08
18.5	28,591,824	8,488	0.0003	0.9997	98.54
19.5	28,472,792	675,333	0.0237	0.9763	98.51
20.5	27,747,204	7,175	0.0003	0.9997	96.18
21.5	27,377,429	8,050	0.0003	0.9997	96.15
22.5	27,369,404	2,438	0.0001	0.9999	96.13
23.5	27,368,968	54,961	0.0020	0.9980	96.12
24.5	23,622,348	122,153	0.0052	0.9948	95.92
25.5	22,753,193	55,995	0.0025	0.9975	95.43
26.5	20,900,401	122,055	0.0058	0.9942	95.19
27.5	21,520,391	16,637	0.0008	0.9992	94.64
28.5	20,994,371	127,586	0.0061	0.9939	94.56
29.5	18,936,969	6,762	0.0004	0.9996	93.99
30.5	17,786,243	128,399	0.0072	0.9928	93.96
31.5	17,617,626	5,968	0.0003	0.9997	93.28
32.5	14,536,957	510,026	0.0351	0.9649	93.25
33.5	13,991,954	428	0.0000	1.0000	89.97
34.5	13,686,288	6,074	0.0004	0.9996	89.97
35.5	13,459,679	47,590	0.0035	0.9965	89.93
36.5	8,942,435	36,787	0.0041	0.9959	89.61
37.5	8,608,258	9,864	0.0011	0.9989	89.24
38.5	8,526,437	5,855	0.0007	0.9993	89.14



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,521,415	459	0.0001	0.9999	89.08
40.5	8,680,384	16,423	0.0019	0.9981	89.08
41.5	8,651,568	10,214	0.0012	0.9988	88.91
42.5	8,638,531	11,589	0.0013	0.9987	88.80
43.5	8,576,769	3,694	0.0004	0.9996	88.68
44.5	8,604,379		0.0000	1.0000	88.65
45.5	7,667,080	34,857	0.0045	0.9955	88.65
46.5	7,675,836	6,002	0.0008	0.9992	88.24
47.5	7,746,458	5,610	0.0007	0.9993	88.17
48.5	7,773,321	15,756	0.0020	0.9980	88.11
49.5	6,034,758	2,299	0.0004	0.9996	87.93
50.5	6,464,450	828	0.0001	0.9999	87.90
51.5	6,481,299	53,162	0.0082	0.9918	87.89
52.5	6,436,092	2,845	0.0004	0.9996	87.17
53.5	6,959,847	3,608	0.0005	0.9995	87.13
54.5	6,942,895	818	0.0001	0.9999	87.08
55.5	6,967,648	8,589	0.0012	0.9988	87.07
56.5	6,945,142	2,121	0.0003	0.9997	86.96
57.5	5,610,256	36,255	0.0065	0.9935	86.94
58.5	5,778,046	7,424	0.0013	0.9987	86.38
59.5	5,753,442	4,303	0.0007	0.9993	86.26
60.5	5,826,645	10,350	0.0018	0.9982	86.20
61.5	5,523,161	1,681	0.0003	0.9997	86.05
62.5	5,542,775	3,505	0.0006	0.9994	86.02
63.5	4,659,250	9,098	0.0020	0.9980	85.97
64.5	4,596,066	3,980	0.0009	0.9991	85.80
65.5	4,610,611	7,756	0.0017	0.9983	85.72
66.5	4,603,846	1,757	0.0004	0.9996	85.58
67.5	4,639,241	31,582	0.0068	0.9932	85.55
68.5	4,585,726	95	0.0000	1.0000	84.97
69.5	4,583,414	561	0.0001	0.9999	84.96
70.5	4,505,810	13,016	0.0029	0.9971	84.95
71.5	4,492,794	4,619	0.0010	0.9990	84.71
72.5	4,489,447	13,779	0.0031	0.9969	84.62
73.5	4,372,591	2,266	0.0005	0.9995	84.36
74.5	4,323,173	2,158	0.0005	0.9995	84.32
75.5	4,130,819	5,006	0.0012	0.9988	84.28
76.5	3,940,425	1,041	0.0003	0.9997	84.17
77.5	3,939,385		0.0000	1.0000	84.15
78.5	3,990,970		0.0000	1.0000	84.15

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2021			EXPERIENCE BAND 1951-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	3,949,177	4,999	0.0013	0.9987	84.15	
80.5	3,922,929	32,756	0.0083	0.9917	84.04	
81.5	3,925,358	9,259	0.0024	0.9976	83.34	
82.5	3,915,599	11,296	0.0029	0.9971	83.15	
83.5	3,902,434	33,933	0.0087	0.9913	82.91	
84.5	3,868,927	1,318	0.0003	0.9997	82.19	
85.5	4,048,762		0.0000	1.0000	82.16	
86.5	4,043,569	5,571	0.0014	0.9986	82.16	
87.5	4,180,315	1,697	0.0004	0.9996	82.04	
88.5	4,040,635	1,446	0.0004	0.9996	82.01	
89.5	4,027,952	11,187	0.0028	0.9972	81.98	
90.5	4,012,233	325,051	0.0810	0.9190	81.75	
91.5	3,589,767	2,656	0.0007	0.9993	75.13	
92.5	3,505,987	12,298	0.0035	0.9965	75.07	
93.5	3,791,978	4,677	0.0012	0.9988	74.81	
94.5	3,781,972	7,563	0.0020	0.9980	74.72	
95.5	3,702,611	118,973	0.0321	0.9679	74.57	
96.5	3,581,424	12,897	0.0036	0.9964	72.17	
97.5	3,175,192	26,953	0.0085	0.9915	71.91	
98.5	2,793,956	12,840	0.0046	0.9954	71.30	
99.5	2,780,311	1,489	0.0005	0.9995	70.98	
100.5	2,771,509	428	0.0002	0.9998	70.94	
101.5	2,786,545	4,328	0.0016	0.9984	70.93	
102.5	2,691,460	4,796	0.0018	0.9982	70.82	
103.5	2,649,273	1,706	0.0006	0.9994	70.69	
104.5	2,588,332	1,236	0.0005	0.9995	70.64	
105.5	2,923,858	1,141	0.0004	0.9996	70.61	
106.5	2,329,894	67	0.0000	1.0000	70.58	
107.5	2,316,964	35,729	0.0154	0.9846	70.58	
108.5	2,281,235	34,986	0.0153	0.9847	69.49	
109.5	2,215,054	34,623	0.0156	0.9844	68.43	
110.5	2,176,657	16,000	0.0074	0.9926	67.36	
111.5	1,924,342	19,410	0.0101	0.9899	66.86	
112.5	1,904,249	69,979	0.0367	0.9633	66.19	
113.5	1,823,611	42,295	0.0232	0.9768	63.76	
114.5	1,636,476	3,416	0.0021	0.9979	62.28	
115.5	1,630,212	28,941	0.0178	0.9822	62.15	
116.5	1,599,758	1,239	0.0008	0.9992	61.04	
117.5	1,586,856	20,165	0.0127	0.9873	61.00	
118.5	1,565,078	42	0.0000	1.0000	60.22	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	1,525,110		0.0000	1.0000	60.22
120.5	1,243,848	3,272	0.0026	0.9974	60.22
121.5	1,001,755	18,715	0.0187	0.9813	60.06
122.5	978,740	3,140	0.0032	0.9968	58.94
123.5	1,043,777	2,156	0.0021	0.9979	58.75
124.5	810,041	8,505	0.0105	0.9895	58.63
125.5	796,719		0.0000	1.0000	58.01
126.5	789,482	13,853	0.0175	0.9825	58.01
127.5	775,758	4,990	0.0064	0.9936	57.00
128.5	690,200		0.0000	1.0000	56.63
129.5	518,121	5,200	0.0100	0.9900	56.63
130.5	484,847		0.0000	1.0000	56.06
131.5	483,928		0.0000	1.0000	56.06
132.5	119,954		0.0000	1.0000	56.06
133.5	119,954	10,084	0.0841	0.9159	56.06
134.5	68,178		0.0000	1.0000	51.35
135.5	68,178		0.0000	1.0000	51.35
136.5	68,178		0.0000	1.0000	51.35
137.5	68,178		0.0000	1.0000	51.35
138.5	68,178		0.0000	1.0000	51.35
139.5	68,178		0.0000	1.0000	51.35
140.5	68,178		0.0000	1.0000	51.35
141.5	68,178	2,867	0.0420	0.9580	51.35
142.5	65,311		0.0000	1.0000	49.19
143.5	65,311		0.0000	1.0000	49.19
144.5	65,311	6,738	0.1032	0.8968	49.19
145.5	62,574		0.0000	1.0000	44.11
146.5	62,574		0.0000	1.0000	44.11
147.5	62,574		0.0000	1.0000	44.11
148.5	62,574		0.0000	1.0000	44.11
149.5	4,000		0.0000	1.0000	44.11
150.5	4,000		0.0000	1.0000	44.11
151.5	4,000		0.0000	1.0000	44.11
152.5	4,000		0.0000	1.0000	44.11
153.5	4,000		0.0000	1.0000	44.11
154.5	4,000		0.0000	1.0000	44.11
155.5	4,000		0.0000	1.0000	44.11
156.5	4,000		0.0000	1.0000	44.11
157.5	4,000		0.0000	1.0000	44.11
158.5	4,000		0.0000	1.0000	44.11

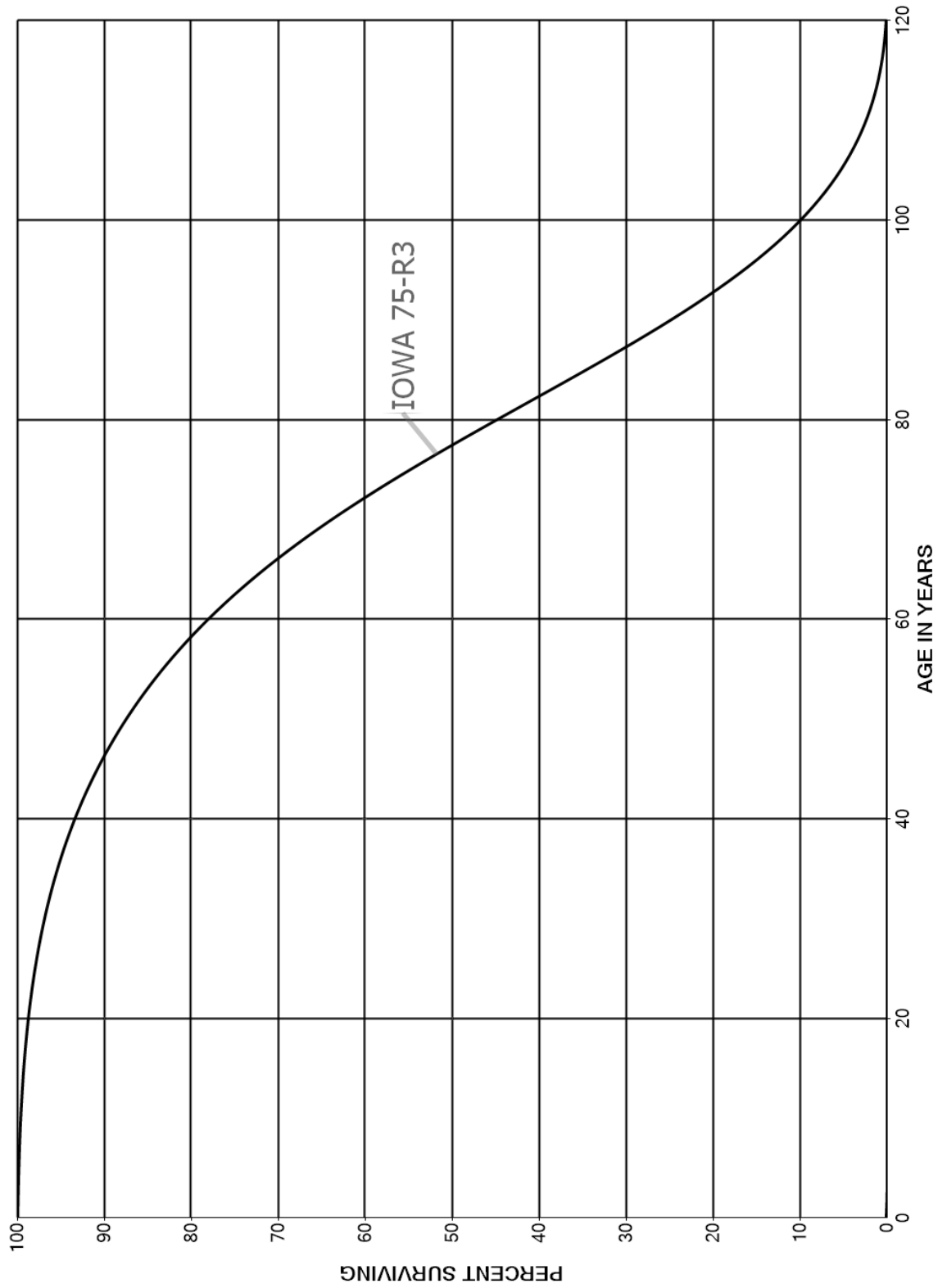
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - LARGE

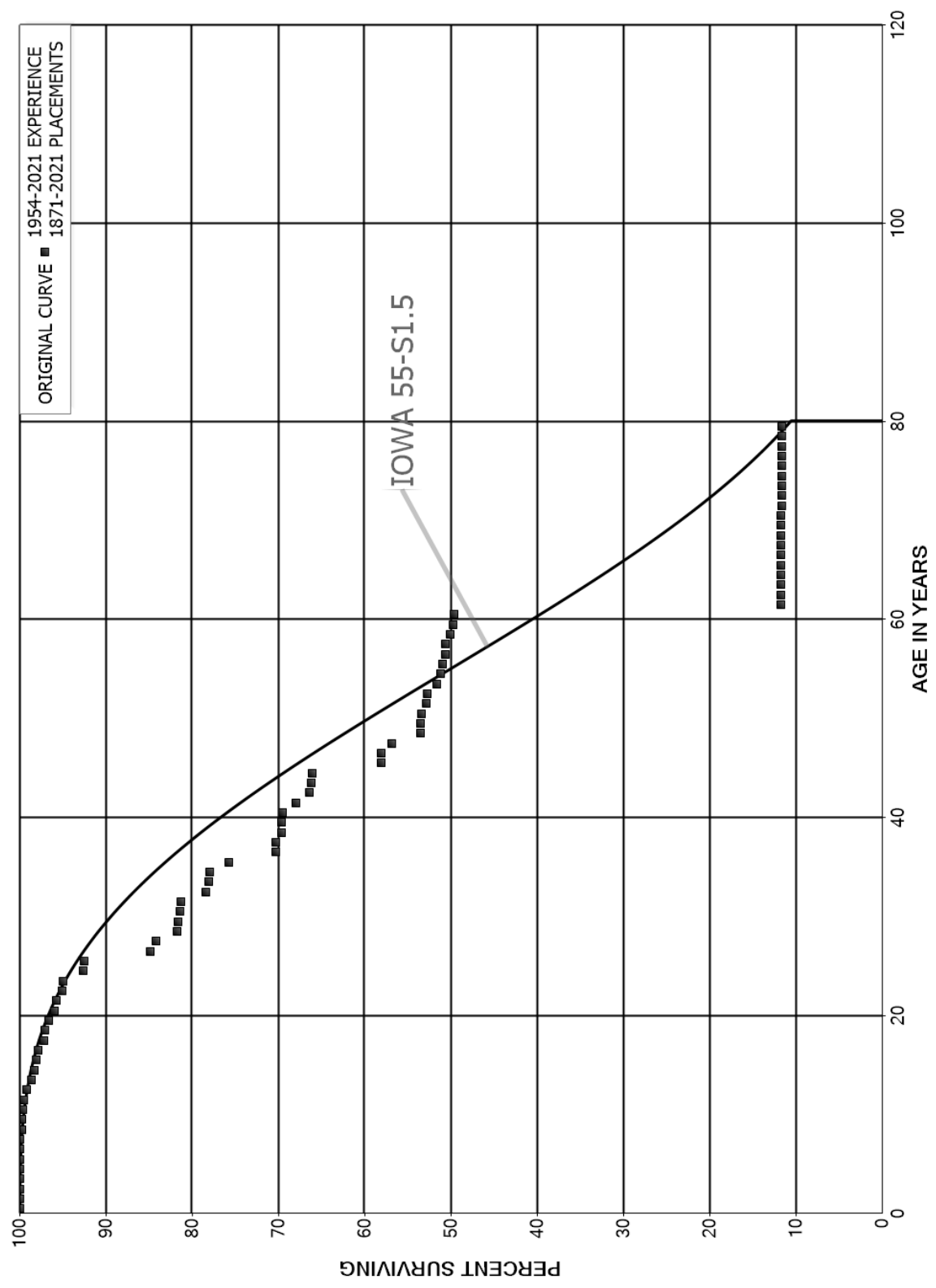
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
159.5	4,000		0.0000	1.0000	44.11
160.5	4,000		0.0000	1.0000	44.11
161.5	4,000		0.0000	1.0000	44.11
162.5	4,000		0.0000	1.0000	44.11
163.5	4,000		0.0000	1.0000	44.11
164.5	4,000		0.0000	1.0000	44.11
165.5	4,000		0.0000	1.0000	44.11
166.5	4,000		0.0000	1.0000	44.11
167.5	4,000		0.0000	1.0000	44.11
168.5	4,000		0.0000	1.0000	44.11
169.5	4,000		0.0000	1.0000	44.11
170.5	4,000		0.0000	1.0000	44.11
171.5					44.11

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 305.00 COLLECTING AND IMPOUNDING RESERVOIRS - OTHER  
 SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 306.00 LAKE, RIVER AND OTHER INTAKES - LARGE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 306.00 LAKE, RIVER AND OTHER INTAKES - LARGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1871-2021

EXPERIENCE BAND 1954-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,168,839		0.0000	1.0000	100.00
0.5	20,276,078		0.0000	1.0000	100.00
1.5	20,687,054		0.0000	1.0000	100.00
2.5	20,476,000	3,225	0.0002	0.9998	100.00
3.5	19,144,770		0.0000	1.0000	99.98
4.5	18,883,916		0.0000	1.0000	99.98
5.5	18,888,086	6,093	0.0003	0.9997	99.98
6.5	18,882,041	5,293	0.0003	0.9997	99.95
7.5	18,870,014	40,377	0.0021	0.9979	99.92
8.5	18,765,768	1,340	0.0001	0.9999	99.71
9.5	18,764,427	16,896	0.0009	0.9991	99.70
10.5	18,711,998	21,266	0.0011	0.9989	99.61
11.5	18,690,732	61,444	0.0033	0.9967	99.50
12.5	18,629,288	106,755	0.0057	0.9943	99.17
13.5	18,426,536	55,128	0.0030	0.9970	98.60
14.5	17,885,303	38,874	0.0022	0.9978	98.31
15.5	17,694,712	42,483	0.0024	0.9976	98.10
16.5	17,556,721	118,486	0.0067	0.9933	97.86
17.5	17,350,052	31,971	0.0018	0.9982	97.20
18.5	17,318,081	78,383	0.0045	0.9955	97.02
19.5	17,128,515	116,084	0.0068	0.9932	96.58
20.5	17,000,888	29,171	0.0017	0.9983	95.93
21.5	16,919,902	127,186	0.0075	0.9925	95.76
22.5	16,364,983	9,147	0.0006	0.9994	95.04
23.5	16,199,197	408,461	0.0252	0.9748	94.99
24.5	6,423,159	7,604	0.0012	0.9988	92.59
25.5	5,405,214	445,328	0.0824	0.9176	92.48
26.5	3,262,021	26,791	0.0082	0.9918	84.87
27.5	3,228,054	93,389	0.0289	0.9711	84.17
28.5	3,134,665	2,633	0.0008	0.9992	81.73
29.5	2,374,914	8,487	0.0036	0.9964	81.66
30.5	2,051,984	867	0.0004	0.9996	81.37
31.5	2,032,996	73,202	0.0360	0.9640	81.34
32.5	1,599,953	7,610	0.0048	0.9952	78.41
33.5	1,592,375	2,976	0.0019	0.9981	78.04
34.5	1,589,026	43,921	0.0276	0.9724	77.89
35.5	1,539,953	110,271	0.0716	0.9284	75.74
36.5	1,428,975	312	0.0002	0.9998	70.31
37.5	1,419,755	14,326	0.0101	0.9899	70.30
38.5	1,406,943	57	0.0000	1.0000	69.59

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 306.00 LAKE, RIVER AND OTHER INTAKES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1871-2021

EXPERIENCE BAND 1954-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,410,630	2,364	0.0017	0.9983	69.59
40.5	1,408,266	31,586	0.0224	0.9776	69.47
41.5	1,381,174	31,837	0.0231	0.9769	67.91
42.5	1,344,746	2,606	0.0019	0.9981	66.35
43.5	1,342,140	3,412	0.0025	0.9975	66.22
44.5	1,346,050	162,633	0.1208	0.8792	66.05
45.5	1,297,589		0.0000	1.0000	58.07
46.5	1,297,639	28,526	0.0220	0.9780	58.07
47.5	1,268,533	72,504	0.0572	0.9428	56.79
48.5	1,013,821		0.0000	1.0000	53.55
49.5	1,011,292	3,798	0.0038	0.9962	53.55
50.5	1,009,258	10,555	0.0105	0.9895	53.35
51.5	996,677	624	0.0006	0.9994	52.79
52.5	658,579	13,795	0.0209	0.9791	52.75
53.5	656,493	6,486	0.0099	0.9901	51.65
54.5	525,037	1,570	0.0030	0.9970	51.14
55.5	495,510	3,985	0.0080	0.9920	50.99
56.5	491,524		0.0000	1.0000	50.58
57.5	478,422	5,278	0.0110	0.9890	50.58
58.5	473,143	2,709	0.0057	0.9943	50.02
59.5	471,005	896	0.0019	0.9981	49.73
60.5	274,671	209,607	0.7631	0.2369	49.64
61.5	65,121		0.0000	1.0000	11.76
62.5	65,121	13	0.0002	0.9998	11.76
63.5	65,108		0.0000	1.0000	11.76
64.5	65,108		0.0000	1.0000	11.76
65.5	65,108		0.0000	1.0000	11.76
66.5	63,883	48	0.0008	0.9992	11.76
67.5	63,320		0.0000	1.0000	11.75
68.5	63,320		0.0000	1.0000	11.75
69.5	79,228		0.0000	1.0000	11.75
70.5	79,228	1,037	0.0131	0.9869	11.75
71.5	80,296		0.0000	1.0000	11.59
72.5	80,296		0.0000	1.0000	11.59
73.5	76,126	57	0.0007	0.9993	11.59
74.5	76,251		0.0000	1.0000	11.58
75.5	76,251		0.0000	1.0000	11.58
76.5	76,251		0.0000	1.0000	11.58
77.5	77,251		0.0000	1.0000	11.58
78.5	77,251		0.0000	1.0000	11.58



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 306.00 LAKE, RIVER AND OTHER INTAKES - LARGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1871-2021			EXPERIENCE BAND 1954-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	77,251		0.0000	1.0000	11.58
80.5	77,251		0.0000	1.0000	11.58
81.5	77,251		0.0000	1.0000	11.58
82.5	84,736		0.0000	1.0000	11.58
83.5	84,513		0.0000	1.0000	11.58
84.5	83,549		0.0000	1.0000	11.58
85.5	83,549		0.0000	1.0000	11.58
86.5	83,549	182	0.0022	0.9978	11.58
87.5	83,091	2,572	0.0310	0.9690	11.56
88.5	80,519	19	0.0002	0.9998	11.20
89.5	80,500		0.0000	1.0000	11.20
90.5	80,500		0.0000	1.0000	11.20
91.5	80,500		0.0000	1.0000	11.20
92.5	80,500		0.0000	1.0000	11.20
93.5	81,565		0.0000	1.0000	11.20
94.5	81,565		0.0000	1.0000	11.20
95.5	81,565		0.0000	1.0000	11.20
96.5	81,565	686	0.0084	0.9916	11.20
97.5	80,694		0.0000	1.0000	11.10
98.5	80,694		0.0000	1.0000	11.10
99.5	80,694		0.0000	1.0000	11.10
100.5	80,694		0.0000	1.0000	11.10
101.5	80,332		0.0000	1.0000	11.10
102.5	80,332		0.0000	1.0000	11.10
103.5	80,332		0.0000	1.0000	11.10
104.5	80,332		0.0000	1.0000	11.10
105.5	79,944	1,609	0.0201	0.9799	11.10
106.5	76,232		0.0000	1.0000	10.88
107.5	76,140		0.0000	1.0000	10.88
108.5	76,140	8,310	0.1091	0.8909	10.88
109.5	67,830		0.0000	1.0000	9.69
110.5	67,830		0.0000	1.0000	9.69
111.5	67,830		0.0000	1.0000	9.69
112.5	67,205		0.0000	1.0000	9.69
113.5	62,100		0.0000	1.0000	9.69
114.5	62,050		0.0000	1.0000	9.69
115.5	61,934		0.0000	1.0000	9.69
116.5	61,008		0.0000	1.0000	9.69
117.5	61,008		0.0000	1.0000	9.69
118.5	59,243		0.0000	1.0000	9.69

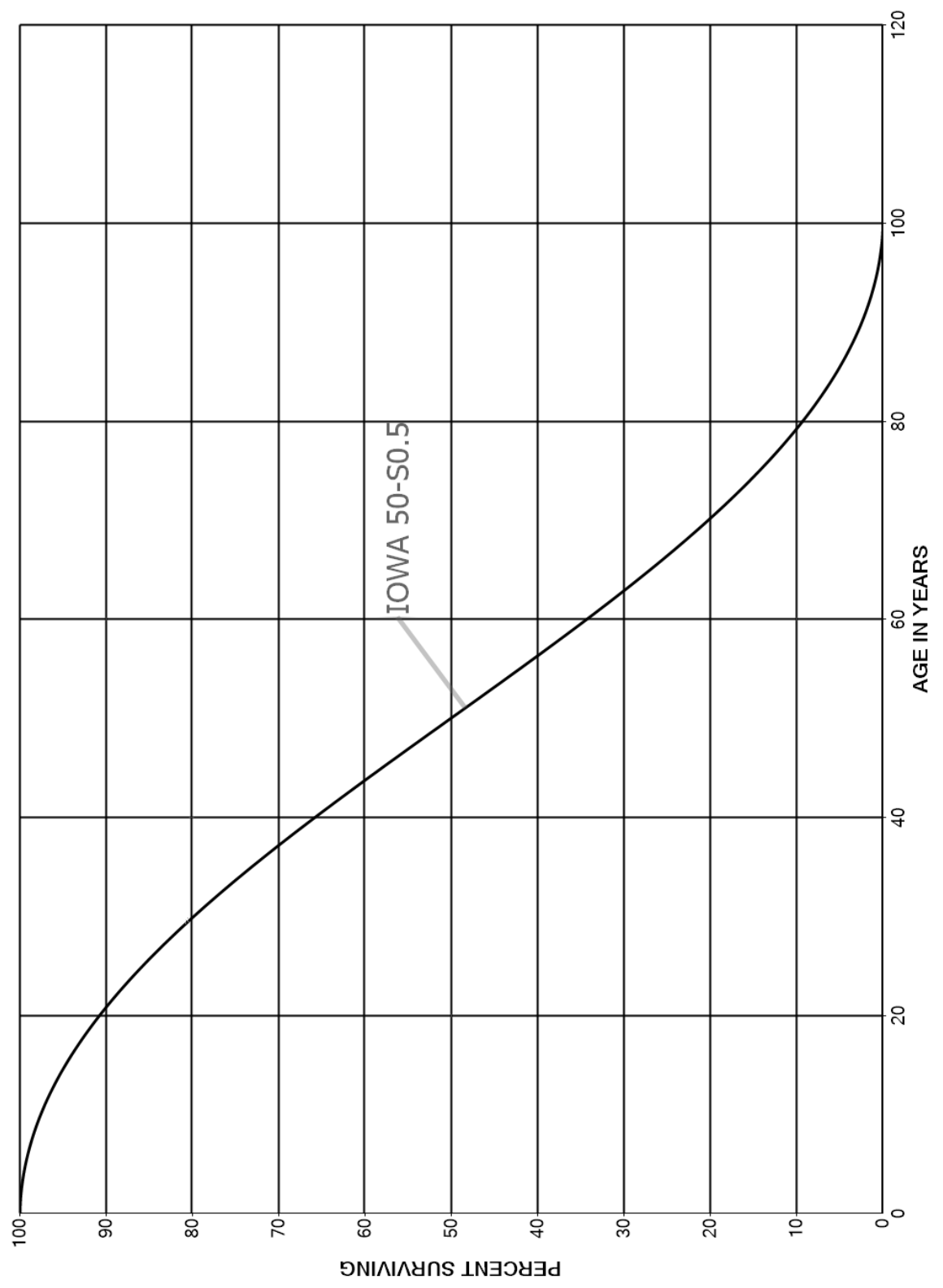
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 306.00 LAKE, RIVER AND OTHER INTAKES - LARGE

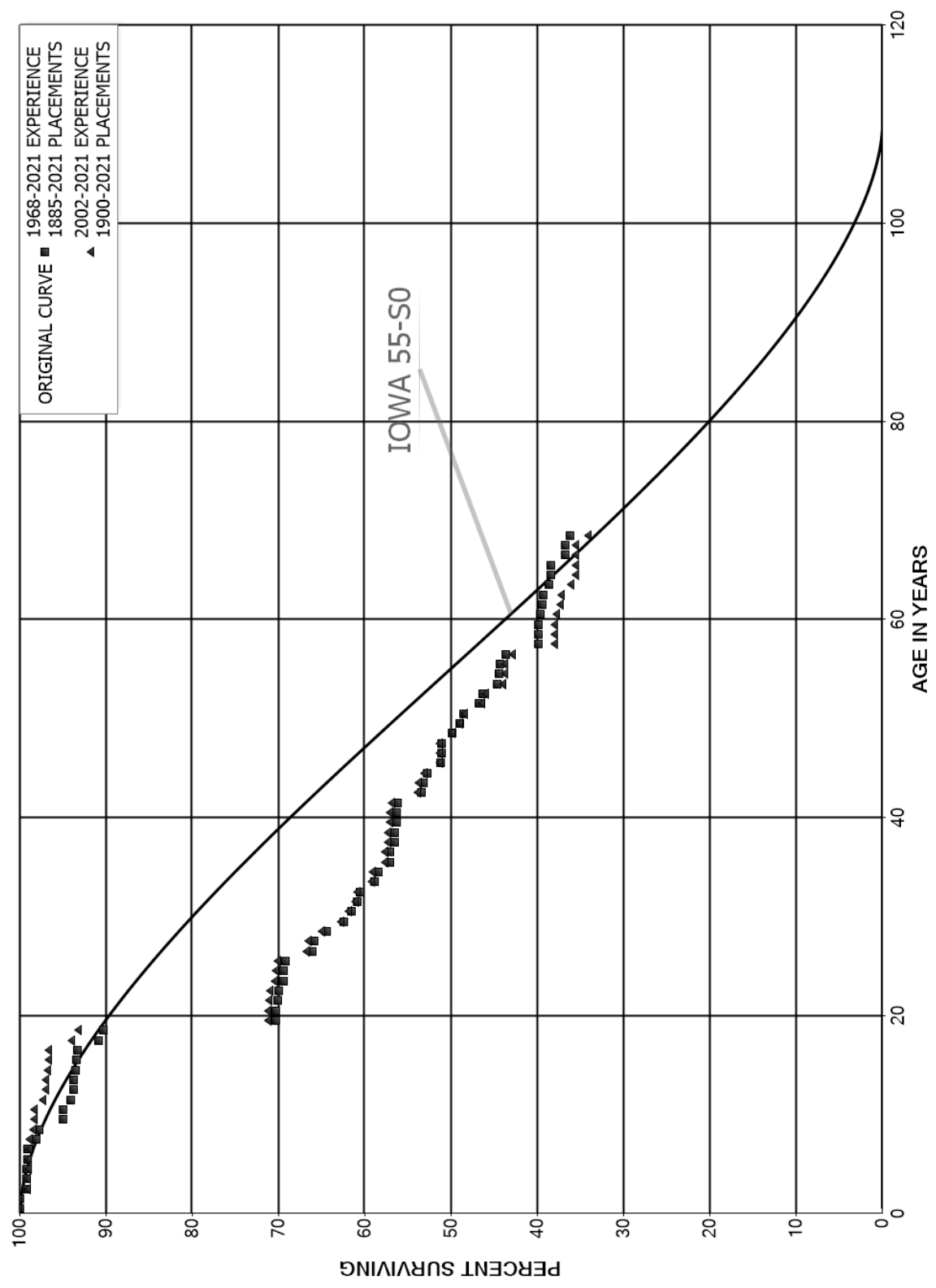
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1871-2021			EXPERIENCE BAND 1954-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	59,243	7,183	0.1212	0.8788	9.69	
120.5	51,805		0.0000	1.0000	8.52	
121.5	31,896		0.0000	1.0000	8.52	
122.5	27,563		0.0000	1.0000	8.52	
123.5	27,563		0.0000	1.0000	8.52	
124.5	27,563		0.0000	1.0000	8.52	
125.5	26,499		0.0000	1.0000	8.52	
126.5	26,499		0.0000	1.0000	8.52	
127.5	26,499		0.0000	1.0000	8.52	
128.5	26,499		0.0000	1.0000	8.52	
129.5	26,499		0.0000	1.0000	8.52	
130.5	26,499		0.0000	1.0000	8.52	
131.5	26,499		0.0000	1.0000	8.52	
132.5	26,499		0.0000	1.0000	8.52	
133.5	26,499		0.0000	1.0000	8.52	
134.5	26,499		0.0000	1.0000	8.52	
135.5	26,499		0.0000	1.0000	8.52	
136.5	26,499		0.0000	1.0000	8.52	
137.5	10,591		0.0000	1.0000	8.52	
138.5	10,591		0.0000	1.0000	8.52	
139.5	8,485		0.0000	1.0000	8.52	
140.5	8,485		0.0000	1.0000	8.52	
141.5	8,485		0.0000	1.0000	8.52	
142.5	8,485		0.0000	1.0000	8.52	
143.5	8,485		0.0000	1.0000	8.52	
144.5	8,485		0.0000	1.0000	8.52	
145.5	7,485		0.0000	1.0000	8.52	
146.5	7,485		0.0000	1.0000	8.52	
147.5	7,485		0.0000	1.0000	8.52	
148.5	7,485		0.0000	1.0000	8.52	
149.5	7,485		0.0000	1.0000	8.52	
150.5					8.52	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 306.00 LAKE, RIVER AND OTHER INTAKES - OTHER  
 SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 307.00 WELLS AND SPRINGS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1885-2021

EXPERIENCE BAND 1968-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	9,172,229		0.0000	1.0000	100.00
0.5	10,094,106		0.0000	1.0000	100.00
1.5	9,836,566	82,336	0.0084	0.9916	100.00
2.5	9,682,462		0.0000	1.0000	99.16
3.5	9,609,178	2,784	0.0003	0.9997	99.16
4.5	9,859,728	2,565	0.0003	0.9997	99.13
5.5	9,777,671	6,394	0.0007	0.9993	99.11
6.5	8,684,145	86,707	0.0100	0.9900	99.04
7.5	8,462,582	26,920	0.0032	0.9968	98.05
8.5	8,226,200	237,668	0.0289	0.9711	97.74
9.5	8,084,426	371	0.0000	1.0000	94.92
10.5	7,926,142	75,001	0.0095	0.9905	94.91
11.5	7,854,231	23,988	0.0031	0.9969	94.02
12.5	7,947,950		0.0000	1.0000	93.73
13.5	7,794,111	20,808	0.0027	0.9973	93.73
14.5	7,386,926	5,268	0.0007	0.9993	93.48
15.5	7,292,127	9,791	0.0013	0.9987	93.41
16.5	7,338,118	190,516	0.0260	0.9740	93.29
17.5	6,204,965	41,645	0.0067	0.9933	90.86
18.5	6,068,187	1,343,150	0.2213	0.7787	90.26
19.5	4,725,596	2,088	0.0004	0.9996	70.28
20.5	4,550,863	8,989	0.0020	0.9980	70.25
21.5	3,800,415	6,553	0.0017	0.9983	70.11
22.5	3,875,509	29,841	0.0077	0.9923	69.99
23.5	3,916,982	3,589	0.0009	0.9991	69.45
24.5	3,898,300	11,960	0.0031	0.9969	69.38
25.5	3,930,366	176,709	0.0450	0.9550	69.17
26.5	3,744,168	11,794	0.0032	0.9968	66.06
27.5	3,747,294	81,537	0.0218	0.9782	65.85
28.5	3,597,101	115,665	0.0322	0.9678	64.42
29.5	3,358,209	46,883	0.0140	0.9860	62.35
30.5	3,213,923	35,932	0.0112	0.9888	61.48
31.5	2,243,636	11,266	0.0050	0.9950	60.79
32.5	2,268,280	61,723	0.0272	0.9728	60.49
33.5	2,005,134	16,104	0.0080	0.9920	58.84
34.5	1,730,397	37,844	0.0219	0.9781	58.37
35.5	1,758,923	1,478	0.0008	0.9992	57.09
36.5	1,706,181	14,485	0.0085	0.9915	57.04
37.5	1,666,059	264	0.0002	0.9998	56.56
38.5	1,497,060	6,853	0.0046	0.9954	56.55

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1885-2021

EXPERIENCE BAND 1968-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,212,959	76	0.0001	0.9999	56.29
40.5	1,122,606	3,309	0.0029	0.9971	56.29
41.5	1,031,599	50,060	0.0485	0.9515	56.12
42.5	943,459	3,174	0.0034	0.9966	53.40
43.5	778,716	7,858	0.0101	0.9899	53.22
44.5	765,661	22,647	0.0296	0.9704	52.68
45.5	638,025	146	0.0002	0.9998	51.12
46.5	629,142		0.0000	1.0000	51.11
47.5	599,487	15,523	0.0259	0.9741	51.11
48.5	491,620	8,216	0.0167	0.9833	49.79
49.5	381,560	3,500	0.0092	0.9908	48.96
50.5	347,409	13,072	0.0376	0.9624	48.51
51.5	331,131	2,880	0.0087	0.9913	46.68
52.5	268,743	9,365	0.0348	0.9652	46.28
53.5	254,495	1,442	0.0057	0.9943	44.66
54.5	251,697	631	0.0025	0.9975	44.41
55.5	199,888	2,839	0.0142	0.9858	44.30
56.5	183,349	15,909	0.0868	0.9132	43.67
57.5	167,808	55	0.0003	0.9997	39.88
58.5	159,084		0.0000	1.0000	39.87
59.5	157,065	790	0.0050	0.9950	39.87
60.5	153,899	1,261	0.0082	0.9918	39.67
61.5	106,450	148	0.0014	0.9986	39.34
62.5	119,511	1,910	0.0160	0.9840	39.29
63.5	116,668	949	0.0081	0.9919	38.66
64.5	115,269		0.0000	1.0000	38.35
65.5	113,666	4,738	0.0417	0.9583	38.35
66.5	98,739	93	0.0009	0.9991	36.75
67.5	85,335	1,294	0.0152	0.9848	36.71
68.5	71,040		0.0000	1.0000	36.16
69.5	71,040	892	0.0126	0.9874	36.16
70.5	71,539	1,661	0.0232	0.9768	35.70
71.5	69,770		0.0000	1.0000	34.87
72.5	71,311	58	0.0008	0.9992	34.87
73.5	70,388	3,245	0.0461	0.9539	34.84
74.5	67,143	5,323	0.0793	0.9207	33.24
75.5	61,596	277	0.0045	0.9955	30.60
76.5	56,998	53	0.0009	0.9991	30.47
77.5	57,709		0.0000	1.0000	30.44
78.5	57,709		0.0000	1.0000	30.44

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1885-2021			EXPERIENCE BAND 1968-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	57,709	14	0.0002	0.9998	30.44	
80.5	56,865	1,043	0.0183	0.9817	30.43	
81.5	55,748		0.0000	1.0000	29.87	
82.5	54,091	463	0.0086	0.9914	29.87	
83.5	54,571		0.0000	1.0000	29.62	
84.5	51,516		0.0000	1.0000	29.62	
85.5	51,516		0.0000	1.0000	29.62	
86.5	50,574	1,072	0.0212	0.9788	29.62	
87.5	49,303		0.0000	1.0000	28.99	
88.5	49,303	426	0.0086	0.9914	28.99	
89.5	48,877		0.0000	1.0000	28.74	
90.5	48,877		0.0000	1.0000	28.74	
91.5	52,735		0.0000	1.0000	28.74	
92.5	52,735	285	0.0054	0.9946	28.74	
93.5	52,450	193	0.0037	0.9963	28.58	
94.5	51,078		0.0000	1.0000	28.48	
95.5	50,618		0.0000	1.0000	28.48	
96.5	50,618		0.0000	1.0000	28.48	
97.5	43,954		0.0000	1.0000	28.48	
98.5	34,086		0.0000	1.0000	28.48	
99.5	31,267	66	0.0021	0.9979	28.48	
100.5	31,201		0.0000	1.0000	28.42	
101.5	31,139	435	0.0140	0.9860	28.42	
102.5	30,704		0.0000	1.0000	28.02	
103.5	29,520		0.0000	1.0000	28.02	
104.5	29,520		0.0000	1.0000	28.02	
105.5	27,759		0.0000	1.0000	28.02	
106.5	25,244		0.0000	1.0000	28.02	
107.5	24,558		0.0000	1.0000	28.02	
108.5	23,062		0.0000	1.0000	28.02	
109.5	22,211		0.0000	1.0000	28.02	
110.5	22,211		0.0000	1.0000	28.02	
111.5	15,853	0	0.0000	1.0000	28.02	
112.5	15,853	327	0.0206	0.9794	28.02	
113.5	15,515		0.0000	1.0000	27.44	
114.5	15,455		0.0000	1.0000	27.44	
115.5	15,455		0.0000	1.0000	27.44	
116.5	3,898		0.0000	1.0000	27.44	
117.5	2,197		0.0000	1.0000	27.44	
118.5	2,197		0.0000	1.0000	27.44	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1885-2021			EXPERIENCE BAND 1968-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	2,197		0.0000	1.0000	27.44
120.5	1,510		0.0000	1.0000	27.44
121.5					27.44



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,385,504		0.0000	1.0000	100.00
0.5	5,426,449		0.0000	1.0000	100.00
1.5	7,418,998	82,336	0.0111	0.9889	100.00
2.5	7,275,096		0.0000	1.0000	98.89
3.5	7,187,862	2,784	0.0004	0.9996	98.89
4.5	7,427,287	2,565	0.0003	0.9997	98.85
5.5	7,362,472	4,394	0.0006	0.9994	98.82
6.5	6,297,467	5,293	0.0008	0.9992	98.76
7.5	6,134,501	24,731	0.0040	0.9960	98.68
8.5	5,895,693	6,789	0.0012	0.9988	98.28
9.5	5,953,529	371	0.0001	0.9999	98.16
10.5	5,810,702	56,827	0.0098	0.9902	98.16
11.5	6,663,419	23,988	0.0036	0.9964	97.20
12.5	6,775,394		0.0000	1.0000	96.85
13.5	6,875,471	18,886	0.0027	0.9973	96.85
14.5	6,643,679	5,268	0.0008	0.9992	96.58
15.5	6,666,064	2,517	0.0004	0.9996	96.51
16.5	6,756,323	188,210	0.0279	0.9721	96.47
17.5	5,701,199	40,954	0.0072	0.9928	93.78
18.5	5,669,421	1,343,150	0.2369	0.7631	93.11
19.5	4,312,595	2,088	0.0005	0.9995	71.05
20.5	4,214,826	2,694	0.0006	0.9994	71.02
21.5	3,469,066	5,321	0.0015	0.9985	70.97
22.5	3,510,618	29,841	0.0085	0.9915	70.86
23.5	3,586,025	3,248	0.0009	0.9991	70.26
24.5	3,567,560	11,483	0.0032	0.9968	70.20
25.5	3,640,352	174,996	0.0481	0.9519	69.97
26.5	3,455,871	11,794	0.0034	0.9966	66.61
27.5	3,487,048	81,537	0.0234	0.9766	66.38
28.5	3,363,391	115,665	0.0344	0.9656	64.83
29.5	3,154,534	46,405	0.0147	0.9853	62.60
30.5	3,034,573	33,209	0.0109	0.9891	61.68
31.5	2,067,134	9,115	0.0044	0.9956	61.00
32.5	2,141,828	60,724	0.0284	0.9716	60.73
33.5	1,879,483	3,355	0.0018	0.9982	59.01
34.5	1,614,558	37,844	0.0234	0.9766	58.91
35.5	1,646,956	1,478	0.0009	0.9991	57.52
36.5	1,596,387	7,614	0.0048	0.9952	57.47
37.5	1,564,329	264	0.0002	0.9998	57.20
38.5	1,420,827	6,853	0.0048	0.9952	57.19

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2021			EXPERIENCE BAND 2002-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,131,400	76	0.0001	0.9999	56.91	
40.5	1,047,105	3,309	0.0032	0.9968	56.91	
41.5	955,639	50,060	0.0524	0.9476	56.73	
42.5	868,206	3,174	0.0037	0.9963	53.76	
43.5	698,457	7,858	0.0113	0.9887	53.56	
44.5	686,573	22,647	0.0330	0.9670	52.96	
45.5	557,659	146	0.0003	0.9997	51.21	
46.5	560,574		0.0000	1.0000	51.20	
47.5	545,727	15,523	0.0284	0.9716	51.20	
48.5	450,861	8,216	0.0182	0.9818	49.74	
49.5	340,801	3,500	0.0103	0.9897	48.84	
50.5	306,020	13,072	0.0427	0.9573	48.33	
51.5	287,981	2,880	0.0100	0.9900	46.27	
52.5	223,386	9,365	0.0419	0.9581	45.81	
53.5	208,193	1,442	0.0069	0.9931	43.89	
54.5	203,899		0.0000	1.0000	43.58	
55.5	151,435	2,839	0.0187	0.9813	43.58	
56.5	139,217	15,909	0.1143	0.8857	42.77	
57.5	122,077		0.0000	1.0000	37.88	
58.5	113,407		0.0000	1.0000	37.88	
59.5	110,398	790	0.0072	0.9928	37.88	
60.5	107,456	1,261	0.0117	0.9883	37.61	
61.5	60,095	148	0.0025	0.9975	37.17	
62.5	61,599	1,910	0.0310	0.9690	37.07	
63.5	58,998	949	0.0161	0.9839	35.93	
64.5	60,707		0.0000	1.0000	35.35	
65.5	59,104		0.0000	1.0000	35.35	
66.5	48,186		0.0000	1.0000	35.35	
67.5	33,563	1,294	0.0386	0.9614	35.35	
68.5	19,268		0.0000	1.0000	33.98	
69.5	19,268	892	0.0463	0.9537	33.98	
70.5	19,767	1,661	0.0840	0.9160	32.41	
71.5	18,007		0.0000	1.0000	29.69	
72.5	18,007	58	0.0032	0.9968	29.69	
73.5	22,407	3,245	0.1448	0.8552	29.59	
74.5	21,996	5,323	0.2420	0.7580	25.31	
75.5	16,909	277	0.0164	0.9836	19.18	
76.5	12,311	53	0.0043	0.9957	18.87	
77.5	20,622		0.0000	1.0000	18.79	
78.5	30,490		0.0000	1.0000	18.79	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2021			EXPERIENCE BAND 2002-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	33,309	14	0.0004	0.9996	18.79	
80.5	32,465	1,043	0.0321	0.9679	18.78	
81.5	31,410		0.0000	1.0000	18.18	
82.5	28,864		0.0000	1.0000	18.18	
83.5	29,807		0.0000	1.0000	18.18	
84.5	26,752		0.0000	1.0000	18.18	
85.5	28,513		0.0000	1.0000	18.18	
86.5	29,778	1,072	0.0360	0.9640	18.18	
87.5	29,452		0.0000	1.0000	17.52	
88.5	30,948		0.0000	1.0000	17.52	
89.5	32,234		0.0000	1.0000	17.52	
90.5	32,234		0.0000	1.0000	17.52	
91.5	38,583		0.0000	1.0000	17.52	
92.5	38,583	285	0.0074	0.9926	17.52	
93.5	38,309	193	0.0050	0.9950	17.39	
94.5	36,997		0.0000	1.0000	17.30	
95.5	36,537		0.0000	1.0000	17.30	
96.5	48,094		0.0000	1.0000	17.30	
97.5	41,430		0.0000	1.0000	17.30	
98.5	31,562		0.0000	1.0000	17.30	
99.5	28,743	66	0.0023	0.9977	17.30	
100.5	29,691		0.0000	1.0000	17.26	
101.5	31,139	435	0.0140	0.9860	17.26	
102.5	30,704		0.0000	1.0000	17.02	
103.5	29,520		0.0000	1.0000	17.02	
104.5	29,520		0.0000	1.0000	17.02	
105.5	27,759		0.0000	1.0000	17.02	
106.5	25,244		0.0000	1.0000	17.02	
107.5	24,558		0.0000	1.0000	17.02	
108.5	23,062		0.0000	1.0000	17.02	
109.5	22,211		0.0000	1.0000	17.02	
110.5	22,211		0.0000	1.0000	17.02	
111.5	15,853	0	0.0000	1.0000	17.02	
112.5	15,853	327	0.0206	0.9794	17.02	
113.5	15,515		0.0000	1.0000	16.67	
114.5	15,455		0.0000	1.0000	16.67	
115.5	15,455		0.0000	1.0000	16.67	
116.5	3,898		0.0000	1.0000	16.67	
117.5	2,197		0.0000	1.0000	16.67	
118.5	2,197		0.0000	1.0000	16.67	

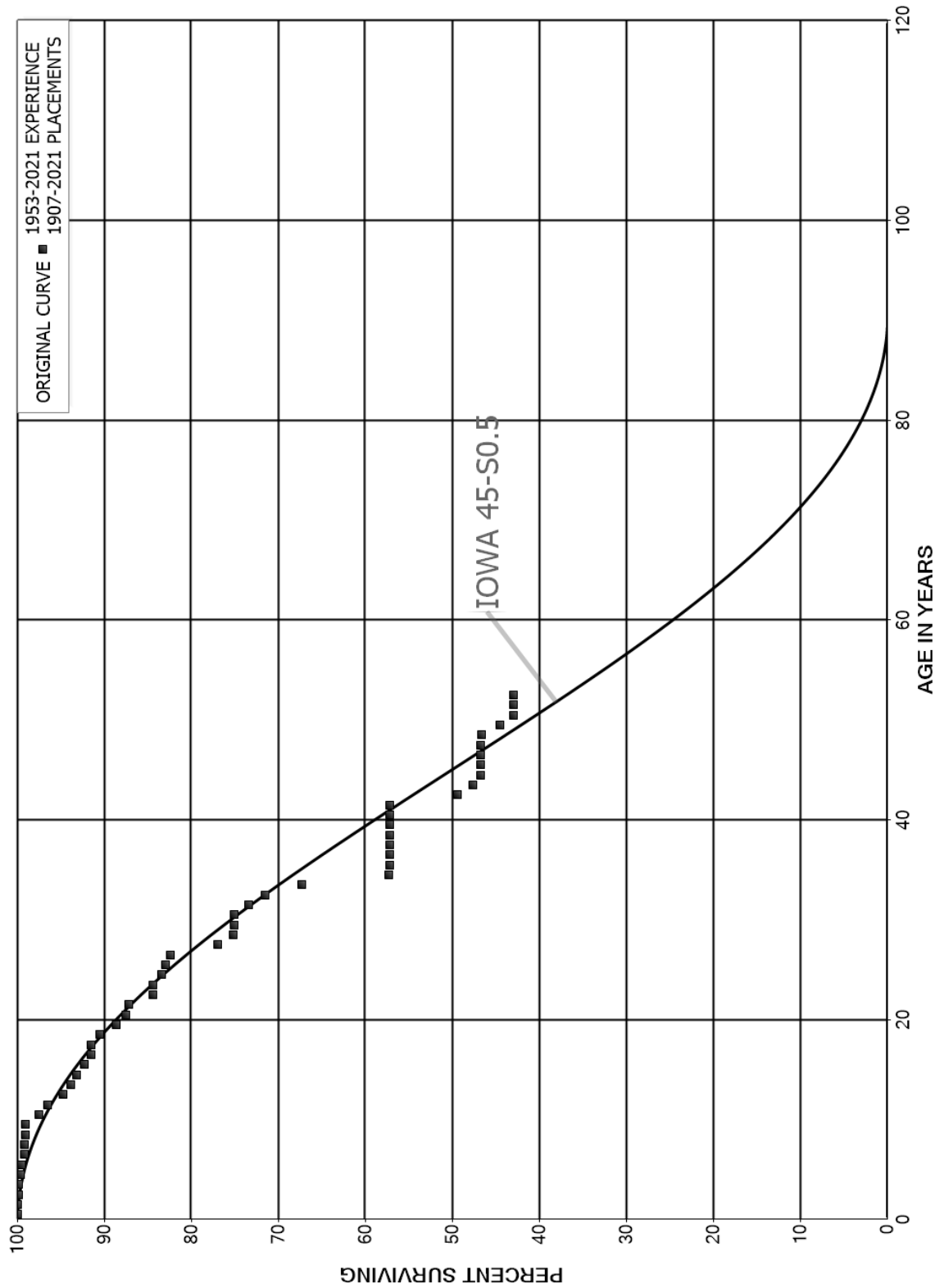
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 307.00 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	2,197		0.0000	1.0000	16.67
120.5	1,510		0.0000	1.0000	16.67
121.5					16.67

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 310.00 POWER GENERATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 310.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1907-2021

EXPERIENCE BAND 1953-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	19,181,711	2,600	0.0001	0.9999	100.00
0.5	19,207,387	10,729	0.0006	0.9994	99.99
1.5	18,934,275	10,900	0.0006	0.9994	99.93
2.5	18,645,413	5,355	0.0003	0.9997	99.87
3.5	18,185,545	43,858	0.0024	0.9976	99.84
4.5	17,917,919	24,826	0.0014	0.9986	99.60
5.5	17,771,527	52,595	0.0030	0.9970	99.47
6.5	16,981,082	5,673	0.0003	0.9997	99.17
7.5	16,370,078	10,583	0.0006	0.9994	99.14
8.5	10,855,108	7,001	0.0006	0.9994	99.07
9.5	4,617,902	72,317	0.0157	0.9843	99.01
10.5	4,153,098	38,809	0.0093	0.9907	97.46
11.5	4,106,528	78,851	0.0192	0.9808	96.55
12.5	3,900,890	35,118	0.0090	0.9910	94.70
13.5	3,731,986	27,144	0.0073	0.9927	93.84
14.5	3,598,869	33,403	0.0093	0.9907	93.16
15.5	3,203,908	26,626	0.0083	0.9917	92.30
16.5	2,951,056	1,674	0.0006	0.9994	91.53
17.5	2,867,420	31,129	0.0109	0.9891	91.48
18.5	2,598,158	53,677	0.0207	0.9793	90.48
19.5	2,272,721	29,838	0.0131	0.9869	88.61
20.5	2,244,858	5,774	0.0026	0.9974	87.45
21.5	2,161,394	69,159	0.0320	0.9680	87.23
22.5	1,842,219		0.0000	1.0000	84.43
23.5	1,821,873	22,698	0.0125	0.9875	84.43
24.5	759,054	3,752	0.0049	0.9951	83.38
25.5	747,370	5,591	0.0075	0.9925	82.97
26.5	740,702	48,087	0.0649	0.9351	82.35
27.5	605,593	14,729	0.0243	0.9757	77.00
28.5	574,095	208	0.0004	0.9996	75.13
29.5	512,407		0.0000	1.0000	75.10
30.5	472,837	10,813	0.0229	0.9771	75.10
31.5	462,024	11,600	0.0251	0.9749	73.39
32.5	456,177	27,374	0.0600	0.9400	71.54
33.5	428,803	63,863	0.1489	0.8511	67.25
34.5	364,940	165	0.0005	0.9995	57.23
35.5	364,775	13	0.0000	1.0000	57.21
36.5	364,762	283	0.0008	0.9992	57.21
37.5	364,479		0.0000	1.0000	57.16
38.5	374,545		0.0000	1.0000	57.16

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 310.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2021

EXPERIENCE BAND 1953-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	331,206		0.0000	1.0000	57.16
40.5	330,621		0.0000	1.0000	57.16
41.5	305,544	41,460	0.1357	0.8643	57.16
42.5	264,084	9,761	0.0370	0.9630	49.41
43.5	254,323	4,487	0.0176	0.9824	47.58
44.5	249,836		0.0000	1.0000	46.74
45.5	256,086	97	0.0004	0.9996	46.74
46.5	217,676		0.0000	1.0000	46.72
47.5	165,361	336	0.0020	0.9980	46.72
48.5	164,889	7,456	0.0452	0.9548	46.63
49.5	149,560	5,093	0.0341	0.9659	44.52
50.5	144,467		0.0000	1.0000	43.00
51.5	144,261		0.0000	1.0000	43.00
52.5	99,058	257	0.0026	0.9974	43.00
53.5	75,740	7,592	0.1002	0.8998	42.89
54.5	60,829		0.0000	1.0000	38.59
55.5	60,687		0.0000	1.0000	38.59
56.5	54,668	3,792	0.0694	0.9306	38.59
57.5	50,877	1,009	0.0198	0.9802	35.92
58.5	48,927		0.0000	1.0000	35.20
59.5	48,927	18,823	0.3847	0.6153	35.20
60.5	30,104	1,266	0.0420	0.9580	21.66
61.5	28,839		0.0000	1.0000	20.75
62.5	28,732		0.0000	1.0000	20.75
63.5	23,396		0.0000	1.0000	20.75
64.5	22,218		0.0000	1.0000	20.75
65.5	22,218		0.0000	1.0000	20.75
66.5	22,218		0.0000	1.0000	20.75
67.5	13,879		0.0000	1.0000	20.75
68.5	13,879		0.0000	1.0000	20.75
69.5	13,879		0.0000	1.0000	20.75
70.5	13,879		0.0000	1.0000	20.75
71.5	13,879		0.0000	1.0000	20.75
72.5	13,879		0.0000	1.0000	20.75
73.5	13,879		0.0000	1.0000	20.75
74.5	13,879		0.0000	1.0000	20.75
75.5	13,879		0.0000	1.0000	20.75
76.5	13,879		0.0000	1.0000	20.75
77.5	13,878		0.0000	1.0000	20.75
78.5	13,878		0.0000	1.0000	20.75

PENNSYLVANIA-AMERICAN WATER COMPANY

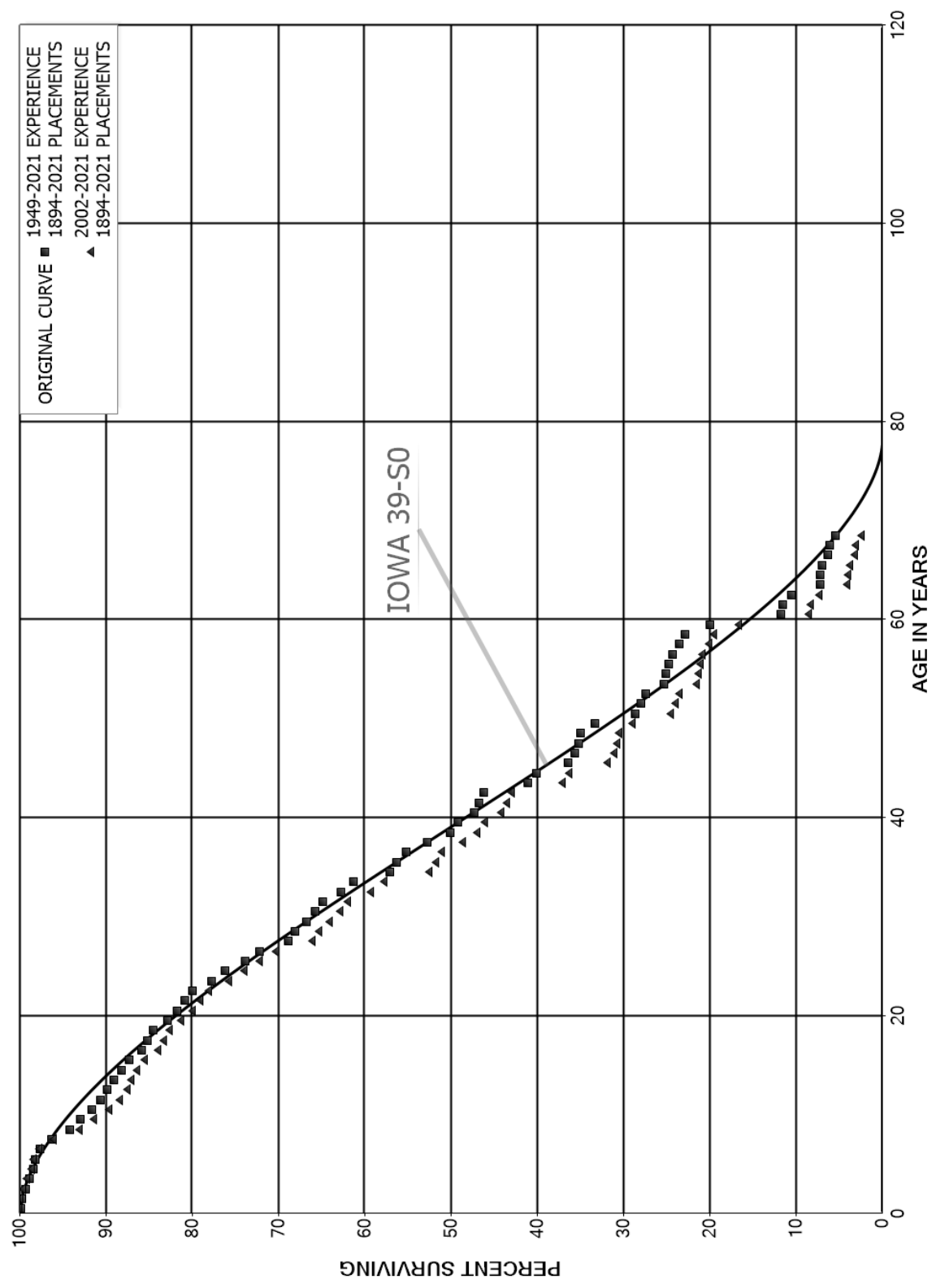
ACCOUNT 310.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2021			EXPERIENCE BAND 1953-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	13,878		0.0000	1.0000	20.75
80.5	13,878		0.0000	1.0000	20.75
81.5	10,939		0.0000	1.0000	20.75
82.5	10,939		0.0000	1.0000	20.75
83.5	10,939		0.0000	1.0000	20.75
84.5	6,419		0.0000	1.0000	20.75
85.5	3,610		0.0000	1.0000	20.75
86.5	3,610		0.0000	1.0000	20.75
87.5	3,610		0.0000	1.0000	20.75
88.5	3,610		0.0000	1.0000	20.75
89.5	3,610		0.0000	1.0000	20.75
90.5					20.75



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2021

EXPERIENCE BAND 1949-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	120,320,210	132,610	0.0011	0.9989	100.00
0.5	117,277,416	224,993	0.0019	0.9981	99.89
1.5	112,488,764	421,819	0.0037	0.9963	99.70
2.5	110,023,992	517,147	0.0047	0.9953	99.32
3.5	97,329,316	432,470	0.0044	0.9956	98.86
4.5	93,658,350	275,303	0.0029	0.9971	98.42
5.5	91,622,684	503,061	0.0055	0.9945	98.13
6.5	89,435,044	1,230,084	0.0138	0.9862	97.59
7.5	81,488,129	1,714,843	0.0210	0.9790	96.25
8.5	77,458,107	1,028,937	0.0133	0.9867	94.22
9.5	74,573,196	1,073,460	0.0144	0.9856	92.97
10.5	73,847,799	842,633	0.0114	0.9886	91.63
11.5	71,727,248	635,063	0.0089	0.9911	90.59
12.5	69,346,949	552,750	0.0080	0.9920	89.78
13.5	67,431,334	650,550	0.0096	0.9904	89.07
14.5	64,126,855	669,255	0.0104	0.9896	88.21
15.5	60,026,177	991,061	0.0165	0.9835	87.29
16.5	58,244,552	489,563	0.0084	0.9916	85.85
17.5	56,796,024	447,554	0.0079	0.9921	85.13
18.5	52,981,897	1,003,187	0.0189	0.9811	84.46
19.5	50,145,014	716,491	0.0143	0.9857	82.86
20.5	46,978,966	464,408	0.0099	0.9901	81.67
21.5	43,530,877	523,398	0.0120	0.9880	80.87
22.5	39,144,553	1,048,623	0.0268	0.9732	79.89
23.5	36,788,228	734,045	0.0200	0.9800	77.75
24.5	32,966,295	1,017,510	0.0309	0.9691	76.20
25.5	30,433,608	673,321	0.0221	0.9779	73.85
26.5	26,424,144	1,232,580	0.0466	0.9534	72.22
27.5	24,896,746	278,727	0.0112	0.9888	68.85
28.5	22,507,217	455,060	0.0202	0.9798	68.08
29.5	19,959,199	306,647	0.0154	0.9846	66.70
30.5	18,617,328	231,693	0.0124	0.9876	65.68
31.5	13,950,006	454,292	0.0326	0.9674	64.86
32.5	12,941,419	293,599	0.0227	0.9773	62.75
33.5	12,275,122	859,924	0.0701	0.9299	61.32
34.5	10,722,121	140,284	0.0131	0.9869	57.03
35.5	10,284,954	202,573	0.0197	0.9803	56.28
36.5	9,498,013	420,654	0.0443	0.9557	55.17
37.5	8,824,171	445,150	0.0504	0.9496	52.73
38.5	8,142,683	141,270	0.0173	0.9827	50.07

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 1949-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,320,607	282,866	0.0386	0.9614	49.20
40.5	6,537,220	82,726	0.0127	0.9873	47.30
41.5	6,313,578	71,502	0.0113	0.9887	46.70
42.5	6,060,154	671,956	0.1109	0.8891	46.17
43.5	5,559,818	138,694	0.0249	0.9751	41.05
44.5	5,404,277	494,575	0.0915	0.9085	40.03
45.5	10,533,617	223,020	0.0212	0.9788	36.36
46.5	10,210,233	121,631	0.0119	0.9881	35.59
47.5	10,060,180	54,706	0.0054	0.9946	35.17
48.5	4,283,530	207,006	0.0483	0.9517	34.98
49.5	3,661,895	518,378	0.1416	0.8584	33.29
50.5	2,882,456	67,224	0.0233	0.9767	28.58
51.5	2,838,748	56,564	0.0199	0.9801	27.91
52.5	2,538,836	190,086	0.0749	0.9251	27.35
53.5	2,176,937	24,566	0.0113	0.9887	25.31
54.5	2,152,905	29,369	0.0136	0.9864	25.02
55.5	2,109,920	32,151	0.0152	0.9848	24.68
56.5	1,880,848	61,330	0.0326	0.9674	24.30
57.5	1,614,429	49,239	0.0305	0.9695	23.51
58.5	1,545,618	195,923	0.1268	0.8732	22.79
59.5	1,339,365	547,150	0.4085	0.5915	19.90
60.5	826,695	18,912	0.0229	0.9771	11.77
61.5	717,713	65,308	0.0910	0.9090	11.50
62.5	628,190	197,822	0.3149	0.6851	10.46
63.5	444,183	2,394	0.0054	0.9946	7.16
64.5	394,223	11,048	0.0280	0.9720	7.13
65.5	376,317	35,748	0.0950	0.9050	6.93
66.5	337,790	10,075	0.0298	0.9702	6.27
67.5	316,500	34,260	0.1082	0.8918	6.08
68.5	267,221	1,540	0.0058	0.9942	5.42
69.5	230,514	6,081	0.0264	0.9736	5.39
70.5	208,356	8,839	0.0424	0.9576	5.25
71.5	195,982	11,954	0.0610	0.9390	5.03
72.5	204,302	1,735	0.0085	0.9915	4.72
73.5	200,844	1,240	0.0062	0.9938	4.68
74.5	203,074	2,652	0.0131	0.9869	4.65
75.5	200,212	195	0.0010	0.9990	4.59
76.5	199,349	7,004	0.0351	0.9649	4.59
77.5	189,155	673	0.0036	0.9964	4.42
78.5	188,518	465	0.0025	0.9975	4.41

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 1949-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	187,074	1,823	0.0097	0.9903	4.40	
80.5	175,998	7,698	0.0437	0.9563	4.36	
81.5	164,030	5,803	0.0354	0.9646	4.16	
82.5	127,738	23,987	0.1878	0.8122	4.02	
83.5	271,027	541	0.0020	0.9980	3.26	
84.5	268,845	1,222	0.0045	0.9955	3.26	
85.5	266,921	206,666	0.7743	0.2257	3.24	
86.5	59,961	473	0.0079	0.9921	0.73	
87.5	50,452	8,500	0.1685	0.8315	0.73	
88.5	41,759	3,141	0.0752	0.9248	0.60	
89.5	34,118	6,126	0.1795	0.8205	0.56	
90.5	24,383	1,668	0.0684	0.9316	0.46	
91.5	22,180		0.0000	1.0000	0.43	
92.5	31,315		0.0000	1.0000	0.43	
93.5	30,791		0.0000	1.0000	0.43	
94.5	30,222	1,279	0.0423	0.9577	0.43	
95.5	28,872		0.0000	1.0000	0.41	
96.5	28,641	514	0.0180	0.9820	0.41	
97.5	28,127	1,597	0.0568	0.9432	0.40	
98.5	26,500		0.0000	1.0000	0.38	
99.5	26,500	30	0.0011	0.9989	0.38	
100.5	22,701	360	0.0159	0.9841	0.38	
101.5	20,651	67	0.0032	0.9968	0.37	
102.5	12,556		0.0000	1.0000	0.37	
103.5	10,432	565	0.0542	0.9458	0.37	
104.5	8,836	461	0.0522	0.9478	0.35	
105.5	10,144		0.0000	1.0000	0.33	
106.5	16,874	315	0.0187	0.9813	0.33	
107.5	16,558	5,628	0.3399	0.6601	0.33	
108.5	9,090	6,730	0.7404	0.2596	0.22	
109.5	2,360		0.0000	1.0000	0.06	
110.5	1,149		0.0000	1.0000	0.06	
111.5	3,876		0.0000	1.0000	0.06	
112.5	3,375		0.0000	1.0000	0.06	
113.5	3,375	3,375	1.0000		0.06	
114.5						
115.5						
116.5						
117.5	646		0.0000			
118.5	646		0.0000			
119.5	646	646	1.0000			
120.5						

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	72,307,618	12,000	0.0002	0.9998	100.00
0.5	67,119,475	98,591	0.0015	0.9985	99.98
1.5	65,267,999	247,092	0.0038	0.9962	99.84
2.5	67,844,614	271,543	0.0040	0.9960	99.46
3.5	57,534,291	334,759	0.0058	0.9942	99.06
4.5	57,585,100	140,746	0.0024	0.9976	98.48
5.5	56,645,689	331,277	0.0058	0.9942	98.24
6.5	58,322,887	1,034,345	0.0177	0.9823	97.67
7.5	51,187,411	1,603,092	0.0313	0.9687	95.94
8.5	49,549,786	854,910	0.0173	0.9827	92.93
9.5	48,927,499	972,456	0.0199	0.9801	91.33
10.5	48,835,134	694,880	0.0142	0.9858	89.51
11.5	51,266,267	474,988	0.0093	0.9907	88.24
12.5	50,555,051	262,673	0.0052	0.9948	87.42
13.5	49,652,582	414,387	0.0083	0.9917	86.97
14.5	47,411,509	472,326	0.0100	0.9900	86.24
15.5	45,531,327	797,056	0.0175	0.9825	85.38
16.5	46,321,544	398,569	0.0086	0.9914	83.89
17.5	45,304,464	348,388	0.0077	0.9923	83.17
18.5	42,263,127	717,147	0.0170	0.9830	82.53
19.5	40,724,336	647,791	0.0159	0.9841	81.13
20.5	38,220,010	426,648	0.0112	0.9888	79.84
21.5	35,045,119	440,357	0.0126	0.9874	78.95
22.5	31,037,502	952,373	0.0307	0.9693	77.95
23.5	28,878,976	648,421	0.0225	0.9775	75.56
24.5	25,167,923	623,827	0.0248	0.9752	73.86
25.5	23,068,949	581,299	0.0252	0.9748	72.03
26.5	19,255,862	1,158,359	0.0602	0.9398	70.22
27.5	17,835,204	215,245	0.0121	0.9879	65.99
28.5	15,569,007	293,908	0.0189	0.9811	65.20
29.5	13,697,249	272,066	0.0199	0.9801	63.97
30.5	13,021,254	186,159	0.0143	0.9857	62.70
31.5	8,435,117	363,457	0.0431	0.9569	61.80
32.5	8,733,529	218,728	0.0250	0.9750	59.14
33.5	8,306,197	757,101	0.0911	0.9089	57.66
34.5	7,016,216	109,519	0.0156	0.9844	52.40
35.5	6,657,214	78,666	0.0118	0.9882	51.58
36.5	6,363,508	309,781	0.0487	0.9513	50.97
37.5	5,938,330	201,941	0.0340	0.9660	48.49
38.5	5,575,152	107,719	0.0193	0.9807	46.84

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,785,003	193,382	0.0404	0.9596	45.94
40.5	4,711,680	68,649	0.0146	0.9854	44.08
41.5	4,564,775	58,270	0.0128	0.9872	43.44
42.5	4,335,801	596,755	0.1376	0.8624	42.88
43.5	4,009,516	87,036	0.0217	0.9783	36.98
44.5	3,923,418	484,572	0.1235	0.8765	36.18
45.5	9,094,336	208,204	0.0229	0.9771	31.71
46.5	8,973,849	116,842	0.0130	0.9870	30.99
47.5	9,515,461	51,343	0.0054	0.9946	30.58
48.5	3,769,327	190,717	0.0506	0.9494	30.42
49.5	3,252,602	505,377	0.1554	0.8446	28.88
50.5	2,511,864	60,173	0.0240	0.9760	24.39
51.5	2,490,998	43,447	0.0174	0.9826	23.81
52.5	2,208,928	184,096	0.0833	0.9167	23.39
53.5	1,843,863	21,924	0.0119	0.9881	21.44
54.5	1,865,963	16,499	0.0088	0.9912	21.19
55.5	1,842,148	24,674	0.0134	0.9866	21.00
56.5	1,624,126	57,497	0.0354	0.9646	20.72
57.5	1,364,327	43,900	0.0322	0.9678	19.98
58.5	1,303,331	191,868	0.1472	0.8528	19.34
59.5	1,115,473	546,128	0.4896	0.5104	16.49
60.5	605,187	18,750	0.0310	0.9690	8.42
61.5	500,401	62,034	0.1240	0.8760	8.16
62.5	414,277	187,166	0.4518	0.5482	7.15
63.5	241,117	2,392	0.0099	0.9901	3.92
64.5	192,194	11,048	0.0575	0.9425	3.88
65.5	175,350	25,899	0.1477	0.8523	3.66
66.5	152,218	8,570	0.0563	0.9437	3.12
67.5	137,324	30,661	0.2233	0.7767	2.94
68.5	97,912	1,034	0.0106	0.9894	2.28
69.5	61,788	5,180	0.0838	0.9162	2.26
70.5	71,417	7,966	0.1115	0.8885	2.07
71.5	65,008	11,128	0.1712	0.8288	1.84
72.5	93,412	1,385	0.0148	0.9852	1.52
73.5	134,285	788	0.0059	0.9941	1.50
74.5	138,050	2,652	0.0192	0.9808	1.49
75.5	135,889		0.0000	1.0000	1.46
76.5	137,964	7,004	0.0508	0.9492	1.46
77.5	142,932	673	0.0047	0.9953	1.39
78.5	144,196	465	0.0032	0.9968	1.38

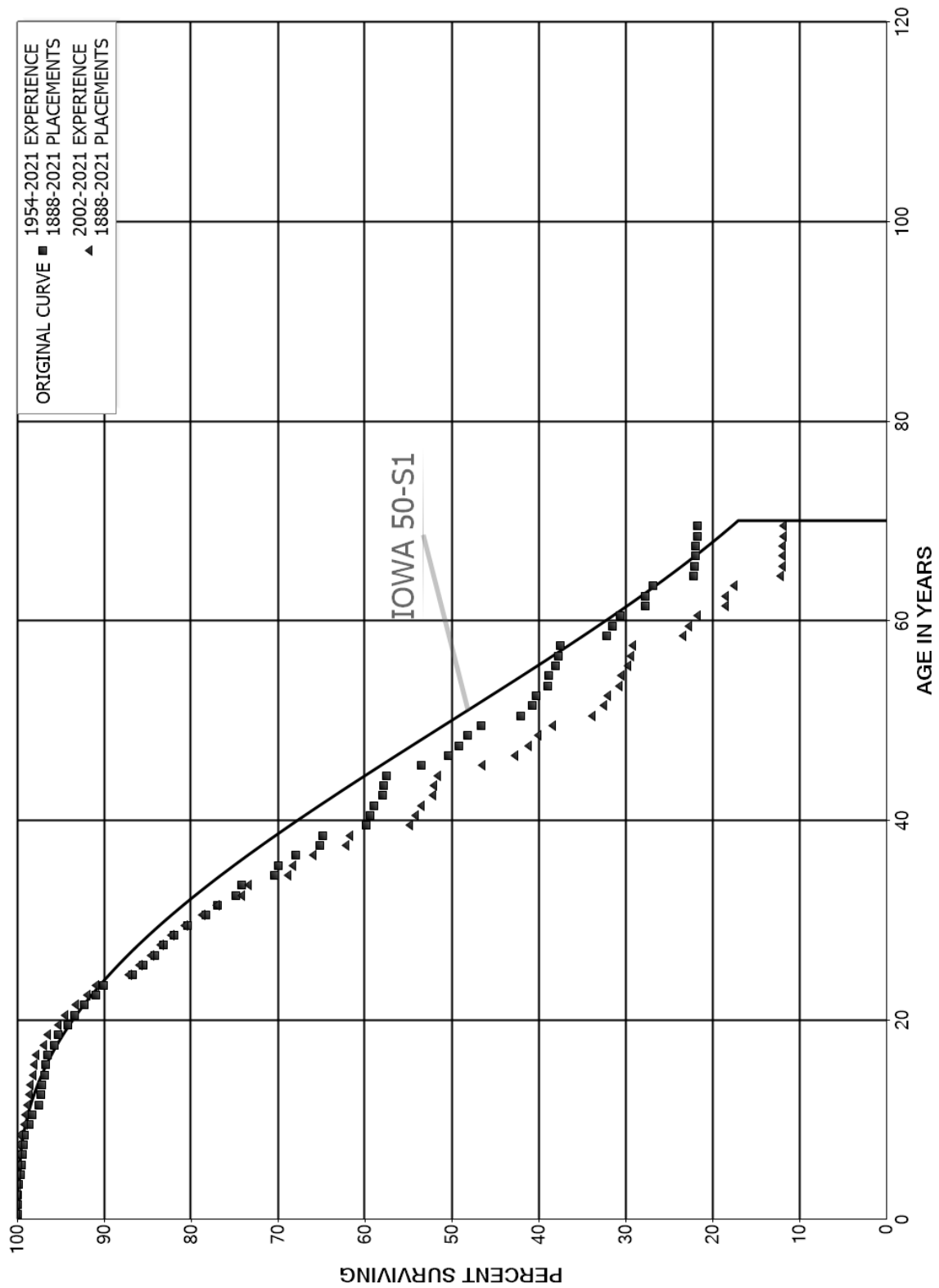
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 311.20 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2021			EXPERIENCE BAND 2002-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	147,251	1,823	0.0124	0.9876	1.38	
80.5	136,175	7,698	0.0565	0.9435	1.36	
81.5	124,732	99	0.0008	0.9992	1.29	
82.5	94,679	13,426	0.1418	0.8582	1.28	
83.5	249,353	541	0.0022	0.9978	1.10	
84.5	247,740	1,068	0.0043	0.9957	1.10	
85.5	246,042	206,666	0.8400	0.1600	1.09	
86.5	39,314	416	0.0106	0.9894	0.18	
87.5	29,861	7,676	0.2571	0.7429	0.17	
88.5	22,022	2,719	0.1235	0.8765	0.13	
89.5	14,803	6,126	0.4138	0.5862	0.11	
90.5	8,837	1,668	0.1888	0.8112	0.07	
91.5	9,027		0.0000	1.0000	0.05	
92.5	20,093		0.0000	1.0000	0.05	
93.5	21,257		0.0000	1.0000	0.05	
94.5	21,927	1,279	0.0583	0.9417	0.05	
95.5	24,436		0.0000	1.0000	0.05	
96.5	24,205		0.0000	1.0000	0.05	
97.5	24,205	1,597	0.0660	0.9340	0.05	
98.5	24,419		0.0000	1.0000	0.05	
99.5	24,419	30	0.0012	0.9988	0.05	
100.5	21,831		0.0000	1.0000	0.05	
101.5	20,651	67	0.0032	0.9968	0.05	
102.5	12,556		0.0000	1.0000	0.05	
103.5	10,432	565	0.0542	0.9458	0.05	
104.5	8,836	461	0.0522	0.9478	0.04	
105.5	10,144		0.0000	1.0000	0.04	
106.5	16,874	315	0.0187	0.9813	0.04	
107.5	16,558	5,628	0.3399	0.6601	0.04	
108.5	9,090	6,730	0.7404	0.2596	0.03	
109.5	2,360		0.0000	1.0000	0.01	
110.5	1,149		0.0000	1.0000	0.01	
111.5	3,876		0.0000	1.0000	0.01	
112.5	3,375		0.0000	1.0000	0.01	
113.5	3,375	3,375	1.0000		0.01	
114.5						
115.5						
116.5						
117.5	646		0.0000			
118.5	646		0.0000			
119.5	646	646	1.0000			
120.5						

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1888-2021

EXPERIENCE BAND 1954-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	253,190,875		0.0000	1.0000	100.00
0.5	241,449,354	117,154	0.0005	0.9995	100.00
1.5	246,270,607	35,974	0.0001	0.9999	99.95
2.5	243,560,286	162,247	0.0007	0.9993	99.94
3.5	195,926,547	486,509	0.0025	0.9975	99.87
4.5	194,918,614	275,524	0.0014	0.9986	99.62
5.5	195,218,934	115,841	0.0006	0.9994	99.48
6.5	196,526,459	240,667	0.0012	0.9988	99.42
7.5	193,898,801	204,961	0.0011	0.9989	99.30
8.5	189,145,367	1,130,865	0.0060	0.9940	99.20
9.5	167,050,518	597,278	0.0036	0.9964	98.60
10.5	156,638,853	1,210,478	0.0077	0.9923	98.25
11.5	155,011,404	254,630	0.0016	0.9984	97.49
12.5	153,827,283	192,193	0.0012	0.9988	97.33
13.5	152,854,043	516,342	0.0034	0.9966	97.21
14.5	151,644,086	237,850	0.0016	0.9984	96.88
15.5	144,961,928	396,222	0.0027	0.9973	96.73
16.5	146,772,318	1,150,993	0.0078	0.9922	96.46
17.5	145,746,920	692,034	0.0047	0.9953	95.71
18.5	144,941,347	1,621,201	0.0112	0.9888	95.25
19.5	142,447,421	1,207,606	0.0085	0.9915	94.19
20.5	140,233,311	1,727,794	0.0123	0.9877	93.39
21.5	138,097,183	1,912,252	0.0138	0.9862	92.24
22.5	126,336,900	1,184,157	0.0094	0.9906	90.96
23.5	124,238,747	4,633,173	0.0373	0.9627	90.11
24.5	109,488,929	1,618,359	0.0148	0.9852	86.75
25.5	106,929,097	1,604,655	0.0150	0.9850	85.47
26.5	100,297,798	1,157,764	0.0115	0.9885	84.18
27.5	96,642,078	1,399,940	0.0145	0.9855	83.21
28.5	71,088,905	1,377,730	0.0194	0.9806	82.01
29.5	59,314,672	1,597,816	0.0269	0.9731	80.42
30.5	52,176,217	885,745	0.0170	0.9830	78.25
31.5	30,580,142	848,549	0.0277	0.9723	76.92
32.5	25,461,536	223,272	0.0088	0.9912	74.79
33.5	19,636,625	989,767	0.0504	0.9496	74.13
34.5	18,580,718	123,425	0.0066	0.9934	70.40
35.5	17,906,127	503,785	0.0281	0.9719	69.93
36.5	14,992,219	611,032	0.0408	0.9592	67.96
37.5	14,340,956	71,824	0.0050	0.9950	65.19
38.5	14,066,825	1,089,139	0.0774	0.9226	64.86

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2021			EXPERIENCE BAND 1954-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	10,076,781	71,449	0.0071	0.9929	59.84
40.5	9,991,439	86,947	0.0087	0.9913	59.42
41.5	9,899,283	158,922	0.0161	0.9839	58.90
42.5	9,728,571	21,703	0.0022	0.9978	57.96
43.5	9,707,496	57,975	0.0060	0.9940	57.83
44.5	9,697,570	664,317	0.0685	0.9315	57.48
45.5	9,295,589	540,835	0.0582	0.9418	53.54
46.5	8,547,265	213,977	0.0250	0.9750	50.43
47.5	8,453,945	170,737	0.0202	0.9798	49.17
48.5	8,000,172	262,393	0.0328	0.9672	48.17
49.5	6,889,123	664,377	0.0964	0.9036	46.59
50.5	6,239,813	206,029	0.0330	0.9670	42.10
51.5	6,031,888	69,200	0.0115	0.9885	40.71
52.5	4,557,733	145,764	0.0320	0.9680	40.24
53.5	4,409,339	16,149	0.0037	0.9963	38.96
54.5	4,381,481	84,856	0.0194	0.9806	38.81
55.5	4,294,097	35,544	0.0083	0.9917	38.06
56.5	4,020,269	24,828	0.0062	0.9938	37.75
57.5	3,992,537	567,890	0.1422	0.8578	37.51
58.5	3,501,080	69,677	0.0199	0.9801	32.18
59.5	3,426,372	96,551	0.0282	0.9718	31.54
60.5	3,248,689	311,961	0.0960	0.9040	30.65
61.5	2,928,286	459	0.0002	0.9998	27.70
62.5	2,858,549	89,481	0.0313	0.9687	27.70
63.5	2,649,854	456,715	0.1724	0.8276	26.83
64.5	2,181,381	17,778	0.0081	0.9919	22.21
65.5	2,147,534	4,146	0.0019	0.9981	22.03
66.5	2,113,762	1,700	0.0008	0.9992	21.98
67.5	2,031,223	17,739	0.0087	0.9913	21.97
68.5	1,461,413	5,103	0.0035	0.9965	21.78
69.5	1,447,516	43,876	0.0303	0.9697	21.70
70.5	1,263,827	1,629	0.0013	0.9987	21.04
71.5	1,262,091	6,321	0.0050	0.9950	21.01
72.5	1,240,321	24	0.0000	1.0000	20.91
73.5	1,261,377	6,235	0.0049	0.9951	20.91
74.5	1,240,376	319	0.0003	0.9997	20.81
75.5	1,239,025	4,376	0.0035	0.9965	20.80
76.5	1,234,649	11,531	0.0093	0.9907	20.73
77.5	1,223,013	162	0.0001	0.9999	20.53
78.5	1,222,851	78,736	0.0644	0.9356	20.53

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2021			EXPERIENCE BAND 1954-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,144,102	76	0.0001	0.9999	19.21	
80.5	1,145,163	2,107	0.0018	0.9982	19.21	
81.5	1,143,055	18,211	0.0159	0.9841	19.17	
82.5	1,124,844	72,758	0.0647	0.9353	18.87	
83.5	1,051,998	3,225	0.0031	0.9969	17.65	
84.5	1,008,415		0.0000	1.0000	17.59	
85.5	1,008,415	9,712	0.0096	0.9904	17.59	
86.5	998,163	1,888	0.0019	0.9981	17.42	
87.5	996,160		0.0000	1.0000	17.39	
88.5	995,947	734	0.0007	0.9993	17.39	
89.5	995,197	992	0.0010	0.9990	17.38	
90.5	947,722	36,014	0.0380	0.9620	17.36	
91.5	906,142	317	0.0003	0.9997	16.70	
92.5	854,401	16,452	0.0193	0.9807	16.69	
93.5	816,019	312	0.0004	0.9996	16.37	
94.5	815,073	11,383	0.0140	0.9860	16.37	
95.5	803,646	21,585	0.0269	0.9731	16.14	
96.5	782,061	6,726	0.0086	0.9914	15.70	
97.5	698,609	234	0.0003	0.9997	15.57	
98.5	404,240	10,323	0.0255	0.9745	15.56	
99.5	393,916	47,573	0.1208	0.8792	15.17	
100.5	301,935	5	0.0000	1.0000	13.33	
101.5	301,928	2,721	0.0090	0.9910	13.33	
102.5	299,207	1,638	0.0055	0.9945	13.21	
103.5	297,257	11,990	0.0403	0.9597	13.14	
104.5	283,821	62,646	0.2207	0.7793	12.61	
105.5	221,175		0.0000	1.0000	9.83	
106.5	220,979		0.0000	1.0000	9.83	
107.5	220,949	59,977	0.2714	0.7286	9.83	
108.5	160,973	35,843	0.2227	0.7773	7.16	
109.5	125,103		0.0000	1.0000	5.57	
110.5	125,103	1,838	0.0147	0.9853	5.57	
111.5	118,547		0.0000	1.0000	5.48	
112.5	114,499		0.0000	1.0000	5.48	
113.5	112,038		0.0000	1.0000	5.48	
114.5	111,850		0.0000	1.0000	5.48	
115.5	61,890		0.0000	1.0000	5.48	
116.5	61,306		0.0000	1.0000	5.48	
117.5	56,370		0.0000	1.0000	5.48	
118.5	38,867	417	0.0107	0.9893	5.48	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2021			EXPERIENCE BAND 1954-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	34,798		0.0000	1.0000	5.43
120.5	34,798	525	0.0151	0.9849	5.43
121.5	34,273		0.0000	1.0000	5.34
122.5	34,273		0.0000	1.0000	5.34
123.5	34,273		0.0000	1.0000	5.34
124.5	34,273		0.0000	1.0000	5.34
125.5	34,273	3,320	0.0969	0.9031	5.34
126.5	28,848		0.0000	1.0000	4.83
127.5	19,156		0.0000	1.0000	4.83
128.5	4,319		0.0000	1.0000	4.83
129.5	4,319		0.0000	1.0000	4.83
130.5	4,319		0.0000	1.0000	4.83
131.5	4,319		0.0000	1.0000	4.83
132.5	4,319		0.0000	1.0000	4.83
133.5					4.83

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1888-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	115,598,164		0.0000	1.0000	100.00
0.5	103,059,277	96,617	0.0009	0.9991	100.00
1.5	103,522,014	19,640	0.0002	0.9998	99.91
2.5	110,906,959	69,735	0.0006	0.9994	99.89
3.5	64,256,271	11,918	0.0002	0.9998	99.82
4.5	75,319,321	39,687	0.0005	0.9995	99.81
5.5	76,348,278	6,461	0.0001	0.9999	99.75
6.5	81,859,991	50,048	0.0006	0.9994	99.74
7.5	82,794,310	80,201	0.0010	0.9990	99.68
8.5	103,762,988	559,200	0.0054	0.9946	99.59
9.5	94,448,989	94,112	0.0010	0.9990	99.05
10.5	91,812,950	242,171	0.0026	0.9974	98.95
11.5	116,852,900	179,840	0.0015	0.9985	98.69
12.5	121,526,903	157,831	0.0013	0.9987	98.54
13.5	127,843,659	445,134	0.0035	0.9965	98.41
14.5	127,233,263	120,409	0.0009	0.9991	98.07
15.5	121,735,154	349,511	0.0029	0.9971	97.98
16.5	127,200,916	1,125,610	0.0088	0.9912	97.69
17.5	127,010,340	633,834	0.0050	0.9950	96.83
18.5	127,081,525	1,524,627	0.0120	0.9880	96.35
19.5	128,984,124	1,040,008	0.0081	0.9919	95.19
20.5	127,033,337	1,703,873	0.0134	0.9866	94.42
21.5	125,285,408	1,835,589	0.0147	0.9853	93.16
22.5	113,539,698	1,183,094	0.0104	0.9896	91.79
23.5	111,883,112	4,598,850	0.0411	0.9589	90.84
24.5	97,535,740	1,468,258	0.0151	0.9849	87.10
25.5	95,161,719	1,483,252	0.0156	0.9844	85.79
26.5	90,149,665	1,137,535	0.0126	0.9874	84.45
27.5	86,536,660	1,299,857	0.0150	0.9850	83.39
28.5	61,145,111	1,141,059	0.0187	0.9813	82.14
29.5	50,660,955	1,267,552	0.0250	0.9750	80.60
30.5	43,517,512	877,012	0.0202	0.9798	78.59
31.5	22,001,153	838,150	0.0381	0.9619	77.00
32.5	19,721,357	199,320	0.0101	0.9899	74.07
33.5	14,612,382	915,665	0.0627	0.9373	73.32
34.5	13,676,529	115,931	0.0085	0.9915	68.73
35.5	12,987,803	445,663	0.0343	0.9657	68.14
36.5	10,624,206	607,406	0.0572	0.9428	65.80
37.5	9,992,966	69,136	0.0069	0.9931	62.04
38.5	9,708,803	1,086,486	0.1119	0.8881	61.61

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	5,713,042	67,103	0.0117	0.9883	54.72
40.5	6,500,320	80,194	0.0123	0.9877	54.08
41.5	6,429,315	156,739	0.0244	0.9756	53.41
42.5	6,429,032	14,072	0.0022	0.9978	52.11
43.5	6,631,623	57,390	0.0087	0.9913	51.99
44.5	6,598,621	656,286	0.0995	0.9005	51.54
45.5	6,236,366	503,962	0.0808	0.9192	46.42
46.5	5,688,854	211,656	0.0372	0.9628	42.67
47.5	5,655,382	163,131	0.0288	0.9712	41.08
48.5	6,497,556	259,326	0.0399	0.9601	39.89
49.5	5,452,464	644,312	0.1182	0.8818	38.30
50.5	5,047,173	205,993	0.0408	0.9592	33.77
51.5	4,835,853	66,826	0.0138	0.9862	32.40
52.5	3,383,820	145,652	0.0430	0.9570	31.95
53.5	3,235,904	16,149	0.0050	0.9950	30.57
54.5	3,239,784	84,856	0.0262	0.9738	30.42
55.5	3,155,213	35,347	0.0112	0.9888	29.62
56.5	2,881,581	24,807	0.0086	0.9914	29.29
57.5	2,879,190	566,412	0.1967	0.8033	29.04
58.5	2,308,006	68,780	0.0298	0.9702	23.33
59.5	2,224,531	96,108	0.0432	0.9568	22.63
60.5	2,047,583	311,961	0.1524	0.8476	21.65
61.5	1,727,180	459	0.0003	0.9997	18.36
62.5	1,657,443	89,210	0.0538	0.9462	18.35
63.5	1,451,852	447,512	0.3082	0.6918	17.36
64.5	1,057,195	14,156	0.0134	0.9866	12.01
65.5	1,017,857	3,245	0.0032	0.9968	11.85
66.5	1,063,276	1,700	0.0016	0.9984	11.81
67.5	980,859	1,976	0.0020	0.9980	11.79
68.5	429,252		0.0000	1.0000	11.77
69.5	361,594	43,876	0.1213	0.8787	11.77
70.5	265,287	154	0.0006	0.9994	10.34
71.5	271,074	1,063	0.0039	0.9961	10.34
72.5	306,012	24	0.0001	0.9999	10.29
73.5	338,526	213	0.0006	0.9994	10.29
74.5	325,864		0.0000	1.0000	10.29
75.5	324,832	1,218	0.0037	0.9963	10.29
76.5	323,614	11,531	0.0356	0.9644	10.25
77.5	405,058		0.0000	1.0000	9.88
78.5	737,600	78,736	0.1067	0.8933	9.88

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2021			EXPERIENCE BAND 2002-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	659,160	76	0.0001	0.9999	8.83	
80.5	719,682	2,107	0.0029	0.9971	8.83	
81.5	717,576	796	0.0011	0.9989	8.80	
82.5	716,780	40,900	0.0571	0.9429	8.79	
83.5	698,490	3,225	0.0046	0.9954	8.29	
84.5	654,906		0.0000	1.0000	8.25	
85.5	654,906	9,712	0.0148	0.9852	8.25	
86.5	660,060	888	0.0013	0.9987	8.13	
87.5	659,087		0.0000	1.0000	8.12	
88.5	658,879	734	0.0011	0.9989	8.12	
89.5	658,649	992	0.0015	0.9985	8.11	
90.5	611,175	36,014	0.0589	0.9411	8.10	
91.5	584,097	317	0.0005	0.9995	7.62	
92.5	583,742	16,452	0.0282	0.9718	7.62	
93.5	549,659	312	0.0006	0.9994	7.40	
94.5	548,900	407	0.0007	0.9993	7.40	
95.5	659,775	21,585	0.0327	0.9673	7.39	
96.5	672,929	6,726	0.0100	0.9900	7.15	
97.5	579,051	234	0.0004	0.9996	7.08	
98.5	302,184	10,323	0.0342	0.9658	7.08	
99.5	295,513	3,659	0.0124	0.9876	6.83	
100.5	247,445	5	0.0000	1.0000	6.75	
101.5	247,438	2,721	0.0110	0.9890	6.75	
102.5	244,717	1,638	0.0067	0.9933	6.68	
103.5	242,767	11,990	0.0494	0.9506	6.63	
104.5	229,331	43,371	0.1891	0.8109	6.30	
105.5	185,961		0.0000	1.0000	5.11	
106.5	188,287		0.0000	1.0000	5.11	
107.5	197,949	59,977	0.3030	0.6970	5.11	
108.5	153,334	35,843	0.2338	0.7662	3.56	
109.5	117,464		0.0000	1.0000	2.73	
110.5	117,464	1,838	0.0156	0.9844	2.73	
111.5	110,908		0.0000	1.0000	2.69	
112.5	106,860		0.0000	1.0000	2.69	
113.5	112,038		0.0000	1.0000	2.69	
114.5	111,850		0.0000	1.0000	2.69	
115.5	61,890		0.0000	1.0000	2.69	
116.5	61,306		0.0000	1.0000	2.69	
117.5	56,370		0.0000	1.0000	2.69	
118.5	38,867	417	0.0107	0.9893	2.69	

PENNSYLVANIA-AMERICAN WATER COMPANY

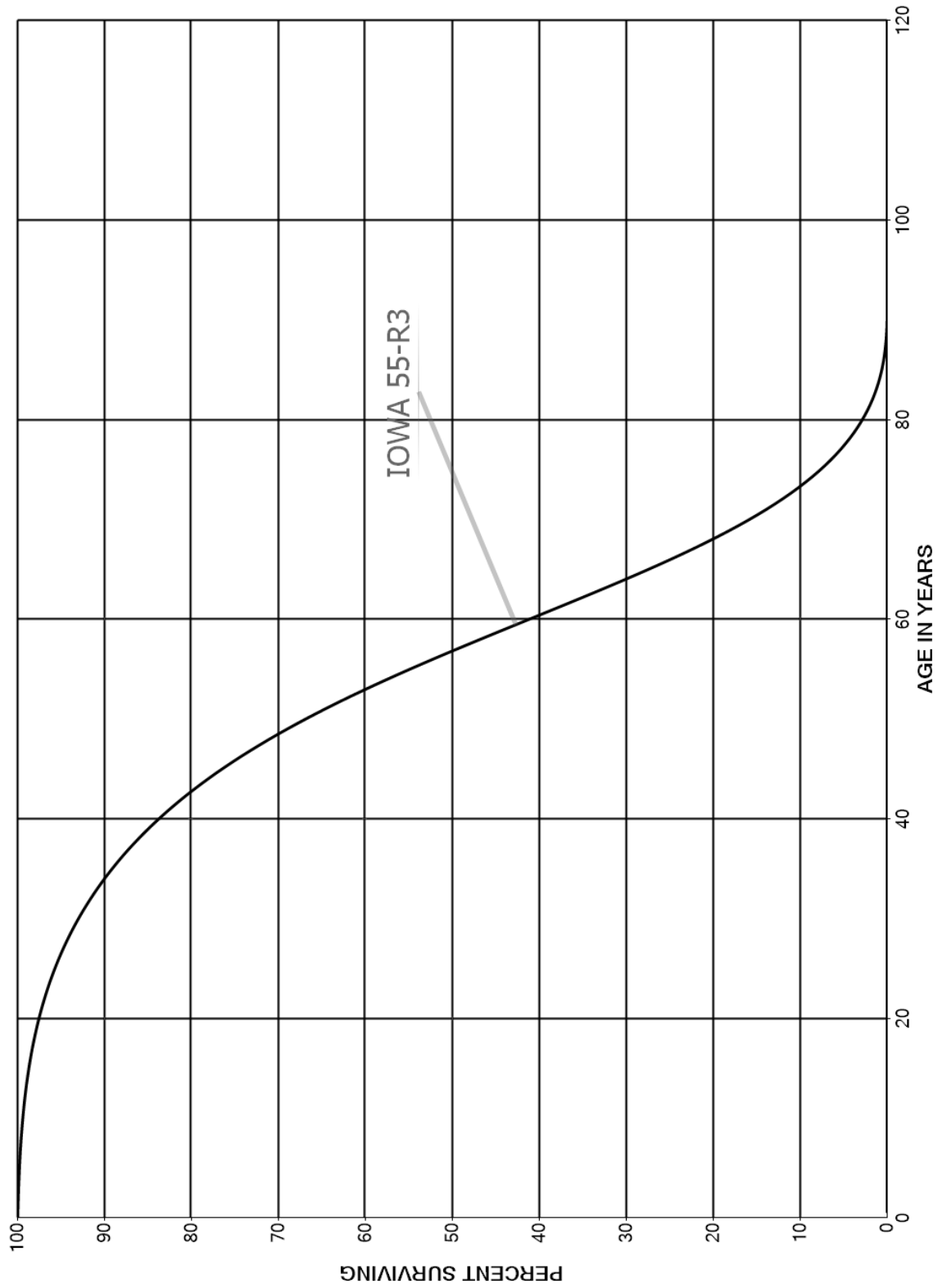
ACCOUNT 320.10 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

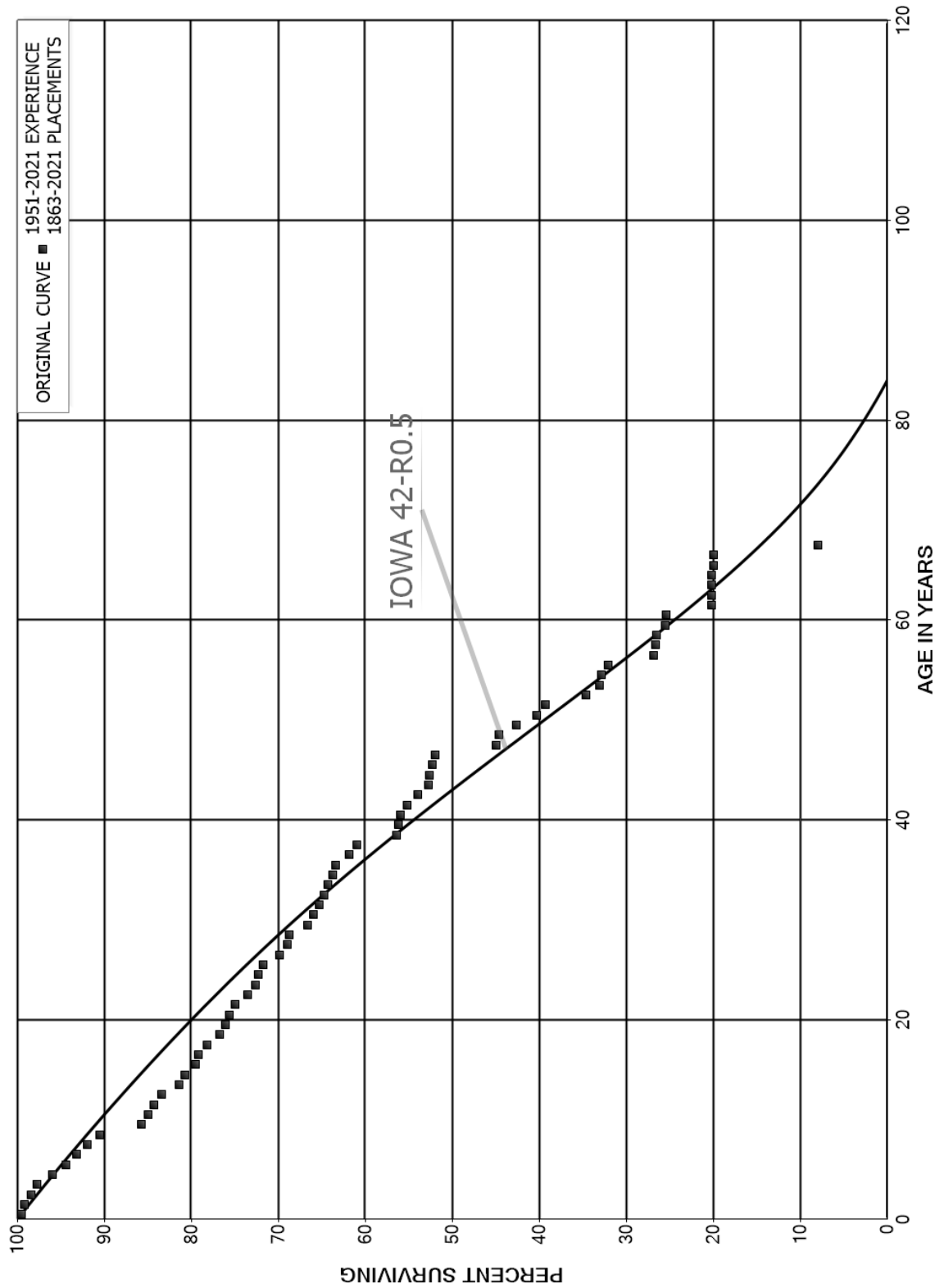
PLACEMENT BAND 1888-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	34,798		0.0000	1.0000	2.66
120.5	34,798	525	0.0151	0.9849	2.66
121.5	34,273		0.0000	1.0000	2.62
122.5	34,273		0.0000	1.0000	2.62
123.5	34,273		0.0000	1.0000	2.62
124.5	34,273		0.0000	1.0000	2.62
125.5	34,273	3,320	0.0969	0.9031	2.62
126.5	28,848		0.0000	1.0000	2.36
127.5	19,156		0.0000	1.0000	2.36
128.5	4,319		0.0000	1.0000	2.36
129.5	4,319		0.0000	1.0000	2.36
130.5	4,319		0.0000	1.0000	2.36
131.5	4,319		0.0000	1.0000	2.36
132.5	4,319		0.0000	1.0000	2.36
133.5					2.36



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 320.10 PURIFICATION SYSTEM - OTHER STRUCTURES  
 SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1863-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	103,300,320	483,202	0.0047	0.9953	100.00
0.5	93,827,307	350,106	0.0037	0.9963	99.53
1.5	85,861,980	634,968	0.0074	0.9926	99.16
2.5	81,945,421	578,549	0.0071	0.9929	98.43
3.5	78,766,953	1,432,156	0.0182	0.9818	97.73
4.5	71,528,004	1,191,921	0.0167	0.9833	95.96
5.5	66,163,292	856,906	0.0130	0.9870	94.36
6.5	63,128,753	778,637	0.0123	0.9877	93.13
7.5	62,113,420	1,015,041	0.0163	0.9837	91.99
8.5	61,052,686	3,243,004	0.0531	0.9469	90.48
9.5	56,083,436	501,779	0.0089	0.9911	85.68
10.5	54,548,958	435,064	0.0080	0.9920	84.91
11.5	53,590,576	516,496	0.0096	0.9904	84.23
12.5	52,949,412	1,273,557	0.0241	0.9759	83.42
13.5	49,983,109	447,350	0.0090	0.9910	81.41
14.5	47,194,515	666,851	0.0141	0.9859	80.69
15.5	45,856,536	241,815	0.0053	0.9947	79.55
16.5	42,363,740	534,870	0.0126	0.9874	79.13
17.5	39,910,976	734,034	0.0184	0.9816	78.13
18.5	37,213,865	314,057	0.0084	0.9916	76.69
19.5	36,828,955	221,224	0.0060	0.9940	76.04
20.5	34,153,619	292,624	0.0086	0.9914	75.59
21.5	33,887,189	625,128	0.0184	0.9816	74.94
22.5	26,124,206	323,295	0.0124	0.9876	73.56
23.5	23,736,229	123,608	0.0052	0.9948	72.65
24.5	21,545,800	173,102	0.0080	0.9920	72.27
25.5	19,348,563	499,767	0.0258	0.9742	71.69
26.5	14,210,948	170,347	0.0120	0.9880	69.84
27.5	13,309,699	54,321	0.0041	0.9959	69.00
28.5	13,209,564	404,411	0.0306	0.9694	68.72
29.5	8,509,727	89,771	0.0105	0.9895	66.61
30.5	7,718,388	76,015	0.0098	0.9902	65.91
31.5	7,221,917	63,247	0.0088	0.9912	65.26
32.5	6,437,774	43,167	0.0067	0.9933	64.69
33.5	6,286,281	55,666	0.0089	0.9911	64.26
34.5	5,515,707	26,556	0.0048	0.9952	63.69
35.5	3,521,045	86,835	0.0247	0.9753	63.38
36.5	2,457,948	33,687	0.0137	0.9863	61.82
37.5	2,159,491	163,128	0.0755	0.9245	60.97
38.5	1,925,310	6,374	0.0033	0.9967	56.36

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1863-2021

EXPERIENCE BAND 1951-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,912,652	6,932	0.0036	0.9964	56.18
40.5	1,726,135	23,652	0.0137	0.9863	55.97
41.5	1,643,768	36,474	0.0222	0.9778	55.21
42.5	1,592,148	36,651	0.0230	0.9770	53.98
43.5	1,506,595	4,164	0.0028	0.9972	52.74
44.5	1,471,107	7,339	0.0050	0.9950	52.59
45.5	732,579	6,119	0.0084	0.9916	52.33
46.5	688,280	91,378	0.1328	0.8672	51.89
47.5	564,961	4,207	0.0074	0.9926	45.00
48.5	304,470	14,153	0.0465	0.9535	44.67
49.5	368,825	20,193	0.0547	0.9453	42.59
50.5	332,999	8,482	0.0255	0.9745	40.26
51.5	321,906	37,977	0.1180	0.8820	39.24
52.5	281,671	12,802	0.0455	0.9545	34.61
53.5	284,494	1,590	0.0056	0.9944	33.03
54.5	282,216	7,087	0.0251	0.9749	32.85
55.5	273,440	44,777	0.1638	0.8362	32.02
56.5	191,321	818	0.0043	0.9957	26.78
57.5	182,867	1,426	0.0078	0.9922	26.67
58.5	180,617	6,318	0.0350	0.9650	26.46
59.5	168,144	905	0.0054	0.9946	25.53
60.5	167,240	34,275	0.2049	0.7951	25.39
61.5	132,965	158	0.0012	0.9988	20.19
62.5	132,807	124	0.0009	0.9991	20.17
63.5	92,659	92	0.0010	0.9990	20.15
64.5	92,004	765	0.0083	0.9917	20.13
65.5	91,222	51	0.0006	0.9994	19.96
66.5	80,974	48,902	0.6039	0.3961	19.95
67.5	32,072	27	0.0008	0.9992	7.90
68.5	31,983	22	0.0007	0.9993	7.89
69.5	31,961	32	0.0010	0.9990	7.89
70.5	31,880	15,685	0.4920	0.5080	7.88
71.5	15,991	114	0.0071	0.9929	4.00
72.5	15,795	582	0.0368	0.9632	3.98
73.5	16,365	154	0.0094	0.9906	3.83
74.5	8,909		0.0000	1.0000	3.79
75.5	8,909		0.0000	1.0000	3.79
76.5	8,880	394	0.0444	0.9556	3.79
77.5	8,486		0.0000	1.0000	3.62
78.5	8,486	57	0.0067	0.9933	3.62

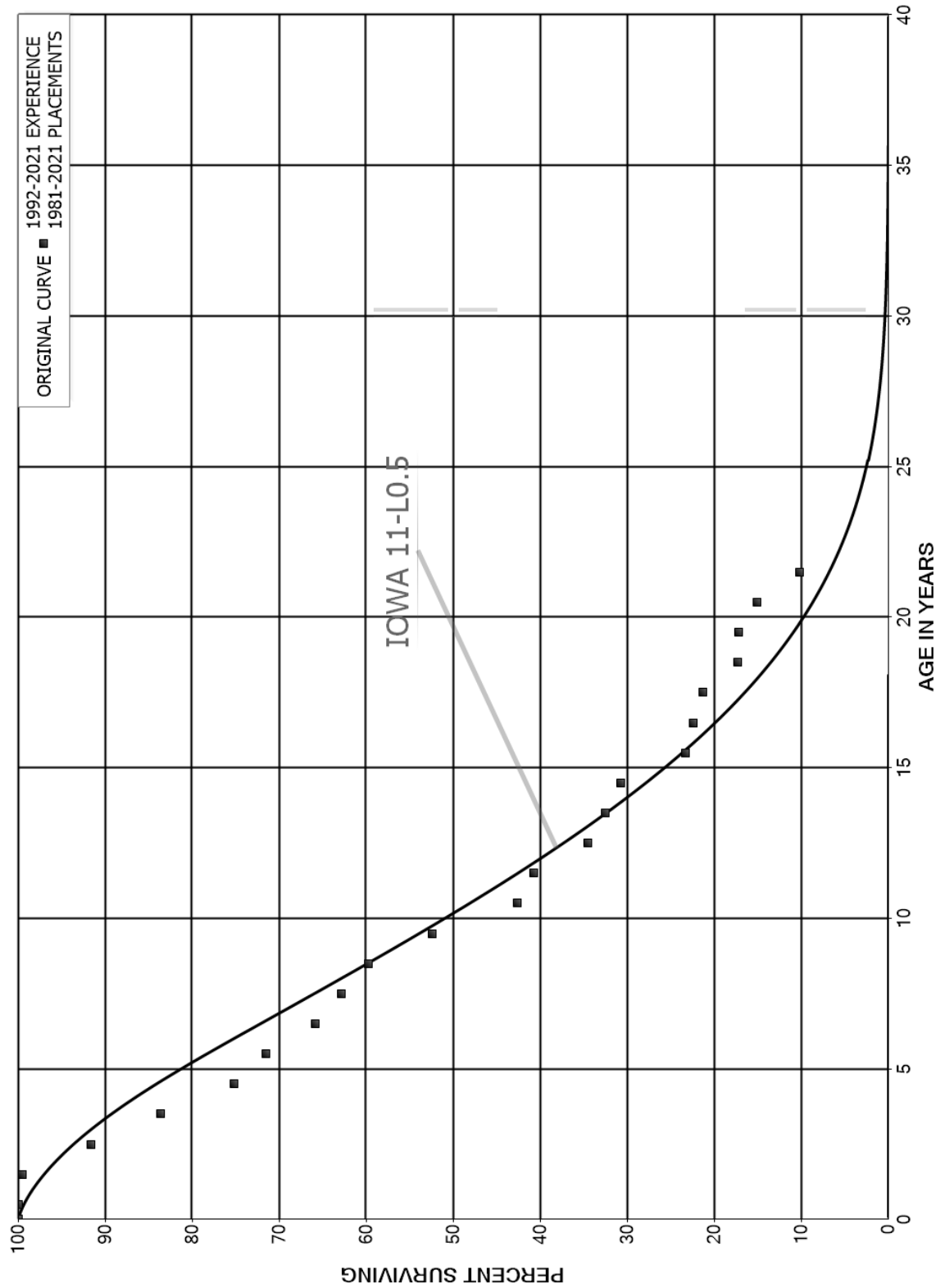
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1863-2021			EXPERIENCE BAND 1951-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	8,429		0.0000	1.0000	3.60
80.5	8,429	4,740	0.5623	0.4377	3.60
81.5	3,681	1,687	0.4584	0.5416	1.58
82.5	1,994		0.0000	1.0000	0.85
83.5	1,994		0.0000	1.0000	0.85
84.5	4,936		0.0000	1.0000	0.85
85.5	4,936	1,458	0.2954	0.7046	0.85
86.5	3,444		0.0000	1.0000	0.60
87.5	4,337		0.0000	1.0000	0.60
88.5	4,337		0.0000	1.0000	0.60
89.5	4,337		0.0000	1.0000	0.60
90.5	4,337		0.0000	1.0000	0.60
91.5	4,337		0.0000	1.0000	0.60
92.5	4,291		0.0000	1.0000	0.60
93.5	3,835		0.0000	1.0000	0.60
94.5	3,835		0.0000	1.0000	0.60
95.5	3,835		0.0000	1.0000	0.60
96.5	3,835	1,964	0.5121	0.4879	0.60
97.5	1,871		0.0000	1.0000	0.29
98.5	1,871		0.0000	1.0000	0.29
99.5	1,871		0.0000	1.0000	0.29
100.5	1,871		0.0000	1.0000	0.29
101.5	1,871		0.0000	1.0000	0.29
102.5	1,871		0.0000	1.0000	0.29
103.5	1,871		0.0000	1.0000	0.29
104.5	893		0.0000	1.0000	0.29
105.5	893		0.0000	1.0000	0.29
106.5	893		0.0000	1.0000	0.29
107.5	893		0.0000	1.0000	0.29
108.5	893		0.0000	1.0000	0.29
109.5	893		0.0000	1.0000	0.29
110.5	893	893	1.0000		0.29
111.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 320.30 GRANULAR ACTIVATED CARBON  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



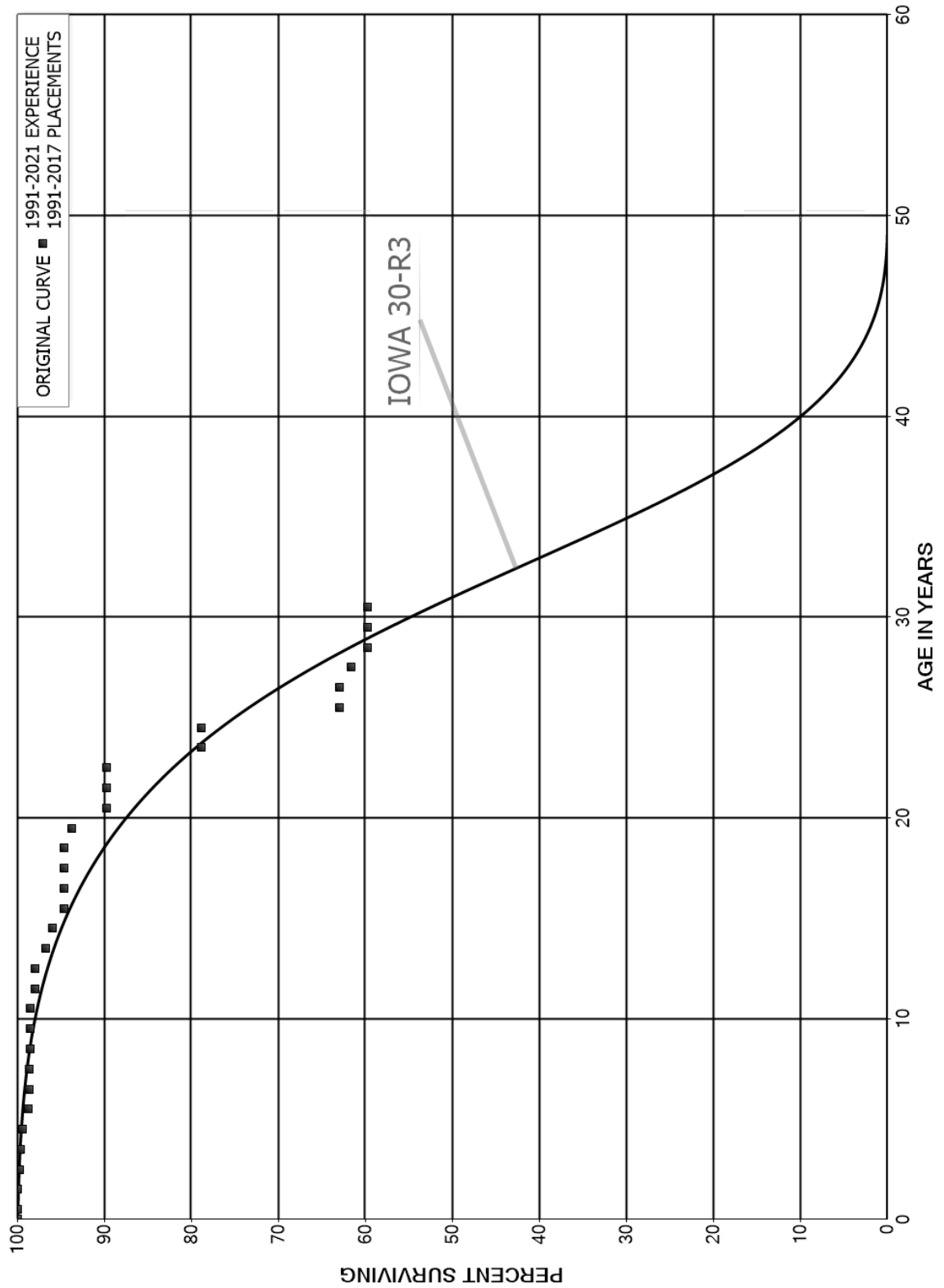
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.30 GRANULAR ACTIVATED CARBON

ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2021			EXPERIENCE BAND 1992-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	21,700,600		0.0000	1.0000	100.00
0.5	22,017,483	111,691	0.0051	0.9949	100.00
1.5	21,413,576	1,701,545	0.0795	0.9205	99.49
2.5	18,190,125	1,584,718	0.0871	0.9129	91.59
3.5	15,426,010	1,562,644	0.1013	0.8987	83.61
4.5	13,414,753	652,180	0.0486	0.9514	75.14
5.5	12,654,411	1,007,165	0.0796	0.9204	71.49
6.5	11,604,251	521,089	0.0449	0.9551	65.80
7.5	10,434,515	510,314	0.0489	0.9511	62.84
8.5	8,589,916	1,059,142	0.1233	0.8767	59.77
9.5	7,130,139	1,331,238	0.1867	0.8133	52.40
10.5	5,036,298	225,835	0.0448	0.9552	42.62
11.5	4,558,403	695,237	0.1525	0.8475	40.70
12.5	3,573,109	208,385	0.0583	0.9417	34.50
13.5	3,342,198	186,217	0.0557	0.9443	32.48
14.5	3,022,291	730,917	0.2418	0.7582	30.67
15.5	2,291,374	82,880	0.0362	0.9638	23.26
16.5	2,208,495	107,296	0.0486	0.9514	22.42
17.5	2,101,198	399,286	0.1900	0.8100	21.33
18.5	1,663,411	13,727	0.0083	0.9917	17.27
19.5	1,390,110	167,045	0.1202	0.8798	17.13
20.5	616,231	201,550	0.3271	0.6729	15.07
21.5	102,381	19,228	0.1878	0.8122	10.14
22.5	74,133	4,061	0.0548	0.9452	8.24
23.5	45,434		0.0000	1.0000	7.79
24.5	45,434		0.0000	1.0000	7.79
25.5	26,413		0.0000	1.0000	7.79
26.5	3,883		0.0000	1.0000	7.79
27.5	756		0.0000	1.0000	7.79
28.5	756		0.0000	1.0000	7.79
29.5					7.79

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





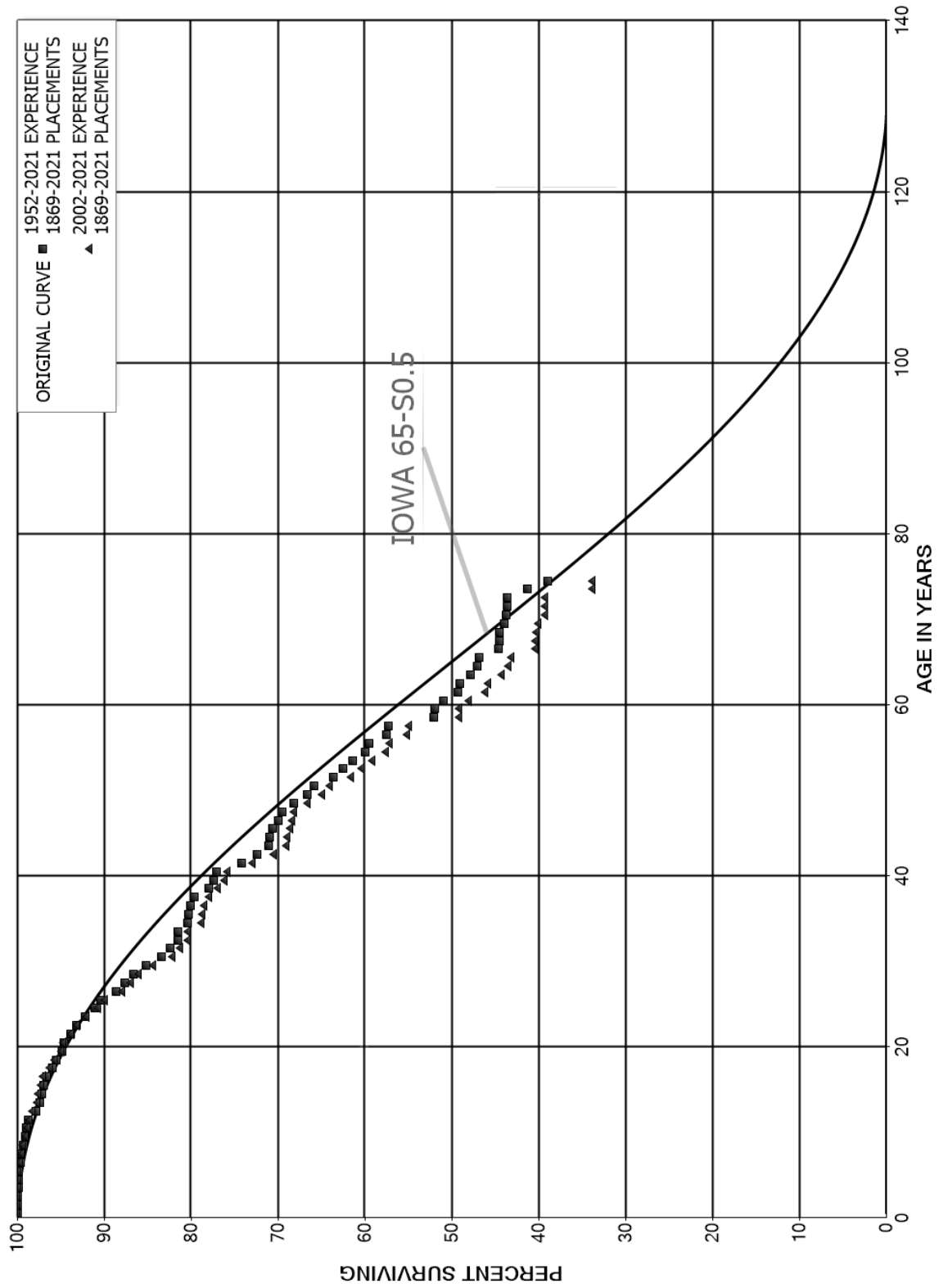
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2017			EXPERIENCE BAND 1991-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	19,006,097		0.0000	1.0000	100.00
0.5	19,808,345		0.0000	1.0000	100.00
1.5	19,694,391	62,713	0.0032	0.9968	100.00
2.5	19,631,678	13,581	0.0007	0.9993	99.68
3.5	19,618,097	34,040	0.0017	0.9983	99.61
4.5	19,567,564	151,154	0.0077	0.9923	99.44
5.5	15,708,167	3,717	0.0002	0.9998	98.67
6.5	14,677,044	6,570	0.0004	0.9996	98.65
7.5	14,084,787	7,736	0.0005	0.9995	98.60
8.5	14,062,029		0.0000	1.0000	98.55
9.5	14,062,029		0.0000	1.0000	98.55
10.5	14,062,029	79,882	0.0057	0.9943	98.55
11.5	13,982,147		0.0000	1.0000	97.99
12.5	13,982,147	184,934	0.0132	0.9868	97.99
13.5	13,797,213	108,847	0.0079	0.9921	96.69
14.5	13,688,366	189,606	0.0139	0.9861	95.93
15.5	13,498,760		0.0000	1.0000	94.60
16.5	13,484,768		0.0000	1.0000	94.60
17.5	13,430,677		0.0000	1.0000	94.60
18.5	13,174,404	118,008	0.0090	0.9910	94.60
19.5	13,053,234	556,639	0.0426	0.9574	93.76
20.5	12,428,235	5,609	0.0005	0.9995	89.76
21.5	11,650,202		0.0000	1.0000	89.72
22.5	10,023,841	1,215,126	0.1212	0.8788	89.72
23.5	8,808,715		0.0000	1.0000	78.84
24.5	8,215,739	1,661,349	0.2022	0.7978	78.84
25.5	6,554,390	0	0.0000	1.0000	62.90
26.5	6,554,390	131,805	0.0201	0.9799	62.90
27.5	6,422,585	197,294	0.0307	0.9693	61.63
28.5	6,225,291		0.0000	1.0000	59.74
29.5	6,225,291	6,467	0.0010	0.9990	59.74
30.5					59.68

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1869-2021

EXPERIENCE BAND 1952-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	151,158,538		0.0000	1.0000	100.00
0.5	147,108,200	1,440	0.0000	1.0000	100.00
1.5	146,905,510	15,966	0.0001	0.9999	100.00
2.5	143,833,020	163,251	0.0011	0.9989	99.99
3.5	138,065,134	19,694	0.0001	0.9999	99.87
4.5	135,467,511	22,260	0.0002	0.9998	99.86
5.5	128,035,673	249,925	0.0020	0.9980	99.84
6.5	127,874,725	142,468	0.0011	0.9989	99.65
7.5	117,616,664	256,851	0.0022	0.9978	99.54
8.5	101,369,704	257,865	0.0025	0.9975	99.32
9.5	83,586,671	90,699	0.0011	0.9989	99.07
10.5	84,958,888	158,736	0.0019	0.9981	98.96
11.5	84,232,967	782,268	0.0093	0.9907	98.78
12.5	83,739,874	425,163	0.0051	0.9949	97.86
13.5	83,337,975	121,331	0.0015	0.9985	97.36
14.5	80,864,442	261,271	0.0032	0.9968	97.22
15.5	78,234,220	232,161	0.0030	0.9970	96.91
16.5	75,167,946	474,653	0.0063	0.9937	96.62
17.5	73,631,880	395,588	0.0054	0.9946	96.01
18.5	71,667,056	489,386	0.0068	0.9932	95.49
19.5	69,079,608	138,389	0.0020	0.9980	94.84
20.5	64,504,158	518,958	0.0080	0.9920	94.65
21.5	61,530,270	465,431	0.0076	0.9924	93.89
22.5	57,787,857	611,395	0.0106	0.9894	93.18
23.5	54,277,077	659,614	0.0122	0.9878	92.19
24.5	50,719,851	347,854	0.0069	0.9931	91.07
25.5	47,491,537	967,214	0.0204	0.9796	90.45
26.5	45,361,304	532,450	0.0117	0.9883	88.61
27.5	43,290,074	457,114	0.0106	0.9894	87.57
28.5	35,108,755	596,900	0.0170	0.9830	86.64
29.5	33,226,356	684,407	0.0206	0.9794	85.17
30.5	32,015,221	392,966	0.0123	0.9877	83.41
31.5	25,197,090	256,512	0.0102	0.9898	82.39
32.5	20,550,414	11,972	0.0006	0.9994	81.55
33.5	17,222,469	243,582	0.0141	0.9859	81.50
34.5	16,673,217	22,241	0.0013	0.9987	80.35
35.5	15,264,114	38,265	0.0025	0.9975	80.24
36.5	13,462,157	70,866	0.0053	0.9947	80.04
37.5	13,485,359	283,111	0.0210	0.9790	79.62
38.5	11,795,093	87,204	0.0074	0.9926	77.95

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2021

EXPERIENCE BAND 1952-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	10,833,176	46,356	0.0043	0.9957	77.37
40.5	10,800,604	399,000	0.0369	0.9631	77.04
41.5	10,419,456	246,508	0.0237	0.9763	74.20
42.5	10,005,347	189,950	0.0190	0.9810	72.44
43.5	9,309,734	18,582	0.0020	0.9980	71.07
44.5	9,056,550	39,619	0.0044	0.9956	70.92
45.5	11,665,660	109,815	0.0094	0.9906	70.61
46.5	10,782,312	63,950	0.0059	0.9941	69.95
47.5	9,818,642	199,498	0.0203	0.9797	69.53
48.5	6,192,693	134,481	0.0217	0.9783	68.12
49.5	6,075,768	71,398	0.0118	0.9882	66.64
50.5	5,909,465	197,939	0.0335	0.9665	65.86
51.5	5,648,106	101,547	0.0180	0.9820	63.65
52.5	5,181,982	91,167	0.0176	0.9824	62.51
53.5	4,884,124	120,385	0.0246	0.9754	61.41
54.5	3,906,009	25,125	0.0064	0.9936	59.89
55.5	3,499,285	117,402	0.0336	0.9664	59.51
56.5	3,300,985	11,944	0.0036	0.9964	57.51
57.5	3,292,328	303,915	0.0923	0.9077	57.30
58.5	3,038,049	1,929	0.0006	0.9994	52.01
59.5	2,828,970	56,790	0.0201	0.9799	51.98
60.5	2,419,719	76,252	0.0315	0.9685	50.94
61.5	2,311,478	13,578	0.0059	0.9941	49.33
62.5	2,124,838	53,713	0.0253	0.9747	49.04
63.5	1,945,680	29,301	0.0151	0.9849	47.80
64.5	1,830,594	11,598	0.0063	0.9937	47.08
65.5	1,745,860	82,515	0.0473	0.9527	46.79
66.5	1,604,611	1,342	0.0008	0.9992	44.57
67.5	1,425,482	469	0.0003	0.9997	44.54
68.5	661,783	8,778	0.0133	0.9867	44.52
69.5	556,766	3,152	0.0057	0.9943	43.93
70.5	478,810	335	0.0007	0.9993	43.68
71.5	470,036	310	0.0007	0.9993	43.65
72.5	447,676	24,009	0.0536	0.9464	43.62
73.5	423,791	23,450	0.0553	0.9447	41.28
74.5	413,539	707	0.0017	0.9983	39.00
75.5	425,783	5,930	0.0139	0.9861	38.93
76.5	413,819	759	0.0018	0.9982	38.39
77.5	414,221		0.0000	1.0000	38.32
78.5	410,505	5,123	0.0125	0.9875	38.32

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2021

EXPERIENCE BAND 1952-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	405,382	63,993	0.1579	0.8421	37.84
80.5	321,992		0.0000	1.0000	31.87
81.5	291,482		0.0000	1.0000	31.87
82.5	286,555	5,622	0.0196	0.9804	31.87
83.5	274,357	109	0.0004	0.9996	31.24
84.5	274,248	2,977	0.0109	0.9891	31.23
85.5	271,189	3,611	0.0133	0.9867	30.89
86.5	264,442		0.0000	1.0000	30.48
87.5	265,481	12,950	0.0488	0.9512	30.48
88.5	251,378	8,277	0.0329	0.9671	28.99
89.5	234,065	6,912	0.0295	0.9705	28.04
90.5	166,729	543	0.0033	0.9967	27.21
91.5	166,186	53	0.0003	0.9997	27.12
92.5	163,891		0.0000	1.0000	27.11
93.5	163,891	2,516	0.0154	0.9846	27.11
94.5	213,402	2	0.0000	1.0000	26.70
95.5	214,269	239	0.0011	0.9989	26.70
96.5	214,030	1,346	0.0063	0.9937	26.67
97.5	189,664	30	0.0002	0.9998	26.50
98.5	175,368		0.0000	1.0000	26.50
99.5	135,874	1,568	0.0115	0.9885	26.50
100.5	154,559	49	0.0003	0.9997	26.19
101.5	157,073	527	0.0034	0.9966	26.18
102.5	156,546	1,368	0.0087	0.9913	26.09
103.5	155,178	3,280	0.0211	0.9789	25.87
104.5	145,949		0.0000	1.0000	25.32
105.5	130,526	3,204	0.0245	0.9755	25.32
106.5	127,309		0.0000	1.0000	24.70
107.5	127,310	732	0.0057	0.9943	24.70
108.5	126,578	2,253	0.0178	0.9822	24.56
109.5	119,456	16,133	0.1351	0.8649	24.12
110.5	82,156	2,620	0.0319	0.9681	20.86
111.5	79,536	869	0.0109	0.9891	20.20
112.5	77,829		0.0000	1.0000	19.98
113.5	77,829	734	0.0094	0.9906	19.98
114.5	184,990	816	0.0044	0.9956	19.79
115.5	178,959		0.0000	1.0000	19.70
116.5	177,565		0.0000	1.0000	19.70
117.5	177,565		0.0000	1.0000	19.70
118.5	177,565		0.0000	1.0000	19.70

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2021			EXPERIENCE BAND 1952-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	177,565		0.0000	1.0000	19.70
120.5	177,565		0.0000	1.0000	19.70
121.5	22,206		0.0000	1.0000	19.70
122.5	22,206		0.0000	1.0000	19.70
123.5	24,356		0.0000	1.0000	19.70
124.5	24,356		0.0000	1.0000	19.70
125.5	24,356		0.0000	1.0000	19.70
126.5	24,356		0.0000	1.0000	19.70
127.5	24,356	474	0.0194	0.9806	19.70
128.5	23,882		0.0000	1.0000	19.32
129.5	23,882		0.0000	1.0000	19.32
130.5	23,882	3,824	0.1601	0.8399	19.32
131.5	17,403		0.0000	1.0000	16.22
132.5	17,403		0.0000	1.0000	16.22
133.5	17,403		0.0000	1.0000	16.22
134.5	17,403		0.0000	1.0000	16.22
135.5	17,403		0.0000	1.0000	16.22
136.5	17,403	17,403	1.0000		16.22
137.5					

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1869-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	99,641,022		0.0000	1.0000	100.00
0.5	94,655,989		0.0000	1.0000	100.00
1.5	97,229,531	5,468	0.0001	0.9999	100.00
2.5	98,979,980	149,333	0.0015	0.9985	99.99
3.5	93,409,417	15,492	0.0002	0.9998	99.84
4.5	92,347,234	15,251	0.0002	0.9998	99.83
5.5	85,828,370	187,270	0.0022	0.9978	99.81
6.5	86,703,195	136,713	0.0016	0.9984	99.59
7.5	77,703,576	145,822	0.0019	0.9981	99.44
8.5	67,437,246	235,450	0.0035	0.9965	99.25
9.5	50,715,241	75,736	0.0015	0.9985	98.90
10.5	52,033,866	108,142	0.0021	0.9979	98.75
11.5	57,496,296	229,483	0.0040	0.9960	98.55
12.5	61,989,320	346,174	0.0056	0.9944	98.16
13.5	66,229,864	78,026	0.0012	0.9988	97.61
14.5	64,659,944	185,607	0.0029	0.9971	97.49
15.5	64,188,490	205,887	0.0032	0.9968	97.21
16.5	62,636,748	455,674	0.0073	0.9927	96.90
17.5	60,953,815	359,365	0.0059	0.9941	96.20
18.5	60,757,828	472,947	0.0078	0.9922	95.63
19.5	59,392,052	136,075	0.0023	0.9977	94.88
20.5	54,695,177	516,297	0.0094	0.9906	94.67
21.5	51,987,532	403,332	0.0078	0.9922	93.77
22.5	48,417,970	582,077	0.0120	0.9880	93.05
23.5	45,486,201	655,098	0.0144	0.9856	91.93
24.5	42,259,698	334,216	0.0079	0.9921	90.60
25.5	39,129,635	906,785	0.0232	0.9768	89.89
26.5	37,318,017	400,308	0.0107	0.9893	87.80
27.5	35,714,923	376,167	0.0105	0.9895	86.86
28.5	28,426,306	556,687	0.0196	0.9804	85.95
29.5	26,681,692	679,099	0.0255	0.9745	84.26
30.5	25,784,290	297,528	0.0115	0.9885	82.12
31.5	19,140,449	201,512	0.0105	0.9895	81.17
32.5	14,712,592	6,250	0.0004	0.9996	80.32
33.5	11,657,224	233,916	0.0201	0.9799	80.28
34.5	11,984,135	5,242	0.0004	0.9996	78.67
35.5	10,846,573	37,605	0.0035	0.9965	78.64
36.5	9,485,810	65,864	0.0069	0.9931	78.37
37.5	9,701,540	118,696	0.0122	0.9878	77.82
38.5	8,175,928	79,944	0.0098	0.9902	76.87

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,219,858	41,314	0.0057	0.9943	76.12
40.5	7,530,690	287,858	0.0382	0.9618	75.68
41.5	7,271,283	241,599	0.0332	0.9668	72.79
42.5	7,332,737	148,828	0.0203	0.9797	70.37
43.5	7,076,407	16,153	0.0023	0.9977	68.94
44.5	6,991,343	30,460	0.0044	0.9956	68.78
45.5	9,582,947	32,093	0.0033	0.9967	68.49
46.5	8,865,219	27,863	0.0031	0.9969	68.26
47.5	8,089,024	187,840	0.0232	0.9768	68.04
48.5	5,311,554	132,954	0.0250	0.9750	66.46
49.5	5,224,503	65,884	0.0126	0.9874	64.80
50.5	5,206,363	197,939	0.0380	0.9620	63.98
51.5	4,965,332	101,547	0.0205	0.9795	61.55
52.5	4,546,694	89,479	0.0197	0.9803	60.29
53.5	4,298,801	119,769	0.0279	0.9721	59.10
54.5	3,323,756	22,300	0.0067	0.9933	57.46
55.5	2,944,259	105,724	0.0359	0.9641	57.07
56.5	2,756,330	11,921	0.0043	0.9957	55.02
57.5	2,752,243	287,421	0.1044	0.8956	54.78
58.5	2,498,100	1,765	0.0007	0.9993	49.06
59.5	2,312,003	52,926	0.0229	0.9771	49.03
60.5	1,920,674	75,488	0.0393	0.9607	47.91
61.5	1,829,218	13,578	0.0074	0.9926	46.02
62.5	1,643,278	53,713	0.0327	0.9673	45.68
63.5	1,467,636	24,847	0.0169	0.9831	44.19
64.5	1,360,398	11,567	0.0085	0.9915	43.44
65.5	1,275,698	82,315	0.0645	0.9355	43.07
66.5	1,140,509	1,328	0.0012	0.9988	40.29
67.5	962,388	460	0.0005	0.9995	40.24
68.5	198,494	1,519	0.0077	0.9923	40.23
69.5	173,101	3,152	0.0182	0.9818	39.92
70.5	111,779		0.0000	1.0000	39.19
71.5	119,351		0.0000	1.0000	39.19
72.5	111,561	15,401	0.1381	0.8619	39.19
73.5	100,199	108	0.0011	0.9989	33.78
74.5	96,696		0.0000	1.0000	33.74
75.5	109,728		0.0000	1.0000	33.74
76.5	111,265	759	0.0068	0.9932	33.74
77.5	116,028		0.0000	1.0000	33.51
78.5	127,872	535	0.0042	0.9958	33.51



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	173,921	1,003	0.0058	0.9942	33.37
80.5	208,544		0.0000	1.0000	33.18
81.5	180,271		0.0000	1.0000	33.18
82.5	168,432	5,580	0.0331	0.9669	33.18
83.5	156,463		0.0000	1.0000	32.08
84.5	156,463	377	0.0024	0.9976	32.08
85.5	156,005	3,611	0.0231	0.9769	32.00
86.5	149,257		0.0000	1.0000	31.26
87.5	157,629	12,950	0.0822	0.9178	31.26
88.5	143,525	8,277	0.0577	0.9423	28.70
89.5	133,609		0.0000	1.0000	27.04
90.5	78,603	543	0.0069	0.9931	27.04
91.5	79,423	53	0.0007	0.9993	26.85
92.5	77,128		0.0000	1.0000	26.84
93.5	77,128	2,516	0.0326	0.9674	26.84
94.5	132,588	2	0.0000	1.0000	25.96
95.5	154,142	239	0.0015	0.9985	25.96
96.5	154,225	1,083	0.0070	0.9930	25.92
97.5	163,011	30	0.0002	0.9998	25.74
98.5	148,715		0.0000	1.0000	25.73
99.5	109,221	1,568	0.0144	0.9856	25.73
100.5	127,906	49	0.0004	0.9996	25.36
101.5	130,420	527	0.0040	0.9960	25.35
102.5	130,731	1,368	0.0105	0.9895	25.25
103.5	129,363	3,280	0.0254	0.9746	24.99
104.5	120,134		0.0000	1.0000	24.35
105.5	104,711	1,054	0.0101	0.9899	24.35
106.5	105,038		0.0000	1.0000	24.11
107.5	105,039	732	0.0070	0.9930	24.11
108.5	104,307	2,253	0.0216	0.9784	23.94
109.5	97,185	16,133	0.1660	0.8340	23.42
110.5	59,885	2,620	0.0438	0.9562	19.53
111.5	57,330	869	0.0152	0.9848	18.68
112.5	56,097		0.0000	1.0000	18.40
113.5	57,771	734	0.0127	0.9873	18.40
114.5	164,932	816	0.0049	0.9951	18.16
115.5	158,901		0.0000	1.0000	18.07
116.5	157,507		0.0000	1.0000	18.07
117.5	157,507		0.0000	1.0000	18.07
118.5	157,507		0.0000	1.0000	18.07

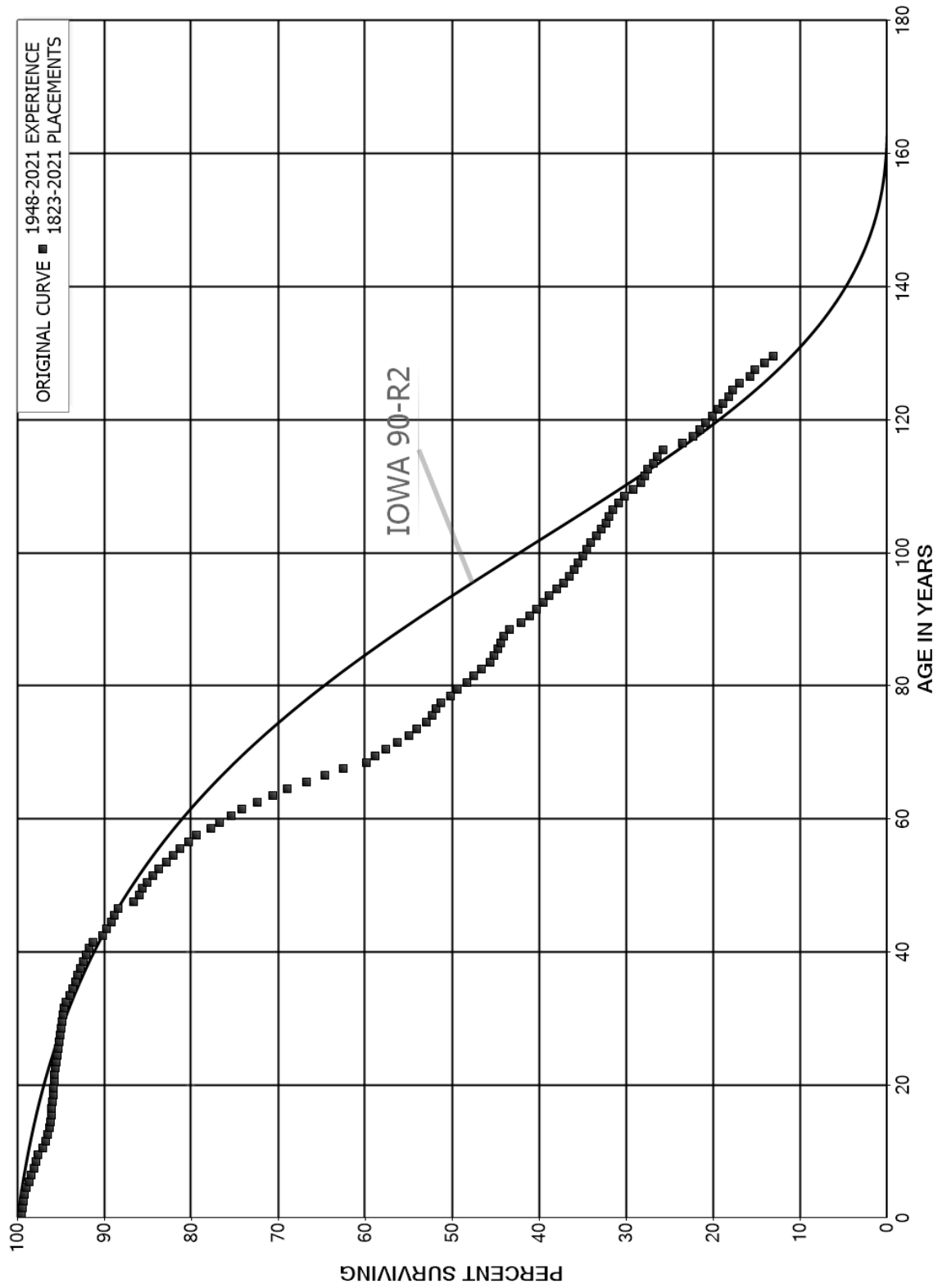
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 330.00 THROUGH 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	157,507		0.0000	1.0000	18.07
120.5	157,507		0.0000	1.0000	18.07
121.5	4,803		0.0000	1.0000	18.07
122.5	4,803		0.0000	1.0000	18.07
123.5	6,953		0.0000	1.0000	18.07
124.5	24,356		0.0000	1.0000	18.07
125.5	24,356		0.0000	1.0000	18.07
126.5	24,356		0.0000	1.0000	18.07
127.5	24,356	474	0.0194	0.9806	18.07
128.5	23,882		0.0000	1.0000	17.72
129.5	23,882		0.0000	1.0000	17.72
130.5	23,882	3,824	0.1601	0.8399	17.72
131.5	17,403		0.0000	1.0000	14.88
132.5	17,403		0.0000	1.0000	14.88
133.5	17,403		0.0000	1.0000	14.88
134.5	17,403		0.0000	1.0000	14.88
135.5	17,403		0.0000	1.0000	14.88
136.5	17,403	17,403	1.0000		14.88
137.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 331.00 MAINS AND ACCESSORIES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 331.00 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1823-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,830,500,711	13,876,948	0.0049	0.9951	100.00
0.5	2,905,593,378	4,791,175	0.0016	0.9984	99.51
1.5	2,726,564,484	1,912,101	0.0007	0.9993	99.35
2.5	2,577,067,995	3,736,435	0.0014	0.9986	99.28
3.5	2,426,816,038	4,714,266	0.0019	0.9981	99.13
4.5	2,312,199,658	6,478,648	0.0028	0.9972	98.94
5.5	2,139,694,861	5,450,193	0.0025	0.9975	98.66
6.5	1,970,306,587	6,100,067	0.0031	0.9969	98.41
7.5	1,832,050,635	5,490,811	0.0030	0.9970	98.11
8.5	1,691,937,464	4,081,654	0.0024	0.9976	97.81
9.5	1,586,321,163	8,127,681	0.0051	0.9949	97.58
10.5	1,465,708,006	4,847,093	0.0033	0.9967	97.08
11.5	1,370,054,575	2,838,644	0.0021	0.9979	96.76
12.5	1,286,637,254	4,236,002	0.0033	0.9967	96.55
13.5	1,186,526,785	722,965	0.0006	0.9994	96.24
14.5	1,112,527,446	805,547	0.0007	0.9993	96.18
15.5	1,100,482,232	919,962	0.0008	0.9992	96.11
16.5	1,042,388,404	576,782	0.0006	0.9994	96.03
17.5	984,734,869	973,722	0.0010	0.9990	95.98
18.5	961,853,603	615,340	0.0006	0.9994	95.88
19.5	899,392,786	591,934	0.0007	0.9993	95.82
20.5	837,077,416	392,939	0.0005	0.9995	95.76
21.5	781,442,050	743,695	0.0010	0.9990	95.71
22.5	729,516,001	618,023	0.0008	0.9992	95.62
23.5	642,513,806	1,000,545	0.0016	0.9984	95.54
24.5	609,523,354	690,757	0.0011	0.9989	95.39
25.5	572,780,863	596,529	0.0010	0.9990	95.28
26.5	526,153,595	478,612	0.0009	0.9991	95.18
27.5	486,783,190	616,264	0.0013	0.9987	95.10
28.5	453,854,573	609,671	0.0013	0.9987	94.98
29.5	428,994,459	546,943	0.0013	0.9987	94.85
30.5	408,775,258	463,290	0.0011	0.9989	94.73
31.5	375,053,418	701,748	0.0019	0.9981	94.62
32.5	343,742,336	1,667,496	0.0049	0.9951	94.44
33.5	308,101,916	1,328,848	0.0043	0.9957	93.98
34.5	281,101,135	826,293	0.0029	0.9971	93.58
35.5	256,267,407	510,343	0.0020	0.9980	93.30
36.5	238,201,664	1,042,249	0.0044	0.9956	93.12
37.5	223,402,374	746,754	0.0033	0.9967	92.71
38.5	213,368,128	891,057	0.0042	0.9958	92.40

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 331.00 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	207,573,250	755,750	0.0036	0.9964	92.02
40.5	200,029,641	949,972	0.0047	0.9953	91.68
41.5	187,615,550	2,140,562	0.0114	0.9886	91.24
42.5	182,450,399	867,687	0.0048	0.9952	90.20
43.5	172,004,473	1,208,826	0.0070	0.9930	89.77
44.5	165,193,975	653,666	0.0040	0.9960	89.14
45.5	156,449,812	776,511	0.0050	0.9950	88.79
46.5	149,962,208	2,957,216	0.0197	0.9803	88.35
47.5	144,816,169	1,072,431	0.0074	0.9926	86.61
48.5	136,113,366	571,276	0.0042	0.9958	85.97
49.5	127,020,669	820,715	0.0065	0.9935	85.61
50.5	120,971,729	938,176	0.0078	0.9922	85.05
51.5	116,716,844	939,932	0.0081	0.9919	84.39
52.5	111,718,384	1,204,677	0.0108	0.9892	83.71
53.5	104,839,363	938,753	0.0090	0.9910	82.81
54.5	98,264,455	931,160	0.0095	0.9905	82.07
55.5	92,922,247	1,122,469	0.0121	0.9879	81.29
56.5	87,071,649	936,608	0.0108	0.9892	80.31
57.5	81,745,500	1,735,871	0.0212	0.9788	79.45
58.5	78,190,348	1,050,827	0.0134	0.9866	77.76
59.5	76,150,906	1,325,202	0.0174	0.9826	76.71
60.5	71,107,824	1,173,802	0.0165	0.9835	75.38
61.5	66,992,762	1,567,863	0.0234	0.9766	74.13
62.5	63,239,566	1,583,872	0.0250	0.9750	72.40
63.5	59,268,490	1,410,438	0.0238	0.9762	70.59
64.5	55,073,042	1,773,948	0.0322	0.9678	68.91
65.5	51,576,384	1,595,922	0.0309	0.9691	66.69
66.5	46,232,913	1,506,355	0.0326	0.9674	64.62
67.5	43,204,547	1,843,355	0.0427	0.9573	62.52
68.5	40,042,003	669,685	0.0167	0.9833	59.85
69.5	38,927,658	801,636	0.0206	0.9794	58.85
70.5	37,637,571	860,538	0.0229	0.9771	57.64
71.5	36,559,251	886,140	0.0242	0.9758	56.32
72.5	35,769,880	590,133	0.0165	0.9835	54.95
73.5	35,207,640	718,447	0.0204	0.9796	54.05
74.5	34,308,793	402,129	0.0117	0.9883	52.95
75.5	33,785,833	301,078	0.0089	0.9911	52.32
76.5	33,414,301	387,863	0.0116	0.9884	51.86
77.5	33,009,519	663,832	0.0201	0.9799	51.26
78.5	32,267,506	499,012	0.0155	0.9845	50.23

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 331.00 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	31,678,856	771,945	0.0244	0.9756	49.45
80.5	30,779,452	506,269	0.0164	0.9836	48.24
81.5	30,145,459	536,632	0.0178	0.9822	47.45
82.5	29,409,888	617,982	0.0210	0.9790	46.61
83.5	28,731,246	280,020	0.0097	0.9903	45.63
84.5	28,259,285	264,298	0.0094	0.9906	45.18
85.5	28,233,244	225,891	0.0080	0.9920	44.76
86.5	27,828,817	201,115	0.0072	0.9928	44.40
87.5	27,603,582	450,997	0.0163	0.9837	44.08
88.5	27,142,254	804,641	0.0296	0.9704	43.36
89.5	26,284,366	604,572	0.0230	0.9770	42.07
90.5	25,439,808	529,088	0.0208	0.9792	41.11
91.5	24,744,080	476,040	0.0192	0.9808	40.25
92.5	25,637,607	447,724	0.0175	0.9825	39.48
93.5	24,814,708	517,269	0.0208	0.9792	38.79
94.5	24,077,160	504,168	0.0209	0.9791	37.98
95.5	21,626,267	402,873	0.0186	0.9814	37.18
96.5	20,466,552	297,671	0.0145	0.9855	36.49
97.5	19,956,784	268,865	0.0135	0.9865	35.96
98.5	18,009,678	274,817	0.0153	0.9847	35.48
99.5	17,520,831	202,283	0.0115	0.9885	34.93
100.5	17,044,384	232,328	0.0136	0.9864	34.53
101.5	16,605,465	341,615	0.0206	0.9794	34.06
102.5	17,168,022	280,958	0.0164	0.9836	33.36
103.5	16,806,596	262,795	0.0156	0.9844	32.81
104.5	16,405,313	192,095	0.0117	0.9883	32.30
105.5	15,064,522	200,807	0.0133	0.9867	31.92
106.5	14,643,668	305,678	0.0209	0.9791	31.50
107.5	13,817,120	316,961	0.0229	0.9771	30.84
108.5	13,316,311	416,971	0.0313	0.9687	30.13
109.5	12,607,437	387,292	0.0307	0.9693	29.19
110.5	12,090,628	183,285	0.0152	0.9848	28.29
111.5	12,954,870	156,037	0.0120	0.9880	27.86
112.5	12,458,360	330,201	0.0265	0.9735	27.53
113.5	11,616,087	167,735	0.0144	0.9856	26.80
114.5	9,656,519	242,096	0.0251	0.9749	26.41
115.5	9,106,369	803,045	0.0882	0.9118	25.75
116.5	7,775,595	380,138	0.0489	0.9511	23.48
117.5	7,130,928	268,496	0.0377	0.9623	22.33
118.5	6,494,153	199,329	0.0307	0.9693	21.49

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 331.00 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	6,083,249	212,542	0.0349	0.9651	20.83
120.5	5,612,933	210,756	0.0375	0.9625	20.10
121.5	3,989,176	99,663	0.0250	0.9750	19.35
122.5	3,256,826	120,533	0.0370	0.9630	18.86
123.5	3,054,957	77,359	0.0253	0.9747	18.17
124.5	2,893,594	133,205	0.0460	0.9540	17.71
125.5	2,274,013	163,881	0.0721	0.9279	16.89
126.5	2,100,244	70,059	0.0334	0.9666	15.67
127.5	1,975,000	141,912	0.0719	0.9281	15.15
128.5	1,513,828	106,991	0.0707	0.9293	14.06
129.5	1,303,406	86,613	0.0665	0.9335	13.07
130.5	1,087,075	48,002	0.0442	0.9558	12.20
131.5	725,331	40,131	0.0553	0.9447	11.66
132.5	528,873	19,676	0.0372	0.9628	11.02
133.5	384,314	40,330	0.1049	0.8951	10.61
134.5	289,708	4,614	0.0159	0.9841	9.49
135.5	242,119	1,695	0.0070	0.9930	9.34
136.5	204,069	646	0.0032	0.9968	9.28
137.5	200,712	10,354	0.0516	0.9484	9.25
138.5	190,260	4,339	0.0228	0.9772	8.77
139.5	185,828	8,465	0.0456	0.9544	8.57
140.5	176,812	3,908	0.0221	0.9779	8.18
141.5	172,640	814	0.0047	0.9953	8.00
142.5	167,624	179	0.0011	0.9989	7.96
143.5	160,942	5,597	0.0348	0.9652	7.95
144.5	155,185	227	0.0015	0.9985	7.68
145.5	146,725	5,174	0.0353	0.9647	7.66
146.5	137,291	2,406	0.0175	0.9825	7.39
147.5	92,275	17,526	0.1899	0.8101	7.27
148.5	64,847	1,542	0.0238	0.9762	5.89
149.5	15,231	32	0.0021	0.9979	5.75
150.5	12,556		0.0000	1.0000	5.73
151.5	4,123		0.0000	1.0000	5.73
152.5	3,888		0.0000	1.0000	5.73
153.5	72		0.0000	1.0000	5.73
154.5	72		0.0000	1.0000	5.73
155.5	72		0.0000	1.0000	5.73
156.5	72		0.0000	1.0000	5.73
157.5	72		0.0000	1.0000	5.73
158.5	72		0.0000	1.0000	5.73

PENNSYLVANIA-AMERICAN WATER COMPANY

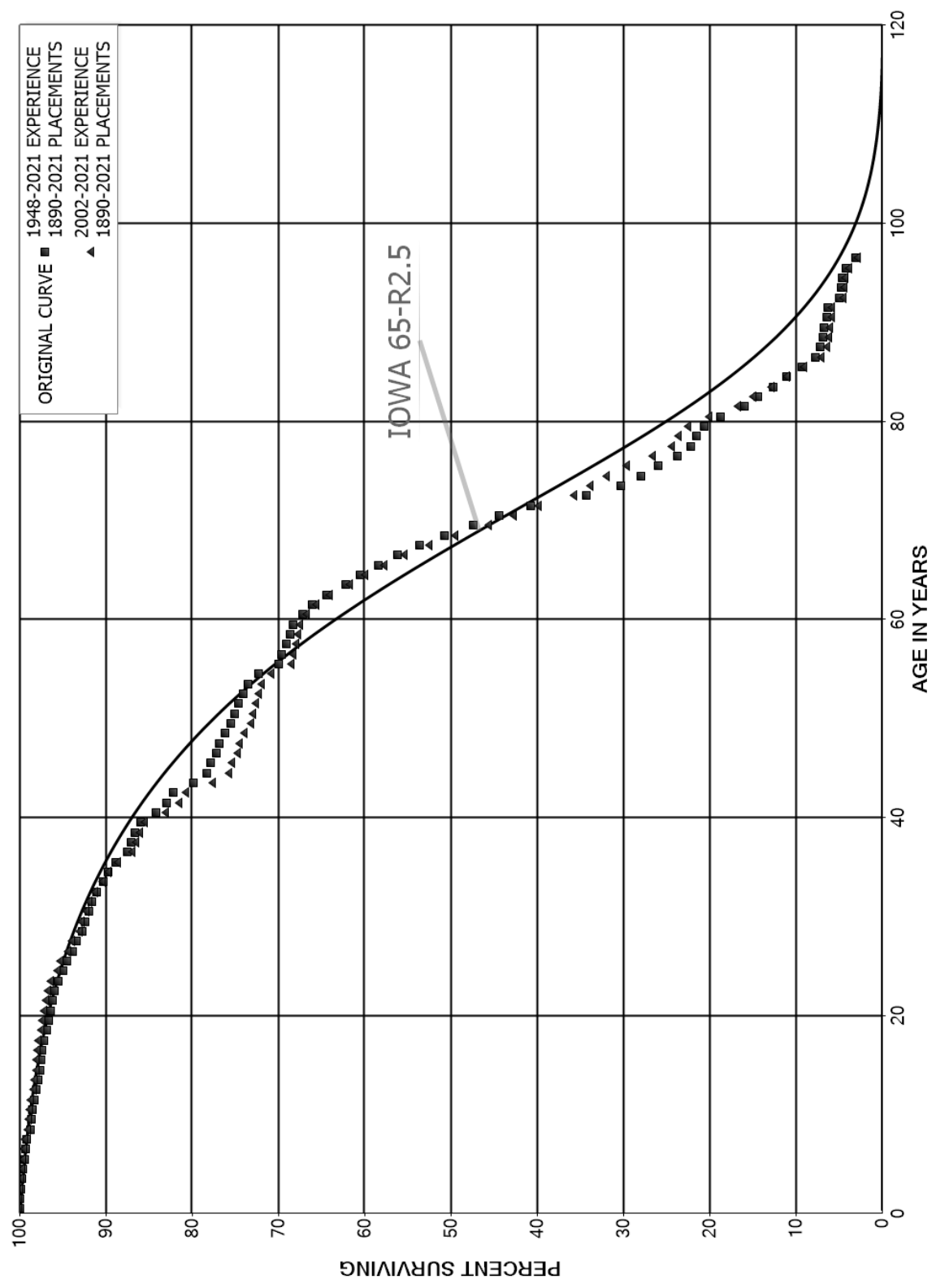
ACCOUNT 331.00 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2021			EXPERIENCE BAND 1948-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
159.5	72		0.0000	1.0000	5.73
160.5	72		0.0000	1.0000	5.73
161.5	72		0.0000	1.0000	5.73
162.5	72		0.0000	1.0000	5.73
163.5	72		0.0000	1.0000	5.73
164.5	72		0.0000	1.0000	5.73
165.5	72		0.0000	1.0000	5.73
166.5	72		0.0000	1.0000	5.73
167.5	72		0.0000	1.0000	5.73
168.5	72		0.0000	1.0000	5.73
169.5	72		0.0000	1.0000	5.73
170.5	72		0.0000	1.0000	5.73
171.5	226	153	0.6794	0.3206	5.73
172.5	72		0.0000	1.0000	1.84
173.5	72		0.0000	1.0000	1.84
174.5	72		0.0000	1.0000	1.84
175.5	72		0.0000	1.0000	1.84
176.5	72		0.0000	1.0000	1.84
177.5	72		0.0000	1.0000	1.84
178.5					1.84



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 333.00 SERVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1890-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	648,157,956	75,207	0.0001	0.9999	100.00
0.5	633,845,071	386,414	0.0006	0.9994	99.99
1.5	603,561,029	776,086	0.0013	0.9987	99.93
2.5	578,709,479	640,173	0.0011	0.9989	99.80
3.5	555,290,029	705,734	0.0013	0.9987	99.69
4.5	530,651,101	726,348	0.0014	0.9986	99.56
5.5	503,563,396	926,666	0.0018	0.9982	99.43
6.5	481,212,145	582,661	0.0012	0.9988	99.24
7.5	461,112,148	1,619,187	0.0035	0.9965	99.12
8.5	438,109,082	645,964	0.0015	0.9985	98.77
9.5	416,866,758	674,731	0.0016	0.9984	98.63
10.5	398,265,742	605,850	0.0015	0.9985	98.47
11.5	379,864,016	1,073,016	0.0028	0.9972	98.32
12.5	355,804,597	598,457	0.0017	0.9983	98.04
13.5	328,968,939	742,195	0.0023	0.9977	97.88
14.5	314,786,836	477,910	0.0015	0.9985	97.66
15.5	315,317,603	506,788	0.0016	0.9984	97.51
16.5	296,503,155	623,017	0.0021	0.9979	97.35
17.5	294,619,400	974,880	0.0033	0.9967	97.15
18.5	290,605,150	617,617	0.0021	0.9979	96.82
19.5	260,889,455	639,351	0.0025	0.9975	96.62
20.5	243,727,091	564,687	0.0023	0.9977	96.38
21.5	229,476,246	568,644	0.0025	0.9975	96.16
22.5	215,515,049	903,714	0.0042	0.9958	95.92
23.5	167,561,788	1,080,709	0.0064	0.9936	95.52
24.5	156,383,046	624,371	0.0040	0.9960	94.90
25.5	145,013,796	1,067,145	0.0074	0.9926	94.52
26.5	133,678,521	547,879	0.0041	0.9959	93.83
27.5	125,947,449	1,016,780	0.0081	0.9919	93.44
28.5	115,599,642	361,796	0.0031	0.9969	92.69
29.5	108,666,118	545,967	0.0050	0.9950	92.40
30.5	102,090,777	374,613	0.0037	0.9963	91.93
31.5	93,439,506	577,796	0.0062	0.9938	91.60
32.5	85,711,844	700,475	0.0082	0.9918	91.03
33.5	78,124,870	516,291	0.0066	0.9934	90.29
34.5	71,342,647	675,371	0.0095	0.9905	89.69
35.5	66,356,120	960,389	0.0145	0.9855	88.84
36.5	61,814,633	329,136	0.0053	0.9947	87.56
37.5	58,164,604	287,294	0.0049	0.9951	87.09
38.5	54,932,398	422,397	0.0077	0.9923	86.66

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	51,888,637	1,088,377	0.0210	0.9790	85.99
40.5	48,201,579	726,553	0.0151	0.9849	84.19
41.5	44,729,015	389,384	0.0087	0.9913	82.92
42.5	41,397,915	1,181,755	0.0285	0.9715	82.20
43.5	38,347,627	746,659	0.0195	0.9805	79.85
44.5	36,131,864	216,826	0.0060	0.9940	78.30
45.5	34,785,505	270,595	0.0078	0.9922	77.83
46.5	33,721,640	165,614	0.0049	0.9951	77.22
47.5	32,197,731	259,416	0.0081	0.9919	76.84
48.5	29,715,371	290,537	0.0098	0.9902	76.22
49.5	27,762,840	136,535	0.0049	0.9951	75.48
50.5	25,963,042	173,627	0.0067	0.9933	75.11
51.5	24,346,039	177,285	0.0073	0.9927	74.60
52.5	22,834,535	170,342	0.0075	0.9925	74.06
53.5	21,434,149	356,832	0.0166	0.9834	73.51
54.5	20,093,617	632,840	0.0315	0.9685	72.29
55.5	18,516,503	113,127	0.0061	0.9939	70.01
56.5	17,354,733	124,755	0.0072	0.9928	69.58
57.5	16,520,669	107,054	0.0065	0.9935	69.08
58.5	15,565,189	86,665	0.0056	0.9944	68.63
59.5	14,528,444	221,552	0.0152	0.9848	68.25
60.5	13,407,058	231,502	0.0173	0.9827	67.21
61.5	12,177,820	296,048	0.0243	0.9757	66.05
62.5	10,889,395	382,095	0.0351	0.9649	64.44
63.5	9,563,283	261,513	0.0273	0.9727	62.18
64.5	8,592,430	291,042	0.0339	0.9661	60.48
65.5	7,581,255	286,839	0.0378	0.9622	58.43
66.5	6,625,456	312,203	0.0471	0.9529	56.22
67.5	5,819,588	306,311	0.0526	0.9474	53.57
68.5	5,021,656	335,932	0.0669	0.9331	50.75
69.5	4,136,198	258,725	0.0626	0.9374	47.36
70.5	3,462,516	290,167	0.0838	0.9162	44.40
71.5	2,883,597	456,514	0.1583	0.8417	40.68
72.5	2,145,637	246,156	0.1147	0.8853	34.24
73.5	1,646,959	128,555	0.0781	0.9219	30.31
74.5	1,331,926	95,346	0.0716	0.9284	27.94
75.5	1,144,779	96,232	0.0841	0.9159	25.94
76.5	1,025,322	68,190	0.0665	0.9335	23.76
77.5	945,563	27,831	0.0294	0.9706	22.18
78.5	900,929	36,681	0.0407	0.9593	21.53

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2021			EXPERIENCE BAND 1948-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	815,470	77,749	0.0953	0.9047	20.65
80.5	687,693	102,124	0.1485	0.8515	18.68
81.5	512,715	47,977	0.0936	0.9064	15.91
82.5	428,423	52,220	0.1219	0.8781	14.42
83.5	374,172	48,807	0.1304	0.8696	12.66
84.5	292,578	44,503	0.1521	0.8479	11.01
85.5	258,752	44,423	0.1717	0.8283	9.34
86.5	214,329	16,697	0.0779	0.9221	7.73
87.5	199,933	7,438	0.0372	0.9628	7.13
88.5	193,079	5,071	0.0263	0.9737	6.87
89.5	188,008	6,632	0.0353	0.9647	6.68
90.5	181,376	3,968	0.0219	0.9781	6.45
91.5	177,572	37,090	0.2089	0.7911	6.31
92.5	140,482	6,621	0.0471	0.9529	4.99
93.5	133,861	3,603	0.0269	0.9731	4.76
94.5	130,555	12,329	0.0944	0.9056	4.63
95.5	118,226	30,479	0.2578	0.7422	4.19
96.5	87,747	12,173	0.1387	0.8613	3.11
97.5	85,048	16,432	0.1932	0.8068	2.68
98.5	68,616	15,945	0.2324	0.7676	2.16
99.5	52,672	3,801	0.0722	0.9278	1.66
100.5	48,870	14,250	0.2916	0.7084	1.54
101.5	34,620	15,624	0.4513	0.5487	1.09
102.5	18,996	4,642	0.2444	0.7556	0.60
103.5	14,354	5,641	0.3930	0.6070	0.45
104.5	8,713	3,613	0.4147	0.5853	0.27
105.5	5,099	1,515	0.2971	0.7029	0.16
106.5	3,584	1,285	0.3585	0.6415	0.11
107.5	2,299	726	0.3156	0.6844	0.07
108.5	1,574	487	0.3093	0.6907	0.05
109.5	1,087	583	0.5359	0.4641	0.03
110.5	504	23	0.0457	0.9543	0.02
111.5	481	106	0.2204	0.7796	0.02
112.5	375	44	0.1167	0.8833	0.01
113.5	332	42	0.1264	0.8736	0.01
114.5	290	10	0.0361	0.9639	0.01
115.5	279	229	0.8212	0.1788	0.01
116.5	50	42	0.8333	0.1667	0.00
117.5	8		0.0000	1.0000	0.00
118.5	8		0.0000	1.0000	0.00

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2021			EXPERIENCE BAND 1948-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	8		0.0000	1.0000	0.00
120.5	8		0.0000	1.0000	0.00
121.5	8		0.0000	1.0000	0.00
122.5	8		0.0000	1.0000	0.00
123.5	8		0.0000	1.0000	0.00
124.5	8		0.0000	1.0000	0.00
125.5	8		0.0000	1.0000	0.00
126.5	8	0	0.0012	0.9988	0.00
127.5	8		0.0000	1.0000	0.00
128.5	8	8	1.0000		0.00
129.5					

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1890-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	413,121,752	15,980	0.0000	1.0000	100.00
0.5	401,837,181	106,259	0.0003	0.9997	100.00
1.5	385,283,509	441,283	0.0011	0.9989	99.97
2.5	373,467,803	355,745	0.0010	0.9990	99.86
3.5	398,581,107	434,312	0.0011	0.9989	99.76
4.5	383,339,602	428,391	0.0011	0.9989	99.65
5.5	366,660,233	555,727	0.0015	0.9985	99.54
6.5	354,197,273	272,990	0.0008	0.9992	99.39
7.5	341,527,821	1,345,599	0.0039	0.9961	99.31
8.5	327,084,189	371,314	0.0011	0.9989	98.92
9.5	311,993,201	393,794	0.0013	0.9987	98.81
10.5	298,965,717	364,870	0.0012	0.9988	98.68
11.5	288,463,180	800,680	0.0028	0.9972	98.56
12.5	272,094,847	297,223	0.0011	0.9989	98.29
13.5	252,476,865	488,232	0.0019	0.9981	98.18
14.5	244,863,897	192,603	0.0008	0.9992	97.99
15.5	249,870,848	229,192	0.0009	0.9991	97.92
16.5	234,713,666	357,686	0.0015	0.9985	97.83
17.5	236,003,494	713,221	0.0030	0.9970	97.68
18.5	234,808,754	352,629	0.0015	0.9985	97.38
19.5	207,785,095	375,813	0.0018	0.9982	97.24
20.5	193,377,654	376,461	0.0019	0.9981	97.06
21.5	181,938,651	386,025	0.0021	0.9979	96.87
22.5	170,838,518	736,572	0.0043	0.9957	96.67
23.5	125,448,696	943,733	0.0075	0.9925	96.25
24.5	117,062,950	483,409	0.0041	0.9959	95.52
25.5	107,884,018	959,447	0.0089	0.9911	95.13
26.5	98,087,004	421,122	0.0043	0.9957	94.28
27.5	92,080,928	891,608	0.0097	0.9903	93.88
28.5	84,224,699	266,076	0.0032	0.9968	92.97
29.5	79,420,495	445,516	0.0056	0.9944	92.68
30.5	74,599,018	279,790	0.0038	0.9962	92.16
31.5	67,516,907	483,146	0.0072	0.9928	91.81
32.5	61,214,811	604,530	0.0099	0.9901	91.15
33.5	55,006,692	406,446	0.0074	0.9926	90.25
34.5	49,463,166	575,784	0.0116	0.9884	89.59
35.5	45,662,795	858,027	0.0188	0.9812	88.54
36.5	42,326,703	231,933	0.0055	0.9945	86.88
37.5	39,756,633	181,583	0.0046	0.9954	86.40
38.5	37,484,882	289,280	0.0077	0.9923	86.01

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	35,542,875	990,805	0.0279	0.9721	85.35
40.5	32,936,975	624,797	0.0190	0.9810	82.97
41.5	30,661,572	295,338	0.0096	0.9904	81.39
42.5	28,522,417	1,091,916	0.0383	0.9617	80.61
43.5	26,492,626	661,126	0.0250	0.9750	77.52
44.5	25,290,866	114,139	0.0045	0.9955	75.59
45.5	25,020,630	195,334	0.0078	0.9922	75.25
46.5	24,934,256	90,964	0.0036	0.9964	74.66
47.5	24,318,981	189,057	0.0078	0.9922	74.39
48.5	22,670,264	229,125	0.0101	0.9899	73.81
49.5	21,520,639	70,006	0.0033	0.9967	73.06
50.5	20,463,754	87,270	0.0043	0.9957	72.83
51.5	19,444,583	90,989	0.0047	0.9953	72.51
52.5	18,510,040	86,325	0.0047	0.9953	72.18
53.5	17,615,944	282,021	0.0160	0.9840	71.84
54.5	16,662,129	553,045	0.0332	0.9668	70.69
55.5	15,322,567	44,092	0.0029	0.9971	68.34
56.5	14,304,034	60,582	0.0042	0.9958	68.15
57.5	13,574,144	55,783	0.0041	0.9959	67.86
58.5	12,702,052	39,199	0.0031	0.9969	67.58
59.5	11,797,492	124,028	0.0105	0.9895	67.37
60.5	10,896,713	191,065	0.0175	0.9825	66.66
61.5	9,844,696	234,447	0.0238	0.9762	65.49
62.5	8,762,536	324,351	0.0370	0.9630	63.93
63.5	7,625,943	212,525	0.0279	0.9721	61.57
64.5	6,828,920	250,636	0.0367	0.9633	59.85
65.5	5,969,117	240,530	0.0403	0.9597	57.65
66.5	5,138,079	269,982	0.0525	0.9475	55.33
67.5	4,441,118	257,825	0.0581	0.9419	52.42
68.5	3,684,334	286,985	0.0779	0.9221	49.38
69.5	2,881,213	184,573	0.0641	0.9359	45.53
70.5	2,338,653	156,820	0.0671	0.9329	42.62
71.5	1,941,930	200,908	0.1035	0.8965	39.76
72.5	1,484,351	78,415	0.0528	0.9472	35.65
73.5	1,222,237	68,768	0.0563	0.9437	33.76
74.5	1,056,188	77,877	0.0737	0.9263	31.86
75.5	884,540	91,753	0.1037	0.8963	29.51
76.5	788,290	64,027	0.0812	0.9188	26.45
77.5	742,394	25,966	0.0350	0.9650	24.30
78.5	772,443	34,292	0.0444	0.9556	23.45

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	703,294	76,783	0.1092	0.8908	22.41
80.5	590,557	99,665	0.1688	0.8312	19.97
81.5	433,051	46,790	0.1080	0.8920	16.60
82.5	355,282	48,781	0.1373	0.8627	14.80
83.5	305,993	44,906	0.1468	0.8532	12.77
84.5	234,817	43,109	0.1836	0.8164	10.90
85.5	196,138	43,371	0.2211	0.7789	8.90
86.5	168,296	15,371	0.0913	0.9087	6.93
87.5	158,571	5,726	0.0361	0.9639	6.30
88.5	157,798	2,952	0.0187	0.9813	6.07
89.5	160,516	5,488	0.0342	0.9658	5.96
90.5	159,380	1,805	0.0113	0.9887	5.75
91.5	160,832	36,027	0.2240	0.7760	5.69
92.5	126,866	5,042	0.0397	0.9603	4.41
93.5	123,090	3,254	0.0264	0.9736	4.24
94.5	120,172	11,724	0.0976	0.9024	4.13
95.5	109,259	29,895	0.2736	0.7264	3.72
96.5	80,994	11,792	0.1456	0.8544	2.70
97.5	72,654	16,213	0.2232	0.7768	2.31
98.5	67,850	15,920	0.2346	0.7654	1.79
99.5	51,930	3,710	0.0714	0.9286	1.37
100.5	48,220	14,094	0.2923	0.7077	1.28
101.5	34,313	15,624	0.4553	0.5447	0.90
102.5	18,689	4,642	0.2484	0.7516	0.49
103.5	14,047	5,641	0.4016	0.5984	0.37
104.5	8,406	3,613	0.4298	0.5702	0.22
105.5	4,793	1,515	0.3161	0.6839	0.13
106.5	3,278	1,285	0.3920	0.6080	0.09
107.5	1,993	726	0.3641	0.6359	0.05
108.5	1,267	487	0.3842	0.6158	0.03
109.5	780	583	0.7465	0.2535	0.02
110.5	198	23	0.1165	0.8835	0.01
111.5	481	106	0.2204	0.7796	0.00
112.5	375	44	0.1167	0.8833	0.00
113.5	332	42	0.1264	0.8736	0.00
114.5	290	10	0.0361	0.9639	0.00
115.5	279	229	0.8212	0.1788	0.00
116.5	50	42	0.8333	0.1667	0.00
117.5	8		0.0000	1.0000	0.00
118.5	8		0.0000	1.0000	0.00



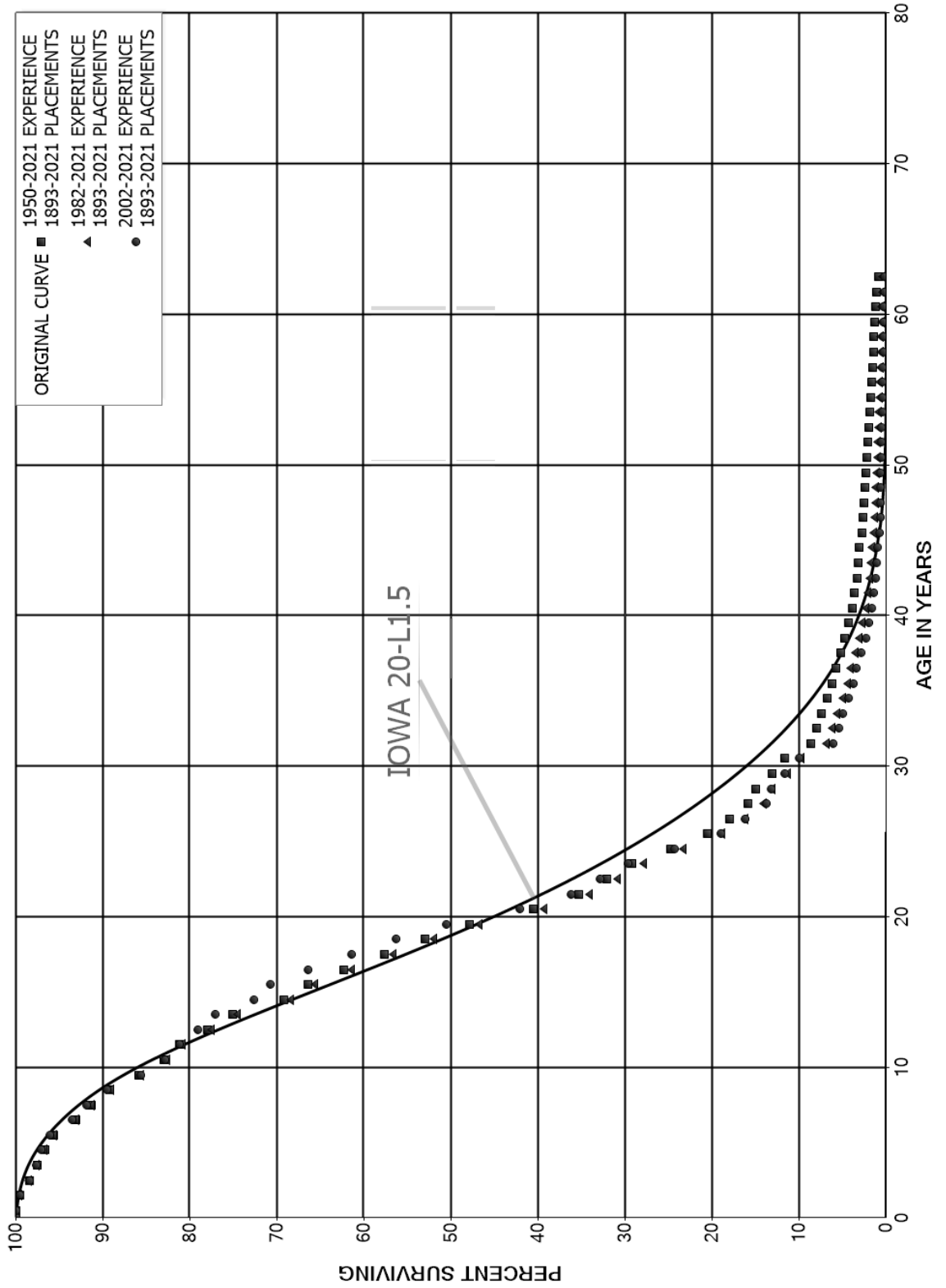
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 333.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2021			EXPERIENCE BAND 2002-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	8		0.0000	1.0000	0.00
120.5	8		0.0000	1.0000	0.00
121.5	8		0.0000	1.0000	0.00
122.5	8		0.0000	1.0000	0.00
123.5	8		0.0000	1.0000	0.00
124.5	8		0.0000	1.0000	0.00
125.5	8		0.0000	1.0000	0.00
126.5	8	0	0.0012	0.9988	0.00
127.5	8		0.0000	1.0000	0.00
128.5	8	8	1.0000		0.00
129.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 334.00 METERS AND METER INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 1950-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	310,766,720	149,279	0.0005	0.9995	100.00
0.5	308,908,043	1,351,959	0.0044	0.9956	99.95
1.5	297,599,959	3,222,890	0.0108	0.9892	99.51
2.5	276,480,284	2,537,333	0.0092	0.9908	98.44
3.5	261,443,990	2,391,910	0.0091	0.9909	97.53
4.5	243,772,582	2,641,538	0.0108	0.9892	96.64
5.5	226,231,742	5,968,257	0.0264	0.9736	95.59
6.5	208,383,950	3,898,280	0.0187	0.9813	93.07
7.5	198,348,618	4,636,970	0.0234	0.9766	91.33
8.5	184,837,779	6,916,307	0.0374	0.9626	89.20
9.5	165,058,924	5,617,870	0.0340	0.9660	85.86
10.5	142,656,573	3,074,720	0.0216	0.9784	82.94
11.5	127,609,771	5,048,412	0.0396	0.9604	81.15
12.5	113,370,766	4,233,066	0.0373	0.9627	77.94
13.5	103,657,399	8,153,535	0.0787	0.9213	75.03
14.5	92,436,342	3,671,501	0.0397	0.9603	69.13
15.5	88,866,582	5,464,837	0.0615	0.9385	66.38
16.5	81,124,165	6,113,628	0.0754	0.9246	62.30
17.5	75,358,025	6,110,801	0.0811	0.9189	57.60
18.5	69,062,521	6,650,798	0.0963	0.9037	52.93
19.5	60,128,198	9,256,058	0.1539	0.8461	47.84
20.5	46,978,188	6,065,384	0.1291	0.8709	40.47
21.5	38,541,899	3,468,252	0.0900	0.9100	35.25
22.5	33,462,811	3,066,812	0.0916	0.9084	32.07
23.5	19,793,497	2,983,966	0.1508	0.8492	29.13
24.5	15,640,047	2,684,850	0.1717	0.8283	24.74
25.5	13,004,785	1,616,113	0.1243	0.8757	20.50
26.5	11,288,807	1,346,234	0.1193	0.8807	17.95
27.5	9,845,492	550,443	0.0559	0.9441	15.81
28.5	9,125,229	1,122,305	0.1230	0.8770	14.92
29.5	7,896,502	909,781	0.1152	0.8848	13.09
30.5	6,378,731	1,615,865	0.2533	0.7467	11.58
31.5	4,793,475	401,939	0.0839	0.9161	8.65
32.5	4,434,674	320,186	0.0722	0.9278	7.92
33.5	4,133,230	377,230	0.0913	0.9087	7.35
34.5	3,782,749	315,473	0.0834	0.9166	6.68
35.5	3,488,784	225,273	0.0646	0.9354	6.12
36.5	3,385,176	316,718	0.0936	0.9064	5.73
37.5	3,089,294	303,455	0.0982	0.9018	5.19
38.5	2,815,233	237,153	0.0842	0.9158	4.68

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 1950-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,589,573	258,552	0.0998	0.9002	4.29
40.5	2,358,822	175,480	0.0744	0.9256	3.86
41.5	2,243,016	162,474	0.0724	0.9276	3.57
42.5	2,083,893	90,521	0.0434	0.9566	3.31
43.5	1,997,630	88,253	0.0442	0.9558	3.17
44.5	1,911,938	189,495	0.0991	0.9009	3.03
45.5	1,755,570	73,318	0.0418	0.9582	2.73
46.5	1,690,928	82,839	0.0490	0.9510	2.61
47.5	1,613,858	55,519	0.0344	0.9656	2.49
48.5	1,531,576	79,593	0.0520	0.9480	2.40
49.5	1,460,826	78,565	0.0538	0.9462	2.28
50.5	1,382,879	79,001	0.0571	0.9429	2.15
51.5	1,304,174	52,384	0.0402	0.9598	2.03
52.5	1,252,160	104,471	0.0834	0.9166	1.95
53.5	1,147,832	59,089	0.0515	0.9485	1.79
54.5	1,088,770	50,085	0.0460	0.9540	1.69
55.5	1,038,761	64,528	0.0621	0.9379	1.62
56.5	974,725	61,705	0.0633	0.9367	1.52
57.5	913,037	50,214	0.0550	0.9450	1.42
58.5	862,823	60,683	0.0703	0.9297	1.34
59.5	802,170	58,142	0.0725	0.9275	1.25
60.5	744,067	76,975	0.1035	0.8965	1.16
61.5	667,055	97,611	0.1463	0.8537	1.04
62.5	569,445	75,741	0.1330	0.8670	0.89
63.5	493,704	55,578	0.1126	0.8874	0.77
64.5	437,941	64,788	0.1479	0.8521	0.68
65.5	373,251	55,471	0.1486	0.8514	0.58
66.5	317,759	37,477	0.1179	0.8821	0.49
67.5	280,151	26,879	0.0959	0.9041	0.44
68.5	253,204	31,766	0.1255	0.8745	0.39
69.5	221,186	26,781	0.1211	0.8789	0.34
70.5	194,021	30,621	0.1578	0.8422	0.30
71.5	163,063	37,102	0.2275	0.7725	0.26
72.5	126,077	23,369	0.1854	0.8146	0.20
73.5	103,282	20,223	0.1958	0.8042	0.16
74.5	83,083	14,577	0.1754	0.8246	0.13
75.5	68,507	9,409	0.1373	0.8627	0.11
76.5	59,109	12,690	0.2147	0.7853	0.09
77.5	46,831	12,997	0.2775	0.7225	0.07
78.5	33,834	4,993	0.1476	0.8524	0.05

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 1950-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	28,841	4,904	0.1700	0.8300	0.04
80.5	23,887	4,479	0.1875	0.8125	0.04
81.5	19,365	3,256	0.1681	0.8319	0.03
82.5	16,123	3,193	0.1980	0.8020	0.02
83.5	12,931	3,201	0.2475	0.7525	0.02
84.5	9,697	961	0.0991	0.9009	0.02
85.5	8,712	266	0.0306	0.9694	0.01
86.5	8,463	516	0.0610	0.9390	0.01
87.5	7,947	101	0.0127	0.9873	0.01
88.5	7,846	717	0.0914	0.9086	0.01
89.5	7,128	195	0.0273	0.9727	0.01
90.5	6,934	53	0.0077	0.9923	0.01
91.5	7,279	103	0.0141	0.9859	0.01
92.5	7,176	276	0.0384	0.9616	0.01
93.5	6,900	356	0.0516	0.9484	0.01
94.5	6,544	31	0.0048	0.9952	0.01
95.5	6,513	134	0.0206	0.9794	0.01
96.5	6,379	256	0.0401	0.9599	0.01
97.5	6,123	462	0.0754	0.9246	0.01
98.5	5,661	413	0.0730	0.9270	0.01
99.5	5,248	546	0.1041	0.8959	0.01
100.5	4,702	108	0.0230	0.9770	0.01
101.5	4,593	399	0.0869	0.9131	0.01
102.5	4,194	503	0.1198	0.8802	0.01
103.5	3,692	217	0.0588	0.9412	0.01
104.5	3,475	342	0.0986	0.9014	0.01
105.5	3,132		0.0000	1.0000	0.00
106.5	3,132	288	0.0921	0.9079	0.00
107.5	2,844	455	0.1601	0.8399	0.00
108.5	2,389	176	0.0737	0.9263	0.00
109.5	2,212	119	0.0539	0.9461	0.00
110.5	2,093	1,814	0.8667	0.1333	0.00
111.5	279	65	0.2328	0.7672	0.00
112.5	214	116	0.5419	0.4581	0.00
113.5	98	4	0.0361	0.9639	0.00
114.5	95	45	0.4746	0.5254	0.00
115.5	50	33	0.6740	0.3260	0.00
116.5	16	2	0.0957	0.9043	0.00
117.5	15	15	1.0000		0.00
118.5					

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 1982-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	301,243,651	141,141	0.0005	0.9995	100.00
0.5	300,214,378	1,335,138	0.0044	0.9956	99.95
1.5	289,611,544	3,215,892	0.0111	0.9889	99.51
2.5	269,040,908	2,527,593	0.0094	0.9906	98.40
3.5	254,467,290	2,381,051	0.0094	0.9906	97.48
4.5	237,262,761	2,634,236	0.0111	0.9889	96.57
5.5	220,147,230	5,959,425	0.0271	0.9729	95.49
6.5	202,674,746	3,889,416	0.0192	0.9808	92.91
7.5	192,900,649	4,630,183	0.0240	0.9760	91.13
8.5	179,626,803	6,906,634	0.0384	0.9616	88.94
9.5	160,144,140	5,611,331	0.0350	0.9650	85.52
10.5	138,002,643	3,065,326	0.0222	0.9778	82.52
11.5	123,149,794	5,040,163	0.0409	0.9591	80.69
12.5	109,262,867	4,227,128	0.0387	0.9613	77.39
13.5	99,815,879	8,142,590	0.0816	0.9184	74.39
14.5	88,791,893	3,663,844	0.0413	0.9587	68.33
15.5	85,494,483	5,457,882	0.0638	0.9362	65.51
16.5	78,339,149	6,104,197	0.0779	0.9221	61.32
17.5	72,810,733	6,103,282	0.0838	0.9162	56.55
18.5	66,651,442	6,635,031	0.0995	0.9005	51.81
19.5	57,895,493	9,245,847	0.1597	0.8403	46.65
20.5	44,839,566	6,054,321	0.1350	0.8650	39.20
21.5	36,494,881	3,461,199	0.0948	0.9052	33.91
22.5	31,536,368	3,060,126	0.0970	0.9030	30.69
23.5	17,972,779	2,976,035	0.1656	0.8344	27.71
24.5	13,978,888	2,677,564	0.1915	0.8085	23.12
25.5	11,469,092	1,608,405	0.1402	0.8598	18.69
26.5	9,858,616	1,335,700	0.1355	0.8645	16.07
27.5	8,535,728	546,238	0.0640	0.9360	13.90
28.5	7,918,897	1,117,857	0.1412	0.8588	13.01
29.5	6,731,399	905,671	0.1345	0.8655	11.17
30.5	5,286,067	1,611,898	0.3049	0.6951	9.67
31.5	3,754,747	395,911	0.1054	0.8946	6.72
32.5	3,427,379	315,065	0.0919	0.9081	6.01
33.5	3,173,091	371,632	0.1171	0.8829	5.46
34.5	2,844,212	311,873	0.1097	0.8903	4.82
35.5	2,575,906	220,637	0.0857	0.9143	4.29
36.5	2,470,079	311,968	0.1263	0.8737	3.92
37.5	2,168,190	297,162	0.1371	0.8629	3.43
38.5	1,881,752	230,476	0.1225	0.8775	2.96

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 1982-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,668,273	249,374	0.1495	0.8505	2.60
40.5	1,482,237	168,034	0.1134	0.8866	2.21
41.5	1,353,673	157,450	0.1163	0.8837	1.96
42.5	1,223,139	83,617	0.0684	0.9316	1.73
43.5	1,157,366	81,788	0.0707	0.9293	1.61
44.5	1,095,724	185,064	0.1689	0.8311	1.50
45.5	960,734	64,843	0.0675	0.9325	1.24
46.5	918,041	75,837	0.0826	0.9174	1.16
47.5	869,269	30,483	0.0351	0.9649	1.06
48.5	825,167	54,473	0.0660	0.9340	1.03
49.5	784,828	69,056	0.0880	0.9120	0.96
50.5	744,049	54,356	0.0731	0.9269	0.88
51.5	722,906	43,972	0.0608	0.9392	0.81
52.5	734,007	82,515	0.1124	0.8876	0.76
53.5	696,958	48,318	0.0693	0.9307	0.68
54.5	693,940	42,933	0.0619	0.9381	0.63
55.5	680,524	57,022	0.0838	0.9162	0.59
56.5	657,745	55,162	0.0839	0.9161	0.54
57.5	640,912	45,202	0.0705	0.9295	0.50
58.5	636,933	58,676	0.0921	0.9079	0.46
59.5	611,544	55,364	0.0905	0.9095	0.42
60.5	570,522	73,373	0.1286	0.8714	0.38
61.5	519,726	94,541	0.1819	0.8181	0.33
62.5	435,823	71,201	0.1634	0.8366	0.27
63.5	372,765	51,119	0.1371	0.8629	0.23
64.5	338,295	61,677	0.1823	0.8177	0.20
65.5	291,004	53,111	0.1825	0.8175	0.16
66.5	251,218	34,677	0.1380	0.8620	0.13
67.5	228,952	24,701	0.1079	0.8921	0.11
68.5	214,292	30,112	0.1405	0.8595	0.10
69.5	192,990	25,833	0.1339	0.8661	0.09
70.5	179,574	30,066	0.1674	0.8326	0.07
71.5	153,789	36,789	0.2392	0.7608	0.06
72.5	118,301	22,950	0.1940	0.8060	0.05
73.5	97,586	20,026	0.2052	0.7948	0.04
74.5	77,826	14,571	0.1872	0.8128	0.03
75.5	64,350	9,299	0.1445	0.8555	0.02
76.5	55,499	12,503	0.2253	0.7747	0.02
77.5	43,473	12,864	0.2959	0.7041	0.02
78.5	30,672	4,961	0.1617	0.8383	0.01

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 1982-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	26,017	4,904	0.1885	0.8115	0.01	
80.5	21,092	4,479	0.2123	0.7877	0.01	
81.5	18,985	3,247	0.1710	0.8290	0.01	
82.5	15,752	3,193	0.2027	0.7973	0.01	
83.5	12,560	3,188	0.2538	0.7462	0.00	
84.5	9,356	961	0.1027	0.8973	0.00	
85.5	8,372	240	0.0287	0.9713	0.00	
86.5	8,148	485	0.0595	0.9405	0.00	
87.5	7,663	101	0.0131	0.9869	0.00	
88.5	7,846	717	0.0914	0.9086	0.00	
89.5	7,128	195	0.0273	0.9727	0.00	
90.5	6,934	53	0.0077	0.9923	0.00	
91.5	7,279	103	0.0141	0.9859	0.00	
92.5	7,176	276	0.0384	0.9616	0.00	
93.5	6,900	356	0.0516	0.9484	0.00	
94.5	6,544	31	0.0048	0.9952	0.00	
95.5	6,513	134	0.0206	0.9794	0.00	
96.5	6,379	256	0.0401	0.9599	0.00	
97.5	6,123	462	0.0754	0.9246	0.00	
98.5	5,661	413	0.0730	0.9270	0.00	
99.5	5,248	546	0.1041	0.8959	0.00	
100.5	4,702	108	0.0230	0.9770	0.00	
101.5	4,593	399	0.0869	0.9131	0.00	
102.5	4,194	503	0.1198	0.8802	0.00	
103.5	3,692	217	0.0588	0.9412	0.00	
104.5	3,475	342	0.0986	0.9014	0.00	
105.5	3,132		0.0000	1.0000	0.00	
106.5	3,132	288	0.0921	0.9079	0.00	
107.5	2,844	455	0.1601	0.8399	0.00	
108.5	2,389	176	0.0737	0.9263	0.00	
109.5	2,212	119	0.0539	0.9461	0.00	
110.5	2,093	1,814	0.8667	0.1333	0.00	
111.5	279	65	0.2328	0.7672	0.00	
112.5	214	116	0.5419	0.4581	0.00	
113.5	98	4	0.0361	0.9639	0.00	
114.5	95	45	0.4746	0.5254	0.00	
115.5	50	33	0.6740	0.3260	0.00	
116.5	16	2	0.0957	0.9043	0.00	
117.5	15	15	1.0000		0.00	
118.5						



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	208,955,906	101,461	0.0005	0.9995	100.00
0.5	207,554,808	981,632	0.0047	0.9953	99.95
1.5	202,014,232	2,095,799	0.0104	0.9896	99.48
2.5	189,122,036	1,641,865	0.0087	0.9913	98.45
3.5	194,014,092	1,056,711	0.0054	0.9946	97.59
4.5	184,288,996	1,861,494	0.0101	0.9899	97.06
5.5	172,315,468	4,566,321	0.0265	0.9735	96.08
6.5	159,166,303	2,859,766	0.0180	0.9820	93.53
7.5	152,263,046	3,929,585	0.0258	0.9742	91.85
8.5	142,800,122	6,188,027	0.0433	0.9567	89.48
9.5	126,719,951	4,063,986	0.0321	0.9679	85.61
10.5	110,627,916	2,245,712	0.0203	0.9797	82.86
11.5	99,192,548	2,629,101	0.0265	0.9735	81.18
12.5	91,840,942	2,337,131	0.0254	0.9746	79.03
13.5	87,465,650	5,032,948	0.0575	0.9425	77.02
14.5	80,827,760	2,015,900	0.0249	0.9751	72.58
15.5	79,117,449	4,843,391	0.0612	0.9388	70.77
16.5	72,231,636	5,543,606	0.0767	0.9233	66.44
17.5	67,238,595	5,558,790	0.0827	0.9173	61.34
18.5	61,659,079	6,284,076	0.1019	0.8981	56.27
19.5	53,211,229	8,920,590	0.1676	0.8324	50.54
20.5	40,517,295	5,670,305	0.1399	0.8601	42.06
21.5	32,636,067	3,042,265	0.0932	0.9068	36.18
22.5	28,043,735	2,700,129	0.0963	0.9037	32.80
23.5	14,840,502	2,674,054	0.1802	0.8198	29.65
24.5	11,058,978	2,415,772	0.2184	0.7816	24.30
25.5	8,772,346	1,316,860	0.1501	0.8499	19.00
26.5	7,335,194	1,104,167	0.1505	0.8495	16.14
27.5	6,127,466	251,106	0.0410	0.9590	13.71
28.5	5,739,204	653,484	0.1139	0.8861	13.15
29.5	4,987,283	706,117	0.1416	0.8584	11.65
30.5	3,707,993	1,454,844	0.3924	0.6076	10.00
31.5	2,276,410	251,475	0.1105	0.8895	6.08
32.5	2,051,568	190,840	0.0930	0.9070	5.41
33.5	1,888,198	235,293	0.1246	0.8754	4.90
34.5	1,674,987	214,280	0.1279	0.8721	4.29
35.5	1,477,289	140,063	0.0948	0.9052	3.74
36.5	1,395,007	228,390	0.1637	0.8363	3.39
37.5	1,194,538	217,246	0.1819	0.8181	2.83
38.5	1,003,454	157,257	0.1567	0.8433	2.32

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	885,108	152,473	0.1723	0.8277	1.96
40.5	763,515	108,109	0.1416	0.8584	1.62
41.5	770,058	121,720	0.1581	0.8419	1.39
42.5	679,606	58,432	0.0860	0.9140	1.17
43.5	641,600	56,446	0.0880	0.9120	1.07
44.5	624,402	166,420	0.2665	0.7335	0.98
45.5	551,925	40,115	0.0727	0.9273	0.72
46.5	556,499	52,974	0.0952	0.9048	0.66
47.5	534,141	4,609	0.0086	0.9914	0.60
48.5	525,127	25,668	0.0489	0.9511	0.59
49.5	522,204	31,496	0.0603	0.9397	0.57
50.5	499,601	23,045	0.0461	0.9539	0.53
51.5	478,788	14,556	0.0304	0.9696	0.51
52.5	467,168	53,716	0.1150	0.8850	0.49
53.5	420,240	23,265	0.0554	0.9446	0.44
54.5	398,577	24,937	0.0626	0.9374	0.41
55.5	378,829	34,239	0.0904	0.9096	0.39
56.5	346,310	29,932	0.0864	0.9136	0.35
57.5	316,831	22,145	0.0699	0.9301	0.32
58.5	294,859	29,834	0.1012	0.8988	0.30
59.5	266,134	23,682	0.0890	0.9110	0.27
60.5	243,662	38,783	0.1592	0.8408	0.24
61.5	205,446	64,948	0.3161	0.6839	0.21
62.5	140,711	38,791	0.2757	0.7243	0.14
63.5	102,222	26,439	0.2586	0.7414	0.10
64.5	76,189	23,747	0.3117	0.6883	0.08
65.5	52,952	18,964	0.3581	0.6419	0.05
66.5	34,014	8,892	0.2614	0.7386	0.03
67.5	25,454	1,948	0.0765	0.9235	0.02
68.5	23,537	2,935	0.1247	0.8753	0.02
69.5	20,823	6,787	0.3259	0.6741	0.02
70.5	14,265	1,590	0.1114	0.8886	0.01
71.5	13,040	5,190	0.3980	0.6020	0.01
72.5	7,850	1,720	0.2191	0.7809	0.01
73.5	6,940	436	0.0628	0.9372	0.01
74.5	6,531	174	0.0266	0.9734	0.01
75.5	6,453	1,201	0.1862	0.8138	0.01
76.5	5,437	1,211	0.2226	0.7774	0.00
77.5	4,480	566	0.1263	0.8737	0.00
78.5	3,914	213	0.0545	0.9455	0.00

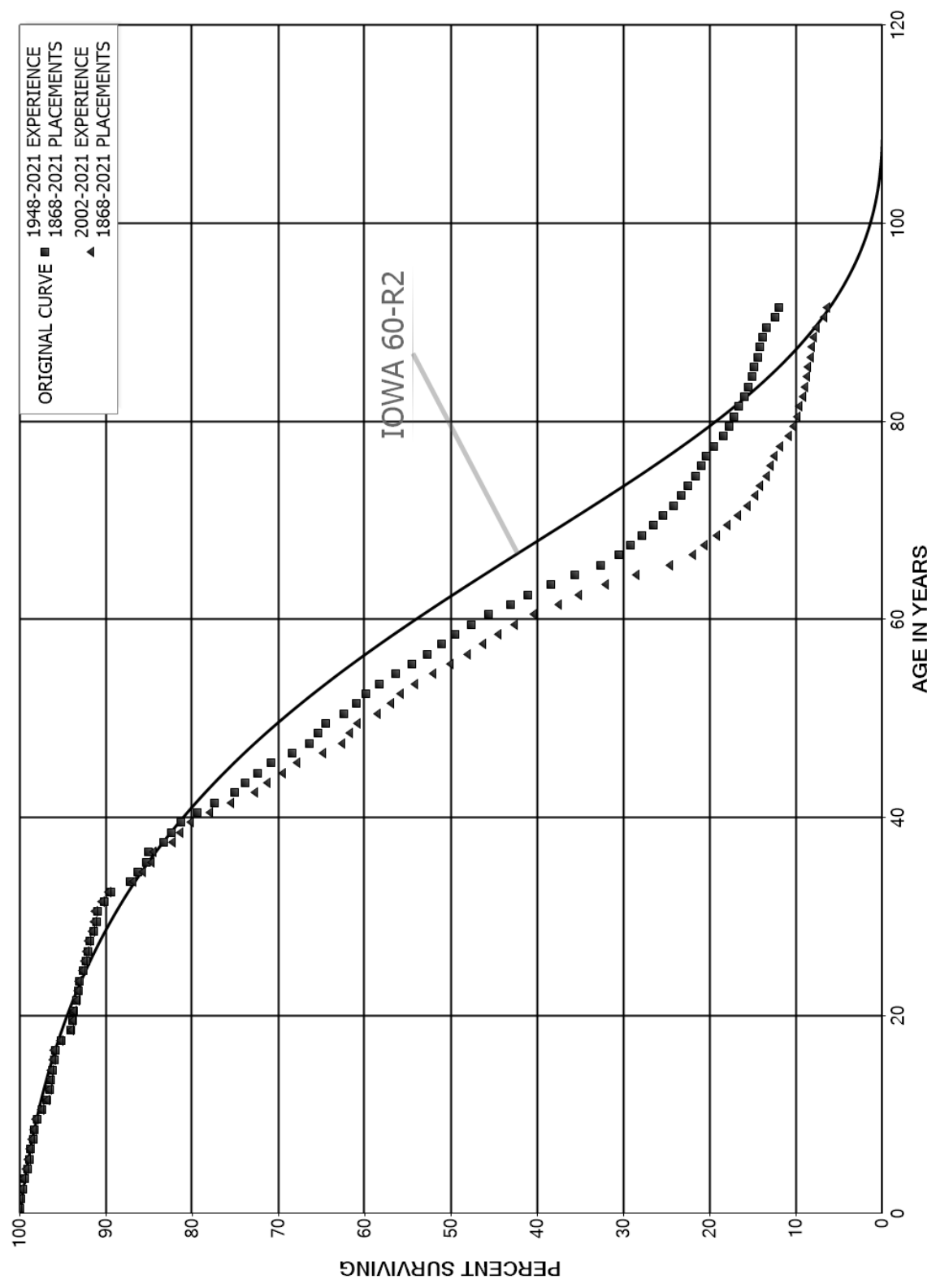
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 334.00 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2021			EXPERIENCE BAND 2002-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	3,804	957	0.2516	0.7484	0.00	
80.5	3,103	405	0.1306	0.8694	0.00	
81.5	2,761	788	0.2855	0.7145	0.00	
82.5	2,386	26	0.0109	0.9891	0.00	
83.5	2,693	240	0.0890	0.9110	0.00	
84.5	2,561	30	0.0118	0.9882	0.00	
85.5	2,899	222	0.0765	0.9235	0.00	
86.5	3,180	229	0.0720	0.9280	0.00	
87.5	3,168	86	0.0272	0.9728	0.00	
88.5	3,424		0.0000	1.0000	0.00	
89.5	3,424	156	0.0455	0.9545	0.00	
90.5	3,557	27	0.0075	0.9925	0.00	
91.5	4,339	96	0.0222	0.9778	0.00	
92.5	4,326	186	0.0429	0.9571	0.00	
93.5	4,260	253	0.0594	0.9406	0.00	
94.5	4,059		0.0000	1.0000	0.00	
95.5	4,124	103	0.0250	0.9750	0.00	
96.5	4,137	256	0.0619	0.9381	0.00	
97.5	3,884	462	0.1188	0.8812	0.00	
98.5	3,468	413	0.1192	0.8808	0.00	
99.5	3,088	333	0.1078	0.8922	0.00	
100.5	2,757	108	0.0393	0.9607	0.00	
101.5	4,562	368	0.0807	0.9193	0.00	
102.5	4,194	503	0.1198	0.8802	0.00	
103.5	3,692	217	0.0588	0.9412	0.00	
104.5	3,475	342	0.0986	0.9014	0.00	
105.5	3,132		0.0000	1.0000	0.00	
106.5	3,132	288	0.0921	0.9079	0.00	
107.5	2,844	455	0.1601	0.8399	0.00	
108.5	2,389	176	0.0737	0.9263	0.00	
109.5	2,212	119	0.0539	0.9461	0.00	
110.5	2,093	1,814	0.8667	0.1333	0.00	
111.5	279	65	0.2328	0.7672	0.00	
112.5	214	116	0.5419	0.4581	0.00	
113.5	98	4	0.0361	0.9639	0.00	
114.5	95	45	0.4746	0.5254	0.00	
115.5	50	33	0.6740	0.3260	0.00	
116.5	16	2	0.0957	0.9043	0.00	
117.5	15	15	1.0000		0.00	
118.5						

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 335.00 FIRE HYDRANTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1868-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	126,978,538	91,991	0.0007	0.9993	100.00
0.5	119,915,541	141,640	0.0012	0.9988	99.93
1.5	113,363,715	175,408	0.0015	0.9985	99.81
2.5	106,255,442	241,523	0.0023	0.9977	99.66
3.5	100,137,902	357,575	0.0036	0.9964	99.43
4.5	94,692,908	183,079	0.0019	0.9981	99.07
5.5	92,268,795	185,762	0.0020	0.9980	98.88
6.5	84,422,685	214,499	0.0025	0.9975	98.68
7.5	77,007,748	134,144	0.0017	0.9983	98.43
8.5	73,353,935	201,586	0.0027	0.9973	98.26
9.5	67,506,132	422,376	0.0063	0.9937	97.99
10.5	63,495,916	384,341	0.0061	0.9939	97.38
11.5	59,131,020	163,177	0.0028	0.9972	96.79
12.5	54,915,766	77,262	0.0014	0.9986	96.52
13.5	48,887,516	92,382	0.0019	0.9981	96.39
14.5	45,484,250	110,932	0.0024	0.9976	96.20
15.5	39,955,604	65,734	0.0016	0.9984	95.97
16.5	39,744,409	275,153	0.0069	0.9931	95.81
17.5	37,703,211	421,995	0.0112	0.9888	95.15
18.5	35,226,801	88,056	0.0025	0.9975	94.08
19.5	33,589,536	56,597	0.0017	0.9983	93.85
20.5	31,695,818	105,784	0.0033	0.9967	93.69
21.5	30,424,437	51,532	0.0017	0.9983	93.38
22.5	28,561,440	55,115	0.0019	0.9981	93.22
23.5	27,027,621	125,099	0.0046	0.9954	93.04
24.5	25,240,052	78,837	0.0031	0.9969	92.61
25.5	23,644,029	60,205	0.0025	0.9975	92.32
26.5	21,912,441	60,965	0.0028	0.9972	92.08
27.5	20,393,153	98,678	0.0048	0.9952	91.83
28.5	19,203,082	59,119	0.0031	0.9969	91.38
29.5	17,810,523	33,151	0.0019	0.9981	91.10
30.5	16,902,551	136,102	0.0081	0.9919	90.93
31.5	15,581,063	131,370	0.0084	0.9916	90.20
32.5	14,602,261	364,558	0.0250	0.9750	89.44
33.5	13,387,036	143,756	0.0107	0.9893	87.21
34.5	12,387,783	134,581	0.0109	0.9891	86.27
35.5	11,498,531	43,007	0.0037	0.9963	85.33
36.5	10,835,604	225,886	0.0208	0.9792	85.01
37.5	10,078,664	101,078	0.0100	0.9900	83.24
38.5	9,441,700	127,787	0.0135	0.9865	82.41

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,855,711	202,592	0.0229	0.9771	81.29
40.5	8,337,478	217,006	0.0260	0.9740	79.43
41.5	7,669,107	226,149	0.0295	0.9705	77.36
42.5	7,295,176	119,294	0.0164	0.9836	75.08
43.5	6,735,516	137,741	0.0204	0.9796	73.85
44.5	6,308,009	131,345	0.0208	0.9792	72.34
45.5	5,676,935	195,531	0.0344	0.9656	70.84
46.5	5,173,101	154,495	0.0299	0.9701	68.40
47.5	4,738,480	66,884	0.0141	0.9859	66.36
48.5	4,434,649	60,067	0.0135	0.9865	65.42
49.5	4,202,194	136,532	0.0325	0.9675	64.53
50.5	3,891,787	93,515	0.0240	0.9760	62.44
51.5	3,670,662	64,916	0.0177	0.9823	60.94
52.5	3,464,717	90,758	0.0262	0.9738	59.86
53.5	3,231,863	107,226	0.0332	0.9668	58.29
54.5	2,996,821	98,596	0.0329	0.9671	56.36
55.5	2,812,790	90,157	0.0321	0.9679	54.50
56.5	2,622,201	81,532	0.0311	0.9689	52.76
57.5	2,467,557	80,161	0.0325	0.9675	51.11
58.5	2,284,974	83,987	0.0368	0.9632	49.45
59.5	2,129,604	92,469	0.0434	0.9566	47.64
60.5	1,956,935	105,557	0.0539	0.9461	45.57
61.5	1,775,609	83,720	0.0471	0.9529	43.11
62.5	1,610,697	103,384	0.0642	0.9358	41.08
63.5	1,439,558	107,124	0.0744	0.9256	38.44
64.5	1,256,635	105,556	0.0840	0.9160	35.58
65.5	1,082,936	68,759	0.0635	0.9365	32.59
66.5	987,812	44,436	0.0450	0.9550	30.52
67.5	914,389	42,436	0.0464	0.9536	29.15
68.5	848,894	38,720	0.0456	0.9544	27.80
69.5	782,338	34,612	0.0442	0.9558	26.53
70.5	711,346	31,968	0.0449	0.9551	25.36
71.5	672,761	25,662	0.0381	0.9619	24.22
72.5	620,362	22,255	0.0359	0.9641	23.29
73.5	588,886	22,773	0.0387	0.9613	22.46
74.5	556,354	17,102	0.0307	0.9693	21.59
75.5	536,359	13,772	0.0257	0.9743	20.92
76.5	520,232	23,488	0.0451	0.9549	20.39
77.5	492,808	26,068	0.0529	0.9471	19.47
78.5	465,350	17,838	0.0383	0.9617	18.44

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2021			EXPERIENCE BAND 1948-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	453,502	15,155	0.0334	0.9666	17.73
80.5	432,236	11,896	0.0275	0.9725	17.14
81.5	411,350	16,202	0.0394	0.9606	16.67
82.5	386,466	11,962	0.0310	0.9690	16.01
83.5	364,393	9,412	0.0258	0.9742	15.51
84.5	340,813	6,375	0.0187	0.9813	15.11
85.5	329,688	10,528	0.0319	0.9681	14.83
86.5	310,532	5,027	0.0162	0.9838	14.36
87.5	298,654	7,275	0.0244	0.9756	14.12
88.5	293,385	8,978	0.0306	0.9694	13.78
89.5	279,291	19,042	0.0682	0.9318	13.36
90.5	250,061	11,037	0.0441	0.9559	12.45
91.5	239,352	8,764	0.0366	0.9634	11.90
92.5	221,697	4,855	0.0219	0.9781	11.46
93.5	213,108	5,623	0.0264	0.9736	11.21
94.5	198,244	8,253	0.0416	0.9584	10.92
95.5	185,098	5,907	0.0319	0.9681	10.46
96.5	167,875	4,297	0.0256	0.9744	10.13
97.5	164,588	7,572	0.0460	0.9540	9.87
98.5	152,283	4,890	0.0321	0.9679	9.41
99.5	142,377	5,561	0.0391	0.9609	9.11
100.5	136,978	3,497	0.0255	0.9745	8.76
101.5	131,294	9,139	0.0696	0.9304	8.53
102.5	120,263	5,737	0.0477	0.9523	7.94
103.5	114,692	3,871	0.0337	0.9663	7.56
104.5	109,368	8,232	0.0753	0.9247	7.31
105.5	100,548	3,695	0.0367	0.9633	6.76
106.5	95,334	7,642	0.0802	0.9198	6.51
107.5	87,603	6,044	0.0690	0.9310	5.99
108.5	81,222	4,961	0.0611	0.9389	5.57
109.5	74,282	8,464	0.1139	0.8861	5.23
110.5	66,822	4,197	0.0628	0.9372	4.64
111.5	65,066	3,075	0.0473	0.9527	4.34
112.5	66,845	5,581	0.0835	0.9165	4.14
113.5	61,856	7,543	0.1219	0.8781	3.79
114.5	51,993	5,991	0.1152	0.8848	3.33
115.5	46,246	1,931	0.0418	0.9582	2.95
116.5	44,431	2,766	0.0623	0.9377	2.82
117.5	40,666	1,212	0.0298	0.9702	2.65
118.5	50,809	791	0.0156	0.9844	2.57

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2021			EXPERIENCE BAND 1948-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	49,648	753	0.0152	0.9848	2.53	
120.5	49,213	594	0.0121	0.9879	2.49	
121.5	48,502	76	0.0016	0.9984	2.46	
122.5	47,962	125	0.0026	0.9974	2.46	
123.5	34,643	1,065	0.0308	0.9692	2.45	
124.5	33,327	348	0.0104	0.9896	2.38	
125.5	30,937	62	0.0020	0.9980	2.35	
126.5	26,617		0.0000	1.0000	2.35	
127.5	24,436		0.0000	1.0000	2.35	
128.5	21,567		0.0000	1.0000	2.35	
129.5	17,344	898	0.0518	0.9482	2.35	
130.5	13,525	174	0.0129	0.9871	2.22	
131.5	11,361		0.0000	1.0000	2.20	
132.5	10,003	236	0.0236	0.9764	2.20	
133.5	8,947		0.0000	1.0000	2.14	
134.5	8,947		0.0000	1.0000	2.14	
135.5	8,599		0.0000	1.0000	2.14	
136.5	8,599		0.0000	1.0000	2.14	
137.5	8,599		0.0000	1.0000	2.14	
138.5	7,841		0.0000	1.0000	2.14	
139.5	7,605	72	0.0095	0.9905	2.14	
140.5	7,533		0.0000	1.0000	2.12	
141.5	7,533	139	0.0185	0.9815	2.12	
142.5	7,393		0.0000	1.0000	2.08	
143.5					2.08	



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1868-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	96,523,814	74,627	0.0008	0.9992	100.00
0.5	90,127,494	72,283	0.0008	0.9992	99.92
1.5	84,939,943	106,103	0.0012	0.9988	99.84
2.5	79,464,995	175,555	0.0022	0.9978	99.72
3.5	76,405,915	288,843	0.0038	0.9962	99.50
4.5	72,132,064	136,564	0.0019	0.9981	99.12
5.5	70,765,797	145,848	0.0021	0.9979	98.93
6.5	64,499,515	154,425	0.0024	0.9976	98.73
7.5	58,368,086	91,861	0.0016	0.9984	98.49
8.5	55,641,210	136,570	0.0025	0.9975	98.34
9.5	50,744,194	372,036	0.0073	0.9927	98.10
10.5	47,758,277	325,333	0.0068	0.9932	97.38
11.5	44,363,089	118,526	0.0027	0.9973	96.71
12.5	41,165,205	25,331	0.0006	0.9994	96.46
13.5	36,365,793	40,531	0.0011	0.9989	96.40
14.5	33,801,128	74,392	0.0022	0.9978	96.29
15.5	28,954,074	21,824	0.0008	0.9992	96.08
16.5	29,404,616	238,052	0.0081	0.9919	96.00
17.5	27,922,133	384,748	0.0138	0.9862	95.23
18.5	26,034,058	58,829	0.0023	0.9977	93.92
19.5	24,977,683	17,585	0.0007	0.9993	93.70
20.5	23,460,612	80,396	0.0034	0.9966	93.64
21.5	22,757,574	29,853	0.0013	0.9987	93.32
22.5	21,371,619	37,337	0.0017	0.9983	93.19
23.5	20,470,738	93,134	0.0045	0.9955	93.03
24.5	19,071,262	46,985	0.0025	0.9975	92.61
25.5	17,735,451	39,891	0.0022	0.9978	92.38
26.5	16,459,140	36,145	0.0022	0.9978	92.17
27.5	15,298,357	71,870	0.0047	0.9953	91.97
28.5	14,345,291	34,980	0.0024	0.9976	91.54
29.5	13,329,229	12,409	0.0009	0.9991	91.31
30.5	12,654,882	111,093	0.0088	0.9912	91.23
31.5	11,555,783	110,035	0.0095	0.9905	90.43
32.5	10,863,162	344,855	0.0317	0.9683	89.57
33.5	9,877,369	125,856	0.0127	0.9873	86.72
34.5	9,070,232	110,725	0.0122	0.9878	85.62
35.5	8,359,086	15,191	0.0018	0.9982	84.57
36.5	7,912,173	207,150	0.0262	0.9738	84.42
37.5	7,331,170	79,754	0.0109	0.9891	82.21
38.5	6,867,462	105,757	0.0154	0.9846	81.32

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,427,057	175,909	0.0274	0.9726	80.06
40.5	6,050,945	193,139	0.0319	0.9681	77.87
41.5	5,553,537	205,833	0.0371	0.9629	75.39
42.5	5,333,226	102,772	0.0193	0.9807	72.59
43.5	4,913,361	123,462	0.0251	0.9749	71.19
44.5	4,632,693	114,388	0.0247	0.9753	69.40
45.5	4,165,068	181,034	0.0435	0.9565	67.69
46.5	3,794,066	133,972	0.0353	0.9647	64.75
47.5	3,443,405	48,653	0.0141	0.9859	62.46
48.5	3,237,220	45,805	0.0141	0.9859	61.58
49.5	3,073,786	117,148	0.0381	0.9619	60.71
50.5	2,849,624	78,063	0.0274	0.9726	58.39
51.5	2,673,016	50,620	0.0189	0.9811	56.80
52.5	2,532,301	74,600	0.0295	0.9705	55.72
53.5	2,349,808	92,859	0.0395	0.9605	54.08
54.5	2,155,381	83,340	0.0387	0.9613	51.94
55.5	1,990,271	76,705	0.0385	0.9615	49.93
56.5	1,824,901	68,621	0.0376	0.9624	48.01
57.5	1,689,119	66,669	0.0395	0.9605	46.20
58.5	1,525,636	65,105	0.0427	0.9573	44.38
59.5	1,398,288	73,613	0.0526	0.9474	42.49
60.5	1,274,103	89,613	0.0703	0.9297	40.25
61.5	1,120,010	71,147	0.0635	0.9365	37.42
62.5	979,487	86,650	0.0885	0.9115	35.04
63.5	836,629	93,384	0.1116	0.8884	31.94
64.5	688,237	93,932	0.1365	0.8635	28.38
65.5	538,137	57,703	0.1072	0.8928	24.50
66.5	469,030	29,934	0.0638	0.9362	21.88
67.5	418,732	27,830	0.0665	0.9335	20.48
68.5	371,683	24,289	0.0654	0.9346	19.12
69.5	325,621	23,465	0.0721	0.9279	17.87
70.5	279,873	18,802	0.0672	0.9328	16.58
71.5	271,866	14,057	0.0517	0.9483	15.47
72.5	251,390	9,524	0.0379	0.9621	14.67
73.5	254,195	14,274	0.0562	0.9438	14.11
74.5	248,633	9,276	0.0373	0.9627	13.32
75.5	255,874	7,859	0.0307	0.9693	12.82
76.5	262,916	15,297	0.0582	0.9418	12.43
77.5	252,694	21,779	0.0862	0.9138	11.71
78.5	235,363	11,775	0.0500	0.9500	10.70

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	232,923	9,286	0.0399	0.9601	10.16
80.5	224,058	6,394	0.0285	0.9715	9.76
81.5	214,752	9,817	0.0457	0.9543	9.48
82.5	202,633	5,135	0.0253	0.9747	9.04
83.5	191,041	5,421	0.0284	0.9716	8.82
84.5	177,968	2,255	0.0127	0.9873	8.57
85.5	168,583	5,859	0.0348	0.9652	8.46
86.5	163,466	2,188	0.0134	0.9866	8.16
87.5	157,788	4,943	0.0313	0.9687	8.05
88.5	157,618	5,871	0.0372	0.9628	7.80
89.5	150,721	16,974	0.1126	0.8874	7.51
90.5	126,080	7,260	0.0576	0.9424	6.66
91.5	123,614	6,909	0.0559	0.9441	6.28
92.5	110,284	2,746	0.0249	0.9751	5.93
93.5	108,301	3,198	0.0295	0.9705	5.78
94.5	99,000	6,467	0.0653	0.9347	5.61
95.5	90,498	4,165	0.0460	0.9540	5.25
96.5	78,656	3,206	0.0408	0.9592	5.00
97.5	73,603	5,459	0.0742	0.9258	4.80
98.5	70,774	2,427	0.0343	0.9657	4.44
99.5	67,200	4,868	0.0724	0.9276	4.29
100.5	62,909	2,975	0.0473	0.9527	3.98
101.5	65,653	7,893	0.1202	0.8798	3.79
102.5	62,880	3,910	0.0622	0.9378	3.34
103.5	63,290	3,046	0.0481	0.9519	3.13
104.5	61,112	8,207	0.1343	0.8657	2.98
105.5	54,689	3,647	0.0667	0.9333	2.58
106.5	55,780	7,612	0.1365	0.8635	2.41
107.5	52,482	5,934	0.1131	0.8869	2.08
108.5	50,465	4,797	0.0951	0.9049	1.84
109.5	49,200	8,291	0.1685	0.8315	1.67
110.5	46,121	4,024	0.0873	0.9127	1.39
111.5	46,752	2,846	0.0609	0.9391	1.27
112.5	49,866	5,420	0.1087	0.8913	1.19
113.5	45,040	7,261	0.1612	0.8388	1.06
114.5	36,540	5,899	0.1614	0.8386	0.89
115.5	31,843	1,840	0.0578	0.9422	0.75
116.5	30,416	2,766	0.0909	0.9091	0.70
117.5	26,651	1,212	0.0455	0.9545	0.64
118.5	36,793	791	0.0215	0.9785	0.61

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 335.00 FIRE HYDRANTS

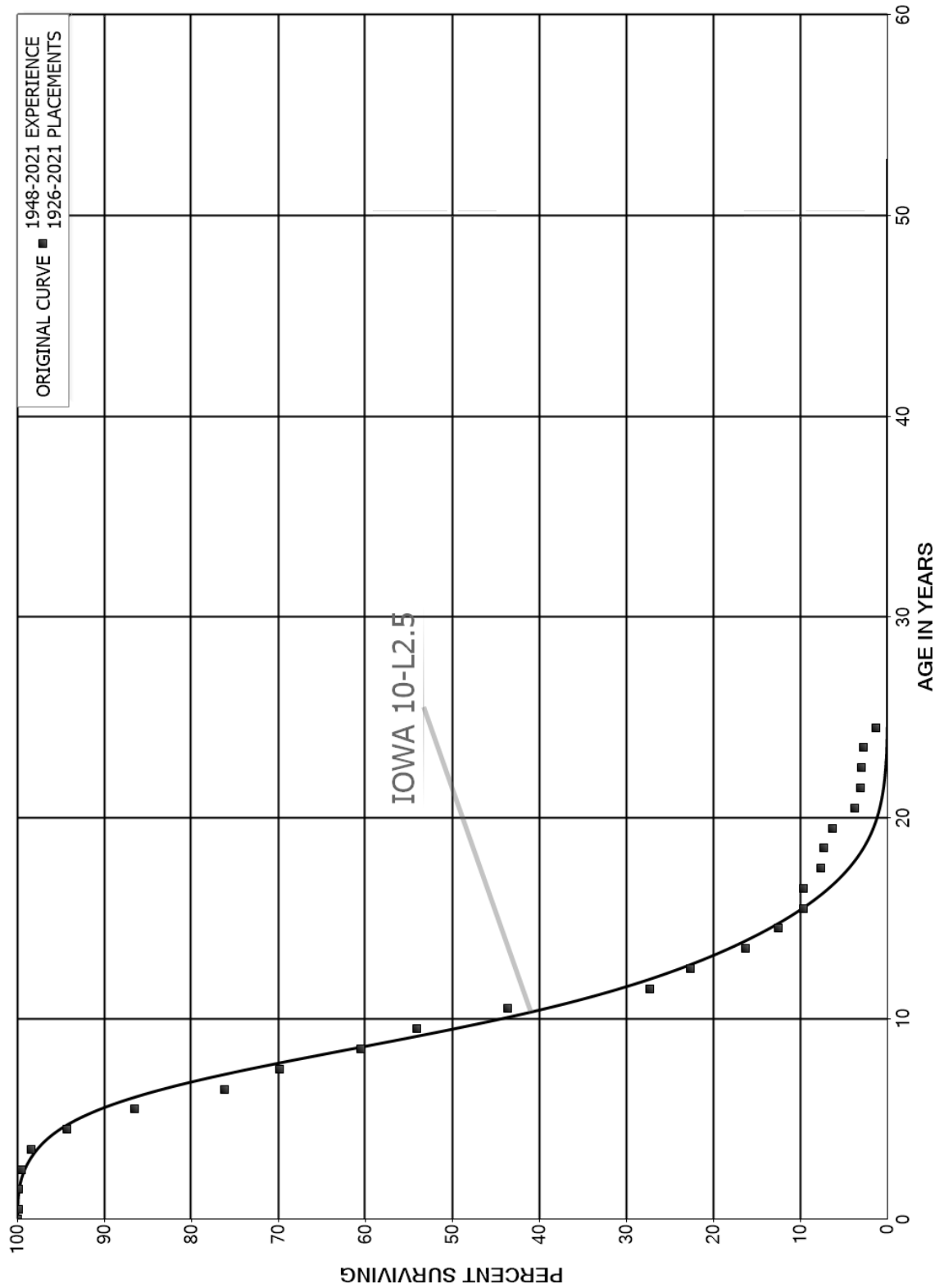
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2021

EXPERIENCE BAND 2002-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	36,453	753	0.0207	0.9793	0.60
120.5	36,776	594	0.0162	0.9838	0.58
121.5	37,518	76	0.0020	0.9980	0.57
122.5	37,848	125	0.0033	0.9967	0.57
123.5	25,348	1,065	0.0420	0.9580	0.57
124.5	24,033	348	0.0145	0.9855	0.55
125.5	21,643	62	0.0029	0.9971	0.54
126.5	17,844		0.0000	1.0000	0.54
127.5	15,838		0.0000	1.0000	0.54
128.5	13,726		0.0000	1.0000	0.54
129.5	9,739	898	0.0922	0.9078	0.54
130.5	5,920	174	0.0294	0.9706	0.49
131.5	3,756		0.0000	1.0000	0.47
132.5	2,398	236	0.0985	0.9015	0.47
133.5	8,947		0.0000	1.0000	0.43
134.5	8,947		0.0000	1.0000	0.43
135.5	8,599		0.0000	1.0000	0.43
136.5	8,599		0.0000	1.0000	0.43
137.5	8,599		0.0000	1.0000	0.43
138.5	7,841		0.0000	1.0000	0.43
139.5	7,605	72	0.0095	0.9905	0.43
140.5	7,533		0.0000	1.0000	0.42
141.5	7,533	139	0.0185	0.9815	0.42
142.5	7,393		0.0000	1.0000	0.42
143.5					0.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNTS 341.00 THROUGH 341.40 TRANSPORTATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 341.00 THROUGH 341.40 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1926-2021

EXPERIENCE BAND 1948-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	86,237,168	95,788	0.0011	0.9989	100.00
0.5	75,837,759	66,343	0.0009	0.9991	99.89
1.5	63,655,878	183,524	0.0029	0.9971	99.80
2.5	53,530,439	586,720	0.0110	0.9890	99.51
3.5	42,985,121	1,817,172	0.0423	0.9577	98.42
4.5	38,708,282	3,169,915	0.0819	0.9181	94.26
5.5	30,321,753	3,637,425	0.1200	0.8800	86.54
6.5	22,970,497	1,910,064	0.0832	0.9168	76.16
7.5	19,633,147	2,629,729	0.1339	0.8661	69.83
8.5	7,780,761	822,954	0.1058	0.8942	60.48
9.5	1,304,253	253,396	0.1943	0.8057	54.08
10.5	1,048,512	392,896	0.3747	0.6253	43.57
11.5	694,002	118,525	0.1708	0.8292	27.24
12.5	620,169	174,087	0.2807	0.7193	22.59
13.5	367,022	84,729	0.2309	0.7691	16.25
14.5	276,541	63,402	0.2293	0.7707	12.50
15.5	213,978	176	0.0008	0.9992	9.63
16.5	209,941	44,995	0.2143	0.7857	9.63
17.5	210,042	6,365	0.0303	0.9697	7.56
18.5	201,231	30,236	0.1503	0.8497	7.33
19.5	169,916	67,838	0.3992	0.6008	6.23
20.5	88,038	15,872	0.1803	0.8197	3.74
21.5	66,888	3,859	0.0577	0.9423	3.07
22.5	64,049	2,851	0.0445	0.9555	2.89
23.5	53,119	27,796	0.5233	0.4767	2.76
24.5	25,296	227	0.0090	0.9910	1.32
25.5	24,855	736	0.0296	0.9704	1.31
26.5	18,516	489	0.0264	0.9736	1.27
27.5	8,842	208	0.0235	0.9765	1.23
28.5	7,305	753	0.1031	0.8969	1.20
29.5	6,551	1,444	0.2204	0.7796	1.08
30.5	5,107	2,509	0.4912	0.5088	0.84
31.5	3,819	385	0.1007	0.8993	0.43
32.5	3,435	416	0.1210	0.8790	0.39
33.5	3,284	1,802	0.5488	0.4512	0.34
34.5	2,461		0.0000	1.0000	0.15
35.5	2,863	0	0.0001	0.9999	0.15
36.5	2,862	361	0.1261	0.8739	0.15
37.5	2,477	1,141	0.4608	0.5392	0.13
38.5	2,093		0.0000	1.0000	0.07

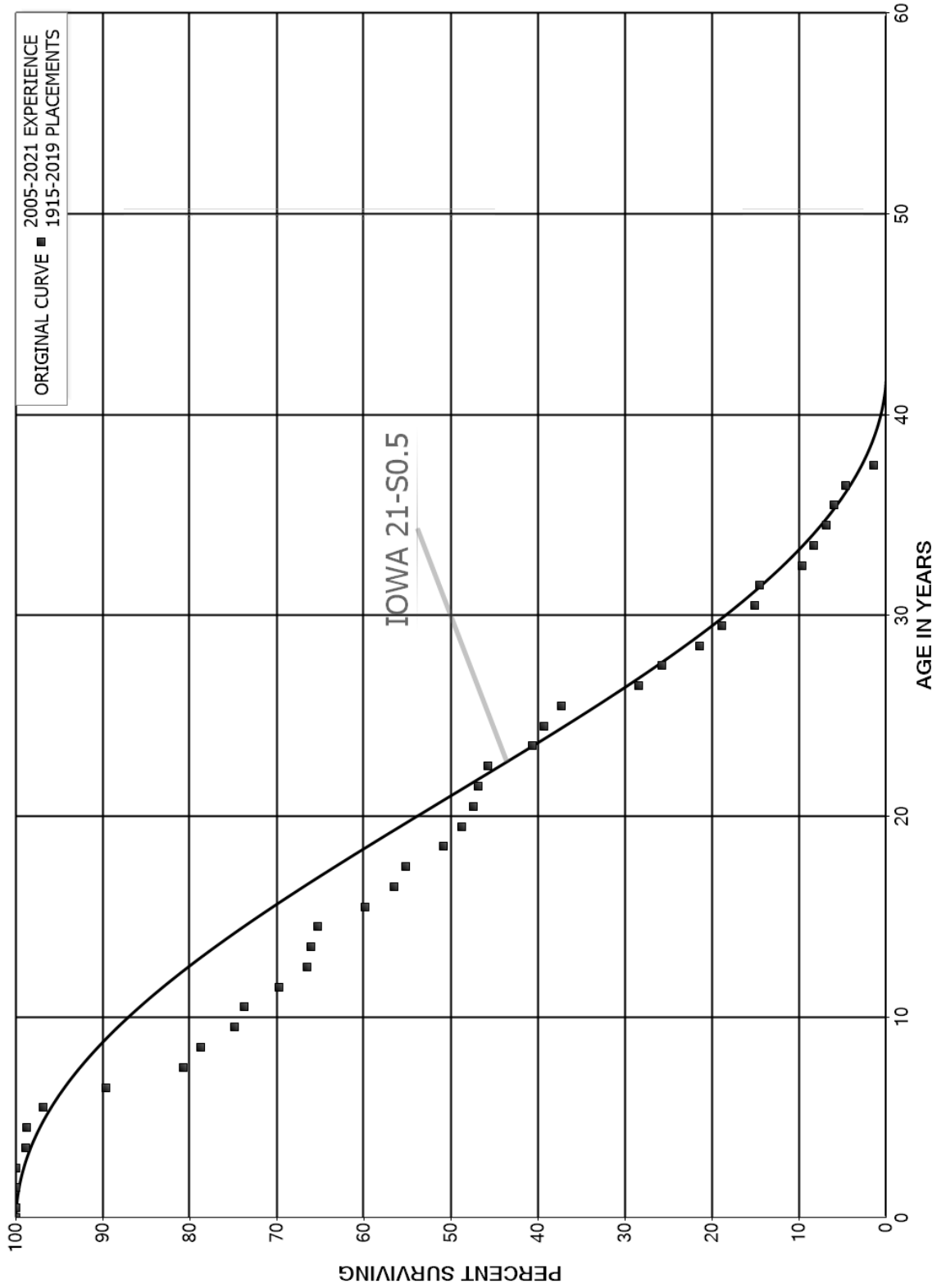
PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNTS 341.00 THROUGH 341.40 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1926-2021			EXPERIENCE BAND 1948-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	2,093		0.0000	1.0000	0.07	
40.5	2,093	910	0.4347	0.5653	0.07	
41.5	1,183	215	0.1814	0.8186	0.04	
42.5	969		0.0000	1.0000	0.03	
43.5	704		0.0000	1.0000	0.03	
44.5	300	70	0.2330	0.7670	0.03	
45.5	230	0	0.0021	0.9979	0.03	
46.5	316		0.0000	1.0000	0.03	
47.5	316	83	0.2628	0.7372	0.03	
48.5	233	147	0.6313	0.3687	0.02	
49.5	86		0.0000	1.0000	0.01	
50.5	461		0.0000	1.0000	0.01	
51.5	461	86	0.1863	0.8137	0.01	
52.5	375		0.0000	1.0000	0.01	
53.5	375		0.0000	1.0000	0.01	
54.5	375		0.0000	1.0000	0.01	
55.5	375		0.0000	1.0000	0.01	
56.5	375		0.0000	1.0000	0.01	
57.5	434		0.0000	1.0000	0.01	
58.5	434		0.0000	1.0000	0.01	
59.5	434	59	0.1354	0.8646	0.01	
60.5					0.00	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ACCOUNT 345.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 345.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2019

EXPERIENCE BAND 2005-2021

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	691,863		0.0000	1.0000	100.00
0.5	691,863		0.0000	1.0000	100.00
1.5	691,863		0.0000	1.0000	100.00
2.5	743,841	8,745	0.0118	0.9882	100.00
3.5	556,740	706	0.0013	0.9987	98.82
4.5	541,866	10,408	0.0192	0.9808	98.70
5.5	422,842	31,583	0.0747	0.9253	96.80
6.5	462,606	45,560	0.0985	0.9015	89.57
7.5	418,801	10,319	0.0246	0.9754	80.75
8.5	945,356	46,810	0.0495	0.9505	78.76
9.5	1,019,462	15,318	0.0150	0.9850	74.86
10.5	1,066,883	58,565	0.0549	0.9451	73.74
11.5	992,538	44,817	0.0452	0.9548	69.69
12.5	1,153,004	8,964	0.0078	0.9922	66.54
13.5	1,245,503	13,290	0.0107	0.9893	66.03
14.5	1,367,201	115,439	0.0844	0.9156	65.32
15.5	1,521,570	83,229	0.0547	0.9453	59.81
16.5	1,561,480	37,199	0.0238	0.9762	56.53
17.5	1,692,038	134,334	0.0794	0.9206	55.19
18.5	1,134,626	47,664	0.0420	0.9580	50.81
19.5	1,007,421	26,016	0.0258	0.9742	48.67
20.5	1,004,001	11,756	0.0117	0.9883	47.41
21.5	1,015,417	25,216	0.0248	0.9752	46.86
22.5	810,438	89,420	0.1103	0.8897	45.70
23.5	876,119	30,643	0.0350	0.9650	40.65
24.5	858,679	42,532	0.0495	0.9505	39.23
25.5	801,253	191,689	0.2392	0.7608	37.29
26.5	546,370	51,093	0.0935	0.9065	28.37
27.5	398,503	66,935	0.1680	0.8320	25.72
28.5	257,892	30,352	0.1177	0.8823	21.40
29.5	233,903	47,196	0.2018	0.7982	18.88
30.5	205,545	8,065	0.0392	0.9608	15.07
31.5	203,861	67,920	0.3332	0.6668	14.48
32.5	135,996	19,192	0.1411	0.8589	9.65
33.5	114,483	20,434	0.1785	0.8215	8.29
34.5	157,689	20,122	0.1276	0.8724	6.81
35.5	126,364	29,131	0.2305	0.7695	5.94
36.5	88,248	61,502	0.6969	0.3031	4.57
37.5	29,461	4,760	0.1616	0.8384	1.39
38.5	42,998	7,552	0.1756	0.8244	1.16

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 345.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2005-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	39,845	4,583	0.1150	0.8850	0.96	
40.5	37,470	16,093	0.4295	0.5705	0.85	
41.5	32,093	1,713	0.0534	0.9466	0.48	
42.5	36,218	2,208	0.0610	0.9390	0.46	
43.5	38,281	9,085	0.2373	0.7627	0.43	
44.5	32,170	5,020	0.1561	0.8439	0.33	
45.5	30,385	7,166	0.2359	0.7641	0.28	
46.5	23,460	1,937	0.0826	0.9174	0.21	
47.5	26,785	3,235	0.1208	0.8792	0.19	
48.5	23,836	1,403	0.0589	0.9411	0.17	
49.5	16,929	5,310	0.3137	0.6863	0.16	
50.5	15,523	286	0.0184	0.9816	0.11	
51.5	9,400	817	0.0869	0.9131	0.11	
52.5	7,765	3,904	0.5027	0.4973	0.10	
53.5	4,018	898	0.2235	0.7765	0.05	
54.5	1,189		0.0000	1.0000	0.04	
55.5	1,431	1,189	0.8311	0.1689	0.04	
56.5	260		0.0000	1.0000	0.01	
57.5	1,446	242	0.1670	0.8330	0.01	
58.5	1,827	18	0.0101	0.9899	0.01	
59.5	2,080	1,186	0.5704	0.4296	0.01	
60.5	6,005	623	0.1037	0.8963	0.00	
61.5	6,311	270	0.0429	0.9571	0.00	
62.5	6,408	5,083	0.7932	0.2068	0.00	
63.5	1,605	929	0.5785	0.4215	0.00	
64.5	967	367	0.3794	0.6206	0.00	
65.5	796	148	0.1859	0.8141	0.00	
66.5	1,224	291	0.2373	0.7627	0.00	
67.5	934	196	0.2094	0.7906	0.00	
68.5	778	709	0.9104	0.0896	0.00	
69.5	70		0.0000	1.0000	0.00	
70.5	177	13	0.0726	0.9274	0.00	
71.5	212	7	0.0346	0.9654	0.00	
72.5	409	137	0.3351	0.6649	0.00	
73.5	272	20	0.0729	0.9271	0.00	
74.5	371	205	0.5529	0.4471	0.00	
75.5	166		0.0000	1.0000	0.00	
76.5	1,089	118	0.1087	0.8913	0.00	
77.5	970		0.0000	1.0000	0.00	
78.5	970	970	1.0000		0.00	

PENNSYLVANIA-AMERICAN WATER COMPANY

ACCOUNT 345.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2005-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5	153		0.0000		
82.5	153		0.0000		
83.5	153	153	1.0000		
84.5					
85.5					
86.5					
87.5	186		0.0000		
88.5	186		0.0000		
89.5	753	186	0.2473		
90.5	833		0.0000		
91.5	833	567	0.6804		
92.5	266	266	1.0000		
93.5					
94.5					
95.5					
96.5	31		0.0000		
97.5	31		0.0000		
98.5	31	31	1.0000		
99.5					

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**PART VII. DETAILED DEPRECIATION  
CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1887	30,941	30,941				0.0
1889	285,487	285,487				0.0
1890	735	735				0.0
1891	22,814	22,814				0.0
1892	159,257	129,185	30,072		30,072	0.0
1893	92,598	74,253	18,345		48,417	0.0
1895	6,156	6,156			48,417	0.0
1896	4,135	4,135			48,417	0.0
1897	200,367	200,367			48,417	0.0
1899	3,772	3,772			48,417	0.0
1900	313,791	244,532	69,259		117,676	0.0
1901	281,318	188,512	92,806		210,482	0.0
1902	37,918	27,362	10,556		221,038	0.0
1903	3,250	2,968	282		221,320	0.0
1904	11,603	8,565	3,038		224,358	0.0
1905	7,379	7,084	295		224,653	0.0
1906	11,607	10,836	771		225,424	0.0
1907	173,829	142,729	31,100		256,524	0.0
1908	11,007	8,806	2,201		258,725	0.0
1909	4,801	4,661	140		258,865	0.0
1910	244,119	155,377	88,742		347,607	0.0
1911	22,674	20,707	1,967		349,574	0.0
1912	34,150	27,367	6,783		356,357	0.0
1913	1,275	1,275			356,357	0.0
1914	12,760	9,995	2,765		359,122	0.0
1915	233,201	158,356	74,845		433,967	0.0
1916	24,904	17,833	7,071		441,038	0.0
1917	138	138			441,038	0.0
1918	98,899	61,760	37,139		478,177	0.0
1919	76,760	60,315	16,445		494,622	0.0
1920	43,294	31,907	11,387		506,009	0.0
1921	56,879	55,073	1,806		507,815	0.0
1922	38,575	34,602	3,973		511,788	0.0
1923	459,177	275,798	183,379		695,167	0.0
1924	57,397	44,698	12,699		707,866	0.0
1925	2,169	1,435	734		708,600	0.0
1926	631	537	94		708,694	0.0
1927	6,677	5,021	1,656		710,350	0.0
1928	37,950	28,440	9,510		719,860	0.0
1929	86,017	53,085	32,932		752,792	0.0
1930	97,469	55,750	41,719		794,511	0.0
1931	19,607	17,291	2,316		796,827	0.0
1932	37,406	20,851	16,555		813,382	0.0
1933	4,911	2,769	2,142		815,524	0.0
1934	1,801	1,206	595		816,119	0.0

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1935	2,411	1,825		586	816,705	0.0
1936	145	91		54	816,759	0.0
1937	17,589	13,960		3,629	820,388	0.0
1938	11,110	9,138		1,972	822,360	0.0
1939	27,187	21,121		6,066	828,426	0.0
1940	69,768	55,257		14,511	842,937	0.0
1941	50,300	38,788		11,512	854,449	0.0
1942	40,369	31,264		9,105	863,554	0.0
1943	23,486	16,457		7,029	870,583	0.0
1944	24,239	13,882		10,357	880,940	0.0
1945	309,564	184,247		125,317	1,006,257	0.0
1946	444,184	228,866		215,318	1,221,575	0.0
1947	392,029	226,381		165,648	1,387,223	0.0
1948	549,416	328,722		220,694	1,607,917	0.0
1949	344,948	229,248		115,700	1,723,617	0.0
1950	410,238	256,218		154,020	1,877,637	0.0
1951	880,438	520,159		360,279	2,237,916	0.0
1952	785,922	463,715		322,207	2,560,123	0.0
1953	2,091,099	1,255,600		835,499	3,395,622	0.1
1954	1,949,805	997,710		952,095	4,347,717	0.1
1955	3,278,355	1,451,217		1,827,138	6,174,855	0.1
1956	2,115,079	1,011,407		1,103,672	7,278,527	0.1
1957	2,860,835	1,302,754		1,558,081	8,836,608	0.2
1958	3,770,451	1,812,091		1,958,360	10,794,968	0.2
1959	3,578,551	1,750,740		1,827,811	12,622,779	0.2
1960	3,993,415	1,851,362		2,142,053	14,764,832	0.3
1961	5,254,240	2,456,283		2,797,957	17,562,789	0.3
1962	2,513,049	1,253,667		1,259,382	18,822,171	0.4
1963	2,822,301	1,268,307		1,553,994	20,376,165	0.4
1964	7,020,714	2,898,950		4,121,764	24,497,929	0.5
1965	6,614,092	3,198,740		3,415,352	27,913,281	0.5
1966	6,016,277	2,469,703		3,546,574	31,459,855	0.6
1967	7,560,509	3,188,266		4,372,243	35,832,098	0.7
1968	7,093,071	2,827,594		4,265,477	40,097,575	0.8
1969	8,065,266	3,967,462		4,097,804	44,195,379	0.8
1970	5,247,688	2,129,163		3,118,525	47,313,904	0.9
1971	7,434,873	2,988,604		4,446,269	51,760,173	1.0
1972	14,312,900	7,199,310		7,113,590	58,873,763	1.1
1973	26,762,591	16,031,919		10,730,672	69,604,435	1.3
1974	7,325,495	2,888,423		4,437,072	74,041,507	1.4
1975	7,960,100	3,011,368		4,948,732	78,990,239	1.5
1976	16,508,257	7,811,683		8,696,574	87,686,813	1.7
1977	8,085,085	2,854,997		5,230,088	92,916,901	1.8
1978	12,879,932	4,431,736		8,448,196	101,365,097	1.9
1979	12,773,572	4,608,407		8,165,165	109,530,262	2.1

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST	PCT OF
			(2)	(3)	CUMULATIVE AMOUNT (5)	COL 4 TOTAL (6)
1980	15,818,453	5,165,927	10,652,526		120,182,788	2.3
1981	12,435,943	4,425,783	8,010,160		128,192,948	2.5
1982	14,857,929	7,001,787	7,856,142		136,049,090	2.6
1983	15,771,122	5,680,895	10,090,227		146,139,317	2.8
1984	19,961,689	6,399,674	13,562,015		159,701,332	3.1
1985	32,582,819	11,343,269	21,239,550		180,940,882	3.5
1986	36,769,935	12,512,948	24,256,987		205,197,869	3.9
1987	39,671,394	13,348,500	26,322,894		231,520,763	4.4
1988	60,831,946	23,050,230	37,781,716		269,302,479	5.2
1989	60,604,326	21,122,110	39,482,216		308,784,695	5.9
1990	98,019,405	44,511,739	53,507,666		362,292,361	7.0
1991	58,754,821	27,922,598	30,832,223		393,124,584	7.5
1992	65,265,005	26,425,754	38,839,251		431,963,835	8.3
1993	100,903,977	42,416,869	58,487,108		490,450,943	9.4
1994	59,079,476	16,365,403	42,714,073		533,165,016	10.2
1995	88,974,414	29,142,696	59,831,718		592,996,734	11.4
1996	65,365,813	17,928,676	47,437,137		640,433,871	12.3
1997	92,436,083	32,708,976	59,727,107		700,160,978	13.4
1998	155,223,853	43,661,653	111,562,200		811,723,178	15.6
1999	113,152,245	35,425,730	77,726,515		889,449,693	17.1
2000	88,248,272	21,885,669	66,362,603		955,812,296	18.3
2001	108,271,290	29,420,520	78,850,770		1,034,663,066	19.9
2002	107,994,515	25,103,273	82,891,242		1,117,554,308	21.4
2003	58,703,120	16,112,702	42,590,418		1,160,144,726	22.3
2004	79,848,730	15,682,209	64,166,521		1,224,311,247	23.5
2005	94,697,125	21,913,266	72,783,859		1,297,095,106	24.9
2006	61,132,725	18,383,793	42,748,932		1,339,844,038	25.7
2007	119,804,545	24,070,854	95,733,691		1,435,577,729	27.5
2008	155,238,429	27,410,518	127,827,911		1,563,405,640	30.0
2009	133,712,647	22,736,413	110,976,234		1,674,381,874	32.1
2010	150,661,674	26,516,633	124,145,041		1,798,526,915	34.5
2011	197,205,572	37,654,591	159,550,981		1,958,077,896	37.6
2012	309,090,115	66,294,321	242,795,794		2,200,873,690	42.2
2013	251,923,784	44,245,858	207,677,926		2,408,551,616	46.2
2014	225,499,812	35,413,505	190,086,307		2,598,637,923	49.9
2015	229,882,173	29,426,586	200,455,587		2,799,093,510	53.7
2016	275,762,999	40,144,768	235,618,231		3,034,711,741	58.2
2017	243,737,404	28,470,431	215,266,973		3,249,978,714	62.4
2018	390,968,341	52,495,365	338,472,976		3,588,451,690	68.9
2019	285,272,228	48,245,532	237,026,696		3,825,478,386	73.4
2020	308,213,819	28,756,159	279,457,660		4,104,936,046	78.8
2021	334,497,086	28,211,431	306,285,655		4,411,221,701	84.6
2022	394,311,525	20,154,608	374,156,917		4,785,378,618	91.8



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST	PCT OF
			(2)	(3)	CUMULATIVE AMOUNT (5)	COL 4 TOTAL (6)
2023	500,656,324	14,122,410	486,533,914	5,271,912,532	101.2	
2024	247,851,218	1,226,686	246,624,532	5,518,537,064	105.9	
9999	345,459,182-	38,453,522-	307,005,660-	5,211,531,404	100.0	
SUBTOTAL	6,417,839,486	1,206,308,085	5,211,531,402			
NONDEPRECIABLE	26,129,647		26,129,647			
TOTAL	6,443,969,133	1,206,308,085	5,237,661,049			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

ACCOUNT 303.14 WATER RIGHTS - HIBERNIA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	1,942,822.51	1,942,823	1,942,823			
	1,942,822.51	1,942,823	1,942,823			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 100-R3						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1991	70,430.00	46,716	60,870	9,560	16.75	571
1992	84,595.17	55,494	72,308	12,287	16.78	732
	155,025.17	102,210	133,178	21,847		1,303
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.8 0.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 303.99 COMPREHENSIVE PLANNING STUDIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	210,221.70	210,222	210,222			
2014	668,293.04	668,293	668,293			
2015	145,773.72	145,774	145,774			
2016	5,166,691.39	5,166,691	5,166,691			
2017	370,367.21	370,367	370,367			
2018	950,553.09	950,553	950,553			
2019	393,070.67	393,071	393,071			
2020	1,282,572.43	1,026,058	568,230	714,342	1.00	714,342
2021	891,896.17	535,138	296,359	595,537	2.00	297,768
2022	961,088.22	384,435	212,899	748,189	3.00	249,396
2023	270,955.62	54,191	30,011	240,945	4.00	60,236
2024	526,937.25	26,347	14,591	512,346	4.75	107,862
	11,838,420.51	9,931,140	9,027,061	2,811,360		1,429,604
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.0						12.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
1971	5,295.76	4,126	2,082	3,214	15.03	214
1972	11,972.26	9,276	4,680	7,292	15.11	483
1973	68.13	52	26	42	15.67	3
1974	7,902.51	6,006	3,030	4,873	15.79	309
1975	2,520.25	1,889	953	1,567	16.36	96
1977	1,758.72	1,289	650	1,109	17.10	65
1978	1,268.42	922	465	803	17.29	46
1979	61,270.92	44,115	22,257	39,014	17.50	2,229
1980	42,766.17	30,296	15,285	27,481	18.11	1,517
1981	168,925.47	118,400	59,737	109,188	18.35	5,950
1982	4,471.79	3,099	1,564	2,908	18.61	156
1983	20,471.43	14,017	7,072	13,399	18.88	710
1984	905.41	612	309	596	19.17	31
1985	64,477.55	43,000	21,695	42,783	19.48	2,196
1986	58,614.41	38,533	19,441	39,173	19.80	1,978
1987	176.21	113	57	119	20.47	6
1988	4,842.81	3,068	1,548	3,295	20.82	158
1989	126,606.85	79,319	40,019	86,588	20.87	4,149
1990	154,011.25	94,779	47,819	106,192	21.25	4,997
1991	477,795.20	288,541	145,578	332,217	21.64	15,352
1992	282,572.05	167,283	84,400	198,172	22.05	8,987
1993	131,576.44	76,275	38,483	93,093	22.48	4,141
1994	1,200,156.56	680,489	343,329	856,828	22.91	37,400
1995	195,677.28	108,953	54,970	140,707	23.08	6,096
1996	378,882.75	205,809	103,837	275,046	23.55	11,679
1997	27,317.05	14,530	7,331	19,986	23.76	841
1998	249,604.75	129,145	65,158	184,447	24.25	7,606
1999	137,849.87	69,614	35,123	102,727	24.50	4,193
2000	138,243.48	67,684	34,149	104,094	25.02	4,160
2001	9,366.14	4,459	2,250	7,116	25.31	281
2002	720,428.11	331,253	167,128	553,300	25.85	21,404
2003	1,887,605.30	840,362	423,990	1,463,615	26.17	55,927
2004	251,929.43	108,330	54,656	197,273	26.51	7,441
2005	979,012.97	405,507	204,592	774,421	26.87	28,821
2006	498,569.77	198,331	100,064	398,506	27.25	14,624
2007	1,544,270.54	588,058	296,695	1,247,576	27.64	45,137
2008	1,228,357.69	446,140	225,092	1,003,266	28.05	35,767
2009	232,399.56	80,178	40,452	191,948	28.48	6,740
2010	11,045,194.85	3,602,943	1,817,803	9,227,392	28.92	319,066
2011	344,914.89	105,820	53,390	291,525	29.37	9,926
2012	354,275.86	102,031	51,478	302,798	29.67	10,206

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
2013	2,972,390.07	794,520	400,861	2,571,529	30.15	85,291
2014	1,394,379.46	344,412	173,767	1,220,612	30.49	40,033
2015	944,830.82	212,587	107,257	837,574	31.00	27,019
2016	1,915,458.04	389,221	196,375	1,719,083	31.37	54,800
2017	2,038,199.08	368,099	185,718	1,852,481	31.76	58,327
2018	17,387,931.03	2,733,383	1,379,081	16,008,850	32.17	497,633
2019	3,393,373.20	451,319	227,705	3,165,668	32.59	97,136
2020	5,258,299.61	567,896	286,522	4,971,778	33.04	150,478
2021	5,280,515.11	435,642	219,796	5,060,719	33.36	151,700
2022	26,500,934.64	1,484,052	748,753	25,752,182	33.71	763,933
2023	11,350,323.92	324,619	163,781	11,186,543	33.97	329,307
2024	1,745,555.33	12,568	6,341	1,739,214	34.23	50,810
	103,236,517.17	17,232,964	8,694,594	94,541,923		2,987,555
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.6 2.89

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2045						
NET SALVAGE PERCENT.. 0						
1962	15,878.73	12,503	6,394	9,485	16.74	567
1970	6,710.06	5,073	2,594	4,116	17.43	236
1995	1,715,454.62	1,039,737	531,710	1,183,745	18.85	62,798
2001	6,191.06	3,389	1,733	4,458	19.02	234
	1,744,234.47	1,060,702	542,431	1,201,803		63,835
BECKS RUN STATION - NEW						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
2012	23,868,525.21	5,900,299	3,017,348	20,851,177	36.54	570,640
2015	17,442.33	3,406	1,742	15,701	37.08	423
	23,885,967.54	5,903,705	3,019,090	20,866,878		571,063
MILL STREET PUMP STATION AND REGULATOR BYPASS						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	1,277,952.17	777,762	397,739	880,213	21.87	40,248
1994	3,067.93	1,758	899	2,169	22.36	97
2001	15,048.48	7,580	3,876	11,172	22.66	493
2018	27,090.40	5,445	2,785	24,306	23.85	1,019
2021	3,362,441.11	373,231	190,866	3,171,575	24.03	131,984
	4,685,600.09	1,165,776	596,165	4,089,435		173,841



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GARDNER CREEK PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1993	1,121,355.16	723,050	369,760	751,595	17.08	44,004
1994	85,662.97	54,482	27,861	57,801	17.17	3,366
2001	13,088.07	7,435	3,802	9,286	17.49	531
2003	7,900.11	4,313	2,206	5,694	17.46	326
	1,228,006.31	789,280	403,629	824,377		48,227
NORRISTOWN BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1997	2,400,581.27	1,367,611	699,382	1,701,200	20.39	83,433
1998	52,044.11	29,228	14,947	37,097	20.30	1,827
2003	1,271.63	641	328	944	20.67	46
2007	10,970.93	4,924	2,518	8,453	20.88	405
2008	97,884.43	42,443	21,705	76,180	20.90	3,645
2012	1,059.31	383	196	863	21.22	41
2013	31,601.32	10,776	5,511	26,091	21.26	1,227
	2,595,413.00	1,456,006	744,586	1,850,827		90,624
MILL ROAD BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1997	2,093,461.42	1,192,645	609,905	1,483,556	20.39	72,759
1998	27,010.00	15,169	7,757	19,253	20.30	948
2015	97,145.43	28,852	14,755	82,391	21.30	3,868
	2,217,616.85	1,236,666	632,417	1,585,200		77,575

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHERRY VALLEY						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
1999	4,596,861.48	2,447,829	1,253,271	3,343,590	21.95	152,328
2014	95,401.19	29,002	14,849	80,552	22.89	3,519
2023	299,969.65	12,359	6,328	293,642	23.27	12,619
	4,992,232.32	2,489,190	1,274,448	3,717,784		168,466
CLARION WATER TREATMENT AND TANK						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
2003	2,349,120.19	1,075,427	549,961	1,799,159	24.87	72,343
2004	146,294.31	64,955	33,217	113,077	25.05	4,514
2006	10,710.36	4,453	2,277	8,433	25.29	333
2007	2,583.58	1,037	530	2,053	25.37	81
	2,508,708.44	1,145,872	585,986	1,922,722		77,271
NORRISTOWN - FOREST AVENUE BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2013	1,327,877.66	337,414	172,550	1,155,328	32.29	35,780
	1,327,877.66	337,414	172,550	1,155,328		35,780
SHIRE OAKS RELAY STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2013	2,585,737.11	657,036	336,001	2,249,736	32.29	69,673
2014	2,220,406.42	524,016	267,976	1,952,430	32.37	60,316
	4,806,143.53	1,181,052	603,977	4,202,167		129,989

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALDRICH STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2007	15,755.78	5,518	2,822	12,934	31.54	410
2013	4,835,261.20	1,228,640	628,313	4,206,948	32.29	130,286
2014	1,472,142.36	347,426	177,670	1,294,472	32.37	39,990
2017	3,006.40	528	270	2,736	32.84	83
	6,326,165.74	1,582,112	809,075	5,517,091		170,769
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2005	11,236.00	3,779	1,932	9,304	37.50	248
2019	130,266.72	14,329	7,328	122,939	40.45	3,039
	141,502.72	18,108	9,260	132,243		3,287
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1947	3,907.21	3,731	1,909	1,998	3.65	547
1948	34,857.57	33,115	16,942	17,915	4.00	4,479
1949	1,245.06	1,177	602	643	4.37	147
1950	315.23	296	151	164	4.74	35
1951	20,174.43	18,998	9,720	10,455	4.52	2,313
1952	8,416.76	7,878	4,031	4,386	4.92	891
1953	21,145.85	19,668	10,063	11,083	5.34	2,075
1954	114,463.18	105,764	54,112	60,352	5.76	10,478
1955	83,661.63	77,354	39,576	44,085	5.63	7,830
1956	21,440.78	19,683	10,070	11,370	6.07	1,873
1957	13,703.73	12,487	6,389	7,315	6.53	1,120
1958	11,844.36	10,788	5,519	6,325	6.46	979
1959	23,793.30	21,497	10,998	12,795	6.94	1,844
1960	17,757.18	16,024	8,198	9,559	6.92	1,381
1961	66,390.34	59,393	30,387	36,003	7.42	4,852
1962	660.46	586	300	361	7.93	46
1963	42,023.95	37,170	19,017	23,007	7.97	2,887
1964	336,572.54	294,838	150,847	185,726	8.49	21,876

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1965	25,220.31	22,022	11,267	13,953	8.57	1,628
1966	43,274.70	37,398	19,134	24,141	9.11	2,650
1967	87,469.99	74,787	38,263	49,207	9.67	5,089
1968	19,612.64	16,694	8,541	11,072	9.79	1,131
1969	105,244.90	88,564	45,312	59,933	10.36	5,785
1970	43,259.23	36,208	18,525	24,734	10.52	2,351
1971	119,319.46	98,653	50,473	68,846	11.10	6,202
1972	91,213.25	74,466	38,099	53,115	11.69	4,544
1973	55,144.16	44,716	22,878	32,266	11.89	2,714
1974	114,375.38	91,500	46,814	67,562	12.50	5,405
1975	97,636.17	77,025	39,408	58,228	13.11	4,441
1976	45,894.11	35,687	18,258	27,636	13.73	2,013
1977	26,438.23	20,379	10,426	16,012	13.98	1,145
1978	85,518.22	64,908	33,209	52,310	14.61	3,580
1979	69,957.24	52,258	26,737	43,221	15.24	2,836
1980	113,008.04	83,038	42,484	70,524	15.88	4,441
1981	240,668.38	174,894	89,480	151,188	16.17	9,350
1982	188,459.14	134,560	68,844	119,615	16.82	7,111
1983	156,671.33	109,842	56,198	100,473	17.48	5,748
1984	128,523.94	88,424	45,240	83,284	18.14	4,591
1985	930,763.41	627,986	321,294	609,470	18.80	32,419
1986	209,820.26	139,530	71,387	138,433	19.14	7,233
1987	1,094,432.07	712,694	364,632	729,800	19.82	36,821
1988	349,175.71	222,495	113,834	235,342	20.50	11,480
1989	788,728.20	491,378	251,401	537,327	21.18	25,370
1990	1,896,997.53	1,154,513	590,678	1,306,320	21.87	59,731
1991	291,173.61	172,957	88,489	202,684	22.56	8,984
1992	1,828,051.95	1,058,808	541,713	1,286,339	23.25	55,326
1993	1,448,580.49	817,289	418,146	1,030,435	23.95	43,024
1994	241,193.84	132,415	67,747	173,447	24.64	7,039
1995	633,758.34	338,173	173,018	460,740	25.35	18,175
1996	971,474.09	503,224	257,462	714,012	26.05	27,409
1997	718,681.06	360,922	184,657	534,024	26.76	19,956
1998	622,595.02	302,706	154,872	467,723	27.48	17,020
1999	659,379.04	309,908	158,557	500,822	28.19	17,766
2000	1,752,339.16	794,861	406,671	1,345,668	28.91	46,547
2001	790,823.89	345,590	176,813	614,011	29.63	20,723
2002	247,094.05	103,829	53,122	193,973	30.36	6,389
2003	4,274,783.39	1,723,593	881,834	3,392,950	31.08	109,168
2004	341,756.67	131,918	67,493	274,264	31.81	8,622

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
2005	303,251.04	111,778	57,188	246,063	32.55	7,560
2006	3,495,789.64	1,227,022	627,775	2,868,014	33.28	86,178
2007	3,996,701.58	1,331,701	681,332	3,315,370	34.02	97,454
2008	1,157,561.06	364,863	186,673	970,888	34.76	27,931
2009	18,875.52	5,606	2,868	16,007	35.51	451
2010	227,053.33	62,939	32,201	194,852	36.51	5,337
2011	560,599.69	145,027	74,199	486,400	37.25	13,058
2012	569,892.52	136,774	69,977	499,915	38.00	13,156
2013	1,555,485.09	343,918	175,957	1,379,528	38.75	35,601
2014	1,881,548.58	380,073	194,455	1,687,094	39.50	42,711
2015	849,391.18	155,184	79,396	769,995	40.26	19,126
2016	3,073,237.06	501,552	256,607	2,816,630	41.02	68,665
2017	596,140.23	85,129	43,554	552,586	42.02	13,151
2018	1,735,322.71	213,445	109,204	1,626,119	42.78	38,011
2019	142,222.18	14,649	7,495	134,727	43.54	3,094
2020	1,385,313.31	114,704	58,685	1,326,628	44.31	29,940
2021	4,178,079.38	261,966	134,028	4,044,051	44.85	90,168
2022	59,130.81	2,483	1,270	57,860	45.62	1,268
2023	3,486,153.50	74,255	37,991	3,448,163	45.95	75,042
2024	1,804,421.08	9,744	4,985	1,799,436	46.05	39,076
9999	1,289,607.60-	434,780-	222,444-	1,067,163-		34,358-
	52,557,446.05	17,719,291	9,065,637	43,491,809		1,400,230
	109,016,914.72	36,085,174	18,459,251	90,557,664		3,010,957
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.1 2.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH PURIFICATION BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1961	9,809.75	8,343	8,444	1,366	11.07	123
1962	341.82	290	293	48	10.99	4
1964	272.24	229	232	40	11.43	3
1967	17,574.31	14,625	14,801	2,773	11.49	241
1969	71,713.90	59,164	59,877	11,837	11.67	1,014
1970	7.42	6	6	1	11.79	
1972	2,227.31	1,807	1,829	399	12.10	33
1975	142.12	114	115	27	12.35	2
1976	1,107.34	877	888	220	12.61	17
1979	7,739.19	6,025	6,098	1,642	12.80	128
1980	0.40		0			
1981	4,699.03	3,597	3,640	1,059	13.18	80
1982	168.83	128	130	39	13.25	3
1983	31,491.15	23,757	24,043	7,448	13.35	558
1986	2,252.88	1,661	1,681	572	13.55	42
1987	35,595.63	25,946	26,259	9,337	13.76	679
1989	3,320.72	2,383	2,412	909	13.78	66
1995	4,396.22	2,932	2,967	1,429	14.48	99
1996	570,688.75	375,513	380,038	190,651	14.55	13,103
1997	1,131.14	736	745	386	14.49	27
1998	33,571.77	21,473	21,732	11,840	14.65	808
2000	64,409.30	39,882	40,363	24,047	14.76	1,629
2001	7,230.48	4,390	4,443	2,788	14.88	187
2002	359,666.75	213,642	216,216	143,450	15.04	9,538
2003	106,042.88	61,685	62,428	43,615	15.10	2,888
2005	39,243.19	21,772	22,034	17,209	15.25	1,128
2006	566,266.66	305,784	309,469	256,798	15.33	16,751
2007	35,748.83	18,779	19,005	16,744	15.36	1,090
2008	6,907.87	3,515	3,557	3,351	15.45	217
2009	58,335.33	28,613	28,958	29,378	15.58	1,886
2010	2,115.62	998	1,010	1,106	15.67	71
2011	86,149.68	38,974	39,444	46,706	15.74	2,967
2012	5,605,255.56	2,421,470	2,450,649	3,154,607	15.78	199,912
2013	125,620.26	51,404	52,023	73,597	15.88	4,635
2014	87,562.40	33,712	34,118	53,444	15.97	3,347

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH PURIFICATION BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
2017	1,300,442.34	393,254	397,993	902,450	16.15	55,879
2018	51,222.80	13,830	13,997	37,226	16.22	2,295
2023	899,737.78	51,105	51,721	848,017	16.61	51,055
	10,200,209.65	4,252,415	4,303,657	5,896,553		372,505

HAYS MINE FILTER BUILDING  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1928	321.93	309	313	9	4.00	2
1938	931.66	865	876	56	6.59	8
1953	15,796.62	13,683	13,853	1,944	10.97	177
1954	58,728.00	50,976	51,608	7,120	10.65	669
1955	10,938.73	9,435	9,552	1,387	11.00	126
1958	1,772.53	1,497	1,516	257	12.12	21
1961	6,297.05	5,237	5,302	995	12.76	78
1962	289.11	240	243	46	12.63	4
1963	512.21	422	427	85	13.07	7
1965	305.51	249	252	53	13.46	4
1966	417.37	336	340	77	13.94	6
1969	901.54	714	723	179	14.44	12
1973	484.26	373	378	107	15.23	7
1975	26,467.73	20,102	20,351	6,117	15.52	394
1976	328.63	248	251	78	15.69	5
1977	1,287.38	962	974	313	15.89	20
1979	6,394.46	4,690	4,748	1,646	16.35	101
1980	1,134.27	823	833	301	16.61	18
1981	242.07	174	176	66	16.88	4
1982	175.32	124	126	50	17.17	3
1984	3,501.73	2,437	2,467	1,035	17.47	59
1985	120,919.27	83,471	84,505	36,414	17.50	2,081
1986	76,916.75	52,319	52,967	23,950	17.87	1,340
1987	816.99	550	557	260	17.95	14
1988	3,021.20	2,012	2,037	984	18.05	55
1989	110,411.01	72,650	73,550	36,861	18.19	2,026
1991	165,693.03	106,077	107,391	58,302	18.55	3,143
1995	364.53	219	222	143	19.31	7

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE FILTER BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1996	13,740.76	8,080	8,180	5,561	19.62	283
1997	40,481.83	23,390	23,680	16,802	19.73	852
2002	76,160.05	39,375	39,863	36,297	20.55	1,766
2003	35,741.53	18,014	18,237	17,504	20.67	847
2005	374,896.12	177,363	179,560	195,336	21.16	9,231
2006	387,084.88	177,672	179,873	207,212	21.22	9,765
2007	93,919.82	41,513	42,027	51,893	21.46	2,418
2008	104,453.85	44,456	45,007	59,447	21.59	2,753
2009	70,770.81	28,874	29,232	41,539	21.76	1,909
2010	5,944.57	2,314	2,343	3,602	21.97	164
2011	50,212.79	18,604	18,834	31,378	22.09	1,420
2012	12,817,408.31	4,475,839	4,531,291	8,286,117	22.36	370,578
2013	130,719.11	42,994	43,527	87,192	22.44	3,886
2014	1,576,788.77	482,497	488,475	1,088,314	22.68	47,986
2016	154,207.24	39,724	40,216	113,991	23.06	4,943
2017	998,711.74	231,402	234,269	764,443	23.21	32,936
2018	2,208.11	450	456	1,753	23.41	75
2019	96,326.39	16,857	17,066	79,261	23.57	3,363
2023	2,116,911.01	83,618	84,654	2,032,257	24.32	83,563
	19,762,058.58	6,384,230	6,463,326	13,298,733		589,129

NEW HERSHEY TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2067  
NET SALVAGE PERCENT.. 0

1930	44.14	42	42	2	4.04	
1984	41,078.07	27,112	27,362	13,716	20.61	666
1992	5,084,272.63	2,944,811	2,971,933	2,112,339	23.25	90,853
1995	8,866.38	4,834	4,879	3,988	24.19	165
1996	2,162.87	1,157	1,168	995	24.36	41
1999	4,710.26	2,332	2,353	2,357	25.51	92
2001	236,919.02	111,162	112,186	124,733	26.02	4,794
2006	49,418.53	19,392	19,571	29,848	27.87	1,071
2010	7,202.92	2,329	2,350	4,852	29.29	166
2011	65,485.64	19,921	20,104	45,381	29.74	1,526
2012	3,766,871.07	1,075,818	1,085,726	2,681,145	30.02	89,312
2013	166,659.20	44,181	44,588	122,071	30.49	4,004



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW HERSHEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2067						
NET SALVAGE PERCENT.. 0						
2014	237,415.86	58,167	58,703	178,713	30.82	5,799
2015	34,086.88	7,608	7,678	26,409	31.32	843
2016	152,442.65	30,732	31,015	121,428	31.68	3,833
2017	164,504.71	29,479	29,751	134,754	32.06	4,203
2018	24,911.72	3,871	3,907	21,005	32.61	644
2021	2,285,405.95	185,804	187,515	2,097,891	33.90	61,885
2022	278,329.97	15,308	15,449	262,881	34.36	7,651
	12,610,788.47	4,584,060	4,626,280	7,984,508		277,548

CHINCHILLA WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1893	690.28	690	690			
1910	955.96	956	956			
1921	7,550.49	7,388	7,456	94	2.26	42
1953	44.66	39	39	5	10.97	
1990	3,174,965.67	2,061,823	2,080,849	1,094,117	18.36	59,592
1995	10,224.61	6,138	6,195	4,030	19.31	209
2006	66,480.93	30,515	30,797	35,684	21.22	1,682
2007	1,592.33	704	710	882	21.46	41
2009	1,945.08	794	801	1,144	21.76	53
2013	13,302.91	4,375	4,415	8,888	22.44	396
2017	44.24	10	10	34	23.21	1
2018	2,722.48	555	560	2,162	23.41	92
2023	2,377.48	94	95	2,283	24.32	94
	3,282,897.12	2,114,081	2,133,574	1,149,323		62,202

FALLBROOK WTP  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	2,232,245.42	1,449,620	1,462,972	769,274	18.36	41,899
1991	14,802.97	9,477	9,564	5,239	18.55	282
1992	3,782.38	2,384	2,406	1,376	18.76	73

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FALLBROOK WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1994	5,692.25	3,467	3,499	2,193	19.26	114
1997	5,455.32	3,152	3,181	2,274	19.73	115
1998	18,465.92	10,466	10,562	7,904	19.87	398
1999	2,277.11	1,264	1,276	1,001	20.05	50
2003	17,373.38	8,756	8,837	8,537	20.67	413
2006	53,490.76	24,552	24,778	28,713	21.22	1,353
2007	70,346.66	31,093	31,379	38,967	21.46	1,816
2008	47,309.49	20,135	20,320	26,989	21.59	1,250
2009	28,023.69	11,434	11,539	16,484	21.76	758
2010	4,824.82	1,878	1,895	2,930	21.97	133
2012	30,878.01	10,783	10,882	19,996	22.36	894
2014	46,182.39	14,132	14,262	31,920	22.68	1,407
2015	54,662.81	15,448	15,590	39,073	22.85	1,710
2016	58,953.74	15,186	15,326	43,628	23.06	1,892
2018	11,872.00	2,422	2,444	9,428	23.41	403
	2,706,639.12	1,635,649	1,650,714	1,055,925		54,960

SCRANTON AREA WTP  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	8,468,598.33	5,499,508	5,559,386	2,909,213	18.36	158,454
1991	147,129.90	94,193	95,219	51,911	18.55	2,798
1992	456.64	288	291	166	18.76	9
1993	58.83	36	36	22	19.00	1
1994	6,067.68	3,695	3,735	2,332	19.26	121
1995	9,911.69	5,950	6,015	3,897	19.31	202
1996	221,350.91	130,154	131,571	89,780	19.62	4,576
1997	6,113.66	3,532	3,570	2,543	19.73	129
1999	24,939.65	13,842	13,993	10,947	20.05	546
2001	539.61	285	288	252	20.48	12
2002	57,542.98	29,750	30,074	27,469	20.55	1,337
2003	52,107.61	26,262	26,548	25,560	20.67	1,237
2004	3,821.64	1,865	1,885	1,936	20.98	92
2005	271,712.93	128,547	129,947	141,766	21.16	6,700
2006	6,798.09	3,120	3,154	3,644	21.22	172
2007	40,179.95	17,760	17,953	22,227	21.46	1,036

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SCRANTON AREA WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2008	21,647.39	9,213	9,313	12,334	21.59	571
2009	1,599.31	653	660	939	21.76	43
2010	8,936.56	3,478	3,516	5,421	21.97	247
2011	108,567.89	40,224	40,662	67,906	22.09	3,074
2012	124,345.67	43,422	43,895	80,451	22.36	3,598
2013	21,229.16	6,982	7,058	14,171	22.44	632
2014	5,291.32	1,619	1,637	3,655	22.68	161
2017	3,568,740.04	826,877	835,880	2,732,860	23.21	117,745
2018	1,028,041.66	209,720	212,003	816,038	23.41	34,859
2019	17,479.33	3,059	3,092	14,387	23.57	610
2020	31,559.87	4,545	4,594	26,965	23.78	1,134
2022	11,153.91	854	863	10,291	24.11	427
2023	1,252,772.46	49,485	50,024	1,202,749	24.32	49,455
	15,518,694.67	7,158,918	7,236,863	8,281,832		389,978

BROWNELL WTP  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	4,333,381.56	2,814,098	2,840,016	1,493,365	18.36	81,338
1991	88,970.52	56,959	57,484	31,487	18.55	1,697
1992	72.69	46	46	26	18.76	1
1998	3,431.58	1,945	1,963	1,469	19.87	74
1999	152.98	85	86	67	20.05	3
2003	7,790.06	3,926	3,962	3,828	20.67	185
2005	30,165.72	14,271	14,402	15,763	21.16	745
2007	12,234.92	5,408	5,458	6,777	21.46	316
2008	56,670.86	24,119	24,341	32,330	21.59	1,497
2009	66,342.17	27,068	27,317	39,025	21.76	1,793
2010	10,428.23	4,059	4,096	6,332	21.97	288
2011	5,098.68	1,889	1,906	3,192	22.09	144
2012	56,670.09	19,789	19,971	36,699	22.36	1,641
2013	1,247.32	410	414	834	22.44	37
2014	42,913.80	13,132	13,253	29,661	22.68	1,308
2015	10,206.09	2,884	2,911	7,296	22.85	319
2016	8,246.29	2,124	2,144	6,103	23.06	265

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWNELL WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2017	7,772.90	1,801	1,818	5,955	23.21	257
2018	7,323.77	1,494	1,508	5,816	23.41	248
2019	648.49	113	114	534	23.57	23
	4,749,768.72	2,995,620	3,023,210	1,726,559		92,179
NESBITT WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2048						
NET SALVAGE PERCENT.. 0						
1988	6,091,845.49	4,122,961	4,160,934	1,930,912	17.19	112,328
1989	236,127.92	157,852	159,306	76,822	17.36	4,425
1991	9,200.90	5,982	6,037	3,164	17.76	178
1992	3,913.79	2,505	2,528	1,386	18.00	77
1994	2,637.07	1,638	1,653	984	18.31	54
1998	19,882.52	11,528	11,634	8,248	18.84	438
1999	5,954.90	3,379	3,410	2,545	19.05	134
2001	3,606.32	1,958	1,976	1,630	19.37	84
2002	777.36	412	416	362	19.49	19
2003	16,530.05	8,539	8,618	7,912	19.65	403
2006	33,459.15	15,840	15,986	17,473	20.02	873
2007	18,344.81	8,358	8,435	9,910	20.31	488
2008	64,101.93	28,205	28,465	35,637	20.36	1,750
2009	26,211.66	11,048	11,150	15,062	20.59	732
2010	1,810.10	730	737	1,073	20.72	52
2012	509,430.90	185,229	186,935	322,496	21.00	15,357
2014	96,480.80	30,777	31,060	65,420	21.35	3,064
2015	14,209.06	4,195	4,234	9,975	21.49	464
2016	100,151.34	27,081	27,330	72,821	21.59	3,373
2022	18,429.84	1,500	1,514	16,916	22.57	749
	7,273,105.91	4,629,717	4,672,357	2,600,749		145,042

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2052 NET SALVAGE PERCENT.. 0						
1992	5,023,109.47	3,118,346	3,147,066	1,876,043	19.55	95,961
1993	73,596.13	44,945	45,359	28,237	19.76	1,429
1995	197.94	117	118	80	20.26	4
1999	13,626.50	7,426	7,494	6,132	20.87	294
2004	11,303.55	5,380	5,430	5,874	22.02	267
2006	99,797.96	44,550	44,960	54,838	22.32	2,457
2007	13,173.73	5,666	5,718	7,456	22.53	331
2008	28,589.12	11,802	11,911	16,678	22.76	733
2009	19,356.65	7,665	7,736	11,621	22.88	508
2010	2,858.04	1,076	1,086	1,772	23.17	76
2011	22,252.17	7,955	8,028	14,224	23.36	609
2014	3,545.66	1,046	1,056	2,490	23.90	104
2015	2,868.40	780	787	2,081	24.11	86
2016	10,676.66	2,639	2,663	8,013	24.36	329
2018	14,229.77	2,775	2,801	11,429	24.77	461
2020	3,879.66	531	536	3,344	25.24	132
	5,343,061.41	3,262,699	3,292,749	2,050,312		103,781

CEASETOWN WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2053  
NET SALVAGE PERCENT.. 0

1993	8,491,079.67	5,132,858	5,180,132	3,310,948	20.28	163,262
1994	18,958.58	11,318	11,422	7,536	20.25	372
1995	16,043.96	9,399	9,486	6,558	20.50	320
1997	45,655.10	25,640	25,876	19,779	21.08	938
1998	3,202.38	1,765	1,781	1,421	21.17	67
2001	5,100.00	2,616	2,640	2,460	21.84	113
2002	3,150.51	1,573	1,587	1,563	22.05	71
2004	17,119.10	8,080	8,154	8,965	22.37	401
2005	299,398.81	136,526	137,783	161,615	22.67	7,129
2006	93,193.36	41,098	41,477	51,717	22.82	2,266
2007	11,733.64	4,987	5,033	6,701	23.00	291
2008	28,894.84	11,789	11,898	16,997	23.22	732
2009	10,169.23	3,966	4,003	6,167	23.46	263
2010	16,080.19	5,966	6,021	10,059	23.74	424
2011	77,289.61	27,229	27,480	49,810	23.90	2,084

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CEASETOWN WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
2012	123,725.49	41,126	41,505	82,221	24.10	3,412
2013	2,077.72	647	653	1,425	24.34	59
2014	40,488.30	11,701	11,809	28,680	24.60	1,166
2020	10,209.09	1,364	1,377	8,833	25.94	341
	9,313,569.58	5,479,648	5,530,116	3,783,454		183,711
WATRES WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
1993	9,042,484.16	5,466,182	5,516,526	3,525,958	20.28	173,864
1994	557,586.68	332,879	335,945	221,642	20.25	10,945
1995	50,819.95	29,770	30,044	20,776	20.50	1,013
1998	1,099.27	606	612	488	21.17	23
2002	1,956.80	977	986	971	22.05	44
2003	5,173.10	2,509	2,532	2,641	22.29	118
2005	2,174.91	992	1,001	1,174	22.67	52
2006	52,855.60	23,309	23,524	29,332	22.82	1,285
2007	1,179.60	501	506	674	23.00	29
2008	34,000.57	13,872	14,000	20,001	23.22	861
2009	5,827.62	2,273	2,294	3,534	23.46	151
2010	15,084.17	5,596	5,648	9,437	23.74	398
2011	95,761.95	33,737	34,048	61,714	23.90	2,582
2013	64,674.64	20,133	20,318	44,356	24.34	1,822
2014	165,655.45	47,874	48,315	117,341	24.60	4,770
2015	9,260.45	2,467	2,490	6,771	24.78	273
2016	8,689.72	2,106	2,125	6,564	25.00	263
2018	716,495.48	136,707	137,966	578,529	25.45	22,732
2019	11,862.12	1,934	1,952	9,910	25.67	386
2020	3,420.65	457	461	2,959	25.94	114
2021	4,578.80	471	475	4,103	26.15	157
	10,850,641.69	6,125,352	6,181,767	4,668,875		221,882

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
1992	4,476.99	2,693	2,719	1,758	21.19	83
1994	3,778.23	2,199	2,221	1,558	21.55	72
1997	5,404,226.75	2,947,465	2,976,348	2,427,879	22.50	107,906
1998	7,937.78	4,251	4,293	3,645	22.54	162
2000	74,588.87	37,951	38,323	36,266	23.17	1,565
2001	2,023,509.89	1,005,280	1,015,131	1,008,379	23.30	43,278
2002	58,091.88	27,989	28,263	29,829	23.66	1,261
2003	86,104.25	40,323	40,718	45,386	23.84	1,904
2004	98,144.99	44,558	44,995	53,150	24.05	2,210
2005	140.00	61	62	78	24.48	3
2006	1,204,036.32	507,140	512,110	691,927	24.74	27,968
2007	45,348.29	18,425	18,606	26,743	24.84	1,077
2009	102,333.83	37,915	38,287	64,047	25.49	2,513
2010	13,901.29	4,904	4,952	8,949	25.68	348
2011	28,104.08	9,390	9,482	18,622	25.91	719
2012	365,613.30	114,949	116,075	249,538	26.17	9,535
2013	21,001.51	6,168	6,228	14,773	26.45	559
2014	69.14	19	19	50	26.76	2
2015	67,794.34	16,962	17,128	50,666	26.97	1,879
2016	1,019,886.77	230,902	233,165	786,722	27.34	28,775
2017	61,609.01	12,464	12,586	49,023	27.60	1,776
2018	83,707.68	14,816	14,961	68,746	27.90	2,464
2019	1,119.07	168	170	949	28.22	34
2020	97,321.03	11,990	12,107	85,214	28.47	2,993
2021	3,789,738.42	358,130	361,639	3,428,099	28.75	119,238
2022	181,172.93	11,668	11,782	169,391	29.06	5,829
2023	400,000.00	13,160	13,289	386,711	29.40	13,153
	15,243,756.64	5,481,940	5,535,659	9,708,098		377,306

HUNTSVILLE  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2059  
NET SALVAGE PERCENT.. 0

1999	5,140,610.11	2,647,414	2,671,797	2,468,814	23.54	104,877
2001	8,125.96	3,962	3,998	4,127	24.17	171
2005	45,477.20	19,528	19,708	25,769	25.25	1,021
2006	30,782.70	12,744	12,861	17,921	25.48	703

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HUNTSVILLE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2059						
NET SALVAGE PERCENT.. 0						
2007	7,211.16	2,869	2,895	4,316	25.74	168
2008	59,813.06	22,777	22,987	36,826	26.02	1,415
2009	25,684.93	9,324	9,410	16,275	26.32	618
2010	2,533.46	876	884	1,649	26.49	62
2011	38,290.79	12,494	12,609	25,682	26.84	957
2012	15,722.39	4,811	4,855	10,867	27.22	399
2013	3,295.43	942	951	2,345	27.46	85
2015	2,369.82	576	581	1,789	28.04	64
2016	9,027.44	1,986	2,004	7,023	28.36	248
2022	35,020.59	2,171	2,191	32,830	30.26	1,085
	5,423,965.04	2,742,474	2,767,732	2,656,233		111,873
NEW CASTLE WATER TREATMENT PLANT - NEW						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2060						
NET SALVAGE PERCENT.. 0						
1948	127.32	113	114	13	9.47	1
2000	2,031,655.46	1,014,202	1,023,543	1,008,113	24.08	41,865
2001	3,501,677.38	1,699,364	1,715,015	1,786,662	24.39	73,254
2003	1,504.36	689	695	809	24.87	33
2004	166,573.01	73,625	74,303	92,270	25.25	3,654
2005	19,156.16	8,189	8,264	10,892	25.44	428
2006	285,061.14	116,989	118,066	166,995	25.86	6,458
2007	45,674.49	18,014	18,180	27,495	26.10	1,053
2008	220,753.83	83,357	84,125	136,629	26.37	5,181
2014	30,652.75	8,031	8,105	22,548	28.17	800
2015	149,409.41	35,903	36,234	113,176	28.45	3,978
2018	28,869.57	4,885	4,930	23,940	29.46	813
2019	22,547.59	3,236	3,266	19,282	29.84	646
2021	170,397.42	15,234	15,374	155,023	30.56	5,073
	6,674,059.89	3,081,831	3,110,215	3,563,845		143,237



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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2051						
NET SALVAGE PERCENT.. 0						
1976	3,032,325.96	2,270,606	2,291,519	740,807	16.10	46,013
1985	5,833.47	4,004	4,041	1,793	17.82	101
1991	23,116.00	14,646	14,781	8,335	19.08	437
1996	6,671.00	3,904	3,940	2,731	19.85	138
2000	142,779.16	76,758	77,465	65,314	20.64	3,164
2002	373,803.03	190,789	192,546	181,257	21.10	8,590
2006	428,360.75	193,533	195,315	233,045	21.84	10,671
2007	15,986.12	6,957	7,021	8,965	22.06	406
2011	13,009,059.10	4,735,298	4,778,911	8,230,148	22.71	362,402
2013	228,674.96	73,702	74,381	154,294	23.13	6,671
2014	32,558.55	9,768	9,858	22,701	23.33	973
2018	3,850.44	767	774	3,076	24.12	128
2019	4,599.43	784	791	3,808	24.33	157
2020	24,494.60	3,439	3,471	21,024	24.49	858
2022	4,742,093.46	352,812	356,061	4,386,032	24.88	176,287
	22,074,206.03	7,937,767	8,010,875	14,063,331		616,996

NAZARETH (BLUE MOUNTAIN) PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2055  
NET SALVAGE PERCENT.. 0

1951	429.84	377	380	49	10.33	5
1960	45.00	37	37	8	12.92	1
1970	349.00	271	273	76	15.44	5
1975	41,890.00	31,200	31,487	10,403	16.79	620
1976	12,586.04	9,304	9,390	3,196	16.94	189
1977	48,491.99	35,554	35,881	12,611	17.10	737
1978	89.00	65	66	23	17.29	1
1979	1,797.00	1,294	1,306	491	17.50	28
1980	9,400.42	6,701	6,763	2,638	17.73	149
1983	3,194.00	2,200	2,220	974	18.52	53
1985	30.00	20	20	10	19.14	1
1988	9,287.67	6,018	6,073	3,214	19.56	164
1989	2,360.00	1,503	1,517	843	19.95	42
1991	4,553.00	2,810	2,836	1,717	20.48	84
1992	72,215.50	43,907	44,311	27,904	20.63	1,353
1995	4,258,824.56	2,457,768	2,480,404	1,778,420	21.25	83,690

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAZARETH (BLUE MOUNTAIN) PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2055						
NET SALVAGE PERCENT.. 0						
1996	7,506.00	4,245	4,284	3,222	21.50	150
1997	7,826.00	4,332	4,372	3,454	21.78	159
1998	541.00	294	297	244	21.85	11
2007	2,222.54	922	930	1,292	23.98	54
2008	360,111.32	142,892	144,208	215,903	24.32	8,878
2009	6,280.49	2,383	2,405	3,876	24.53	158
2011	12,316.24	4,211	4,250	8,066	25.02	322
2013	17,236.87	5,195	5,243	11,994	25.50	470
2021	2,341,064.49	230,361	232,483	2,108,582	27.49	76,704
	7,220,647.97	2,993,864	3,021,438	4,199,210		174,028

CLARION WATER TREATMENT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2063  
NET SALVAGE PERCENT.. 0

2003	10,342,319.64	4,647,838	4,713,239	5,629,080	25.73	218,775
2004	1,073,637.95	465,959	472,516	601,122	26.08	23,049
2005	51,929.31	21,706	22,011	29,918	26.45	1,131
2008	4,901.24	1,804	1,829	3,072	27.48	112
2009	3,997.32	1,403	1,423	2,575	27.74	93
2010	15,074.97	5,023	5,094	9,981	28.02	356
2012	25,964.22	7,633	7,740	18,224	28.82	632
2013	22,045.21	6,038	6,123	15,922	29.16	546
2015	4,722.08	1,096	1,111	3,611	29.76	121
2017	63,675.57	11,856	12,023	51,653	30.59	1,689
2018	7,287.53	1,185	1,202	6,086	30.90	197
2023	3,480,136.91	102,664	104,109	3,376,028	32.90	102,615
	15,095,691.95	5,274,205	5,348,420	9,747,272		349,316

WEST SHORE REGIONAL TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2066  
NET SALVAGE PERCENT.. 0

1969	805.94	625	631	175	15.92	11
1983	39,657.10	26,665	26,911	12,747	19.98	638

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST SHORE REGIONAL TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2066 NET SALVAGE PERCENT.. 0						
1987	6,134.90	3,882	3,918	2,217	21.48	103
1991	13,030.67	7,740	7,811	5,219	22.56	231
1997	3,934.06	2,061	2,080	1,854	24.55	76
2001	130,034.30	61,311	61,876	68,159	25.78	2,644
2006	13,390,509.38	5,278,539	5,327,155	8,063,355	27.66	291,517
2007	3,389,546.02	1,279,215	1,290,997	2,098,549	28.05	74,815
2008	20,115.84	7,274	7,341	12,775	28.25	452
2009	21,160.91	7,269	7,336	13,825	28.67	482
2011	68,339.41	20,967	21,160	47,179	29.37	1,606
2013	109,213.87	29,193	29,462	79,752	30.15	2,645
2014	156,113.00	38,560	38,915	117,198	30.49	3,844
2015	8,725.59	1,963	1,981	6,745	31.00	218
2016	67,448.35	13,706	13,832	53,616	31.37	1,709
2017	186,670.82	33,713	34,023	152,647	31.76	4,806
2018	201,042.48	31,604	31,895	169,147	32.17	5,258
2019	35,185.25	4,680	4,723	30,462	32.59	935
2021	2,924,333.11	240,380	242,594	2,681,739	33.50	80,052
2022	1,293,673.16	71,928	72,590	1,221,083	33.97	35,946
	22,065,674.16	7,161,275	7,227,231	14,838,443		507,988
BECK'S RUN PUMP STATION INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2072 NET SALVAGE PERCENT.. 0						
2012	26,304,729.23	7,291,671	7,358,828	18,945,901	31.29	605,494
	26,304,729.23	7,291,671	7,358,828	18,945,901		605,494

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RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
1991	15,090.60	8,814	8,895	6,195	23.50	264
2003	1,684.82	718	725	960	28.26	34
2018	34,566,354.68	4,977,555	5,023,398	29,542,956	35.67	828,230
2019	1,001,606.74	121,695	122,816	878,791	36.15	24,310
	35,584,736.84	5,108,782	5,155,834	30,428,903		852,838
MONTROSE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	2,315,435.08	333,423	336,493	1,978,942	35.67	55,479
2019	12,313.10	1,496	1,510	10,803	36.15	299
2020	38,563.16	3,779	3,814	34,749	36.82	944
	2,366,311.34	338,698	341,817	2,024,494		56,722
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2021	7,669,280.13	676,431	682,661	6,986,619	31.01	225,302
	7,669,280.13	676,431	682,661	6,986,619		225,302
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2021	7,119,036.47	672,749	678,945	6,440,091	28.75	224,003
	7,119,036.47	672,749	678,945	6,440,091		224,003

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
STEELTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1973	6,453,439.54	5,134,356	5,177,730	1,275,709	13.10	97,382
2010	4,876,442.37	2,191,473	2,209,986	2,666,456	17.15	155,478
2014	8,092.41	2,938	2,963	5,130	17.55	292
2017	1,950,570.71	548,891	553,528	1,397,043	17.88	78,134
2019	2,024.63	439	443	1,582	18.04	88
2020	13,663.11	2,470	2,491	11,172	18.12	617
2022	108,839.25	10,710	10,800	98,039	18.33	5,349
2024	445,147.74	5,965	6,015	439,132	18.48	23,763
	13,858,219.76	7,897,242	7,963,957	5,894,263		361,103

WHITE DEER / MILTON WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2062  
NET SALVAGE PERCENT.. 0

2022	3,744,419.29	220,172	235,292	3,509,127	32.01	109,626
2023	2,388,099.85	71,643	76,563	2,311,537	32.33	71,498
	6,132,519.14	291,815	311,855	5,820,664		181,124

OTHER PURIFICATION STRUCTURES  
SURVIVOR CURVE.. IOWA 60-R3  
NET SALVAGE PERCENT.. 0

1889	41.21	41	41			
1900	2,285.84	2,286	2,286			
1901	56.00	56	56			
1902	159.81	160	160			
1903	1,923.01	1,923	1,923			
1906	3,057.68	3,058	3,058			
1908	527.18	527	527			
1909	402.93	403	403			
1912	225.80	226	226			
1914	167.07	167	167			
1915	41.89	42	42			
1917	4.78	5	5			
1918	0.15		0			
1923	439.53	440	440			

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1924	2,693.29	2,693	2,693			
1928	1,064.43	1,053	1,063	2	1.09	2
1929	3,038.32	3,002	3,030	8	1.15	7
1930	31.26	31	31			
1931	1,166.36	1,139	1,150	17	2.24	8
1934	244.88	238	240	5	2.59	2
1935	341.69	331	334	8	2.74	3
1937	627.00	605	611	16	3.09	5
1940	50.89	48	48	2	4.50	
1941	13.00	12	12	1	4.72	
1943	134.03	126	127	7	5.21	1
1944	251.37	235	237	14	5.47	3
1946	1.00	1	1			
1947	0.28		0			
1948	4.01	4	4			
1949	1,164.45	1,074	1,084	80	6.30	13
1951	4,026.00	3,674	3,708	318	7.00	45
1952	442.51	401	405	38	7.37	5
1953	1,371.29	1,246	1,258	114	7.12	16
1954	706.13	638	644	62	7.52	8
1955	51.47	46	46	5	7.92	1
1956	47.17	42	42	5	8.34	1
1957	259.31	229	231	28	8.76	3
1958	674.84	592	598	77	9.19	8
1959	61.56	54	55	7	9.07	1
1960	49.71	43	43	6	9.53	1
1961	36.31	31	31	5	9.99	1
1962	1,379.73	1,180	1,191	189	10.46	18
1963	625.74	531	536	90	10.94	8
1964	183.99	155	156	28	11.43	2
1965	157.93	132	133	25	11.42	2
1966	658.28	546	551	107	11.93	9
1967	31.14	26	26	5	12.44	
1968	19.47	16	16	3	12.97	
1969	26,214.18	21,050	21,247	4,967	13.49	368
1970	152.63	121	122	30	14.03	2
1971	4,435.82	3,479	3,512	924	14.57	63
1972	1,091,538.03	845,724	853,646	237,892	15.11	15,744
1973	9,354.84	7,156	7,223	2,132	15.67	136
1974	7,994.75	6,036	6,093	1,902	16.23	117

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1975	240,965.61	179,471	181,152	59,813	16.79	3,562
1976	37,697.06	27,685	27,944	9,753	17.36	562
1977	1,299.05	940	949	350	17.94	20
1978	10,580.56	7,593	7,664	2,916	18.10	161
1979	2,786.10	1,968	1,986	800	18.69	43
1980	409.67	283	286	124	19.69	6
1981	23,726.70	16,120	16,271	7,456	20.29	367
1982	458,589.11	306,246	309,115	149,474	20.89	7,155
1983	87,384.64	57,324	57,861	29,524	21.50	1,373
1984	31,966.35	20,586	20,779	11,188	22.11	506
1985	592,998.33	374,656	378,165	214,833	22.73	9,452
1986	10,904.41	6,754	6,817	4,087	23.35	175
1987	108,990.11	66,135	66,755	42,236	23.98	1,761
1988	1,261,427.23	749,288	756,307	505,120	24.61	20,525
1989	2,360,392.69	1,371,388	1,384,234	976,159	25.24	38,675
1990	944,275.85	536,160	541,182	403,094	25.88	15,576
1991	1,092,739.58	605,815	611,490	481,250	26.52	18,147
1992	12,816.74	6,931	6,996	5,821	27.17	214
1993	19,605.02	10,332	10,429	9,176	27.82	330
1994	1,104,140.75	563,112	568,387	535,754	28.82	18,590
1995	1,404,014.57	696,251	702,773	701,242	29.48	23,787
1996	407,212.69	196,114	197,951	209,262	30.14	6,943
1997	1,742,402.34	813,876	821,500	920,903	30.80	29,899
1998	631,985.66	285,910	288,588	343,397	31.47	10,912
1999	1,787,399.41	781,987	789,312	998,087	32.14	31,054
2000	57,278.05	24,057	24,282	32,996	33.14	996
2001	1,578,879.26	639,130	645,117	933,762	33.82	27,610
2002	363,122.03	141,400	142,725	220,398	34.50	6,388
2003	428,459.73	160,158	161,658	266,801	35.18	7,584
2004	338,781.39	120,606	121,736	217,046	36.18	5,999
2005	108,285.28	36,828	37,173	71,112	36.87	1,929
2006	59,120.77	19,155	19,334	39,786	37.56	1,059
2007	274,338.59	84,414	85,205	189,134	38.25	4,945
2008	207,924.19	60,215	60,779	147,145	39.25	3,749
2009	747,730.56	204,130	206,042	541,688	39.95	13,559
2010	706,583.84	181,027	182,723	523,861	40.64	12,890
2011	2,051,623.41	490,748	495,345	1,556,278	41.35	37,637
2012	2,790,886.50	616,228	622,000	2,168,886	42.35	51,213
2013	1,580,445.10	321,621	324,634	1,255,811	43.05	29,171
2014	3,926,729.61	730,372	737,214	3,189,516	43.76	72,887

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
2015	425,757.02	71,272	71,940	353,817	44.76	7,905
2016	1,508,458.66	225,665	227,779	1,280,680	45.48	28,159
2017	2,256,197.03	296,916	299,697	1,956,500	46.19	42,358
2018	2,240,363.73	254,057	256,437	1,983,927	46.91	42,292
2019	1,913,210.74	181,755	183,458	1,729,753	47.63	36,316
2020	3,447,472.67	262,008	264,462	3,183,010	48.63	65,454
2021	4,269,204.28	245,906	248,209	4,020,995	49.08	81,927
2022	4,144,080.80	159,962	161,460	3,982,620	49.81	79,956
2023	444,290.85	8,664	8,745	435,546	50.28	8,662
9999	281,872.62-	77,475-	78,200-	203,673-		5,082-
	51,134,693.67	14,054,818	14,186,360	36,948,334		921,961
	345,578,963.18	119,627,951	120,816,440	224,762,524		8,202,208
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.4 2.37



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.36 WASTE HANDLING AND TREATMENT STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1991	10,815,702.32	7,566,665	6,737,786	4,077,917	14.17	287,785
1998	68,969.00	44,113	39,281	29,688	14.65	2,026
2000	122,317.58	75,739	67,442	54,875	14.76	3,718
2001	25,833.98	15,686	13,968	11,866	14.88	797
2003	4,063.71	2,364	2,105	1,959	15.10	130
2007	41,023.43	21,550	19,189	21,834	15.36	1,421
2010	77,041.66	36,348	32,366	44,675	15.67	2,851
2012	197,523.29	85,330	75,983	121,541	15.78	7,702
2013	129,535.29	53,006	47,200	82,336	15.88	5,185
2014	18,080.06	6,961	6,198	11,882	15.97	744
2016	167,667.01	55,665	49,567	118,100	16.10	7,335
	11,667,757.33	7,963,427	7,091,085	4,576,672		319,694
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2021	13,562,364.13	1,281,643	1,141,247	12,421,117	28.75	432,039
	13,562,364.13	1,281,643	1,141,247	12,421,117		432,039
	25,230,121.46	9,245,070	8,232,332	16,997,789		751,733
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.6 2.98

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.38 WASTE HANDLING AND TREATMENT STRUCTURE PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1991	38,331.32	38,331	38,331			
2015	27,627.10	24,864	25,046	2,581	1.00	2,581
2021	1,337,480.53	401,244	404,189	933,292	7.00	133,327
	1,403,438.95	464,439	467,566	935,873		135,908
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.9 9.68

PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

ACCOUNT 304.39 PURIFICATION BUILDINGS - TANK PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	26,564.05	26,564	26,564			
1999	12,732.18	12,732	12,732			
2000	10,588.12	10,588	10,588			
2002	28,101.61	28,102	28,102			
2015	41,376.99	37,239	37,858	3,519	1.00	3,519
	119,362.95	115,225	115,844	3,519		3,519
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						1.0 2.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW CASTLE OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
1986	1,150,324.60	983,528	887,210	263,115	6.44	40,856
1987	16,994.88	14,463	13,047	3,948	6.48	609
1988	62,128.27	52,561	47,414	14,715	6.55	2,247
1989	20,825.27	17,566	15,846	4,980	6.49	767
1990	46,425.19	38,830	35,027	11,398	6.65	1,714
1991	3,335.65	2,785	2,512	823	6.53	126
1992	3,163.35	2,622	2,365	798	6.61	121
1996	14,814.55	11,988	10,814	4,001	6.60	606
1998	989.28	787	710	279	6.68	42
2005	149,478.73	110,480	99,661	49,818	6.71	7,424
2006	235,746.18	171,859	155,029	80,718	6.69	12,065
2008	58,361.48	41,086	37,062	21,299	6.73	3,165
2009	4,305.16	2,971	2,680	1,625	6.74	241
2011	8,465.32	5,568	5,023	3,443	6.76	509
2012	18,439.71	11,794	10,639	7,801	6.76	1,154
2013	101,984.42	63,159	56,974	45,011	6.76	6,658
2014	67,436.20	40,192	36,256	31,180	6.78	4,599
2015	28,801.82	16,408	14,801	14,001	6.80	2,059
2016	106,298.27	57,486	51,856	54,442	6.79	8,018
2017	95,186.10	48,240	43,516	51,670	6.81	7,587
2018	19,509.68	9,142	8,247	11,263	6.80	1,656
2019	676.19	286	258	418	6.82	61
2023	263,128.00	33,549	30,264	232,864	6.84	34,044
2024	72,930.05	2,567	2,316	70,614	6.85	10,309
	2,549,748.35	1,739,917	1,569,525	980,223		146,637

WASHINGTON CUSTOMER SERVICE CENTER  
INTERIM SURVIVOR CURVE.. IOWA 55-S0  
PROBABLE RETIREMENT YEAR.. 6-2032  
NET SALVAGE PERCENT.. 0

1987	1,203,127.17	1,001,603	905,250	297,877	7.44	40,037
1988	1,858.44	1,539	1,391	467	7.48	62
1989	281,428.67	232,460	210,098	71,331	7.37	9,679
1992	14,113.15	11,426	10,327	3,786	7.53	503
1994	2,289.38	1,834	1,658	632	7.45	85
1995	65,817.15	52,298	47,267	18,550	7.50	2,473
1996	7,807.45	6,165	5,572	2,236	7.46	300

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WASHINGTON CUSTOMER SERVICE CENTER INTERIM SURVIVOR CURVE.. IOWA 55-S0 PROBABLE RETIREMENT YEAR.. 6-2032 NET SALVAGE PERCENT.. 0						
1997	104,560.69	81,871	73,995	30,566	7.48	4,086
2001	48,048.55	36,137	32,661	15,388	7.58	2,030
2002	4,596.11	3,418	3,089	1,507	7.59	199
2003	69,847.82	51,338	46,399	23,448	7.57	3,097
2010	19,334.13	12,505	11,302	8,032	7.65	1,050
2011	61,248.66	38,538	34,831	26,418	7.66	3,449
2013	81,006.48	47,672	43,086	37,920	7.69	4,931
2014	14,255.72	8,054	7,279	6,977	7.70	906
2023	616,528.00	70,223	63,468	553,060	7.78	71,087
2024	245,791.26	7,644	6,909	238,883	7.78	30,705
	2,841,658.83	1,664,725	1,504,581	1,337,078		174,679

CAPITOL DISTRIBUTION CENTER  
INTERIM SURVIVOR CURVE.. IOWA 55-S0  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1989	347,788.60	208,151	187,281	160,508	23.48	6,836
1990	5,101.58	3,001	2,700	2,401	23.80	101
1991	650.26	378	340	310	23.82	13
1996	1,799.05	952	857	943	24.91	38
2001	12,812.78	6,071	5,462	7,350	25.54	288
2002	5,478.58	2,519	2,266	3,212	25.85	124
2003	1,018.77	456	410	608	25.95	23
2006	28,442.30	11,570	10,410	18,032	26.25	687
2007	23,101.69	9,033	8,127	14,974	26.48	565
2008	47,924.90	18,020	16,213	31,712	26.55	1,194
2010	10,983.00	3,767	3,389	7,594	26.82	283
2011	43,527.16	14,146	12,728	30,799	27.00	1,141
2012	124,750.18	38,323	34,481	90,270	27.06	3,336
2013	174,227.60	50,212	45,178	129,050	27.17	4,750
2018	19,709,050.81	3,523,978	3,170,650	16,538,401	27.56	600,087
2019	1,661,686.84	255,069	229,495	1,432,192	27.57	51,947
	22,198,344.10	4,145,646	3,729,987	18,468,357		671,413

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER OFFICE BUILDINGS						
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1924	782.54	783	783			
1926	201.65	202	202			
1958	12.85	12	11	2	4.42	
1960	48.14	45	40	8	4.97	2
1961	20.95	19	17	4	5.03	1
1963	32,701.09	29,921	26,922	5,779	5.67	1,019
1964	1,068.79	975	877	192	5.79	33
1965	11,845.27	10,693	9,621	2,224	6.36	350
1966	1,115.37	1,003	902	213	6.52	33
1967	47,768.10	42,748	38,463	9,305	6.69	1,391
1968	56,989.90	50,425	45,371	11,619	7.29	1,594
1969	1,263.39	1,112	1,001	263	7.50	35
1970	11,040.41	9,658	8,690	2,350	7.73	304
1971	8,957.07	7,738	6,962	1,995	8.35	239
1972	61,053.89	52,384	47,134	13,920	8.61	1,617
1973	1,626.18	1,385	1,246	380	8.88	43
1975	6,489.70	5,406	4,864	1,626	9.82	166
1976	45,439.48	37,515	33,755	11,685	10.14	1,152
1977	13,172.24	10,710	9,637	3,536	10.80	327
1979	27,967.97	22,276	20,043	7,925	11.50	689
1980	1.10	1	1			
1981	45,618.28	35,309	31,770	13,848	12.56	1,103
1982	359,610.33	273,376	245,976	113,634	13.25	8,576
1983	32,246.86	24,195	21,770	10,477	13.64	768
1984	898.85	662	596	303	14.35	21
1985	72,739.68	52,765	47,477	25,263	14.76	1,712
1986	350,324.54	248,941	223,990	126,334	15.48	8,161
1987	594,252.42	415,561	373,910	220,342	15.91	13,849
1988	610,975.64	417,907	376,021	234,954	16.63	14,128
1989	448,659.77	299,929	269,868	178,792	17.36	10,299
1990	142,950.10	93,804	84,402	58,548	17.81	3,287
1991	33,646.76	21,541	19,382	14,265	18.55	769
1992	147,929.56	92,308	83,056	64,873	19.28	3,365
1993	12,874.85	7,863	7,075	5,800	19.76	294
1994	324,768.06	192,912	173,577	151,191	20.51	7,372
1995	58,816.94	33,943	30,541	28,276	21.25	1,331
1996	47,286.99	26,613	23,946	23,341	21.75	1,073
1997	35,136.33	19,163	17,242	17,894	22.50	795
1998	15,939.89	8,413	7,570	8,370	23.26	360
1999	60,923.33	31,071	27,957	32,966	24.02	1,372

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER OFFICE BUILDINGS						
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2000	753,359.29	372,461	335,130	418,229	24.54	17,043
2001	49,239.75	23,443	21,093	28,146	25.31	1,112
2002	6,117.89	2,800	2,519	3,599	26.08	138
2003	84,797.19	37,217	33,487	51,310	26.85	1,911
2004	37,690.93	15,830	14,243	23,448	27.62	849
2005	346,117.62	139,416	125,443	220,675	28.17	7,834
2006	226,624.08	86,888	78,179	148,445	28.95	5,128
2007	95,086.75	34,593	31,126	63,961	29.73	2,151
2008	246,833.49	84,911	76,401	170,433	30.51	5,586
2009	101,859.98	33,003	29,695	72,165	31.30	2,306
2010	61,085.24	18,558	16,698	44,387	32.08	1,384
2011	121,441.93	34,417	30,967	90,474	32.87	2,752
2012	183,744.40	48,288	43,448	140,296	33.66	4,168
2013	88,274.20	21,362	19,221	69,053	34.45	2,004
2014	402,351.40	88,920	80,008	322,344	35.25	9,145
2015	12,610.61	2,520	2,267	10,343	36.05	287
2016	1,288,069.09	229,792	206,761	1,081,309	36.84	29,351
2017	539,254.36	84,555	76,080	463,174	37.64	12,305
2018	2,147,281.67	289,883	260,829	1,886,453	38.44	49,075
2019	2,042,903.87	230,848	207,711	1,835,193	39.25	46,757
2020	637,113.04	58,105	52,281	584,832	39.86	14,672
2021	1,239,932.86	85,183	76,645	1,163,288	40.67	28,603
2022	1,607,030.17	74,245	66,804	1,540,227	41.29	37,303
2023	74,689.44	1,740	1,566	73,124	41.92	1,744
2024	22,325.06	132	119	22,206	41.95	529
9999	60,000.00-	17,398-	15,655-	44,345-		1,382-
	16,080,999.57	4,662,999	4,195,737	11,885,263		370,385
	43,670,750.85	12,213,287	10,999,830	32,670,921		1,363,114
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.0 3.12

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
UNIONTOWN OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2066						
NET SALVAGE PERCENT.. 0						
2021	3,787,629.81	337,478	446,118	3,341,512	30.67	108,951
	3,787,629.81	337,478	446,118	3,341,512		108,951
NORRISTOWN OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. 0						
1987	747,847.92	622,583	747,848			
1988	14,460.80	11,974	14,461			
1990	21,055.84	17,253	21,056			
1991	515.82	420	516			
2000	8,240.40	6,269	8,240			
2001	106,652.86	80,214	106,653			
2011	2,125.81	1,332	2,126			
2014	364,619.49	205,281	344,982	19,637	7.76	2,531
2015	19,376.64	10,394	17,467	1,909	7.78	245
2018	224.06	97	163	61	7.83	8
	1,285,119.64	955,817	1,263,512	21,608		2,784
BETHEL PARK						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2058						
NET SALVAGE PERCENT.. 0						
1958	1,356.00	1,119	1,356			
1965	653,341.28	516,532	653,341			
1967	45,486.00	35,261	45,486			
1969	4,300.00	3,287	4,300			
1970	2,902.00	2,210	2,902			
1972	1,319.97	988	1,320			
1973	9,153.18	6,769	9,144	9	17.97	1
1975	40.52	30	41			
1977	1,690.34	1,208	1,632	58	18.79	3
1979	3,808.27	2,673	3,611	197	19.10	10
1981	0.16		0			
1985	8,909.55	5,838	7,886	1,023	20.52	50



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BETHEL PARK						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2058						
NET SALVAGE PERCENT.. 0						
1986	56,270.95	36,351	49,105	7,166	20.82	344
1987	51,879.47	33,208	44,859	7,020	20.80	338
1988	1,675.90	1,056	1,427	249	21.14	12
1989	365,534.82	227,728	307,629	57,906	21.18	2,734
1991	4,610.90	2,785	3,762	849	21.64	39
1992	10,300.00	6,098	8,238	2,062	22.05	94
1993	2,884.28	1,681	2,271	613	22.19	28
1995	1,257.55	707	955	302	22.55	13
1996	53,669.41	29,604	39,991	13,679	22.76	601
1997	47,281.24	25,532	34,490	12,791	23.00	556
1998	41,194.00	21,849	29,515	11,679	23.02	507
2000	47,532.86	23,957	32,363	15,170	23.62	642
2002	3,229.97	1,549	2,092	1,137	23.87	48
2006	123,630.77	52,073	70,343	53,287	24.74	2,154
2007	61,197.63	24,865	33,589	27,608	24.84	1,111
2008	530,439.54	207,084	279,742	250,698	24.98	10,036
2009	415,793.46	155,299	209,787	206,006	25.16	8,188
2010	105,796.74	37,621	50,821	54,976	25.37	2,167
2011	54,411.31	18,320	24,748	29,664	25.61	1,158
2012	393,497.73	125,132	169,036	224,462	25.74	8,720
2013	23,340.26	6,958	9,399	13,941	25.90	538
2014	26,100.06	7,230	9,767	16,333	26.10	626
	3,153,836.12	1,622,602	2,144,948	1,008,888		40,718

BETHEL PARK (NEW)  
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5  
PROBABLE RETIREMENT YEAR.. 6-2066  
NET SALVAGE PERCENT.. 0

2018	20,032,537.04	3,329,408	4,401,207	15,631,330	30.10	519,313
2019	6,912,393.38	978,104	1,292,974	5,619,419	30.34	185,215
2021	5,255,848.12	468,296	619,049	4,636,799	30.67	151,184
	32,200,778.54	4,775,808	6,313,230	25,887,549		855,712

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
STAFFORD AVENUE DISTRIBUTION CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2062						
NET SALVAGE PERCENT.. 0						
1997	6,386.52	3,380	4,468	1,918	24.02	80
2012	1,538,069.70	468,804	619,721	918,349	27.37	33,553
2014	16,744,779.33	4,437,367	5,865,839	10,878,940	27.74	392,175
2015	12,394.22	3,012	3,982	8,413	28.04	300
2019	22,838.07	3,380	4,468	18,370	28.78	638
	18,324,467.84	4,915,943	6,498,478	11,825,990		426,746

OTHER STRUCTURES

SURVIVOR CURVE.. IOWA 45-R3

NET SALVAGE PERCENT.. 0

1969	3.18	3	3			
1970	1,164.98	1,057	1,165			
1971	36.32	33	36			
1972	634.88	571	635			
1973	2,089.97	1,865	2,090			
1974	1,091.06	966	1,091			
1976	2,792.33	2,426	2,792			
1977	953.93	820	954			
1978	169.91	145	170			
1980	2,201.05	1,830	2,201			
1981	1,217.40	1,000	1,217			
1982	5,097.51	4,132	5,098			
1983	5,662.30	4,527	5,662			
1984	42,453.44	33,453	42,453			
1985	30,313.11	23,526	30,313			
1986	23,996.49	18,329	23,996			
1987	723.36	543	722	2	12.26	
1988	491,063.35	362,405	481,661	9,402	12.78	736
1989	60,532.18	43,644	58,006	2,526	13.54	187
1990	892,796.35	631,386	839,155	53,641	14.08	3,810
1991	649,148.20	449,860	597,895	51,253	14.62	3,506
1992	304,212.94	206,378	274,290	29,922	15.17	1,972
1993	10,260.26	6,775	9,004	1,256	15.95	79
1994	64,622.20	41,681	55,397	9,225	16.51	559
1995	6,600.47	4,154	5,521	1,080	17.08	63
1996	86,138.81	52,579	69,881	16,258	17.87	910
1997	113,666.60	67,518	89,736	23,931	18.45	1,297

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
1998	16,584.74	9,573	12,723	3,862	19.05	203
1999	134,121.79	74,773	99,378	34,743	19.84	1,751
2000	70,168.39	37,891	50,360	19,809	20.44	969
2001	112,996.79	58,736	78,064	34,933	21.25	1,644
2002	9,268.80	4,649	6,179	3,090	21.86	141
2004	1,388.50	641	852	537	23.29	23
2005	48,205.36	21,249	28,241	19,964	24.10	828
2006	45,672.04	19,237	25,567	20,105	24.74	813
2007	56,550.01	22,592	30,026	26,524	25.55	1,038
2008	30,604.24	11,605	15,424	15,180	26.19	580
2009	16,248.78	5,801	7,710	8,539	27.02	316
2010	3,269.94	1,094	1,454	1,816	27.84	65
2011	203,116.68	63,636	84,577	118,540	28.49	4,161
2012	212,235.52	61,633	81,914	130,321	29.32	4,445
2013	45,552.60	12,176	16,183	29,370	30.15	974
2014	71,258.20	17,387	23,109	48,150	30.98	1,554
2015	516,657.84	114,388	152,029	364,628	31.65	11,521
2016	77,623.31	15,338	20,385	57,238	32.49	1,762
2017	32,786.00	5,692	7,565	25,221	33.32	757
2018	1,427,984.55	214,198	284,684	1,143,301	34.00	33,626
2019	147,357.90	18,493	24,578	122,779	34.84	3,524
2020	439,490.52	44,301	58,879	380,611	35.68	10,667
2021	1,973,176.14	150,356	199,833	1,773,343	36.37	48,758
2022	392,128.53	20,077	26,684	365,445	37.06	9,861
2023	2,274,105.83	58,899	78,281	2,195,825	37.61	58,384
2024	372,344.30	2,457	3,266	369,079	37.77	9,772
9999	576.00-	151-	200-	376-		11-
	11,529,963.88	3,028,327	4,018,892	7,511,072		221,245
	70,281,795.83	15,635,975	20,685,178	49,596,619		1,656,156
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.9 2.36

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
2003	47,284.82	26,910	47,285			
2004	155,061.85	85,284	155,062			
2005	138,417.60	73,638	138,418			
2006	51,980.20	26,666	51,980			
2007	218,926.74	107,931	218,927			
2008	279,819.82	132,523	279,820			
2009	23,042.95	10,404	23,043			
2010	131,146.25	56,367	131,146			
2011	1,533.34	624	1,533			
2012	53,985.00	20,665	53,985			
2013	26,338.34	9,416	26,338			
2014	10,925.07	3,627	10,374	551	20.12	27
2015	555,189.93	168,889	483,043	72,147	20.59	3,504
2016	459,090.59	126,709	362,403	96,688	20.99	4,606
2017	352,844.15	86,941	248,662	104,182	21.41	4,866
2018	739,556.55	159,744	456,887	282,670	21.78	12,978
2019	37.50	7	20	18	22.17	1
2020	9,116.56	1,371	3,921	5,196	22.60	230
2021	75,400.32	8,709	24,909	50,491	22.97	2,198
2022	36,813.68	2,901	8,297	28,517	23.38	1,220
2023	4,879,788.19	197,631	565,250	4,314,538	23.69	182,125
2024	736,876.71	7,590	21,708	715,169	23.96	29,848
	8,983,176.16	1,314,547	3,313,011	5,670,165		241,603
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.5 2.69

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DAM NO. 3 (CITIZENS)						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. 0						
1920	42,226.36	36,450	31,025	11,201	16.48	680
1937	48.00	40	34	14	17.17	1
1949	331.00	271	231	100	16.74	6
1961	2,483.15	1,955	1,664	819	17.00	48
1973	1,843.00	1,372	1,168	675	17.49	39
1974	259.00	192	163	96	17.57	5
1978	82,513.54	59,591	50,722	31,792	17.69	1,797
1992	1,385,786.88	895,773	762,449	623,338	17.50	35,619
	1,515,490.93	995,644	847,455	668,036		38,195

SPRUCE RUN IMPOUNDING RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2078  
NET SALVAGE PERCENT.. 0

1957	3,545.00	2,138	1,820	1,725	44.11	39
1958	937,679.88	556,982	474,082	463,598	45.11	10,277
1962	1,170.00	675	575	595	45.53	13
1964	15,475.00	8,821	7,508	7,967	45.26	176
1965	5,506.28	3,119	2,655	2,852	45.17	63
1967	0.83			1	46.09	
1985	2,905.50	1,303	1,109	1,796	47.96	37
1990	18,419.48	7,640	6,503	11,917	47.97	248
1995	1,423,197.85	532,418	453,174	970,024	48.52	19,992
2021	36,844.32	2,166	1,844	35,001	48.02	729
	2,444,744.14	1,115,262	949,269	1,495,475		31,574

ONEIDA DAM AND RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1918	97,835.35	71,557	60,907	36,929	38.93	949
1925	408.75	287	244	164	41.85	4
1930	2,267.00	1,556	1,324	943	42.99	22
1934	1,013.55	675	575	439	45.14	10
1956	775.09	448	381	394	49.65	8

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ONEIDA DAM AND RESERVOIR						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2089						
NET SALVAGE PERCENT.. 0						
1978	134.64	62	53	82	54.00	2
1982	245.51	106	90	155	55.09	3
1985	16,193.21	6,694	5,698	10,496	55.34	190
1989	294,046.08	113,208	96,358	197,688	55.91	3,536
2013	8,655,614.25	1,399,613	1,191,298	7,464,316	57.03	130,884
	9,068,533.43	1,594,206	1,356,928	7,711,605		135,608

THORN RUN DAM AND RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2083  
NET SALVAGE PERCENT.. 0

1904	361.68	282	240	122	33.85	4
1925	882.00	629	535	347	39.89	9
1928	103.00	72	61	42	40.99	1
1930	285.00	198	169	116	41.14	3
1933	93.00	63	54	39	42.33	1
1936	86.00	58	49	37	43.58	1
1956	941.01	557	474	467	46.94	10
1958	951.00	552	470	481	47.64	10
1983	14,744.19	6,589	5,608	9,136	50.74	180
1984	76,177.36	33,518	28,529	47,648	50.91	936
1987	14,359.75	6,004	5,110	9,249	51.50	180
1989	210,306.30	84,648	72,049	138,257	51.96	2,661
1994	5,117.89	1,873	1,594	3,524	51.97	68
2011	7,667,320.88	1,515,063	1,289,564	6,377,756	52.79	120,814
	7,991,729.06	1,650,106	1,404,508	6,587,221		124,878

GRIFFIN  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1893	59,431.80	48,271	41,086	18,345	30.29	606
1942	171.57	110	94	78	46.21	2
1943	2,456.07	1,552	1,321	1,135	47.21	24
1983	12,768.00	5,444	4,634	8,134	55.15	147

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GRIFFIN						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2089						
NET SALVAGE PERCENT.. 0						
1984	21,564.86	9,057	7,709	13,856	55.24	251
1985	4,179.31	1,728	1,471	2,709	55.34	49
1989	1,031,668.95	397,193	338,076	693,593	55.91	12,406
1990	13,974.55	5,274	4,489	9,486	56.09	169
1995	2,925.08	992	844	2,081	56.47	37
2001	15,236.40	4,380	3,728	11,508	57.00	202
	1,164,376.59	474,001	403,452	760,925		13,893

LAKE SCRANTON  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1901	281,262.27	221,410	188,456	92,806	33.25	2,791
1916	2,609.36	1,916	1,631	979	39.06	25
1935	239.93	160	136	104	44.33	2
1968	1,279.11	659	561	718	52.70	14
1970	3,211.00	1,630	1,387	1,824	52.38	35
1976	2,210.73	1,040	885	1,326	54.04	25
1977	57.10	27	23	34	54.01	1
1978	36,565.70	16,820	14,317	22,249	54.00	412
1982	276.75	120	102	175	55.09	3
1983	15,120.00	6,447	5,487	9,633	55.15	175
1984	35,225.92	14,795	12,593	22,633	55.24	410
1985	30,307.31	12,529	10,664	19,643	55.34	355
1986	30,933.62	12,578	10,706	20,228	55.46	365
1987	17,143.97	6,851	5,831	11,313	55.59	204
1989	1,665,697.07	641,293	545,844	1,119,853	55.91	20,030
1990	99,790.35	37,661	32,056	67,735	56.09	1,208
1991	7,810.44	2,913	2,479	5,331	55.50	96
1993	173,539.95	61,867	52,659	120,881	55.96	2,160
1994	518.27	180	153	365	56.21	6
1995	0.88			1	56.47	
2001	5,375.23	1,545	1,315	4,060	57.00	71
2018	9,168,862.63	880,211	749,202	8,419,660	56.50	149,021
2019	278,446.50	22,693	19,315	259,131	56.35	4,599
	11,856,484.09	1,945,345	1,655,804	10,200,680		182,008

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WILLIAMS BRIDGE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2085						
NET SALVAGE PERCENT.. 0						
1892	99,114.45	81,115	69,042	30,072	29.29	1,027
1902	20,137.13	15,723	13,383	6,754	34.25	197
1915	1,350.92	1,001	852	499	38.06	13
1916	3,362.29	2,469	2,102	1,261	39.06	32
1930	111.28	76	65	47	42.99	1
1942	202.61	131	112	91	44.58	2
1962	40,618.95	22,665	19,292	21,327	49.11	434
1974	16,787.48	8,310	7,073	9,714	51.01	190
1975	78.02	38	32	46	51.00	1
1985	1,916,629.50	814,759	693,492	1,223,137	52.74	23,192
1986	64,940.48	27,145	23,105	41,836	52.91	791
1988	23,272.56	9,383	7,986	15,286	53.29	287
1989	83,219.77	33,205	28,263	54,957	52.72	1,042
1990	5.17	2	2	3	52.96	
1993	1,867.84	683	581	1,286	53.75	24
2001	10,426.96	3,118	2,654	7,773	53.92	144
	2,282,125.41	1,019,823	868,035	1,414,090		27,377

HOLLISTER  
FULLY ACCRUED  
NET SALVAGE PERCENT.. 0

1972	1,589,982.17	1,589,982	1,589,982			
1973	3,536.78	3,537	3,537			
1976	958,017.39	958,017	958,017			
1977	25,124.94	25,125	25,125			
1978	33.29	33	33			
1993	1,202.20	1,202	1,202			
	2,577,896.77	2,577,896	2,577,897			



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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHRISTOPHER CHENERY (PIKES CREEK)						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2091						
NET SALVAGE PERCENT.. 0						
1910	236,315.37	177,804	147,573	88,742	37.52	2,365
1916	3,174.05	2,331	1,935	1,239	39.06	32
1929	74,456.00	50,928	42,269	32,187	43.89	733
1930	93,721.44	64,312	53,377	40,344	42.99	938
1933	4,694.45	3,161	2,624	2,071	44.14	47
1935	258.54	170	141	117	46.14	3
1964	36,327.26	19,399	16,101	20,227	52.36	386
1983	2,366.25	999	829	1,537	56.09	27
1984	40,978.64	17,047	14,149	26,830	56.15	478
1986	40,605.19	16,356	13,575	27,030	56.34	480
1987	158.58	63	52	106	56.46	2
1988	5,675.53	2,207	1,832	3,844	56.59	68
1989	619.11	236	196	423	56.74	7
1991	1,085,419.97	397,589	329,989	755,430	57.09	13,232
1993	284,909.12	99,804	82,835	202,074	57.50	3,514
2001	8,126.08	2,299	1,908	6,218	58.30	107
	1,917,805.58	854,705	709,385	1,208,421		22,419

CRYSTAL LAKE  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1904	5,092.51	4,094	3,398	1,695	29.25	58
1933	61.83	46	38	24	32.46	1
1951	79,182.32	53,757	44,617	34,565	34.53	1,001
1953	26,444.91	17,649	14,648	11,797	35.38	333
1954	114.24	76	63	51	35.26	1
1964	1,215,428.80	758,428	629,478	585,951	36.15	16,209
1965	1,783.96	1,105	917	867	36.24	24
1966	264.25	162	134	130	36.34	4
1967	3,530.07	2,153	1,787	1,743	36.46	48
1981	7,623.81	4,098	3,401	4,223	37.00	114
1982	45.13	24	20	25	36.74	1
1987	10,559.42	5,274	4,377	6,182	37.07	167
1989	1,797.68	868	720	1,077	37.46	29

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2064						
NET SALVAGE PERCENT.. 0						
1990	0.04		0			
1993	184.09	83	69	115	37.49	3
1994	392.40	174	144	248	37.57	7
	1,352,505.46	847,991	703,813	648,692		18,000
GARDNER'S CREEK INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2085						
NET SALVAGE PERCENT.. 0						
1985	1,682,780.31	715,350	601,170	1,081,610	52.74	20,508
1986	7,810.81	3,265	2,744	5,067	52.91	96
2001	6,053.07	1,810	1,521	4,532	53.92	84
2023	2,120,687.39	40,505	34,040	2,086,648	51.36	40,628
	3,817,331.58	760,930	639,475	3,177,857		61,316
NESBITT						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2092						
NET SALVAGE PERCENT.. 0						
1900	185,903.19	145,228	120,536	65,367	34.73	1,882
1932	37,406.03	25,122	20,851	16,555	44.99	368
1934	97.08	65	54	43	45.14	1
1946	172,052.80	106,019	87,993	84,059	48.58	1,730
1980	413.30	182	151	262	56.00	5
1981	18,286.47	7,942	6,592	11,695	56.01	209
1984	111,517.46	45,945	38,133	73,384	57.09	1,285
2001	8,137.93	2,284	1,896	6,242	58.97	106
2012	26,922,112.06	4,522,915	3,753,915	23,168,197	59.43	389,840
2018	379,381.18	35,282	29,283	350,098	58.52	5,983
2019	4,641.05	367	305	4,336	58.29	74
	27,839,948.55	4,891,351	4,059,708	23,780,241		401,483

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2088						
NET SALVAGE PERCENT.. 0						
1923	436,199.97	308,393	255,959	180,241	41.86	4,306
1941	3,067.89	1,961	1,628	1,440	46.87	31
1943	445.19	281	233	212	47.21	4
1947	12,218.40	7,527	6,247	5,971	48.00	124
1963	203.31	110	91	112	51.36	2
1976	3,892.59	1,850	1,535	2,357	53.01	44
1992	1,033.37	380	315	718	54.96	13
2000	31,829.26	9,549	7,925	23,904	56.00	427
2008	10,206,443.00	2,253,583	1,870,422	8,336,021	56.46	147,645
2013	10,331.83	1,682	1,396	8,936	56.57	158
	10,705,664.81	2,585,316	2,145,753	8,559,912		152,754

ROCK RUN DAM  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2065  
NET SALVAGE PERCENT.. 0

1915	181,300.00	142,284	118,092	63,208	29.89	2,115
1985	470,440.45	238,513	197,960	272,480	37.92	7,186
1993	46,068.00	20,565	17,068	29,000	38.44	754
1996	722,840.00	305,617	253,655	469,185	38.23	12,273
2000	383,237.34	147,163	122,142	261,096	38.50	6,782
2008	13,218.88	3,870	3,212	10,007	38.64	259
2013	376,416.70	83,640	69,419	306,997	38.50	7,974
2014	1.01			1	38.54	
2020	40,262.99	3,817	3,168	37,095	38.19	971
	2,233,785.37	945,469	784,717	1,449,068		38,314

CEASETOWN DAM  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2117  
NET SALVAGE PERCENT.. 0

2017	19,328,737.64	1,691,265	1,403,711	17,925,027	73.00	245,548
	19,328,737.64	1,691,265	1,403,711	17,925,027		245,548

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ELMHURST DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2117						
NET SALVAGE PERCENT.. 0						
2017	23,538,596.83	2,059,627	1,709,443	21,829,154	73.00	299,030
	23,538,596.83	2,059,627	1,709,443	21,829,154		299,030
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1887	30,941.47	30,941	30,941			
1889	285,445.97	285,446	285,446			
1890	735.23	735	735			
1891	22,813.53	22,814	22,814			
1892	60,142.59	60,143	60,143			
1893	17,639.61	17,640	17,640			
1895	6,156.43	6,156	6,156			
1896	4,134.61	4,135	4,135			
1897	200,366.80	200,367	200,367			
1899	3,771.76	3,772	3,772			
1900	0.01		0			
1902	17,621.35	17,413	13,819	3,802	1.46	2,604
1903	1,327.34	1,317	1,045	282	0.95	282
1904	5,578.06	5,489	4,356	1,222	1.95	627
1905	1,364.96	1,348	1,070	295	1.48	199
1906	2,579.09	2,526	2,005	574	2.48	231
1907	131,601.85	129,338	102,643	28,959	2.05	14,126
1908	9,712.40	9,464	7,511	2,202	3.05	722
1909	624.01	610	484	140	2.65	53
1911	3,470.24	3,372	2,676	794	3.28	242
1912	28,773.05	28,036	22,249	6,524	2.94	2,219
1914	11,929.50	11,548	9,165	2,765	3.64	760
1915	46,646.58	44,743	35,508	11,138	4.64	2,400
1916	13,887.25	13,348	10,593	3,294	4.36	756
1919	68,032.30	65,005	51,588	16,444	4.89	3,363
1920	696.74	659	523	174	5.89	30
1921	6,898.84	6,537	5,188	1,711	5.70	300
1922	760.63	722	573	188	5.53	34
1924	43,146.42	40,558	32,187	10,960	6.38	1,718
1925	878.15	826	656	223	6.26	36
1927	5,319.01	4,953	3,931	1,388	7.17	194

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1928	36,197.12	33,707	26,750	9,447	7.09	1,332
1930	989.66	912	724	266	8.04	33
1931	4,361.01	4,015	3,186	1,175	8.01	147
1935	91.31	83	66	25	9.04	3
1936	58.98	53	42	17	9.09	2
1937	174.45	156	124	51	10.09	5
1938	1,818.32	1,626	1,290	528	10.15	52
1939	486.80	434	344	142	10.24	14
1940	46.80	42	33	13	10.34	1
1941	407.06	358	284	123	11.34	11
1942	1,493.59	1,310	1,040	454	11.46	40
1943	185.15	162	129	57	11.59	5
1944	0.05		0			
1945	181,750.40	156,505	124,203	57,548	12.74	4,517
1946	17,896.87	15,356	12,187	5,710	12.91	442
1947	41,506.98	35,476	28,154	13,353	13.09	1,020
1948	104,082.62	88,595	70,309	33,774	13.29	2,541
1951	2,548.64	2,121	1,683	865	14.72	59
1953	241.38	197	156	85	15.96	5
1954	548.95	446	354	195	16.21	12
1956	28.67	23	18	10	17.47	1
1957	50,060.09	39,578	31,409	18,651	17.75	1,051
1958	14,780.46	11,609	9,213	5,568	18.03	309
1959	344,189.83	266,231	211,281	132,909	19.03	6,984
1960	319,112.40	245,078	194,494	124,618	19.33	6,447
1961	916.99	699	555	362	19.64	18
1962	7,243.92	5,434	4,312	2,931	20.64	142
1963	2,760.95	2,055	1,631	1,130	20.97	54
1964	108,608.82	80,153	63,609	44,999	21.30	2,113
1965	9,354.70	6,789	5,388	3,967	22.30	178
1966	0.71	1	1			
1967	44,312.01	31,572	25,056	19,256	23.00	837
1968	12,008.52	8,406	6,671	5,338	24.00	222
1971	438.28	295	234	204	25.74	8
1972	133.48	89	71	63	26.12	2
1973	1,893.89	1,236	981	913	27.12	34
1974	84.58	55	44	41	27.52	1
1975	24,363.20	15,519	12,316	12,047	27.92	431
1976	4,220.76	2,634	2,090	2,130	28.92	74
1977	49.79	31	25	25	29.34	1

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1978	2,550.68	1,537	1,220	1,331	30.34	44
1979	3,316.99	1,970	1,563	1,754	30.76	57
1980	7,752.67	4,537	3,601	4,152	31.19	133
1981	59,455.77	34,003	26,985	32,471	32.19	1,009
1982	9,238.05	5,199	4,126	5,112	32.63	157
1983	32,222.14	17,703	14,049	18,173	33.63	540
1984	12,513.83	6,757	5,362	7,151	34.07	210
1985	12,535.03	6,600	5,238	7,297	35.07	208
1986	79,592.49	41,133	32,643	46,949	35.53	1,321
1987	292,677.69	148,358	117,737	174,941	35.99	4,861
1988	6,078.72	2,998	2,379	3,700	36.99	100
1989	12,579.41	6,076	4,822	7,757	37.46	207
1990	7,624.88	3,578	2,840	4,785	38.46	124
1991	73,271.99	33,610	26,673	46,599	38.94	1,197
1992	548,894.67	244,148	193,756	355,139	39.94	8,892
1993	12,001.44	5,209	4,134	7,868	40.43	195
1994	646.70	272	216	431	41.43	10
1995	435,536.58	178,091	141,333	294,203	41.92	7,018
1996	26,355.60	10,405	8,257	18,098	42.92	422
1997	621,076.25	238,121	188,973	432,103	43.42	9,952
1998	9,048.00	3,341	2,651	6,397	44.42	144
2000	37,680.73	12,932	10,263	27,418	45.93	597
2001	111,121.69	36,804	29,208	81,914	46.44	1,764
2002	125,548.33	39,774	31,565	93,984	47.44	1,981
2003	6,174.13	1,880	1,492	4,682	47.97	98
2006	13,775.37	3,620	2,873	10,903	50.49	216
2007	23,327.11	5,829	4,626	18,701	51.03	366
2014	1,225,930.27	183,890	145,935	1,079,995	56.67	19,058
2016	7,765.69	938	744	7,021	58.23	121
2017	107,363.71	11,348	9,006	98,358	59.23	1,661
2019	385,852.24	29,325	23,272	362,580	60.79	5,964
2020	633,915.37	38,796	30,789	603,127	61.36	9,829
2023	1,455,550.20	22,852	18,135	1,437,415	62.69	22,929
9999	3,575.00-	1,410-	1,172-	2,403-		66-
	8,767,843.39	3,459,226	2,875,666	5,892,177		161,363
	138,403,599.63	29,468,163	25,095,019	113,308,581		1,953,760
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						58.0 1.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2077						
NET SALVAGE PERCENT.. 0						
1966	6,696.14	5,437	4,293	2,404	13.43	179
1997	4,076,795.17	2,102,403	1,659,894	2,416,901	25.36	95,304
1998	86,320.84	43,091	34,021	52,300	26.08	2,005
2004	37,517.86	15,232	12,026	25,492	29.26	871
2005	48,578.25	18,921	14,939	33,640	29.78	1,130
	4,255,908.26	2,185,084	1,725,173	2,530,735		99,489
MILL ROAD INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2077						
NET SALVAGE PERCENT.. 0						
1997	5,185,337.03	2,674,078	2,111,245	3,074,092	25.36	121,218
1998	67,078.68	33,486	26,438	40,641	26.08	1,558
2004	51,910.47	21,076	16,640	35,270	29.26	1,205
	5,304,326.18	2,728,640	2,154,323	3,150,003		123,981
SWATARA CREEK INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
1992	743,957.01	433,281	342,085	401,872	22.95	17,511
2007	52,227.42	18,823	14,861	37,366	30.17	1,239
2008	24,096.05	8,250	6,514	17,582	30.73	572
2018	210,583.17	29,945	23,642	186,941	36.19	5,166
	1,030,863.65	490,299	387,102	643,762		24,488
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1962	4,167.41	3,488	2,754	1,414	12.07	117
1970	1,783.13	1,406	1,110	673	14.49	46

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1990	18,120.03	11,028	8,707	9,413	21.87	430
1995	1,697,864.04	930,599	734,729	963,135	23.91	40,282
1996	16,079.46	8,554	6,754	9,326	24.63	379
	1,738,014.07	955,075	754,053	983,961		41,254

OTHER INTAKES  
SURVIVOR CURVE.. IOWA 50-S0.5  
NET SALVAGE PERCENT.. 0

1908	759.70	760	760			
1909	253.38	253	253			
1914	70.12	70	70			
1915	1,662.50	1,662	1,663			
1916	314.56	315	315			
1920	312.36	312	312			
1924	164.60	165	165			
1934	256.57	247	196	61	3.46	18
1937	1,547.28	1,467	1,162	385	4.74	81
1938	210.53	199	158	53	4.91	11
1948	3,987.37	3,606	2,857	1,130	8.03	141
1954	496.13	438	347	149	9.37	16
1955	1,181.20	1,035	820	361	9.74	37
1959	0.02		0			
1961	189,470.41	159,951	126,749	62,721	11.63	5,393
1962	2,372.36	1,986	1,574	799	12.07	66
1963	0.34		0			
1964	12,733.66	10,467	8,294	4,439	12.99	342
1966	20,694.22	16,804	13,316	7,378	13.43	549
1967	34,058.19	27,373	21,691	12,367	13.92	888
1968	3,226.08	2,583	2,047	1,179	13.93	85
1969	332,975.01	263,716	208,975	124,000	14.44	8,587
1970	236.50	186	147	89	14.49	6
1972	2,349.52	1,820	1,442	907	15.11	60
1973	187,248.66	143,245	113,511	73,738	15.67	4,706
1974	680.70	517	410	271	15.79	17
1976	4,844.02	3,604	2,856	1,988	16.52	120
1979	4,506.34	3,245	2,571	1,935	17.50	111
1980	215.89	153	121	95	18.11	5



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER INTAKES						
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
1982	0.25		0			
1983	580.32	397	315	266	18.88	14
1984	7,015.37	4,742	3,758	3,258	19.17	170
1985	697.11	465	368	329	19.48	17
1986	5,075.19	3,336	2,644	2,432	19.80	123
1987	367.62	237	188	180	20.47	9
1988	324.67	206	163	161	20.82	8
1989	29,332.33	18,377	14,562	14,770	20.87	708
1991	310,499.35	187,511	148,589	161,911	21.64	7,482
1992	13,183.74	7,805	6,185	6,999	22.05	317
1994	7,095.31	4,023	3,188	3,907	22.91	171
1996	983,966.70	534,491	423,544	560,422	23.55	23,797
1997	74,663.52	39,714	31,470	43,193	23.76	1,818
1998	4,128.58	2,136	1,693	2,436	24.25	100
1999	423,842.83	214,041	169,612	254,231	24.50	10,377
2000	3,208.83	1,571	1,245	1,964	25.02	78
2001	11,447.10	5,450	4,319	7,128	25.31	282
2002	110,579.30	50,844	40,290	70,289	25.85	2,719
2006	199,247.82	79,261	62,808	136,439	27.25	5,007
2007	431,293.05	164,236	130,145	301,148	27.64	10,895
2008	71,499.34	25,969	20,579	50,921	28.05	1,815
2011	35,373.40	10,853	8,600	26,773	29.37	912
2013	63,624.81	17,007	13,477	50,148	30.15	1,663
2014	6,709.90	1,657	1,313	5,397	30.49	177
2017	303,537.81	54,819	43,440	260,098	31.76	8,189
2019	145,050.14	19,292	15,287	129,763	32.59	3,982
2020	65,237.43	7,046	5,583	59,654	33.04	1,806
2021	110,092.02	9,083	7,198	102,894	33.36	3,084
2023	1,279,282.68	36,587	28,992	1,250,290	33.97	36,806
9999	41,551.00-	16,211-	12,852-	28,699-		1,085-
	5,462,233.74	2,131,124	1,689,487	3,772,747		142,680
	17,791,345.90	8,490,222	6,710,138	11,081,208		431,892
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.7 2.43

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1904	570.89	571	571			
1905	6,014.15	6,014	6,014			
1907	41.31	41	41			
1908	8.11	8	8			
1910	5,079.08	5,079	5,079			
1912	712.53	713	713			
1913	1,274.86	1,275	1,275			
1914	593.02	593	593			
1915	2,199.02	2,199	2,199			
1916	1,555.99	1,546	1,258	298	0.70	298
1918	1,063.27	1,048	853	210	1.53	137
1920	56.40	55	45	11	2.38	5
1922	2,590.57	2,510	2,043	548	3.26	168
1923	9,106.97	8,830	7,188	1,919	3.17	605
1924	7,750.29	7,518	6,120	1,630	3.09	528
1926	429.13	412	335	94	4.04	23
1927	1,103.11	1,049	854	249	5.04	49
1930	8.49	8	8			
1934	189.20	175	142	47	7.09	7
1935	1,190.47	1,102	897	293	7.15	41
1937	2,918.63	2,666	2,170	749	8.24	91
1938	230.58	210	171	60	8.34	7
1939	2,439.04	2,198	1,789	650	9.34	70
1940	71.71	64	52	20	9.46	2
1941	797.42	715	582	215	9.59	22
1945	4,168.74	3,656	2,976	1,193	11.09	108
1946	216.66	189	154	63	11.29	6
1948	837.41	719	585	252	12.50	20
1950	104.66	89	72	33	12.96	3
1951	589.68	499	406	184	13.21	14
1953	12,628.25	10,580	8,612	4,016	13.75	292
1954	14,406.49	12,001	9,769	4,637	14.03	331
1955	11,835.60	9,800	7,977	3,859	14.33	269
1956	1,560.32	1,284	1,045	515	14.64	35
1957	438.24	358	291	147	14.97	10
1958	2,528.00	2,036	1,657	871	15.97	55
1959	1,881.16	1,504	1,224	657	16.30	40
1960	45,065.94	35,764	29,113	15,953	16.65	958
1961	4,375.07	3,473	2,827	1,548	16.37	95
1962	2,939.92	2,315	1,884	1,056	16.74	63
1963	8,473.06	6,616	5,386	3,087	17.12	180

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1964	2,075.85	1,607	1,308	768	17.52	44
1965	13,402.07	10,279	8,367	5,035	17.92	281
1966	52,777.83	40,101	32,643	20,135	18.34	1,098
1967	4,129.93	3,107	2,529	1,601	18.76	85
1968	6,982.81	5,201	4,234	2,749	19.19	143
1969	55,474.76	40,885	33,281	22,194	19.63	1,131
1970	4,674.66	3,433	2,795	1,880	19.53	96
1971	31,284.05	22,715	18,490	12,794	19.99	640
1972	99,953.72	71,727	58,387	41,567	20.46	2,032
1973	92,619.20	65,658	53,447	39,172	20.94	1,871
1974	36,948.07	26,048	21,204	15,744	20.92	753
1975	8,949.64	6,227	5,069	3,881	21.42	181
1976	106,563.59	73,145	59,542	47,022	21.93	2,144
1977	19,904.47	13,565	11,042	8,862	21.97	403
1978	166,422.96	111,770	90,983	75,440	22.49	3,354
1979	39,642.15	26,402	21,492	18,150	22.57	804
1980	131,008.39	85,889	69,915	61,093	23.11	2,644
1981	117,619.63	76,370	62,167	55,453	23.23	2,387
1982	290,606.82	185,523	151,020	139,587	23.79	5,867
1983	166,292.53	104,997	85,470	80,823	23.94	3,376
1984	43,735.54	27,116	22,073	21,663	24.52	883
1985	60,028.75	36,756	29,920	30,109	24.69	1,219
1986	59,322.55	35,843	29,177	30,146	24.89	1,211
1987	230,195.41	137,127	111,624	118,571	25.11	4,722
1988	207,714.49	121,139	98,610	109,104	25.73	4,240
1989	65,557.47	37,630	30,632	34,925	25.98	1,344
1990	937,704.31	529,240	430,812	506,892	26.24	19,318
1991	90,089.78	49,946	40,657	49,433	26.52	1,864
1992	220,366.40	119,879	97,584	122,782	26.82	4,578
1993	79,858.93	42,581	34,662	45,197	27.14	1,665
1994	11,207.63	5,850	4,762	6,446	27.47	235
1995	25,585.76	13,059	10,630	14,956	27.82	538
1996	30,007.12	14,956	12,174	17,833	28.18	633
1997	76,534.97	37,403	30,447	46,088	28.25	1,631
1998	23,893.16	11,368	9,254	14,639	28.64	511
1999	39,824.39	18,419	14,993	24,831	29.05	855
2000	881,514.14	397,739	323,768	557,746	29.19	19,107
2001	238,205.91	104,644	85,182	153,024	29.36	5,212
2002	305,417.48	129,680	105,562	199,855	29.81	6,704
2003	143,359.09	59,007	48,033	95,326	30.02	3,175
2004	986,835.88	392,761	319,716	667,120	30.25	22,054

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2005	2,640.92	1,014	825	1,816	30.50	60
2006	146,151.26	53,930	43,900	102,251	30.78	3,322
2007	496,040.74	175,400	142,779	353,262	31.08	11,366
2008	312,790.55	105,598	85,959	226,832	31.39	7,226
2009	9,390.78	3,029	2,466	6,925	31.51	220
2010	43,637.87	13,318	10,841	32,797	31.87	1,029
2011	338,285.41	97,629	79,472	258,813	32.05	8,075
2012	50,981.83	13,826	11,255	39,727	32.25	1,232
2013	255,142.11	64,551	52,546	202,596	32.48	6,238
2014	164,716.57	38,544	31,376	133,341	32.74	4,073
2015	1,157,081.80	247,847	201,752	955,330	33.02	28,932
2016	97,840.63	19,020	15,483	82,358	33.15	2,484
2017	31,720.83	5,507	4,483	27,238	33.32	817
2018	97,666.40	14,884	12,116	85,550	33.37	2,564
2019	138,057.93	17,879	14,554	123,504	33.61	3,675
2020	261,697.76	27,845	22,666	239,032	33.59	7,116
2021	168,596.74	13,808	11,240	157,357	33.63	4,679
2022	1,734,941.79	97,157	79,088	1,655,854	33.71	49,121
2023	464,148.99	13,460	10,957	453,192	33.48	13,536
2024	151,921.18	1,124	915	151,006	33.42	4,518
9999	71,610.27-	25,573-	20,835-	50,775-		1,697-
	12,416,177.55	4,434,071	3,612,473	8,803,705		294,151
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.9 2.37

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S0.5						
NET SALVAGE PERCENT.. 0						
1991	30,503.15	19,629	18,645	11,858	18.28	649
1992	38,884.85	24,513	23,284	15,601	18.76	832
1993	19,000.40	11,780	11,189	7,811	19.00	411
1994	89,645.34	54,325	51,601	38,044	19.50	1,951
1995	913.54	543	516	398	19.78	20
1996	6,832.08	3,979	3,779	3,053	20.08	152
1997	907,397.19	514,494	488,697	418,700	20.62	20,306
1998	17,951.56	9,942	9,443	8,509	20.95	406
1999	222,917.62	120,376	114,340	108,578	21.30	5,098
2000	86,874.40	45,661	43,371	43,503	21.66	2,008
2001	3,238.97	1,654	1,571	1,668	22.05	76
2002	215,094.77	106,472	101,133	113,962	22.44	5,079
2003	222,373.58	106,939	101,577	120,797	22.67	5,328
2004	80,295.99	37,257	35,389	44,907	23.10	1,944
2005	243,659.44	108,794	103,339	140,320	23.55	5,958
2006	347,035.56	149,295	141,809	205,227	23.84	8,609
2007	99,879.48	41,090	39,030	60,849	24.32	2,502
2008	126,530.31	49,802	47,305	79,225	24.65	3,214
2009	123,351.00	46,257	43,938	79,413	25.00	3,177
2010	93,304.96	33,049	31,392	61,913	25.53	2,425
2011	384,347.17	128,410	121,971	262,376	25.91	10,126
2012	5,994,607.60	1,877,511	1,783,370	4,211,238	26.31	160,062
2013	5,105,380.81	1,488,219	1,413,598	3,691,783	26.74	138,062
2014	600,450.24	162,122	153,993	446,457	27.04	16,511
2015	610,655.53	150,588	143,037	467,619	27.50	17,004
2016	156,901.17	35,020	33,264	123,637	27.84	4,441
2017	261,208.99	51,746	49,151	212,058	28.34	7,483
2018	966,738.66	167,052	158,676	808,063	28.72	28,136
2019	339,533.98	49,742	47,248	292,286	29.13	10,034
2020	275,567.95	32,848	31,201	244,367	29.56	8,267
2021	71,214.00	6,495	6,169	65,045	29.89	2,176
2023	7,195,905.50	228,110	216,673	6,979,232	30.55	228,453
2024	337,019.70	2,696	2,561	334,459	30.81	10,856
9999	118,273.00-	27,451-	26,075-	92,198-		3,331-
	25,156,942.49	5,838,959	5,546,185	19,610,757		708,425

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 27.7 2.82

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.2 PUMPING EQUIPMENT - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1996	1,986.54	1,224	804	1,183	17.45	68
1999	1,667.46	963	633	1,034	18.29	57
2001	29,624.39	16,216	10,655	18,969	19.02	997
2002	32,312.49	17,274	11,350	20,962	19.15	1,095
2003	823,047.38	426,915	280,512	542,535	19.49	27,837
2004	127,527.73	64,019	42,065	85,463	19.84	4,308
2005	334,999.93	162,944	107,065	227,935	20.06	11,363
2006	2,531,499.43	1,184,742	778,457	1,753,042	20.46	85,681
2007	528.28	238	156	372	20.74	18
2008	239,127.06	103,303	67,877	171,250	21.04	8,139
2009	8,336.75	3,451	2,268	6,069	21.23	286
2010	56,654.53	22,288	14,645	42,010	21.59	1,946
2011	93,992.47	35,069	23,043	70,949	21.84	3,249
2012	896,791.04	316,388	207,889	688,902	22.01	31,300
2013	273,952.70	90,404	59,402	214,551	22.33	9,608
2014	4,105,892.32	1,260,509	828,240	3,277,652	22.57	145,222
2015	408,848.58	115,541	75,918	332,931	22.85	14,570
2016	517,643.96	133,345	87,617	430,027	23.06	18,648
2017	155,837.01	36,107	23,725	132,112	23.21	5,692
2018	1,600,755.27	326,554	214,568	1,386,187	23.41	59,213
2019	828,751.94	145,032	95,296	733,456	23.57	31,118
2020	2,138,053.49	308,735	202,860	1,935,193	23.70	81,654
2021	1,420,909.87	159,000	104,474	1,316,436	23.81	55,289
2023	7,889,658.69	317,953	208,917	7,680,742	23.81	322,585
2024	552,306.49	5,744	3,774	548,532	23.79	23,057
9999	1,954,569.05-	409,610-	269,142-	1,685,427-		73,518-
	23,116,136.75	4,844,348	3,183,068	19,933,069		869,482
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.9 3.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.5 PUMPING EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
2003	1,094.21	568	262	832	19.49	43
2004	10,226.07	5,133	2,364	7,862	19.84	396
2005	67,426.58	32,796	15,103	52,324	20.06	2,608
2006	50,644.62	23,702	10,915	39,730	20.46	1,942
2007	4,477.17	2,017	929	3,548	20.74	171
2010	60,812.96	23,924	11,017	49,796	21.59	2,306
2011	116,254.80	43,375	19,974	96,281	21.84	4,408
2012	1,768.38	624	287	1,481	22.01	67
2013	601,789.53	198,591	91,452	510,338	22.33	22,854
2014	7,409.40	2,275	1,048	6,361	22.57	282
2016	10,076.92	2,596	1,195	8,882	23.06	385
2017	3,802.48	881	406	3,396	23.21	146
2018	6,209.84	1,267	583	5,627	23.41	240
2019	701,297.74	122,727	56,516	644,782	23.57	27,356
2020	2,610,961.01	377,023	173,621	2,437,340	23.70	102,841
2021	2,500,679.42	279,826	128,861	2,371,818	23.81	99,614
2022	5,166,351.34	398,842	183,669	4,982,682	23.91	208,393
2023	3,598,493.65	145,019	66,783	3,531,711	23.81	148,329
2024	1,052,023.20	10,941	5,038	1,046,985	23.79	44,009
	16,571,799.32	1,672,127	770,023	15,801,776		666,390
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.7 4.02

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.52 PUMPING EQUIPMENT - SOURCE OF SUPPLY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1995	418.45	263	228	190	17.08	11
1997	234.53	142	123	112	17.64	6
2007	323,270.08	145,633	126,025	197,245	20.74	9,510
2008	136,117.27	58,803	50,886	85,231	21.04	4,051
2009	105,375.04	43,625	37,751	67,624	21.23	3,185
2010	675,975.27	265,929	230,124	445,851	21.59	20,651
2011	731,330.15	272,859	236,121	495,209	21.84	22,674
2012	228,208.41	80,512	69,672	158,536	22.01	7,203
2013	1,313,491.14	433,452	375,092	938,399	22.33	42,024
2014	1,598,537.47	490,751	424,676	1,173,861	22.57	52,010
2015	1,400,457.07	395,769	342,482	1,057,975	22.85	46,301
2016	1,708,322.35	440,064	380,813	1,327,509	23.06	57,568
2017	2,110,336.21	488,965	423,130	1,687,206	23.21	72,693
2018	1,022,515.03	208,593	180,508	842,007	23.41	35,968
2019	344,455.58	60,280	52,164	292,292	23.57	12,401
2020	118,864.55	17,164	14,853	104,012	23.70	4,389
2021	268,054.92	29,995	25,956	242,099	23.81	10,168
2023	854,607.38	34,441	29,804	824,803	23.81	34,641
	12,940,570.90	3,467,240	3,000,408	9,940,163		435,454
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.8 3.37



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1910	137.73	138	138			
1917	133.00	133	133			
1919	8,727.40	8,727	8,727			
1928	134.45	134	134			
1929	274.09	274	274			
1930	10.36	10	10			
1931	3,609.84	3,610	3,610			
1937	1,084.39	1,084	1,084			
1939	195.67	196	196			
1941	233.57	234	234			
1942	901.65	902	902			
1944	22.40	22	22			
1945	737.81	738	738			
1946	36.51	36	32	5	0.12	5
1947	175.93	175	157	19	0.52	19
1948	1,721.87	1,701	1,528	194	0.92	194
1950	257.14	253	227	30	1.19	25
1951	14,946.31	14,620	13,132	1,814	1.63	1,113
1952	33,222.64	32,292	29,006	4,217	2.07	2,037
1953	14,955.45	14,441	12,971	1,984	2.53	784
1954	9,834.27	9,431	8,471	1,363	2.99	456
1955	2,307.03	2,197	1,973	334	3.46	97
1956	984.21	937	842	142	3.43	41
1957	15,384.02	14,533	13,054	2,330	3.92	594
1958	3,367.41	3,156	2,835	532	4.42	120
1959	30,581.95	28,625	25,712	4,870	4.44	1,097
1960	74,885.02	69,493	62,420	12,465	4.97	2,508
1961	172,778.06	158,921	142,747	30,031	5.49	5,470
1962	3,846.01	3,529	3,170	676	5.57	121
1963	22,013.95	20,008	17,972	4,042	6.11	662
1964	33,235.44	29,912	26,868	6,367	6.67	955
1965	199,630.46	179,029	160,809	38,821	6.79	5,717
1966	11,660.13	10,347	9,294	2,366	7.36	321
1967	28,880.66	25,516	22,919	5,962	7.52	793
1968	95,521.75	83,983	75,436	20,086	7.69	2,612
1969	336,092.73	292,065	262,340	73,753	8.29	8,897
1970	5,567.23	4,810	4,320	1,247	8.50	147
1971	51,979.05	44,354	39,840	12,139	9.11	1,332
1972	425,080.09	360,298	323,629	101,451	9.35	10,850
1973	5,713,935.55	4,808,277	4,318,920	1,395,016	9.61	145,163
1974	22,852.56	19,082	17,140	5,713	9.88	578

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1975	113,415.69	93,920	84,361	29,055	10.17	2,857
1976	72,968.72	59,542	53,482	19,487	10.82	1,801
1977	19,388.63	15,674	14,079	5,310	11.14	477
1978	9,787.72	7,834	7,037	2,751	11.47	240
1979	178,767.53	141,584	127,174	51,594	11.82	4,365
1980	150,308.57	117,722	105,741	44,568	12.18	3,659
1981	506,732.79	394,390	354,251	152,482	12.25	12,448
1982	700,388.66	538,319	483,532	216,857	12.64	17,156
1983	235,697.27	178,776	160,581	75,116	13.05	5,756
1984	314,495.98	235,243	211,301	103,195	13.48	7,655
1985	648,586.85	480,603	431,690	216,897	13.63	15,913
1986	416,712.98	304,034	273,091	143,622	14.08	10,200
1987	694,620.55	498,599	447,855	246,766	14.55	16,960
1988	305,870.14	216,923	194,846	111,024	14.76	7,522
1989	629,840.15	440,888	396,017	233,823	15.00	15,588
1990	4,404,508.55	3,025,016	2,717,149	1,687,360	15.50	108,862
1991	1,021,788.90	691,240	620,890	400,899	15.78	25,406
1992	1,175,752.15	782,581	702,935	472,817	16.08	29,404
1993	1,214,390.97	794,333	713,491	500,900	16.39	30,561
1994	343,463.55	220,504	198,063	145,401	16.73	8,691
1995	3,162,140.70	1,989,935	1,787,412	1,374,729	17.08	80,488
1996	1,081,569.17	666,247	598,441	483,128	17.45	27,686
1997	3,450,086.82	2,086,613	1,874,251	1,575,836	17.64	89,333
1998	1,058,295.76	624,606	561,037	497,259	18.05	27,549
1999	3,220,158.30	1,859,641	1,670,378	1,549,780	18.29	84,734
2000	2,461,862.16	1,388,490	1,247,178	1,214,684	18.55	65,482
2001	2,419,398.53	1,324,379	1,189,592	1,229,807	19.02	64,659
2002	1,318,397.32	704,815	633,083	685,314	19.15	35,787
2003	2,250,239.06	1,167,199	1,048,409	1,201,830	19.49	61,664
2004	383,907.57	192,722	173,108	210,800	19.84	10,625
2005	99,429.78	48,363	43,441	55,989	20.06	2,791
2006	248,585.93	116,338	104,498	144,088	20.46	7,042
2007	1,515,671.60	682,810	613,318	902,354	20.74	43,508
2008	334,620.09	144,556	129,844	204,776	21.04	9,733
2009	188,991.93	78,243	70,280	118,712	21.23	5,592
2010	241,344.53	94,945	85,282	156,063	21.59	7,228
2011	413,172.02	154,154	138,465	274,707	21.84	12,578
2012	466,418.48	164,552	147,805	318,613	22.01	14,476
2013	226,704.84	74,813	67,199	159,506	22.33	7,143
2014	142,593.48	43,776	39,321	103,272	22.57	4,576
2015	387,479.97	109,502	98,358	289,122	22.85	12,653

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
2016	301,993.38	77,793	69,876	232,117	23.06	10,066
2017	66,657.04	15,444	13,872	52,785	23.21	2,274
2018	902,376.61	184,085	165,350	737,027	23.41	31,483
2019	112,378.15	19,666	17,664	94,714	23.57	4,018
2020	117,333.16	16,943	15,219	102,114	23.70	4,309
2021	477,892.13	53,476	48,033	429,859	23.81	18,054
2022	117,663.33	9,084	8,160	109,503	23.91	4,580
2023	187,006.36	7,536	6,769	180,237	23.81	7,570
	47,853,790.34	29,586,674	26,577,175	21,276,615		1,275,910
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.7 2.67

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.54 PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1999	50,052.68	28,905	26,111	23,942	18.29	1,309
2000	490,971.15	276,908	250,144	240,827	18.55	12,983
2001	36,531.40	19,997	18,064	18,467	19.02	971
2002	538,352.70	287,803	259,986	278,367	19.15	14,536
2003	72,336.08	37,521	33,894	38,442	19.49	1,972
2004	292,005.04	146,587	132,419	159,586	19.84	8,044
2005	16,038.24	7,801	7,047	8,991	20.06	448
2006	189,538.24	88,704	80,130	109,408	20.46	5,347
2007	1,122,692.14	505,773	456,888	665,804	20.74	32,102
2008	693,194.93	299,460	270,516	422,679	21.04	20,089
2009	1,320,313.42	546,610	493,777	826,536	21.23	38,932
2010	294,909.64	116,017	104,803	190,107	21.59	8,805
2011	162,273.18	60,544	54,692	107,581	21.84	4,926
2012	147,718.84	52,115	47,078	100,641	22.01	4,573
2013	258,192.41	85,203	76,968	181,224	22.33	8,116
2015	107,975.32	30,514	27,565	80,410	22.85	3,519
2016	297,660.73	76,677	69,266	228,395	23.06	9,904
2017	157,968.28	36,601	33,063	124,905	23.21	5,382
2018	177,536.81	36,218	32,717	144,820	23.41	6,186
2019	27,912.06	4,885	4,413	23,499	23.57	997
2021	3,000.02	336	304	2,696	23.81	113
2022	250,727.13	19,356	17,485	233,242	23.91	9,755
	6,707,900.44	2,764,535	2,497,330	4,210,570		199,009

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.2 2.97

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW HERSHEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2067						
NET SALVAGE PERCENT.. 0						
1992	4,605,057.01	2,814,611	2,624,392	1,980,665	20.36	97,282
1993	236.04	141	131	105	20.81	5
1994	5,203.89	3,060	2,853	2,351	21.02	112
1995	830.13	477	445	385	21.51	18
1996	1,183.76	666	621	563	21.75	26
1998	5,798.79	3,106	2,896	2,903	22.54	129
2001	17,726.99	8,766	8,174	9,553	23.51	406
2008	30,628.68	11,614	10,829	19,800	26.19	756
2009	156,208.55	56,235	52,434	103,774	26.67	3,891
2012	3,190,991.80	961,127	896,171	2,294,820	27.84	82,429
2013	143,928.90	40,214	37,496	106,433	28.37	3,752
2014	144,316.86	37,234	34,718	109,599	28.76	3,811
2021	1,294,711.77	110,309	102,854	1,191,858	32.21	37,003
	9,596,823.17	4,047,560	3,774,015	5,822,808		229,620

BANGOR TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1989	2,860,588.15	1,852,231	1,727,052	1,133,536	19.05	59,503
1990	10,623.39	6,754	6,298	4,326	19.48	222
1994	8,028.91	4,745	4,424	3,605	20.76	174
2000	691.60	355	331	361	22.73	16
2007	6,598.67	2,647	2,468	4,131	25.37	163
2008	51,019.15	19,591	18,267	32,752	25.67	1,276
2009	13,787.45	5,046	4,705	9,082	25.98	350
2010	29,160.31	10,084	9,402	19,758	26.49	746
2012	25,731.93	7,874	7,342	18,390	27.22	676
2013	10,033.12	2,858	2,665	7,368	27.61	267
2014	10,972.92	2,886	2,691	8,282	28.02	296
	3,027,235.60	1,915,071	1,785,645	1,241,591		63,689

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
MOSHANNON VALLEY						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1988	2,378,740.29	1,712,693	1,596,944	781,796	14.00	55,843
1990	6,544.83	4,606	4,295	2,250	14.31	157
1993	8,633.92	5,862	5,466	3,168	14.66	216
1994	35,338.97	23,642	22,044	13,295	14.84	896
1995	21,272.50	14,065	13,114	8,158	14.86	549
2011	15,381.16	6,698	6,245	9,136	16.85	542
	2,465,911.67	1,767,566	1,648,109	817,803		58,203
NORRISTOWN PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
1997	2,338,801.36	1,326,100	1,261,238	1,077,563	20.62	52,258
1998	51,785.42	28,813	27,404	24,382	20.73	1,176
1999	255,574.30	138,649	131,867	123,707	21.08	5,868
2000	107,104.92	56,551	53,785	53,320	21.45	2,486
2001	344,886.61	177,686	168,995	175,892	21.64	8,128
2023	4,600,022.57	155,941	148,314	4,451,709	28.50	156,200
	7,698,175.18	1,883,740	1,791,603	5,906,572		226,116
NORRISTOWN PLANT NO. 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
1982	316.42	233	217	99	15.14	7
1990	59,105.20	39,589	36,913	22,192	16.76	1,324
1995	1,320,282.91	819,368	763,993	556,290	17.73	31,376
1999	3,573,772.17	2,054,919	1,916,042	1,657,730	18.48	89,704
2004	9,652.67	4,904	4,573	5,080	19.37	262
2006	18,839.86	8,987	8,380	10,460	19.74	530
2010	35,600.00	14,454	13,477	22,123	20.48	1,080
2011	9,238.54	3,567	3,326	5,913	20.67	286
2012	111,639.37	40,726	37,974	73,666	20.89	3,526
2013	126,470.76	43,266	40,342	86,129	21.15	4,072
2014	92,686.99	29,567	27,569	65,118	21.35	3,050

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN PLANT NO. 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
2018	33,127.07	7,076	6,598	26,529	22.09	1,201
2019	110.86	20	19	92	22.32	4
2021	3,397,278.49	396,462	369,668	3,027,610	22.71	133,316
	8,788,121.31	3,463,138	3,229,090	5,559,031		269,738
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1969	592,011.90	481,898	449,330	142,682	12.57	11,351
1970	0.18		0			
1971	85.00	68	63	22	13.23	2
1972	77.00	61	57	20	13.79	1
1973	159.00	125	117	42	13.94	3
1977	915.82	693	646	270	15.11	18
1982	1,483.91	1,060	988	496	16.82	29
1984	2,142.27	1,491	1,390	752	17.47	43
1985	5,679.13	3,898	3,635	2,045	17.82	115
1986	274.00	186	173	101	17.87	6
1989	1,399.32	911	849	550	18.76	29
1990	675,240.20	431,614	402,444	272,796	19.19	14,216
1991	1,328,257.42	832,817	776,533	551,724	19.63	28,106
1992	142.08	88	82	60	19.81	3
1994	3,438.13	2,042	1,904	1,534	20.51	75
1995	41,956.14	24,456	22,803	19,153	20.75	923
2000	21,291.43	11,037	10,291	11,000	22.30	493
2001	8,729.22	4,397	4,100	4,629	22.66	204
2004	27,520.99	12,605	11,753	15,768	23.67	666
2007	0.06		0			
2008	38,004.78	14,837	13,834	24,171	24.98	968
2009	43,188.45	16,066	14,980	28,208	25.32	1,114
2011	1,847,904.99	617,385	575,660	1,272,245	25.91	49,102
2012	4,021.14	1,259	1,174	2,847	26.31	108

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2013	246,296.50	72,066	67,196	179,101	26.59	6,736
2014	12,654.23	3,417	3,186	9,468	27.04	350
2021	4,157,197.84	380,384	354,677	3,802,521	29.79	127,644
	9,060,071.13	2,914,861	2,717,867	6,342,204		242,305
ONEIDA VALLEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1972	812,923.54	655,216	610,935	201,989	12.52	16,133
1973	4,215.87	3,376	3,148	1,068	12.69	84
1974	84.31	67	62	22	12.89	2
1982	1,397,906.11	1,039,203	968,971	428,935	14.50	29,582
1983	985.80	723	674	312	14.87	21
1984	1,092.20	795	741	351	14.95	23
1985	1,762.52	1,272	1,186	576	15.05	38
1986	158,342.13	113,120	105,475	52,867	15.19	3,480
1987	5,291.21	3,739	3,486	1,805	15.36	118
1990	9,016.06	6,131	5,717	3,299	16.00	206
1994	11,504.67	7,386	6,887	4,618	16.73	276
1996	206,838.17	128,571	119,882	86,956	17.05	5,100
1997	211,238.37	128,898	120,187	91,052	17.25	5,278
1998	143,526.80	86,202	80,376	63,151	17.29	3,652
2006	3,287.36	1,615	1,506	1,782	18.63	96
2007	4,241.17	2,012	1,876	2,365	18.84	126
2008	44,084.18	20,173	18,810	25,275	18.97	1,332
2009	3,924.36	1,719	1,603	2,322	19.25	121
2012	12.52	5	5	8	19.75	
2013	55,551.77	19,799	18,461	37,091	19.86	1,868
2014	2,179.04	726	677	1,502	20.03	75
	3,078,008.16	2,220,748	2,070,664	1,007,344		67,611



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
TWO LICK CREEK TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2037						
NET SALVAGE PERCENT.. 0						
1906	1,384.00	1,384	1,384			
1909	3,521.00	3,521	3,521			
1910	203.00	203	203			
1924	1,765.00	1,765	1,765			
1927	135.95	135	126	10	1.04	10
1928	129.00	128	119	10	1.09	9
1935	11.26	11	11			
1958	29.15	26	24	5	8.07	1
1963	1,322.35	1,162	1,083	239	8.44	28
1965	229,382.77	200,297	186,726	42,657	8.57	4,977
1966	70.40	61	57	14	8.67	2
1967	2.12	2	2			
1969	304,266.24	261,060	243,371	60,895	9.10	6,692
1972	0.36		0			
1973	0.55			1	9.61	
1977	0.27		0			
1982	1,210,091.45	970,735	904,961	305,131	10.36	29,453
1983	68,041.39	54,399	50,713	17,328	10.28	1,686
1987	17,693.12	13,748	12,816	4,877	10.62	459
1988	20,150.57	15,524	14,472	5,678	10.73	529
1989	76,072.02	58,043	54,110	21,962	10.87	2,020
1990	7,021.40	5,324	4,963	2,058	10.84	190
1992	11,166.13	8,290	7,728	3,438	11.10	310
1994	1,181,000.53	860,949	802,614	378,387	11.15	33,936
1996	5,063.26	3,601	3,357	1,706	11.37	150
1997	1,346.73	949	885	462	11.31	41
2000	1,658.35	1,118	1,042	616	11.59	53
2008	8,355.53	4,773	4,450	3,906	12.01	325
2009	44,551.46	24,659	22,988	21,563	12.10	1,782
2013	396,506.56	187,111	174,433	222,074	12.31	18,040
2014	57.46	26	24	33	12.37	3
	3,590,999.38	2,679,004	2,497,950	1,093,049		100,696

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW CASTLE FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2060						
NET SALVAGE PERCENT.. 0						
2006	1,121.21	480	409	712	24.02	30
2007	7,111.84	2,926	2,492	4,620	24.32	190
2008	2,174.83	856	729	1,446	24.65	59
2009	4,017.89	1,507	1,284	2,734	25.00	109
2012	192,646.24	60,799	51,784	140,863	26.02	5,414
2013	49,243.83	14,517	12,364	36,879	26.31	1,402
2014	619,092.68	169,012	143,951	475,142	26.63	17,842
2023	5,977,804.78	191,888	163,434	5,814,370	30.15	192,848
2024	11,471,721.39	92,921	79,142	11,392,579	30.52	373,282
	18,324,934.69	534,906	455,589	17,869,346		591,176

E.H. ALDRICH STATION  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2041  
NET SALVAGE PERCENT.. 0

1961	80,911.88	70,345	65,591	15,321	9.46	1,620
1962	5,350.86	4,645	4,331	1,020	9.43	108
1963	479.89	416	388	92	9.42	10
1964	977.76	839	782	195	9.93	20
1966	240.00	205	191	49	10.03	5
1969	475,945.97	397,891	371,000	104,946	10.79	9,726
1970	4,015.31	3,339	3,113	902	10.94	82
1972	6,866.34	5,677	5,293	1,573	10.89	144
1975	15,658.45	12,660	11,804	3,854	11.61	332
1976	5,336.00	4,303	4,012	1,324	11.52	115
1979	5,834.00	4,594	4,284	1,550	12.14	128
1980	1,374.20	1,076	1,003	371	12.18	30
1981	8,541.92	6,648	6,199	2,343	12.25	191
1982	296,991.36	229,515	214,004	82,988	12.35	6,720
1983	48,573.14	37,241	34,724	13,849	12.48	1,110
1984	1,323.05	1,006	938	385	12.63	30
1986	1,829.56	1,370	1,277	552	12.76	43
1987	770.54	570	531	239	13.00	18
1988	1,916.04	1,407	1,312	604	13.02	46
1989	995.67	725	676	320	13.08	24
1990	12,231.45	8,775	8,182	4,049	13.39	302
1991	42,884.78	30,568	28,502	14,383	13.30	1,081

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH STATION						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1992	1,006.23	708	660	346	13.45	26
1993	7,180,454.66	4,986,108	4,649,133	2,531,321	13.64	185,581
1994	16,957.32	11,650	10,863	6,095	13.67	446
1995	1,163,518.36	789,564	736,203	427,315	13.74	31,100
1996	136,637.49	91,438	85,258	51,379	13.84	3,712
1997	2,217,941.61	1,461,180	1,362,430	855,512	13.98	61,195
2000	62,308.54	39,030	36,392	25,916	14.31	1,811
2001	339,034.47	208,201	194,130	144,904	14.45	10,028
2006	14,081.71	7,706	7,185	6,897	14.89	463
2007	28,838.76	15,296	14,262	14,577	15.05	969
2012	4,153,926.68	1,814,435	1,691,811	2,462,116	15.47	159,154
2013	2,073,887.49	857,760	799,790	1,274,097	15.60	81,673
2014	191,425.87	74,656	69,611	121,815	15.64	7,789
2017	144,046.69	43,963	40,992	103,055	15.94	6,465
2018	139,569.24	38,019	35,450	104,120	16.03	6,495
2019	272,566.83	64,462	60,105	212,461	16.14	13,164
	19,155,250.12	11,327,991	10,562,415	8,592,835		591,956

HAYS MINE STATION TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1955	107.82	96	90	18	8.52	2
1957	258.72	227	213	46	9.34	5
1958	1,158.59	1,017	953	206	9.19	22
1959	128.38	112	105	23	9.63	2
1962	171.37	147	138	34	10.46	3
1963	458.14	388	364	95	10.94	9
1967	174.17	144	135	39	11.97	3
1968	2,957.71	2,435	2,282	676	12.03	56
1969	793.44	650	609	184	12.11	15
1971	309.75	250	234	76	12.79	6
1972	2,495.48	1,998	1,872	623	12.94	48
1975	158,587.60	123,556	115,770	42,818	13.89	3,083
1976	19,986.33	15,445	14,472	5,515	14.11	391
1978	0.03		0			
1979	0.07		0			

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE STATION TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1980	887.23	664	622	265	14.82	18
1981	379.72	281	263	116	15.14	8
1982	53.37	39	37	17	15.47	1
1983	19,897.82	14,440	13,530	6,368	15.50	411
1985	71,588.69	50,814	47,612	23,977	15.95	1,503
1986	208.29	146	137	71	16.05	4
1987	1,125.31	779	730	395	16.48	24
1989	611,053.53	412,767	386,755	224,298	16.81	13,343
1990	8,316,564.36	5,542,158	5,192,904	3,123,660	17.02	183,529
1991	3,654,314.50	2,399,788	2,248,559	1,405,756	17.25	81,493
1993	8,482.60	5,417	5,076	3,407	17.54	194
1994	5,598.51	3,510	3,289	2,310	17.85	129
1995	6,428.41	3,971	3,721	2,708	17.95	151
1996	4,323.25	2,615	2,450	1,873	18.30	102
1997	73,776.97	43,824	41,062	32,715	18.45	1,773
1998	7,514.96	4,377	4,101	3,414	18.64	183
2001	244,128.51	133,074	124,688	119,441	19.19	6,224
2006	39,030.27	18,336	17,181	21,850	20.31	1,076
2008	66,556.89	29,072	27,240	39,317	20.63	1,906
2009	775.44	325	305	471	20.84	23
2010	29,636.81	11,825	11,080	18,557	21.09	880
2012	11,405,876.06	4,092,428	3,834,533	7,571,343	21.44	353,141
2013	25,744.17	8,665	8,119	17,625	21.68	813
2014	91,949.66	28,780	26,966	64,983	21.95	2,961
2017	198,195.09	46,893	43,938	154,257	22.59	6,829
2018	194,596.62	40,632	38,071	156,525	22.74	6,883
2023	6,719,061.79	270,106	253,085	6,465,977	23.88	270,770
	31,985,336.43	13,312,191	12,473,288	19,512,048		938,017

SUSQUEHANNA FILTER PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2070  
NET SALVAGE PERCENT.. 0

1920	2.00	2	2			
1927	119.00	118	110	9	1.04	9
1929	5,945.58	5,874	5,477	469	1.15	408
1931	5,319.00	5,194	4,843	476	2.24	212

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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SUSQUEHANNA FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1947	278.00	257	240	38	6.33	6
1954	493.00	442	412	81	8.12	10
1956	179.54	159	148	31	8.92	3
1957	631.36	554	517	115	9.34	12
1963	842.00	714	666	176	10.94	16
1973	26,394.70	20,730	19,329	7,066	13.94	507
1979	391.74	289	269	122	15.98	8
1982	7,848.56	5,571	5,194	2,654	17.17	155
1984	1,071.66	742	692	380	17.80	21
1985	34,553.31	23,583	21,989	12,564	18.14	693
1986	19,163.69	12,889	12,018	7,146	18.50	386
1990	8,393.40	5,308	4,949	3,444	19.76	174
1995	1,937,167.63	1,106,704	1,031,910	905,258	21.76	41,602
1998	37.76	20	19	19	22.78	1
2008	12,798.62	4,792	4,468	8,330	26.74	312
2009	27,067.43	9,622	8,972	18,096	27.19	666
2010	27,009.76	9,075	8,462	18,548	27.67	670
2011	5,393.93	1,711	1,595	3,799	27.98	136
2012	68,345.06	20,257	18,888	49,457	28.49	1,736
2014	10,788.07	2,740	2,555	8,233	29.37	280
	2,200,234.80	1,237,347	1,153,724	1,046,511		48,023

YARDLEY - MILL ROAD TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2057  
NET SALVAGE PERCENT.. 0

1997	4,036,898.44	2,288,921	2,134,229	1,902,669	20.62	92,273
1998	636,566.96	354,186	330,249	306,318	20.73	14,777
1999	22,865.33	12,404	11,566	11,300	21.08	536
2001	3,473.57	1,790	1,669	1,805	21.64	83
2007	40,599.49	17,117	15,960	24,639	23.32	1,057
2008	19,404.61	7,824	7,295	12,109	23.68	511
2010	38,695.00	14,139	13,183	25,512	24.31	1,049
2012	12,166.56	3,957	3,690	8,477	24.90	340

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2013	106,076.97	32,322	30,138	75,939	25.10	3,025
2014	22,389.82	6,314	5,887	16,503	25.46	648
2021	2,288,196.39	223,099	208,021	2,080,175	27.77	74,907
	7,227,333.14	2,962,073	2,761,888	4,465,445		189,206
SCRANTON WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	6,068,557.86	4,044,087	3,770,776	2,297,781	17.02	135,005
1991	10,808.16	7,098	6,618	4,190	17.25	243
1992	63.36	41	38	25	17.50	1
1993	1,858.78	1,187	1,107	752	17.54	43
1994	2,129.12	1,335	1,245	884	17.85	50
1995	42,181.67	26,056	24,295	17,887	17.95	996
1998	71.71	42	39	33	18.64	2
1999	13,304.56	7,584	7,071	6,233	18.86	330
2000	35,457.33	19,743	18,409	17,049	19.10	893
2001	1,233.88	673	628	606	19.19	32
2003	779.79	403	376	404	19.65	21
2004	1,532.72	769	717	816	19.84	41
2007	36,939.80	16,767	15,634	21,306	20.45	1,042
2008	184,433.05	80,560	75,116	109,318	20.63	5,299
2009	133,091.40	55,699	51,935	81,157	20.84	3,894
2010	32,619.58	13,015	12,135	20,484	21.09	971
2012	31,903.15	11,447	10,673	21,230	21.44	990
2013	528.32	178	166	362	21.68	17
2014	77,664.18	24,309	22,666	54,998	21.95	2,506
2017	19,208.64	4,545	4,238	14,971	22.59	663
	6,694,367.06	4,315,538	4,023,882	2,670,485		153,039

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWNELL WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	2,297,805.71	1,531,258	1,427,772	870,034	17.02	51,118
1991	121,464.63	79,766	74,375	47,089	17.25	2,730
1992	1,960.79	1,267	1,181	779	17.50	45
1993	35.91	23	21	14	17.54	1
1995	601.31	371	346	255	17.95	14
1999	5.76	3	3	3	18.86	
2000	2,758.46	1,536	1,432	1,326	19.10	69
2001	375.44	205	191	184	19.19	10
2006	8,629.98	4,054	3,780	4,850	20.31	239
2007	58.48	27	25	33	20.45	2
2009	16,915.26	7,079	6,601	10,315	20.84	495
2010	7,308.81	2,916	2,719	4,590	21.09	218
2012	119,943.23	43,036	40,128	79,816	21.44	3,723
2013	41,899.64	14,103	13,150	28,750	21.68	1,326
2014	19,329.32	6,050	5,641	13,688	21.95	624
2019	1,090.61	195	182	909	23.01	40
	2,640,183.34	1,691,889	1,577,547	1,062,636		60,654

CHINCHILLA WTP  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1893	14,836.59	14,837	14,837			
1907	187.12	187	187			
1910	1,427.96	1,428	1,428			
1921	42,429.29	42,429	42,429			
1990	1,459,927.15	972,895	903,695	556,232	17.02	32,681
1991	125,225.99	82,236	76,387	48,839	17.25	2,831
1992	1,469.28	950	882	587	17.50	34
1993	650.89	416	386	264	17.54	15
1994	2,419.58	1,517	1,409	1,010	17.85	57
1995	10,944.29	6,760	6,279	4,665	17.95	260
1997	674.81	401	372	302	18.45	16
1998	244.82	143	133	112	18.64	6
1999	163.20	93	86	77	18.86	4

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHINCHILLA WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2001	18,845.86	10,273	9,542	9,304	19.19	485
2005	80,991.72	39,394	36,592	44,400	20.06	2,213
2008	16,964.75	7,410	6,883	10,082	20.63	489
	1,777,403.30	1,181,369	1,101,529	675,874		39,091
NESBITT WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2048						
NET SALVAGE PERCENT.. 0						
1988	3,047,363.02	2,106,337	1,963,985	1,083,378	16.08	67,374
1989	20,213.19	13,796	12,864	7,350	16.28	451
1990	4,961.45	3,357	3,130	1,831	16.25	113
1991	16,130.80	10,753	10,026	6,105	16.50	370
1992	1,148.36	753	702	446	16.78	27
1993	6,916.77	4,481	4,178	2,739	16.85	163
1994	1,753.58	1,115	1,040	714	17.17	42
1995	17,326.81	10,854	10,120	7,206	17.30	417
1997	1,057.68	640	597	461	17.64	26
1998	3,562.34	2,112	1,969	1,593	17.86	89
1999	52,859.37	30,791	28,710	24,149	17.92	1,348
2000	14,759.96	8,395	7,828	6,932	18.19	381
2001	577.08	321	299	278	18.32	15
2007	20,878.82	9,761	9,101	11,777	19.36	608
2008	8,002.36	3,598	3,355	4,648	19.59	237
2009	39,060.79	16,874	15,734	23,327	19.72	1,183
2010	14,986.30	6,189	5,771	9,216	19.90	463
2012	81,800.26	30,332	28,282	53,518	20.36	2,629
2013	32,118.74	11,200	10,443	21,676	20.55	1,055
2014	28,769.10	9,379	8,745	20,024	20.67	969
2016	562,914.51	154,914	144,444	418,470	21.07	19,861
2018	85,920.60	18,817	17,545	68,375	21.40	3,195
	4,063,081.89	2,454,769	2,288,869	1,774,213		101,016



PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2052 NET SALVAGE PERCENT.. 0						
1992	4,751,108.26	3,040,709	2,835,210	1,915,898	18.00	106,439
1993	54,356.78	34,207	31,895	22,462	18.26	1,230
1995	32,030.36	19,506	18,188	13,843	18.62	743
1997	3,078.16	1,803	1,681	1,397	19.08	73
1998	3,543.58	2,027	1,890	1,654	19.45	85
2000	3,463.67	1,895	1,767	1,697	19.86	85
2001	1,211.20	646	602	609	20.10	30
2007	5,025.88	2,221	2,071	2,955	21.46	138
2008	8,813.12	3,751	3,497	5,316	21.59	246
2009	33,412.18	13,582	12,664	20,748	21.90	947
2010	3,395.99	1,317	1,228	2,168	22.10	98
2012	39,565.46	13,721	12,794	26,772	22.60	1,185
2013	53,719.47	17,491	16,309	37,411	22.78	1,642
2014	49,390.50	14,965	13,954	35,437	23.00	1,541
2019	2,864.92	490	457	2,408	24.24	99
	5,044,979.53	3,168,331	2,954,207	2,090,773		114,581

CEASETOWN WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2053  
NET SALVAGE PERCENT.. 0

1993	7,988,456.15	5,002,371	4,664,297	3,324,159	18.50	179,684
1994	44,194.91	27,180	25,343	18,852	18.78	1,004
1995	116,941.50	70,539	65,772	51,170	19.08	2,682
1997	111,789.69	64,894	60,508	51,281	19.51	2,628
1998	3,366.88	1,917	1,787	1,579	19.66	80
1999	532.85	297	277	256	19.84	13
2000	9,264.78	5,025	4,685	4,579	20.25	226
2001	43,265.97	22,888	21,341	21,925	20.48	1,071
2006	0.33		0			
2007	9,549.60	4,188	3,905	5,645	21.76	259
2008	2,264.03	953	889	1,375	22.02	62
2009	26,199.97	10,532	9,820	16,380	22.31	734
2010	165,181.88	63,133	58,866	106,316	22.63	4,698
2012	34,593.21	11,831	11,031	23,562	23.09	1,020

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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CEASETOWN WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
2013	128,885.26	41,256	38,468	90,418	23.36	3,871
2014	37,093.23	11,054	10,307	26,786	23.56	1,137
2019	8,081.58	1,354	1,262	6,819	24.85	274
	8,729,661.82	5,339,412	4,978,560	3,751,102		199,443

WATRES WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
1993	8,769,938.43	5,491,735	5,120,589	3,649,350	18.50	197,262
1994	463,999.38	285,360	266,075	197,925	18.78	10,539
1995	152,290.96	91,862	85,654	66,637	19.08	3,493
1996	1,500.56	891	831	670	19.17	35
1998	91.08	52	48	43	19.66	2
2000	2,132.55	1,157	1,079	1,054	20.25	52
2001	3,188.33	1,687	1,573	1,615	20.48	79
2003	1,537.06	771	719	818	20.84	39
2008	38,154.92	16,056	14,971	23,184	22.02	1,053
2009	16,416.46	6,599	6,153	10,263	22.31	460
2010	6,304.52	2,410	2,247	4,057	22.63	179
2012	36,404.23	12,450	11,609	24,796	23.09	1,074
2013	70,933.95	22,706	21,171	49,762	23.36	2,130
2014	19,921.37	5,937	5,536	14,386	23.56	611
	9,582,813.80	5,939,673	5,538,254	4,044,560		217,008

HUNTSVILLE WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2075						
NET SALVAGE PERCENT.. 0						
1999	5,824,071.00	2,999,397	2,796,690	3,027,381	23.54	128,606
2001	40,700.36	19,845	18,504	22,197	24.17	918
2007	10,162.55	3,939	3,673	6,490	26.86	242
2008	6,430.94	2,377	2,216	4,215	27.29	154
2009	20,153.37	7,074	6,596	13,557	27.74	489
2010	6,227.91	2,066	1,926	4,302	28.19	153

PENNSYLVANIA-AMERICAN WATER COMPANY  
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CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HUNTSVILLE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2075 NET SALVAGE PERCENT.. 0						
2012	14,664.07	4,258	3,970	10,694	29.32	365
2013	49,081.55	13,227	12,333	36,748	29.82	1,232
2014	41,390.35	10,265	9,571	31,819	30.32	1,049
	6,012,882.10	3,062,448	2,855,480	3,157,402		133,208
WEST SHORE REGIONAL TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2081 NET SALVAGE PERCENT.. 0						
1995	40,740.27	23,157	21,592	19,148	22.02	870
2006	5,492,101.10	2,204,529	2,055,541	3,436,560	26.84	128,039
2008	14,881.08	5,452	5,084	9,798	27.67	354
2009	10,105.34	3,502	3,265	6,840	28.29	242
2011	20,843.84	6,422	5,988	14,856	29.19	509
2012	159,124.19	45,637	42,553	116,571	29.84	3,907
2013	12,202.19	3,248	3,028	9,174	30.32	303
2014	523,557.86	128,272	119,603	403,955	30.82	13,107
2021	1,065,817.06	83,453	77,813	988,004	35.31	27,981
	7,339,372.93	2,503,672	2,334,467	5,004,906		175,312
MCMURRAY/SAXONBURG INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2061 NET SALVAGE PERCENT.. 0						
1992	45,446.78	28,068	26,171	19,276	19.81	973
2011	3,266,953.16	1,091,489	1,017,723	2,249,230	25.91	86,809
2012	3,336.82	1,045	974	2,362	26.31	90
2018	2,859,613.70	495,857	462,346	2,397,268	28.60	83,821
	6,175,350.46	1,616,459	1,507,214	4,668,136		171,693

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1992	83,844.40	51,782	48,561	35,283	19.81	1,781
2011	4,500,958.20	1,503,770	1,410,240	3,090,718	25.91	119,287
2012	14,226.50	4,456	4,179	10,048	26.31	382
2013	30,099.87	8,807	8,259	21,841	26.59	821
2014	32,609.09	8,804	8,256	24,353	27.04	901
2017	8,626.95	1,715	1,608	7,019	28.21	249
2019	144,547.37	21,248	19,926	124,621	29.01	4,296
2023	1,246,425.00	39,387	36,937	1,209,488	30.65	39,461
	6,061,337.38	1,639,969	1,537,968	4,523,369		167,178
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	38,365,682.82	5,915,988	5,516,171	32,849,512	32.91	998,162
2019	840,408.61	109,253	101,869	738,539	33.46	22,072
	39,206,091.43	6,025,241	5,618,040	33,588,051		1,020,234
MONTROSE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	4,704,312.56	725,405	688,905	4,015,408	32.91	122,012
2019	12,721.29	1,654	1,571	11,151	33.46	333
2023	2,170,110.56	58,159	55,233	2,114,878	36.31	58,245
	6,887,144.41	785,218	745,708	6,141,436		180,590

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RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
STEELTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
2023	1,443,761.07	74,931	86,291	1,357,470	18.27	74,300
	1,443,761.07	74,931	86,291	1,357,470		74,300
BUTLER WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2082						
NET SALVAGE PERCENT.. 0						
2023	3,683,107.12	97,234	86,768	3,596,340	36.88	97,515
2024	4,451,484.43	29,380	26,217	4,425,267	37.49	118,039
	8,134,591.55	126,614	112,985	8,021,607		215,554
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1973	12,835.72	10,408	9,714	3,121	11.89	262
1974	31.01	25	23	8	12.50	1
1975	5,400.06	4,260	3,976	1,424	13.11	109
1976	809.04	629	587	222	13.73	16
1977	1,845.45	1,422	1,327	518	13.98	37
1978	7,492.94	5,687	5,308	2,185	14.61	150
1979	3,619.17	2,704	2,524	1,095	15.24	72
1980	2,309.57	1,697	1,584	726	15.88	46
1981	3,552.33	2,581	2,409	1,143	16.17	71
1982	12,208.67	8,717	8,136	4,073	16.82	242
1983	70,161.15	49,190	45,912	24,250	17.48	1,387
1984	29,473.73	20,278	18,927	10,547	18.14	581
1985	289,720.24	195,474	182,446	107,274	18.80	5,706
1986	321,454.58	213,767	199,520	121,934	19.14	6,371
1987	29,549.19	19,242	17,960	11,590	19.82	585
1988	103,757.14	66,114	61,708	42,049	20.50	2,051
1989	528,658.99	329,355	307,405	221,254	21.18	10,446
1990	332,721.36	202,494	188,998	143,723	21.87	6,572
1991	104,660.61	62,168	58,025	46,636	22.56	2,067
1992	5,758.04	3,335	3,113	2,645	23.25	114
1993	3,586.70	2,024	1,889	1,698	23.95	71

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1994	777,228.62	426,699	398,261	378,968	24.64	15,380
1995	78,218.73	41,738	38,956	39,262	25.35	1,549
1996	465,091.95	240,918	224,862	240,230	26.05	9,222
1997	160,669.12	80,688	75,310	85,359	26.76	3,190
1998	1,058.84	515	481	578	27.48	21
1999	22.98	11	10	13	28.19	
2000	2,148.74	975	910	1,239	28.91	43
2001	700.73	306	286	415	29.63	14
2002	755,392.47	317,416	296,261	459,131	30.36	15,123
2003	170,720.96	68,835	64,247	106,474	31.08	3,426
2004	30,898.66	11,927	11,132	19,767	31.81	621
2005	39,987.78	14,739	13,757	26,231	32.55	806
2006	750,241.51	263,335	245,785	504,457	33.28	15,158
2007	342,812.22	114,225	106,612	236,200	34.02	6,943
2008	270,275.99	85,191	79,513	190,763	34.76	5,488
2009	337,883.93	100,352	93,664	244,220	35.51	6,877
2010	1,785.62	495	462	1,324	36.51	36
2011	104,386.95	27,005	25,205	79,182	37.25	2,126
2012	1,254,054.81	300,973	280,914	973,141	38.00	25,609
2013	853,701.71	188,753	176,173	677,529	38.75	17,485
2014	273,144.87	55,175	51,498	221,647	39.50	5,611
2016	162,534.74	26,526	24,758	137,777	41.02	3,359
2017	233,005.75	33,273	31,055	201,950	42.02	4,806
2018	1,126,776.77	138,594	129,357	997,420	42.78	23,315
2019	1,942,664.24	200,094	186,758	1,755,906	43.54	40,329
2020	685,842.27	56,788	53,003	632,839	44.31	14,282
2021	1,726,703.59	108,264	101,049	1,625,655	44.85	36,246
2023	1,008,019.89	21,471	20,040	987,980	45.95	21,501
2024	203,606.55	1,099	1,026	202,581	46.05	4,399
9999	27,162.27-	7,174-	6,696-	20,466-		556-
	15,602,024.41	4,120,777	3,846,140	11,755,884		319,366
	261,593,481.26	94,312,506	88,028,988	173,564,491		6,958,623
	COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.9					2.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.18 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1982	50,562.15	50,562	50,562			
1997	52,683.58	52,684	52,684			
	103,245.73	103,246	103,246			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.19 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1983	72,520.43	72,520	72,520			
1984	121,617.90	121,618	121,618			
1985	126,432.86	126,433	126,433			
1986	103,281.57	103,282	103,282			
1987	104,997.90	104,998	104,998			
1988	44,292.18	44,292	44,292			
1989	6,520.49	6,520	6,520			
1991	1,937.55	1,938	1,938			
1994	36.73	37	37			
1996	174,603.42	174,603	174,603			
1997	243,625.95	243,626	243,626			
1998	175,497.41	175,497	175,497			
1999	471,219.17	471,219	471,219			
2004	475,875.22	475,875	475,875			
2005	604,791.57	604,792	604,792			
2007	198,308.24	198,308	198,308			
2008	114,399.73	114,400	114,400			
2015	11,632.92	10,470	5,311	6,322	1.00	6,322
2021	616,354.70	184,906	93,792	522,563	7.00	74,652
	3,667,945.94	3,235,334	3,139,061	528,885		80,974
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.5 2.21



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-R0.5						
NET SALVAGE PERCENT.. 0						
1969	767.21	637	579	188	11.23	17
1970	5,549.41	4,555	4,142	1,407	11.79	119
1971	11,408.30	9,311	8,466	2,942	11.94	246
1972	25,314.42	20,403	18,552	6,762	12.52	540
1973	206,918.03	165,679	150,648	56,270	12.69	4,434
1974	26,470.06	20,911	19,014	7,456	13.29	561
1975	36,156.11	28,346	25,774	10,382	13.50	769
1976	922,430.54	717,282	652,208	270,223	13.73	19,681
1977	25,093.94	19,224	17,480	7,614	14.35	531
1978	45,059.66	34,200	31,097	13,963	14.61	956
1979	17,210.32	12,934	11,761	5,449	14.88	366
1980	53,977.53	40,138	36,497	17,481	15.17	1,152
1981	173,487.27	126,819	115,314	58,173	15.82	3,677
1982	6,838.36	4,940	4,492	2,346	16.14	145
1983	66,442.94	47,400	43,100	23,343	16.47	1,417
1984	269,020.46	189,390	172,208	96,812	16.82	5,756
1985	901,047.23	625,507	568,759	332,288	17.18	19,342
1986	1,870,645.69	1,279,522	1,163,440	707,206	17.56	40,274
1987	670,283.00	451,369	410,419	259,864	17.95	14,477
1988	101,924.44	67,515	61,390	40,534	18.35	2,209
1989	734,466.79	480,709	437,098	297,369	18.48	16,091
1990	411,058.61	264,146	240,182	170,877	18.91	9,036
1991	665,843.45	419,681	381,606	284,237	19.36	14,682
1992	4,079,232.30	2,519,334	2,290,772	1,788,460	19.81	90,281
1993	94,792.45	57,596	52,371	42,421	20.02	2,119
1994	705,164.01	418,867	380,866	324,298	20.51	15,812
1995	4,437,549.06	2,586,647	2,351,978	2,085,571	20.75	100,509
1996	1,979,916.91	1,130,929	1,028,327	951,590	21.02	45,271
1997	3,200,448.55	1,780,089	1,618,594	1,581,855	21.54	73,438
1998	1,995,380.66	1,084,290	985,920	1,009,461	21.85	46,200
1999	6,941,824.92	3,679,167	3,345,381	3,596,444	22.17	162,221
2000	1,215.90	627	570	646	22.51	29
2001	2,380,155.65	1,193,410	1,085,140	1,295,016	22.87	56,625
2002	75,375.59	36,813	33,473	41,903	23.05	1,818
2003	1,907,999.18	901,530	819,740	1,088,259	23.44	46,427
2004	1,933,682.87	885,627	805,280	1,128,403	23.67	47,672
2005	2,118,644.77	937,924	852,833	1,265,812	23.92	52,919
2006	553,257.74	236,020	214,608	338,650	24.19	14,000
2007	2,136,778.49	875,438	796,015	1,340,763	24.49	54,747
2008	1,480,797.87	582,842	529,965	950,833	24.65	38,573
2009	199,812.98	75,230	68,405	131,408	24.84	5,290

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-R0.5						
NET SALVAGE PERCENT.. 0						
2010	529,442.39	189,752	172,537	356,905	25.06	14,242
2011	1,189,627.78	405,187	368,427	821,201	25.17	32,626
2012	1,176,644.56	378,409	344,079	832,566	25.31	32,895
2013	350,943.56	106,160	96,529	254,415	25.36	10,032
2014	511,027.55	144,621	131,501	379,527	25.34	14,977
2015	3,917,280.14	1,025,936	932,860	2,984,420	25.36	117,682
2016	5,482,058.47	1,320,080	1,200,318	4,281,740	25.22	169,776
2017	2,540,856.55	553,144	502,961	2,037,896	25.15	81,030
2018	388,363.87	75,498	68,649	319,715	24.86	12,861
2019	3,487,265.56	591,092	537,466	2,949,800	24.50	120,400
2020	7,563,641.87	1,083,114	984,850	6,578,792	23.93	274,918
2021	9,914,030.08	1,139,122	1,035,777	8,878,253	23.11	384,174
2022	16,817,602.03	1,405,952	1,278,399	15,539,203	21.92	708,905
2023	17,762,862.37	859,723	781,726	16,981,136	19.66	863,740
2024	3,674,832.40	53,653	48,785	3,626,047	16.82	215,579
9999	42,367.00-	11,894-	10,815-	31,552-		1,450-
	118,733,555.85	33,332,547	30,308,513	88,425,043		4,062,816
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.8 3.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.29 PURIFICATION SYSTEM - CHEMICAL TREATMENT PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY ACCRUED						
NET SALVAGE PERCENT.. 0						
1985	8,167.87	8,168	8,168			
	8,167.87	8,168	8,168			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.3 GRANULAR ACTIVATED CARBON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 11-L0.5						
NET SALVAGE PERCENT.. 0						
1992	704.99	666	664	41	1.90	22
1994	3,024.48	2,831	2,823	201	2.05	98
1995	21,806.69	20,300	20,245	1,562	2.15	727
1996	18,425.10	17,076	17,030	1,395	2.21	631
1998	23,902.70	21,876	21,817	2,086	2.41	866
1999	8,756.06	7,946	7,925	831	2.55	326
2000	287,215.84	258,494	257,797	29,419	2.67	11,018
2001	589,990.64	526,508	525,087	64,904	2.77	23,431
2002	252,547.34	222,797	222,196	30,351	2.94	10,323
2003	37,485.53	32,747	32,659	4,827	3.04	1,588
2007	130,623.29	107,477	107,187	23,436	3.66	6,403
2008	22,032.18	17,767	17,719	4,313	3.84	1,123
2009	284,017.07	224,089	223,484	60,533	4.01	15,096
2010	247,094.87	190,263	189,750	57,345	4.18	13,719
2011	748,462.34	561,422	559,907	188,555	4.33	43,546
2012	393,673.77	285,807	285,036	108,638	4.53	23,982
2013	1,312,659.12	919,780	917,298	395,361	4.70	84,119
2014	638,888.09	429,333	428,175	210,713	4.88	43,179
2015	42,397.65	27,168	27,095	15,303	5.04	3,036
2016	108,845.47	65,917	65,739	43,106	5.21	8,274
2017	443,400.79	251,098	250,420	192,981	5.36	36,004
2018	1,489,096.16	777,308	775,211	713,885	5.49	130,034
2019	1,334,417.06	627,843	626,149	708,268	5.63	125,802
2020	646,492.56	264,545	263,831	382,662	5.78	66,204
2021	762,957.18	256,354	255,662	507,295	5.93	85,547
2022	2,670,366.07	662,251	660,465	2,009,901	6.06	331,667
2023	713,429.16	100,594	100,322	613,107	6.09	100,674
2024	226,694.77	9,022	8,998	217,697	6.03	36,102
	13,459,406.97	6,889,279	6,870,691	6,588,716		1,203,541

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.5 8.94

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R3						
NET SALVAGE PERCENT.. 0						
1991	6,109,372.10	5,382,968	6,107,374	1,998	4.45	449
1997	587,014.54	465,972	528,680	58,335	7.01	8,322
1999	1,611,966.38	1,221,065	1,385,388	226,578	8.00	28,322
2000	768,487.33	566,221	642,419	126,068	8.57	14,710
2002	3,142.89	2,178	2,471	672	9.75	69
2003	254,814.79	170,700	193,672	61,143	10.35	5,908
2004	53,813.63	34,764	39,442	14,372	10.96	1,311
2005	13,926.29	8,626	9,787	4,139	11.67	355
2013	14,994.50	5,839	6,625	8,370	17.25	485
2014	584,758.03	208,759	236,852	347,906	18.01	19,317
2015	1,025,983.26	332,419	377,154	648,829	18.78	34,549
2016	3,703,780.80	1,075,578	1,220,322	2,483,459	19.55	127,031
2017	16,476.12	4,221	4,789	11,687	20.32	575
2023	783,051.27	30,226	34,294	748,757	24.91	30,058
	15,531,581.93	9,509,536	10,789,269	4,742,313		271,461
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.5 1.75

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1900	125,601.75	123,039	121,710	3,892	2.58	1,509
1906	4,586.50	4,438	4,390	196	3.95	50
1907	41,998.46	40,293	39,858	2,140	4.95	432
1911	19,203.47	18,228	18,031	1,172	6.05	194
1912	4,438.17	4,225	4,179	259	5.65	46
1922	35,223.66	32,335	31,986	3,238	9.11	355
1923	13,430.50	12,344	12,211	1,220	8.89	137
1924	1,095.09	997	986	109	9.89	11
1929	2,302.94	2,057	2,035	268	11.38	24
1931	5,150.81	4,551	4,502	649	12.26	53
1933	62.16	55	54	8	12.09	1
1935	277.71	242	239	39	13.04	3
1938	6,539.43	5,624	5,563	976	14.00	70
1940	15,126.12	12,833	12,694	2,432	15.01	162
1941	8,026.43	6,795	6,722	1,304	15.04	87
1943	62.80	52	51	12	16.09	1
1949	20,044.22	16,236	16,061	3,983	17.59	226
1950	10,902.31	8,794	8,699	2,203	17.74	124
1951	82,251.59	66,048	65,334	16,918	17.91	945
1952	1,026.63	820	811	216	18.09	12
1953	746,781.72	588,539	582,180	164,602	19.09	8,622
1954	167,798.68	131,554	130,133	37,666	19.29	1,953
1955	57,612.66	44,921	44,436	13,177	19.50	676
1956	47,528.35	36,844	36,446	11,082	19.72	562
1957	82,561.32	63,613	62,926	19,635	19.96	984
1958	74,574.93	57,095	56,478	18,097	20.21	895
1959	163,240.30	124,144	122,803	40,437	20.47	1,975
1960	24,042.03	18,157	17,961	6,081	20.75	293
1961	393,042.37	292,188	289,031	104,011	21.75	4,782
1962	183,259.87	135,209	133,748	49,512	22.03	2,247
1963	14,864.59	10,881	10,763	4,102	22.33	184
1964	44,728.99	32,473	32,122	12,607	22.64	557
1965	55,464.80	39,924	39,493	15,972	22.97	695
1966	387,395.34	276,368	273,382	114,013	23.30	4,893
1967	783,061.40	553,468	547,488	235,573	23.65	9,961
1968	277,903.38	194,532	192,430	85,473	24.00	3,561
1969	82,936.37	57,931	57,305	25,631	23.74	1,080
1970	68,740.33	47,513	47,000	21,740	24.12	901
1971	370,605.42	253,383	250,645	119,960	24.52	4,892
1972	170,628.60	115,345	114,099	56,530	24.92	2,268
1973	3,479,882.47	2,324,909	2,299,790	1,180,092	25.34	46,570

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1974	684,663.77	451,878	446,996	237,668	25.76	9,226
1975	384,509.49	250,585	247,878	136,631	26.19	5,217
1976	345,768.47	222,398	219,995	125,773	26.63	4,723
1977	203,501.52	130,078	128,673	74,829	26.53	2,821
1978	441,520.79	278,246	275,240	166,281	26.99	6,161
1979	293,555.20	182,298	180,328	113,227	27.46	4,123
1980	1,062.83	650	643	420	27.94	15
1981	53,155.58	32,000	31,654	21,502	28.43	756
1982	879,289.35	524,408	518,742	360,547	28.42	12,686
1983	1,375,177.79	806,267	797,556	577,622	28.93	19,966
1984	32,002.17	18,433	18,234	13,768	29.44	468
1985	1,720,771.84	979,807	969,221	751,551	29.49	25,485
1986	1,618,124.10	903,884	894,118	724,006	30.03	24,109
1987	227,380.05	124,513	123,168	104,212	30.57	3,409
1988	3,032,224.36	1,637,401	1,619,710	1,412,514	30.67	46,055
1989	5,060,078.85	2,674,252	2,645,358	2,414,721	31.23	77,321
1990	6,074,418.55	3,159,913	3,125,772	2,948,647	31.36	94,026
1991	666,694.00	338,814	335,153	331,541	31.94	10,380
1992	1,304,442.24	651,178	644,142	660,300	32.10	20,570
1993	7,588,070.55	3,693,114	3,653,212	3,934,859	32.69	120,369
1994	2,012,181.59	959,811	949,441	1,062,741	32.89	32,312
1995	1,573,728.28	730,210	722,320	851,408	33.50	25,415
1996	3,300,657.67	1,497,178	1,481,002	1,819,656	33.73	53,948
1997	2,264,802.31	1,002,854	992,019	1,272,783	33.98	37,457
1998	1,208,436.55	518,419	512,818	695,619	34.61	20,099
1999	5,068,350.98	2,116,037	2,093,174	2,975,177	34.88	85,298
2000	3,473,818.77	1,408,981	1,393,758	2,080,061	35.17	59,143
2001	5,004,066.13	1,956,590	1,935,450	3,068,616	35.82	85,668
2002	2,262,634.10	856,181	846,930	1,415,704	36.14	39,173
2003	2,398,060.29	876,251	866,784	1,531,276	36.47	41,987
2004	1,924,790.65	677,526	670,206	1,254,585	36.82	34,073
2005	3,718,661.37	1,257,651	1,244,063	2,474,598	37.18	66,557
2006	2,868,930.75	929,534	919,491	1,949,440	37.56	51,902
2007	1,528,521.91	472,925	467,815	1,060,707	37.95	27,950
2008	235,266.32	69,262	68,514	166,752	38.35	4,348
2009	24,747.21	6,904	6,829	17,918	38.76	462
2010	794,793.85	209,190	206,930	587,864	39.19	15,000
2011	258,525.81	63,856	63,166	195,360	39.63	4,930
2012	223,545.34	51,505	50,949	172,596	40.08	4,306
2013	4,258,004.06	908,658	898,840	3,359,164	40.55	82,840
2014	6,054,296.74	1,186,642	1,173,821	4,880,476	41.02	118,978

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2015	375,980.08	67,338	66,610	309,370	41.25	7,500
2016	8,389,377.46	1,349,012	1,334,436	7,054,941	41.75	168,981
2017	5,256,927.21	747,009	738,938	4,517,989	42.26	106,909
2018	3,550,330.22	438,821	434,080	3,116,250	42.54	73,255
2019	3,418,655.84	357,250	353,390	3,065,266	42.85	71,535
2020	2,146,087.42	181,130	179,173	1,966,914	43.39	45,331
2021	2,321,376.36	149,032	147,422	2,173,954	43.73	49,713
2022	3,451,456.29	149,793	148,174	3,303,282	44.08	74,938
2023	7,957,346.43	175,857	173,957	7,783,389	44.25	175,896
2024	6,498,853.16	36,394	36,001	6,462,852	44.39	145,593
9999	3,115,059.10-	1,029,024-	1,017,906-	2,097,153-		55,896-
	130,768,568.22	43,197,891	42,731,163	88,037,405		2,346,480
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.5 1.79



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.1 ELEVATED TANKS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1992	189,738.86	94,718	92,342	97,397	32.10	3,034
1994	0.01					
2007	112,587.14	34,834	33,960	78,627	37.95	2,072
2008	452,291.74	133,155	129,815	322,477	38.35	8,409
2009	610,424.47	170,308	166,036	444,388	38.76	11,465
2010	1,113,481.79	293,068	285,717	827,765	39.19	21,122
2011	1.21			1	39.63	
2012	70,427.57	16,227	15,820	54,608	40.08	1,362
2013	7,305,295.40	1,558,950	1,519,847	5,785,448	40.55	142,674
2014	402,306.06	78,852	76,874	325,432	41.02	7,933
2015	75,692.00	13,556	13,216	62,476	41.25	1,515
2017	22,485.50	3,195	3,115	19,370	42.26	458
2018	41,920.13	5,181	5,051	36,869	42.54	867
2019	3,889.76	406	396	3,494	42.85	82
2021	3,744,315.33	240,385	234,355	3,509,960	43.73	80,264
	14,144,856.97	2,642,835	2,576,544	11,568,313		281,257
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.1 1.99

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.2 GROUND LEVEL FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2007	697,456.92	215,793	164,902	532,555	37.95	14,033
2008	36,106.35	10,630	8,123	27,983	38.35	730
2009	20,943.90	5,843	4,465	16,479	38.76	425
2010	12,681.91	3,338	2,551	10,131	39.19	259
2011	253,273.91	62,559	47,806	205,468	39.63	5,185
2012	1,887,852.66	434,961	332,383	1,555,470	40.08	38,809
2013	4,991,972.34	1,065,287	814,057	4,177,915	40.55	103,031
2014	4,022,161.01	788,344	602,426	3,419,735	41.02	83,368
2015	138,124.29	24,738	18,904	119,220	41.25	2,890
2016	1,655,575.61	266,217	203,434	1,452,142	41.75	34,782
2017	148,132.48	21,050	16,086	132,046	42.26	3,125
2018	113,557.83	14,036	10,726	102,832	42.54	2,417
2019	33,122.12	3,461	2,645	30,477	42.85	711
2021	3,711,782.17	238,296	182,098	3,529,684	43.73	80,715
2023	2,190,666.17	48,414	36,996	2,153,670	44.25	48,671
	19,913,409.67	3,202,967	2,447,602	17,465,808		419,151
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.7 2.10

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.3 BELOW GRADE FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2007	173,959.09	53,823	52,495	121,464	37.95	3,201
2010	31,397.64	8,264	8,060	23,338	39.19	596
2011	100,934.51	24,931	24,316	76,619	39.63	1,933
2014	280,555.88	54,989	53,633	226,923	41.02	5,532
2016	231,860.11	37,283	36,363	195,497	41.75	4,683
	818,707.23	179,290	174,867	643,840		15,945
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						40.4 1.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.4 CLEARWELL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2012	12,768,982.03	2,941,973	2,863,759	9,905,223	40.08	247,136
2018	32,063.64	3,963	3,858	28,206	42.54	663
2019	5,254.37	549	534	4,720	42.85	110
	12,806,300.04	2,946,485	2,868,151	9,938,149		247,909
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						40.1 1.94

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1959	427.00	427	427			
1961	3,005.00	3,005	3,005			
1962	646.00	646	646			
1963	501.00	501	501			
1984	69,262.85	69,263	69,263			
1990	105,687.39	105,687	105,687			
1997	138,050.00	138,050	138,050			
2002	764,914.30	764,914	764,914			
2003	135,772.35	135,772	135,772			
2004	456,940.96	456,941	456,941			
2007	263,798.12	263,798	263,798			
2015	272,106.38	244,896	202,621	69,485	1.00	69,485
2021	92,812.80	27,844	23,037	69,776	7.00	9,968
	2,303,924.15	2,211,744	2,164,662	139,262		79,453
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						1.8 3.45

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	461,505.72	461,506	461,506			
1998	243,741.29	243,741	243,741			
1999	465,161.88	465,162	465,162			
2000	103,352.55	103,353	103,353			
2001	1,262,286.55	1,262,287	1,262,287			
2004	736,540.63	736,541	736,541			
2005	2,772,132.56	2,772,133	2,772,133			
2006	1,898,932.85	1,898,933	1,898,933			
2007	1,611,757.81	1,611,758	1,611,758			
2008	1,742,652.76	1,742,653	1,742,653			
2009	387,058.80	387,059	387,059			
2010	7,332.39	7,332	7,332			
2011	1,233,227.05	1,233,227	1,233,227			
2012	3,394,359.12	3,394,359	3,394,359			
2013	1,350,299.88	1,350,300	1,350,300			
2014	772,333.61	772,334	772,334			
2015	3,817,936.25	3,436,143	3,125,140	692,796	1.00	692,796
2016	800,361.02	640,289	582,337	218,024	2.00	109,012
2017	602,080.95	421,457	383,311	218,770	3.00	72,923
2018	2,787,180.26	1,672,308	1,520,948	1,266,232	4.00	316,558
2019	1,065,127.17	532,564	484,362	580,765	5.00	116,153
2020	3,609,228.96	1,443,692	1,313,024	2,296,205	6.00	382,701
2021	4,311,190.90	1,293,357	1,176,296	3,134,895	7.00	447,842
2022	4,651,769.10	930,354	846,148	3,805,621	8.00	475,703
2023	3,410,000.00	341,000	310,136	3,099,864	9.00	344,429
2024	2,246,495.20	56,162	51,079	2,195,416	9.75	225,171
	45,744,045.26	29,210,004	28,235,459	17,508,586		3,183,288
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.5 6.96

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1943	2,704.67	2,037	1,088	1,617	26.53	61
1944	13,097.40	9,849	5,263	7,834	26.38	297
1945	102,456.81	76,084	40,656	61,801	27.38	2,257
1946	175,967.79	129,020	68,942	107,026	28.38	3,771
1947	173,828.45	127,156	67,946	105,882	28.26	3,747
1948	186,623.62	134,742	72,000	114,624	29.26	3,917
1949	85,297.32	61,414	32,817	52,480	29.17	1,799
1950	139,973.84	99,437	53,134	86,840	30.17	2,878
1951	333,358.76	236,051	126,134	207,225	30.09	6,887
1952	318,361.15	222,343	118,809	199,552	31.09	6,419
1953	838,928.49	583,726	311,915	527,013	31.04	16,979
1954	1,125,054.71	771,788	412,406	712,649	32.04	22,242
1955	2,511,083.91	1,715,321	916,584	1,594,500	32.01	49,813
1956	1,393,681.31	938,226	501,342	892,339	33.01	27,032
1957	2,051,316.08	1,374,382	734,403	1,316,913	33.00	39,906
1958	1,856,977.03	1,225,605	654,903	1,202,074	34.00	35,355
1959	2,071,747.60	1,360,102	726,772	1,344,976	34.01	39,546
1960	2,553,990.80	1,650,900	882,160	1,671,831	35.01	47,753
1961	3,447,306.05	2,215,239	1,183,715	2,263,591	35.04	64,600
1962	1,310,331.61	828,654	442,792	867,540	36.04	24,072
1963	1,847,820.33	1,160,986	620,374	1,227,446	36.09	34,011
1964	4,472,158.58	2,763,794	1,476,836	2,995,323	37.09	80,758
1965	4,345,334.21	2,666,297	1,424,739	2,920,595	37.15	78,616
1966	4,426,372.96	2,669,988	1,426,711	2,999,662	38.15	78,628
1967	5,323,951.08	3,186,385	1,702,648	3,621,303	38.24	94,699
1968	5,324,691.56	3,130,919	1,673,010	3,651,682	39.24	93,060
1969	4,274,541.75	2,492,058	1,331,634	2,942,908	39.34	74,807
1970	3,599,365.68	2,060,277	1,100,911	2,498,455	40.34	61,935
1971	5,072,102.65	2,876,389	1,537,002	3,535,101	40.46	87,373
1972	8,026,511.46	4,465,951	2,386,386	5,640,125	41.46	136,038
1973	8,015,284.46	4,414,819	2,359,064	5,656,220	41.59	136,000
1974	4,797,096.41	2,614,418	1,397,017	3,400,079	41.74	81,459
1975	5,727,012.37	3,058,797	1,634,472	4,092,540	42.74	95,754
1976	9,362,426.98	4,943,361	2,641,491	6,720,936	42.91	156,629
1977	5,995,593.08	3,099,722	1,656,340	4,339,253	43.91	98,822
1978	9,608,196.09	4,905,945	2,621,497	6,986,699	44.09	158,464
1979	8,545,192.34	4,268,324	2,280,784	6,264,408	45.09	138,931
1980	12,155,004.16	5,989,986	3,200,756	8,954,248	45.29	197,709
1981	8,076,431.77	3,889,610	2,078,418	5,998,014	46.29	129,575
1982	5,952,132.53	2,824,882	1,509,479	4,442,654	46.50	95,541
1983	9,718,355.76	4,502,514	2,405,924	7,312,432	47.50	153,946

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1984	14,542,504.57	6,631,382	3,543,487	10,999,018	47.72	230,491
1985	18,360,814.72	8,234,825	4,400,288	13,960,527	47.96	291,087
1986	24,704,827.57	10,796,010	5,768,860	18,935,968	48.96	386,764
1987	26,215,078.73	11,251,512	6,012,258	20,202,821	49.21	410,543
1988	34,664,565.55	14,475,923	7,735,226	26,929,340	50.21	536,334
1989	32,892,370.61	13,469,426	7,197,403	25,694,968	50.47	509,114
1990	33,465,335.93	13,426,293	7,174,355	26,290,981	50.75	518,049
1991	21,540,752.83	8,387,969	4,482,121	17,058,632	51.75	329,635
1992	25,195,237.70	9,594,347	5,126,750	20,068,488	52.03	385,710
1993	35,917,393.99	13,249,927	7,080,114	28,837,280	53.03	543,792
1994	40,057,764.44	14,420,795	7,705,768	32,351,996	53.33	606,638
1995	48,078,965.77	16,870,909	9,014,990	39,063,976	53.64	728,262
1996	40,327,118.45	13,662,828	7,300,748	33,026,370	54.64	604,436
1997	35,424,784.16	11,668,924	6,235,303	29,189,481	54.97	531,007
1998	88,710,612.66	28,369,654	15,159,357	73,551,256	55.30	1,330,041
1999	54,498,269.87	16,758,218	8,954,773	45,543,497	56.30	808,943
2000	56,905,566.72	16,935,097	9,049,288	47,856,279	56.65	844,771
2001	63,713,140.69	18,317,528	9,787,992	53,925,149	57.00	946,055
2002	65,255,945.47	18,088,948	9,665,850	55,590,095	57.37	968,975
2003	23,963,343.18	6,340,701	3,388,161	20,575,182	58.37	352,496
2004	63,914,460.64	16,234,273	8,674,802	55,239,659	58.74	940,410
2005	59,234,926.76	14,405,934	7,697,827	51,537,100	59.12	871,737
2006	17,933,774.24	4,164,222	2,225,157	15,708,617	59.52	263,922
2007	77,976,170.46	17,232,734	9,208,331	68,767,839	59.92	1,147,661
2008	98,977,767.84	20,745,740	11,085,510	87,892,258	60.34	1,456,617
2009	91,598,465.16	18,136,496	9,691,257	81,907,208	60.76	1,348,045
2010	94,618,509.70	17,617,967	9,414,181	85,204,329	61.19	1,392,455
2011	116,695,272.29	20,328,316	10,862,459	105,832,813	61.63	1,717,229
2012	108,106,394.88	17,513,236	9,358,218	98,748,177	62.07	1,590,916
2013	143,061,357.99	21,401,979	11,436,172	131,625,186	62.53	2,104,993
2014	132,573,984.41	18,162,636	9,705,225	122,868,759	62.99	1,950,607
2015	166,566,824.26	20,837,510	11,134,547	155,432,277	62.94	2,469,531
2016	174,235,241.31	19,514,347	10,427,514	163,807,727	63.43	2,582,496
2017	117,477,223.79	11,677,236	6,239,744	111,237,480	63.42	1,753,981
2018	154,095,900.87	13,313,886	7,114,290	146,981,611	63.44	2,316,860
2019	164,026,784.26	11,973,955	6,398,297	157,628,487	63.49	2,482,729
2020	181,577,714.58	10,749,401	5,743,955	175,833,760	63.57	2,765,986
2021	128,129,808.55	5,842,719	3,122,063	125,007,746	62.79	1,990,886
2022	197,275,951.36	6,155,010	3,288,937	193,987,014	62.10	3,123,784



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
2023	242,850,344.48	3,982,746	2,128,185	240,722,159	59.98	4,013,374
2024	158,534,822.77	697,553	372,738	158,162,085	56.57	2,795,865
9999	301,765,724.35-	53,828,997-	28,763,586-	273,002,138-		4,623,479-
	3,327,488,033.47	593,557,613	317,168,189	3,010,319,844		50,981,834
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						59.0 1.53

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
1937	11,189.17	10,221	8,775	2,414	8.24	293
1938	1,379.73	1,258	1,080	300	8.34	36
1939	24,065.96	21,888	18,792	5,274	8.46	623
1940	54,472.93	49,418	42,429	12,044	8.59	1,402
1941	37,754.81	34,157	29,326	8,429	8.74	964
1942	37,599.18	33,914	29,117	8,482	8.91	952
1943	17,498.45	15,733	13,508	3,990	9.09	439
1944	10,867.45	9,737	8,360	2,507	9.29	270
1945	20,450.33	18,256	15,674	4,776	9.50	503
1946	78,011.91	69,368	59,557	18,455	9.72	1,899
1947	160,113.73	141,781	121,728	38,386	9.96	3,854
1948	217,174.68	191,461	164,382	52,793	10.21	5,171
1949	236,865.98	207,850	178,453	58,413	10.47	5,579
1950	258,684.52	225,883	193,935	64,750	10.75	6,023
1951	339,266.81	294,721	253,037	86,230	11.03	7,818
1952	416,326.67	356,709	306,258	110,069	12.03	9,150
1953	402,286.11	342,748	294,271	108,015	12.33	8,760
1954	441,278.57	373,763	320,900	120,379	12.64	9,524
1955	582,991.99	490,763	421,352	161,640	12.97	12,463
1956	623,370.64	521,387	447,644	175,727	13.30	13,213
1957	606,101.08	503,549	432,329	173,772	13.65	12,731
1958	816,856.57	673,907	578,593	238,264	14.00	17,019
1959	881,543.54	721,984	619,870	261,674	14.37	18,210
1960	893,995.33	726,639	623,866	270,129	14.74	18,326
1961	815,207.96	657,384	564,407	250,801	15.12	16,587
1962	876,352.82	700,907	601,774	274,579	15.52	17,692
1963	767,728.99	608,809	522,702	245,027	15.92	15,391
1964	651,471.95	512,057	439,634	211,838	16.34	12,964
1965	973,415.54	758,096	650,874	322,542	16.76	19,245
1966	971,766.41	749,621	643,598	328,168	17.19	19,091
1967	1,015,877.66	775,927	666,183	349,695	17.63	19,835
1968	1,164,057.70	880,028	755,561	408,497	18.07	22,606
1969	1,264,755.01	946,037	812,234	452,521	18.53	24,421
1970	1,372,198.57	1,015,153	871,574	500,625	18.99	26,363
1971	1,596,946.61	1,159,543	995,542	601,405	19.99	30,085
1972	1,719,386.98	1,233,832	1,059,324	660,063	20.46	32,261
1973	2,264,250.62	1,605,127	1,378,105	886,146	20.94	42,318
1974	1,320,618.21	924,433	793,685	526,933	21.43	24,589
1975	785,520.68	542,716	465,957	319,564	21.92	14,579
1976	1,026,407.40	699,599	600,651	425,756	22.42	18,990
1977	1,417,803.73	952,906	818,131	599,673	22.93	26,152

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
1978	1,948,910.90	1,290,959	1,108,371	840,540	23.44	35,859
1979	3,000,915.38	1,958,097	1,681,152	1,319,763	23.97	55,059
1980	2,701,592.73	1,735,503	1,490,041	1,211,552	24.49	49,471
1981	2,617,127.61	1,643,033	1,410,650	1,206,478	25.49	47,331
1982	2,577,601.85	1,591,411	1,366,329	1,211,273	26.03	46,534
1983	2,911,572.97	1,766,742	1,516,862	1,394,711	26.57	52,492
1984	3,442,425.97	2,051,686	1,761,505	1,680,921	27.11	62,004
1985	3,782,036.61	2,212,491	1,899,566	1,882,471	27.67	68,033
1986	4,568,299.89	2,621,290	2,250,546	2,317,754	28.23	82,103
1987	6,464,837.23	3,635,824	3,121,589	3,343,248	28.79	116,125
1988	7,114,076.93	3,918,434	3,364,228	3,749,849	29.36	127,720
1989	7,539,640.40	4,037,477	3,466,434	4,073,206	30.36	134,164
1990	8,454,268.84	4,426,655	3,800,569	4,653,700	30.94	150,410
1991	6,209,857.82	3,176,342	2,727,094	3,482,764	31.52	110,494
1992	6,522,002.57	3,255,784	2,795,300	3,726,703	32.10	116,097
1993	9,649,158.97	4,696,246	4,032,030	5,617,129	32.69	171,830
1994	7,794,512.03	3,694,599	3,172,051	4,622,461	33.29	138,854
1995	10,730,976.44	4,948,053	4,248,222	6,482,754	33.89	191,288
1996	11,372,572.95	5,094,913	4,374,311	6,998,262	34.50	202,848
1997	10,786,407.66	4,688,851	4,025,681	6,760,727	35.11	192,558
1998	47,313,714.35	19,928,536	17,109,933	30,203,781	35.73	845,334
1999	13,901,935.09	5,630,284	4,833,962	9,067,973	36.73	246,882
2000	13,949,578.90	5,457,075	4,685,251	9,264,328	37.35	248,041
2001	16,393,489.18	6,183,624	5,309,040	11,084,449	37.98	291,850
2002	29,964,415.49	10,877,083	9,338,677	20,625,738	38.61	534,207
2003	3,652,869.03	1,273,390	1,093,287	2,559,582	39.24	65,229
2004	2,380,774.39	795,179	682,712	1,698,062	39.88	42,579
2005	18,879,936.43	6,026,476	5,174,118	13,705,818	40.52	338,248
2006	84,648.90	25,750	22,108	62,541	41.17	1,519
2007	12,507,493.92	3,614,666	3,103,424	9,404,070	41.82	224,870
2008	26,084,784.65	7,136,797	6,127,400	19,957,385	42.48	469,807
2009	23,485,953.49	6,059,376	5,202,365	18,283,588	43.14	423,820
2010	18,151,871.63	4,396,383	3,774,578	14,377,294	43.80	328,249
2011	19,032,528.94	4,305,158	3,696,256	15,336,273	44.47	344,868
2012	21,808,546.76	4,579,795	3,932,049	17,876,498	45.14	396,023
2013	22,769,328.68	4,433,188	3,806,178	18,963,151	45.50	416,773
2014	20,635,169.77	3,673,060	3,153,559	17,481,611	46.18	378,554
2015	21,573,125.73	3,475,431	2,983,881	18,589,245	46.87	396,613
2016	28,116,982.03	4,071,339	3,495,507	24,621,475	47.25	521,089
2017	25,568,269.75	3,257,398	2,796,686	22,771,584	47.95	474,903
2018	24,135,900.46	2,664,603	2,287,733	21,848,167	48.35	451,875

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
2019	26,709,872.62	2,484,018	2,132,690	24,577,183	48.76	504,044
2020	33,166,771.61	2,494,141	2,141,381	31,025,391	49.19	630,726
2021	30,938,359.74	1,772,768	1,522,035	29,416,325	49.36	595,955
2022	38,229,892.99	1,490,966	1,280,091	36,949,802	49.28	749,793
2023	38,295,205.06	769,734	660,866	37,634,339	48.75	771,986
2024	21,274,563.76	112,755	96,807	21,177,757	47.14	449,252
9999	27,290,501.61-	7,319,918-	6,284,621-	21,005,881-		505,786-
	719,078,190.47	192,872,715	165,593,656	553,484,534		13,326,968
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					41.5	1.85

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L1.5						
NET SALVAGE PERCENT.. 0						
1991	607,109.64	528,914	472,144	134,966	4.88	27,657
1992	129,998.00	112,318	100,263	29,735	5.04	5,900
1993	210,300.51	179,933	160,620	49,681	5.23	9,499
1994	178,447.28	150,966	134,762	43,685	5.46	8,001
1995	195,835.42	164,130	146,514	49,321	5.60	8,807
1996	45,283.68	37,531	33,503	11,781	5.78	2,038
1997	1,141,514.80	933,873	833,638	307,877	6.00	51,313
1998	9,954,061.51	8,048,854	7,184,952	2,769,110	6.15	450,262
1999	1,606,196.71	1,280,942	1,143,456	462,741	6.35	72,873
2000	1,620,518.57	1,271,783	1,135,280	485,239	6.58	73,745
2001	3,343,938.13	2,584,195	2,306,828	1,037,110	6.76	153,419
2002	1,767,390.83	1,345,338	1,200,940	566,451	6.90	82,094
2003	223,428.42	167,035	149,107	74,321	7.09	10,483
2004	85,283.56	62,598	55,879	29,405	7.25	4,056
2005	2,309,448.99	1,663,034	1,484,537	824,912	7.39	111,625
2006	96,633.25	68,184	60,866	35,767	7.51	4,763
2007	3,016,129.19	2,076,605	1,853,718	1,162,411	7.69	151,159
2008	3,113,007.23	2,086,960	1,862,962	1,250,045	7.87	158,837
2009	7,396,834.47	4,815,339	4,298,498	3,098,336	8.04	385,365
2010	10,792,873.05	6,799,510	6,069,703	4,723,170	8.22	574,595
2011	15,764,703.38	9,570,751	8,543,500	7,221,203	8.41	858,645
2012	12,603,466.55	7,320,093	6,534,411	6,069,056	8.66	700,815
2013	8,988,878.05	4,963,658	4,430,897	4,557,981	8.92	510,984
2014	6,406,139.73	3,331,193	2,973,649	3,432,491	9.23	371,884
2015	12,361,337.00	5,985,359	5,342,937	7,018,400	9.59	731,846
2016	14,940,978.54	6,645,747	5,932,444	9,008,535	9.99	901,755
2017	15,444,401.93	6,205,561	5,539,504	9,904,898	10.42	950,566
2018	12,778,206.38	4,538,819	4,051,657	8,726,549	10.89	801,336
2019	17,355,498.06	5,302,105	4,733,018	12,622,480	11.37	1,110,157
2020	10,164,363.61	2,557,354	2,282,867	7,881,497	11.90	662,311
2021	8,037,368.41	1,562,464	1,394,761	6,642,607	12.43	534,401
2022	20,676,078.31	2,754,054	2,458,455	18,217,623	13.02	1,399,203
2023	32,141,432.01	2,211,331	1,973,984	30,167,448	13.53	2,229,671
2024	15,603,418.46	277,741	247,931	15,355,487	13.83	1,110,303
9999	1,872,625.15-	727,901-	649,774-	1,222,851-		113,509-
	249,227,878.51	96,876,371	86,478,411	162,749,468		15,106,859
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.8 6.06

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1951	3,633.71	3,183	1,977	1,657	10.33	160
1952	8,125.18	7,079	4,396	3,729	10.64	350
1953	10,474.17	9,073	5,634	4,840	10.97	441
1954	15,882.87	13,675	8,492	7,391	11.30	654
1955	16,582.99	14,188	8,810	7,773	11.65	667
1956	24,541.46	20,860	12,953	11,588	12.00	966
1957	36,575.66	30,877	19,173	17,403	12.37	1,407
1958	45,887.48	38,463	23,884	22,003	12.74	1,727
1959	60,956.61	50,716	31,493	29,464	13.12	2,246
1960	64,423.68	53,188	33,028	31,396	13.52	2,322
1961	61,813.62	50,625	31,436	30,378	13.92	2,182
1962	56,028.32	45,506	28,257	27,771	14.34	1,937
1963	78,969.32	63,586	39,484	39,485	14.76	2,675
1964	89,394.64	71,337	44,297	45,098	15.19	2,969
1965	89,946.67	71,112	44,158	45,789	15.63	2,930
1966	92,872.93	72,720	45,156	47,717	16.07	2,969
1967	122,270.54	94,784	58,857	63,414	16.53	3,836
1968	126,787.94	97,272	60,402	66,386	16.99	3,907
1969	133,440.53	101,281	62,892	70,549	17.46	4,041
1970	110,025.72	83,179	51,651	58,375	17.43	3,349
1971	161,669.56	120,816	75,022	86,648	17.92	4,835
1972	164,915.52	121,774	75,617	89,299	18.42	4,848
1973	220,211.81	160,600	99,726	120,486	18.93	6,365
1974	287,555.37	207,040	128,564	158,991	19.44	8,179
1975	284,015.29	201,793	125,305	158,710	19.97	7,947
1976	494,203.10	346,338	215,062	279,141	20.49	13,623
1977	279,714.81	193,255	120,004	159,711	21.03	7,594
1978	431,061.46	293,467	182,231	248,830	21.57	11,536
1979	498,899.58	334,512	207,719	291,181	22.11	13,170
1980	436,178.84	289,797	179,952	256,227	22.23	11,526
1981	308,450.79	201,603	125,188	183,263	22.79	8,041
1982	444,778.66	285,815	177,480	267,299	23.36	11,443
1983	562,823.17	355,367	220,669	342,154	23.94	14,292
1984	535,477.11	331,996	206,156	329,321	24.52	13,431
1985	591,183.01	359,676	223,345	367,838	25.10	14,655
1986	744,703.08	444,290	275,887	468,816	25.69	18,249
1987	808,585.51	475,691	295,385	513,201	25.89	19,822
1988	862,016.22	496,521	308,320	553,696	26.50	20,894
1989	1,081,771.37	609,578	378,524	703,247	27.11	25,941
1990	1,139,519.85	627,648	389,745	749,775	27.73	27,038
1991	958,359.39	515,502	320,106	638,253	28.35	22,513

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1992	1,309,529.46	687,241	426,750	882,779	28.98	30,462
1993	1,155,457.37	594,598	369,222	786,235	29.24	26,889
1994	1,537,949.62	770,513	478,458	1,059,492	29.88	35,458
1995	1,672,133.09	814,663	505,874	1,166,259	30.52	38,213
1996	1,586,200.54	750,590	466,087	1,120,114	31.17	35,936
1997	1,713,889.34	791,303	491,368	1,222,521	31.48	38,835
1998	1,596,426.86	713,922	443,317	1,153,110	32.14	35,878
1999	2,038,281.53	881,557	547,412	1,490,870	32.80	45,453
2000	1,213,471.23	509,658	316,477	896,994	33.14	27,067
2001	1,757,387.63	711,391	441,746	1,315,642	33.82	38,901
2002	1,583,084.48	616,453	382,793	1,200,291	34.50	34,791
2003	2,163,833.13	813,385	505,080	1,658,753	34.87	47,570
2004	2,199,749.97	791,910	491,745	1,708,005	35.56	48,032
2005	207,298.97	71,684	44,513	162,786	35.95	4,528
2006	5,633,346.06	1,855,624	1,152,269	4,481,077	36.64	122,300
2007	3,264,196.60	1,026,590	637,472	2,626,725	37.05	70,897
2008	4,370,117.88	1,300,547	807,588	3,562,530	37.76	94,347
2009	4,620,516.28	1,302,986	809,103	3,811,413	38.19	99,801
2010	4,227,582.36	1,124,537	698,293	3,529,289	38.63	91,361
2011	3,516,725.68	873,203	542,224	2,974,502	39.36	75,572
2012	4,623,185.99	1,070,730	664,881	3,958,305	39.81	99,430
2013	5,170,505.19	1,109,073	688,690	4,481,815	40.28	111,267
2014	4,633,843.16	912,867	566,854	4,066,989	40.76	99,779
2015	7,689,683.07	1,384,143	859,498	6,830,185	41.00	166,590
2016	7,654,881.99	1,237,029	768,146	6,886,736	41.50	165,945
2017	6,032,096.20	865,606	537,507	5,494,589	41.78	131,512
2018	5,428,965.97	677,535	420,723	5,008,243	42.08	119,017
2019	7,194,967.63	759,069	471,352	6,723,616	42.39	158,613
2020	7,077,571.64	608,671	377,961	6,699,611	42.51	157,601
2021	8,360,064.65	551,764	342,624	8,017,441	42.45	188,868
2022	11,587,794.98	526,086	326,678	11,261,117	42.05	267,803
2023	10,901,626.21	261,639	162,468	10,739,158	40.67	264,056
2024	6,461,655.70	41,355	25,679	6,435,977	38.51	167,125
9999	7,450,275.22-	1,706,056-	1,059,393-	6,390,882-		169,152-
	145,278,472.78	33,267,649	20,657,896	124,620,577		3,298,422

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 37.8 2.27

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.1 OFFICE FURNITURE AND EQUIPMENT - FURNITURE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	8,614.50	7,753	5,017	3,598	2.00	1,799
2007	90,026.71	76,523	49,523	40,504	3.00	13,501
2008	76,984.00	61,587	39,857	37,127	4.00	9,282
2010	10,963.48	7,674	4,966	5,997	6.00	1,000
2011	34,863.33	22,661	14,665	20,198	7.00	2,885
2012	104,725.37	62,835	40,664	64,061	8.00	8,008
2013	475,451.73	261,498	169,232	306,220	9.00	34,024
2014	1,427,408.53	713,704	461,883	965,526	10.00	96,553
2015	105,224.65	47,351	30,644	74,581	11.00	6,780
2016	154,380.75	61,752	39,964	114,417	12.00	9,535
2017	87,557.93	30,645	19,832	67,726	13.00	5,210
2018	2,016,595.25	604,979	391,520	1,625,075	14.00	116,077
2019	1,190,614.34	297,654	192,631	997,983	15.00	66,532
2020	278,241.94	55,648	36,013	242,229	16.00	15,139
2021	419,508.42	62,926	40,723	378,785	17.00	22,281
2022	831,377.33	83,138	53,804	777,573	18.00	43,198
2023	1,061,597.55	53,080	34,351	1,027,247	19.00	54,066
2024	264,450.03	3,306	2,140	262,310	19.75	13,282
	8,638,585.84	2,514,714	1,627,429	7,011,157		519,152
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.5 6.01



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.2 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL  
EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	1,294,189.39	1,294,189	1,294,189			
2020	2,402,513.20	1,922,011	1,076,631	1,325,882	1.00	1,325,882
2021	2,215,572.58	1,329,344	744,643	1,470,930	2.00	735,465
2022	5,160,104.61	2,064,042	1,156,190	4,003,915	3.00	1,334,638
2023	5,171,450.83	1,034,290	579,366	4,592,085	4.00	1,148,021
2024	1,076,495.68	53,825	30,151	1,046,345	4.75	220,283
	17,320,326.29	7,697,701	4,881,170	12,439,156		4,764,289
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.6						27.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.3 OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	20,014,689.48	20,014,689	20,014,689			
2020	17,145,049.52	13,716,040	4,985,557	12,159,493	1.00	12,159,493
2021	16,784,591.24	10,070,755	3,660,555	13,124,036	2.00	6,562,018
2022	14,702,503.96	5,881,002	2,137,648	12,564,856	3.00	4,188,285
2023	22,550,450.41	4,510,090	1,639,344	20,911,106	4.00	5,227,776
2024	258,435.66	12,922	4,697	253,739	4.75	53,419
	91,455,720.27	54,205,498	32,442,490	59,013,230		28,190,991
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.1 30.82

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.31 OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE -  
ENTERPRISE SOLUTIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	852,486.31	852,486	852,486			
2015	58,280.82	52,453	182,025-	240,306	1.00	240,306
2018	157,049.62	94,230	327,002-	484,052	4.00	121,013
	1,067,816.75	999,169	343,459	724,358		361,319
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.0						33.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.5 OFFICE FURNITURE AND EQUIPMENT - OTHER OFFICE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	9,454.95	4,727	3,168	6,287	5.00	1,257
9999	354.00-	177-	119-	235-		47-
	9,100.95	4,550	3,049	6,052		1,210
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.0						13.29

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341 TRANSPORTATION EQUIPMENT - NOT CLASSIFIED

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
1986	349.00	349	349			
2020	2,238.67	990	1,385	854	5.04	169
	2,587.67	1,339	1,734	854		169
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.1 6.53

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.1 TRANSPORTATION EQUIPMENT - LIGHT DUTY TRUCKS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2011	7,364.68	6,175	7,365			
2012	1,167,181.47	955,221	1,167,181			
2013	3,643,909.19	2,906,018	3,630,495	13,414	2.79	4,808
2014	41,357.52	32,052	40,043	1,315	2.90	453
2015	747,062.90	559,401	698,861	48,202	3.02	15,961
2016	1,254,457.80	896,185	1,119,606	134,852	3.20	42,141
2017	24,218.48	16,173	20,205	4,013	3.48	1,153
2018	1,940,015.55	1,177,977	1,471,649	468,367	3.88	120,713
2019	9,212,793.61	4,896,600	6,117,333	3,095,461	4.41	701,919
2020	8,245,635.66	3,647,869	4,557,290	3,688,346	5.04	731,815
2021	10,691,536.11	3,659,713	4,572,087	6,119,449	5.76	1,062,404
2022	9,715,510.40	2,273,429	2,840,200	6,875,310	6.55	1,049,666
2023	13,373,912.74	1,592,833	1,989,930	11,383,983	7.40	1,538,376
2024	1,263,029.82	37,891	47,337	1,215,693	8.08	150,457
	61,327,985.93	22,657,537	28,279,582	33,048,404		5,419,866
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.1 8.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.2 TRANSPORTATION EQUIPMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2012	209,536.68	171,485	209,537			
2013	3,042,582.07	2,426,459	3,042,582			
2014	1,011,929.20	784,245	1,011,929			
2015	603,415.74	451,838	603,416			
2016	2,878,515.66	2,056,412	2,781,578	96,938	3.20	30,293
2017	2,354,164.64	1,572,111	2,126,495	227,670	3.48	65,422
2018	5,954,398.21	3,615,511	4,890,472	1,063,926	3.88	274,208
2019	8,314.30	4,419	5,977	2,337	4.41	530
2020	666,086.16	294,677	398,591	267,495	5.04	53,074
2021	64,659.55	22,133	29,938	34,722	5.76	6,028
	16,793,602.21	11,399,290	15,100,515	1,693,087		429,555
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.9 2.56

PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

ACCOUNT 341.3 TRANSPORTATION EQUIPMENT - AUTOS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2010	5,850.22	5,021	5,798	52	2.31	23
2011	9,394.63	7,877	9,096	299	2.50	120
2012	1,833,463.96	1,500,507	1,732,681	100,783	2.66	37,888
2019	146,881.00	78,067	90,146	56,735	4.41	12,865
	1,995,589.81	1,591,472	1,837,721	157,869		50,896
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.1 2.55



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.4 TRANSPORTATION EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
1961	374.92	375	375			
1977	403.11	403	403			
1978	265.00	265	265			
1998	8,060.31	7,985	8,060			
1999	1,561.47	1,534	1,561			
2006	4,626.70	4,256	4,627			
2007	18,169.65	16,464	18,170			
2008	92,592.34	82,666	92,592			
2009	25,526.94	22,362	25,527			
2010	53,306.39	45,748	53,306			
2011	81,120.09	68,019	81,120			
2012	318,512.86	260,671	318,513			
2013	1,116,160.77	890,138	1,116,161			
2014	718,980.22	557,210	718,980			
2015	178,690.77	133,804	178,691			
2016	954,565.45	681,942	935,263	19,302	3.20	6,032
2017	120,461.68	80,444	110,326	10,136	3.48	2,913
2018	2,505,965.54	1,521,622	2,086,858	419,108	3.88	108,018
2019	697,759.80	370,859	508,622	189,138	4.41	42,888
2020	473,035.57	209,271	287,009	186,027	5.04	36,910
2021	78,210.92	26,772	36,717	41,494	5.76	7,204
2022	47,744.96	11,172	15,322	32,423	6.55	4,950
2023	88,611.43	10,554	14,474	74,137	7.40	10,019
	7,584,706.89	5,004,536	6,612,942	971,765		218,934

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.4 2.89

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 342 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	1,009.93	858	549	461	3.00	154
2008	23,325.31	18,660	11,939	11,386	4.00	2,846
2014	61,104.50	30,552	19,548	41,556	10.00	4,156
2016	92,745.16	37,098	23,736	69,009	12.00	5,751
2017	48,514.27	16,980	10,864	37,650	13.00	2,896
2018	57,628.55	17,289	11,062	46,567	14.00	3,326
2019	88,222.86	22,056	14,111	74,112	15.00	4,941
2020	2,304.60	461	295	2,010	16.00	126
2021	12,195.19	1,829	1,170	11,025	17.00	649
2022	80,982.31	8,098	5,182	75,800	18.00	4,211
2023	1,757.57	88	56	1,702	19.00	90
	469,790.25	153,969	98,512	371,278		29,146
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.7 6.20

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2004	153,483.10	153,483	153,483			
2005	225,100.69	213,846	181,021	44,080	1.00	44,080
2006	284,927.96	256,435	217,073	67,855	2.00	33,928
2007	546,753.24	464,740	393,404	153,349	3.00	51,116
2008	241,902.08	193,522	163,817	78,085	4.00	19,521
2009	93,688.77	70,267	59,481	34,208	5.00	6,842
2010	678,599.35	475,020	402,106	276,493	6.00	46,082
2011	1,146,192.08	745,025	630,666	515,526	7.00	73,647
2012	2,320,365.62	1,392,219	1,178,517	1,141,849	8.00	142,731
2013	2,929,204.68	1,611,063	1,363,769	1,565,436	9.00	173,937
2014	1,038,682.01	519,341	439,623	599,059	10.00	59,906
2015	1,783,290.65	802,481	679,302	1,103,989	11.00	100,363
2016	4,209,228.78	1,683,692	1,425,250	2,783,979	12.00	231,998
2017	5,196,885.71	1,818,910	1,539,712	3,657,174	13.00	281,321
2018	2,736,698.84	821,010	694,987	2,041,712	14.00	145,837
2019	1,310,548.63	327,637	277,346	1,033,203	15.00	68,880
2020	4,357,645.66	871,529	737,751	3,619,895	16.00	226,243
2021	4,886,827.60	733,024	620,507	4,266,321	17.00	250,960
2022	6,451,897.64	645,190	546,155	5,905,743	18.00	328,097
2023	5,450,785.28	272,539	230,705	5,220,080	19.00	274,741
2024	2,091,789.12	26,147	22,133	2,069,656	19.75	104,793
9999	12,841.25-	3,761-	3,190-	9,651-		711-
	48,121,656.24	14,093,359	11,953,618	36,168,038		2,664,312

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.6 5.54

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2004	103,310.33	103,310	103,310			
2005	17,344.50	16,477	8,741	8,604	1.00	8,604
2006	128,711.88	115,841	61,455	67,257	2.00	33,628
2007	103,111.94	87,645	46,497	56,615	3.00	18,872
2008	53,452.75	42,762	22,686	30,767	4.00	7,692
2009	196,304.71	147,229	78,107	118,198	5.00	23,640
2010	107,001.34	74,901	39,736	67,265	6.00	11,211
2011	214,311.99	139,303	73,902	140,410	7.00	20,059
2012	86,552.44	51,931	27,550	59,002	8.00	7,375
2013	30,519.21	16,786	8,905	21,614	9.00	2,402
2014	57,772.94	28,886	15,325	42,448	10.00	4,245
2015	17,712.59	7,971	4,229	13,484	11.00	1,226
2016	44,332.75	17,733	9,408	34,925	12.00	2,910
2017	94,878.08	33,207	17,617	77,261	13.00	5,943
2018	291,357.49	87,407	46,371	244,986	14.00	17,499
2019	152,368.57	38,092	20,208	132,161	15.00	8,811
2020	212,824.35	42,565	22,581	190,243	16.00	11,890
2021	110,412.37	16,562	8,787	101,625	17.00	5,978
2022	116,937.65	11,694	6,204	110,734	18.00	6,152
2023	90,081.23	4,504	2,389	87,692	19.00	4,615
	2,229,299.11	1,084,806	624,008	1,605,291		202,752

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.9 9.09

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-S0.5						
NET SALVAGE PERCENT.. 0						
1951	29.64	30	30			
1967	1,931.23	1,931	1,931			
1968	1,032.10	1,032	1,032			
1969	817.92	818	818			
1970	6,734.16	6,734	6,734			
1972	6,321.41	6,321	6,321			
1975	281.75	282	282			
1977	596.25	596	596			
1978	1,790.00	1,790	1,790			
1980	7,445.82	7,446	7,446			
1982	2,452.73	2,452	2,453			
1984	1,722.07	1,695	1,702	20	0.65	20
1985	16,792.81	16,373	16,444	349	1.00	349
1986	14,013.50	13,526	13,585	428	1.37	312
1987	4,748.59	4,551	4,571	178	1.61	111
1988	10,221.10	9,677	9,719	502	2.02	249
1989	13,115.87	12,303	12,356	760	2.31	329
1990	9,498.15	8,816	8,854	644	2.63	245
1991	12,096.57	11,097	11,145	952	2.97	321
1992	18,034.45	16,390	16,461	1,573	3.21	490
1993	77,817.09	69,716	70,019	7,798	3.60	2,166
1994	152,889.96	135,308	135,896	16,994	3.90	4,357
1995	148,235.10	129,824	130,388	17,847	4.11	4,342
1996	79,553.28	68,607	68,905	10,648	4.47	2,382
1997	41,095.55	34,952	35,104	5,992	4.75	1,261
1998	55,083.04	46,116	46,316	8,767	5.06	1,733
1999	255,047.45	209,777	210,688	44,359	5.40	8,215
2001	45,944.17	36,351	36,509	9,435	6.07	1,554
2002	107,988.70	83,626	83,989	24,000	6.41	3,744
2003	170,236.10	129,056	129,616	40,620	6.70	6,063
2004	19,131.90	14,158	14,219	4,913	7.03	699
2005	33,181.89	23,894	23,998	9,184	7.39	1,243
2006	13,570.69	9,502	9,543	4,028	7.71	522
2007	5,629.80	3,828	3,845	1,785	8.00	223
2008	47,316.03	31,039	31,174	16,142	8.39	1,924
2009	61,841.82	39,146	39,316	22,526	8.70	2,589
2010	16,615.93	10,096	10,140	6,476	9.04	716
2012	21,347.57	11,758	11,809	9,539	9.79	974
2013	21,465.79	11,169	11,217	10,249	10.14	1,011
2014	100,707.30	49,044	49,257	51,450	10.53	4,886
2015	5,982.85	2,703	2,715	3,268	10.92	299

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-S0.5						
NET SALVAGE PERCENT.. 0						
2016	126,868.88	52,574	52,802	74,067	11.31	6,549
2017	26,612.95	9,967	10,010	16,603	11.69	1,420
2018	292,687.82	97,114	97,535	195,153	12.08	16,155
2019	13,003.54	3,713	3,729	9,275	12.51	741
2022	53,275.45	6,777	6,807	46,468	13.72	3,387
	2,122,806.77	1,443,675	1,449,816	672,991		81,581
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.2 3.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2004	117,227.07	117,227	117,227			
2011	258.22	224	211	47	2.00	24
2012	3,640.24	2,912	2,747	893	3.00	298
2013	103,009.53	75,540	71,257	31,753	4.00	7,938
2015	17,452.26	10,471	9,877	7,575	6.00	1,262
2016	35,790.32	19,088	18,006	17,784	7.00	2,541
2018	11,496.50	4,599	4,338	7,158	9.00	795
2019	417,135.37	139,044	131,161	285,974	10.00	28,597
2020	299,532.41	79,876	75,347	224,185	11.00	20,380
2021	425,092.22	85,018	80,198	344,894	12.00	28,741
2022	680,468.10	90,727	85,583	594,885	13.00	45,760
2023	1,271,106.48	84,745	79,941	1,191,165	14.00	85,083
2024	386,594.94	6,445	6,080	380,515	14.75	25,798
9999	56,552.67-	10,743-	10,234-	46,319-		3,710-
	3,712,250.99	705,173	671,739	3,040,512		243,507
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.5 6.56

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.1 COMMUNICATION EQUIPMENT - NON-TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2009	94.16	94	94			
2010	1,083.00	1,011	927	156	1.00	156
2011	18,194.10	15,768	14,451	3,743	2.00	1,872
2012	39,624.20	31,699	29,051	10,573	3.00	3,524
2013	721,836.04	529,344	485,126	236,710	4.00	59,178
2014	138,898.47	92,599	84,864	54,034	5.00	10,807
2015	3,007.59	1,805	1,654	1,354	6.00	226
2017	75,197.83	35,093	32,162	43,036	8.00	5,380
2018	602,810.61	241,124	220,982	381,829	9.00	42,425
2019	729,975.54	243,323	222,997	506,979	10.00	50,698
2020	1,640,804.93	437,553	401,003	1,239,802	11.00	112,709
2021	2,131,641.07	426,328	390,715	1,740,926	12.00	145,077
2022	1,549,647.04	206,614	189,355	1,360,292	13.00	104,638
2023	1,189,705.48	79,318	72,692	1,117,013	14.00	79,787
2024	806,603.63	13,446	12,323	794,281	14.75	53,850
	9,649,123.69	2,355,119	2,158,396	7,490,728		670,327
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.2 6.95



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.19 COMMUNICATION EQUIPMENT - REMOTE CONTROL AND INSTRUMENTATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	96,947.90	96,948	96,948			
2015	113,844.36	102,460	93,723	20,121	1.00	20,121
2016	717,219.42	573,776	524,850	192,369	2.00	96,184
2017	318,372.46	222,861	203,858	114,514	3.00	38,171
2018	760,200.33	456,120	417,227	342,973	4.00	85,743
2019	64,999.04	32,500	29,729	35,270	5.00	7,054
2020	535,905.67	214,362	196,083	339,823	6.00	56,637
2021	275,985.00	82,796	75,736	200,249	7.00	28,607
2022	710,843.82	142,169	130,046	580,798	8.00	72,600
2023	962,468.57	96,247	88,041	874,428	9.00	97,159
2024	345,533.22	8,638	7,901	337,632	9.75	34,629
	4,902,319.79	2,028,877	1,864,142	3,038,178		536,905
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.7 10.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.20 COMMUNICATION EQUIPMENT - TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	71,723.53	71,724	71,724			
2015	11,214.16	10,093	9,291	1,923	1.00	1,923
2016	21,782.06	17,426	16,042	5,740	2.00	2,870
2017	35,766.67	25,037	23,048	12,719	3.00	4,240
2018	66,703.59	40,022	36,843	29,861	4.00	7,465
2020	63,300.51	25,320	23,309	39,992	6.00	6,665
2022	24,688.05	4,938	4,546	20,142	8.00	2,518
2023	5,387.96	539	496	4,892	9.00	544
2024	9,391.81	235	216	9,176	9.75	941
	309,958.34	195,334	185,515	124,443		27,166
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.6 8.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1999	500.00	500	500			
2000	11,327.73	10,875	8,570	2,758	1.00	2,758
2001	1,124,164.98	1,034,232	815,061	309,104	2.00	154,552
2002	237,394.60	208,907	164,636	72,759	3.00	24,253
2003	269,249.53	226,170	178,241	91,009	4.00	22,752
2004	589,851.03	471,881	371,881	217,970	5.00	43,594
2005	409,678.13	311,355	245,374	164,304	6.00	27,384
2006	32,215.49	23,195	18,280	13,935	7.00	1,991
2008	148,764.62	95,209	75,033	73,732	9.00	8,192
2009	15,603.42	9,362	7,378	8,225	10.00	822
2010	25,913.81	14,512	11,437	14,477	11.00	1,316
2011	67,243.18	34,966	27,556	39,687	12.00	3,307
2012	211,006.25	101,283	79,819	131,187	13.00	10,091
2013	1,921,577.23	845,494	666,319	1,255,258	14.00	89,661
2014	304,208.62	121,683	95,896	208,313	15.00	13,888
2015	242,341.45	87,243	68,755	173,586	16.00	10,849
2016	777,191.88	248,701	195,997	581,195	17.00	34,188
2017	546,849.76	153,118	120,670	426,180	18.00	23,677
2018	1,208,042.02	289,930	228,489	979,553	19.00	51,555
2019	736,997.02	147,399	116,163	620,834	20.00	31,042
2020	6,298,678.56	1,007,789	794,221	5,504,458	21.00	262,117
2021	4,955,441.76	594,653	468,636	4,486,806	22.00	203,946
2022	7,440,610.10	595,249	469,106	6,971,504	23.00	303,109
2023	6,039,423.36	241,577	190,382	5,849,041	24.00	243,710
2024	2,635,146.16	26,351	20,767	2,614,379	24.75	105,631
9999	4,085.00-	778-	613-	3,472-		189-
	36,245,335.69	6,900,856	5,438,554	30,806,782		1,674,196
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.4 4.62

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 348 OTHER TANGIBLE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2003	5,843.07	4,908	4,860	983	4.00	246
2004	20,479.05	16,383	16,223	4,256	5.00	851
2006	12,840.00	9,245	9,155	3,685	7.00	526
2007	694,887.82	472,524	467,905	226,983	8.00	28,373
2015	1,360.35	490	485	875	16.00	55
2019	52,243.29	10,449	10,347	41,896	20.00	2,095
2020	7,924.33	1,268	1,256	6,668	21.00	318
	795,577.91	515,267	510,231	285,347		32,464
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.8						4.08

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**PART VIII. EXPERIENCED AND ESTIMATED  
NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
301.00	7,992.94			
303.20	2,860.93			
303.61	802,954.77			
303.99		3,062.78		3,062.78-
304.15	438,188.39	387,837.75	27,560.73	360,277.02-
304.20	711,682.94	147,277.43	31,830.10	115,447.33-
304.30	10,188,998.34	148,391.82	66,260.61	82,131.21-
304.36	36,384.91	546.00		546.00-
304.61	3,543,001.13	1,304,656.48	1,864,549.94	559,893.46
304.62	374,098.54	54,481.40	192,159.79	137,678.39
304.63	48,158.12	8,030.27	25,209.50	17,179.23
305.00	9,293.68	1,266,548.34		1,266,548.34-
306.00	490,056.62	17,003.99		17,003.99-
307.00	1,348,867.50	118,341.25		118,341.25-
310.00	146,073.90	42,462.99		42,462.99-
311.00	4,971,723.99	1,092,490.18	13,739.63	1,078,750.55-
320.00	7,520,341.84	924,729.91	229.83	924,500.08-
320.30	2,975,108.37	423,003.27		423,003.27-
320.37	869,130.34	90,807.00	23.00	90,784.00-
330.00	7,714,591.97	2,686,207.69		2,686,207.69-
331.00	37,950,027.53	21,381,790.52	13,124.96	21,368,665.56-
333.00	7,266,231.40	1,897,743.49	9,792.38	1,887,951.11-
334.00	12,410,016.53	2,727,391.38	93,029.52	2,634,361.86-
335.00	3,216,730.86	908,970.88	4,063.03	904,907.85-
340.00	22,635,487.21	122,477.36	10,745.87	111,731.49-
341.00	1,770,594.69	761,298.60	261,902.01	499,396.59-
342.00	146,389.56	9,682.12		9,682.12-
343.00	3,341,150.75	57,836.24	48,579.17	9,257.07-
344.00	633,161.26	14,919.23		14,919.23-
345.00	276,184.11	15,876.66	12,288.18	3,588.48-
346.00	2,186,921.89	87,193.50		87,193.50-
347.00	1,370,647.26	73,665.55	8,306.50	65,359.05-
348.00		808.08		808.08-
	135,403,052.27	36,775,532.16	2,683,394.75	34,092,137.41-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
303.61			4,483.73	4,483.73
304.15	549,086.47	577,956.65	210.38	577,746.27-
304.20	8,384.32	71,775.96		71,775.96-
304.30	409,196.21	788,178.99		788,178.99-
304.61	35,517.97	12,850.31		12,850.31-
304.62	72,882.00	8.81-		8.81
304.63		23.48		23.48-
305.00		24,577.59		24,577.59-
306.00	4,621.01	6,896.40		6,896.40-
307.00	44,317.44	42,111.55		42,111.55-
310.00	8,443.54	3,593.30		3,593.30-
311.00	482,184.81	248,120.57		248,120.57-
320.00	1,647,036.23	695,879.64	214.05-	696,093.69-
320.30	146,562.96	76,375.47		76,375.47-
330.00	316,910.67	1,196,558.00		1,196,558.00-
331.00	32,399,513.98	12,998,210.71	25,703.04	12,972,507.67-
333.00	1,279,015.58	2,528,314.54		2,528,314.54-
334.00	4,974,584.57	1,486,703.66	42,569.41	1,444,134.25-
335.00	1,427,031.44	1,720,769.32	3,093.12	1,717,676.20-
340.00	12,731,491.25	23,848.17	613.87	23,234.30-
341.00	203,634.46	97,003.97	456,214.35	359,210.38
342.00	13,022.51	122.40		122.40-
343.00	191,196.62	50,715.40	3,000.00	47,715.40-
344.00	39,028.26	13,845.30		13,845.30-
345.00	681.55			
346.00	950,181.45	44,631.89		44,631.89-
347.00	145,584.81	16,130.65		16,130.65-
348.00	823.15			
	58,080,933.26	22,725,185.11	535,673.85	22,189,511.26-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2021 TRANSACTION YEAR				
303.20	20,254.74			
303.61			4,483.73-	4,483.73-
304.15	126,490.86	666,811.69		666,811.69-
304.20	2,974.34	37,171.02		37,171.02-
304.30	496,969.98	137,849.62		137,849.62-
304.61		1,346.07	4,483.73	3,137.66
304.62		18,876.94		18,876.94-
305.00	10,586.76	467.17		467.17-
306.00	507.53	450.15		450.15-
307.00	36,953.56	5,700.51		5,700.51-
311.00	270,914.29	193,743.82		193,743.82-
320.00	2,230,482.23	890,085.40		890,085.40-
320.30	33,915.10	1,370.70		1,370.70-
320.37	10,486.03			
330.00	256,778.51	1,561,680.99		1,561,680.99-
331.00	15,748,750.26	8,196,453.86	282,490.53	7,913,963.33-
333.00	7,520,801.90	2,681,541.01	1,799.10	2,679,741.91-
334.00	5,495,660.10	1,021,270.85	331,737.56	689,533.29-
335.00	2,860,930.58	1,074,172.62	11,562.11	1,062,610.51-
340.00	35,664,062.09	78,720.20	325.05	78,395.15-
341.00		16,299.55-	219,365.56	235,665.11
343.00	162,936.71	40,863.25		40,863.25-
344.00		5,126.37		5,126.37-
346.00	738,074.13	49,301.95		49,301.95-
347.00	203,387.56	8,339.46		8,339.46-
348.00	5,662.47			
	71,897,579.73	16,655,044.10	847,279.91	15,807,764.19-



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
304.15	981,518.44	850,320.81		850,320.81-
304.20	545,894.57	23,865.76		23,865.76-
304.30	2,017,524.85	52,542.41		52,542.41-
304.36	662.50			
304.61		6,818.30		6,818.30-
304.62	193,622.53	46,017.09		46,017.09-
304.63	3,204.02	79,910.95		79,910.95-
305.00	228,547.61	299,889.33		299,889.33-
306.00	152,202.89			
307.00	158,236.88	55,144.80		55,144.80-
310.00	4,791.22			
311.00	1,206,205.82	350,411.61		350,411.61-
320.00	3,732,867.80	1,520,577.41		1,520,577.41-
320.30	32,480.56	299,375.44		299,375.44-
320.37	18,895.53			
330.00	287,248.73	3,396,011.14		3,396,011.14-
331.00	19,475,471.04	13,983,952.63	111,611.62	13,872,341.01-
333.00	6,765,263.95	2,505,397.99	2,218.42	2,503,179.57-
334.00	9,009,490.02	3,625,834.72	54,380.07	3,571,454.65-
335.00	1,654,590.34	1,281,342.15	6,290.78	1,275,051.37-
340.00	45,059,382.50	67,823.74	8,592.94	59,230.80-
341.00		1,127.48	820,242.37	819,114.89
342.00	63,146.52			
343.00	237,075.29	38,089.15		38,089.15-
344.00	680,132.13	8,395.86		8,395.86-
345.00	332,927.29	590.23		590.23-
346.00	352,393.47	165,439.94		165,439.94-
347.00	260,681.45	105,946.50		105,946.50-
	93,454,457.95	28,764,825.44	1,003,336.20	27,761,489.24-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2023 TRANSACTION YEAR				
303.61		15.00	11,108.00	11,093.00
304.15	1,380,150.46	796,762.50	23,546.75	773,215.75-
304.20	1,003,174.19	124,387.00	10,031.74	114,355.26-
304.30	1,149,941.81	43,949.00	5,749.71	38,199.29-
304.61	234,486.94	43,380.00	57,449.30	14,069.30
304.62	392,363.88	76,293.00	227,444.49	151,151.49
304.63	467,955.43	18,770.50	22,588.56	3,818.06
305.00	647,687.81	213,737.00		213,737.00-
306.00	106,463.87	2,661.50		2,661.50-
307.00	111,214.30	7,366.00		7,366.00-
310.00	1,084,889.03	119,338.00		119,338.00-
311.00	2,463,421.79	321,442.00		321,442.00-
320.00	10,939,053.43	1,543,362.00		1,543,362.00-
320.30	166,821.44	60,630.50		60,630.50-
320.37	141,695.39	7,085.00		7,085.00-
330.00	2,284,730.54	581,223.00		581,223.00-
331.00	56,063,568.39	21,364,445.00	12,078.00	21,352,367.00-
333.00	6,043,953.42	2,514,107.50	1,306.00	2,512,801.50-
334.00	5,345,569.99	2,786,541.00	112,369.70	2,674,171.30-
335.00	2,041,116.22	1,364,307.00	3,425.00	1,360,882.00-
340.00	7,776,692.79	35,034.00	26,721.00	8,313.00-
341.00	2,084,302.52	21,140.00	396,017.48	374,877.48
343.00	947.22	24,009.00	1,447.00	22,562.00-
344.00	32,721.95	9,236.00		9,236.00-
346.00	80,105.78			
347.00	37,475.05	24,794.00	42.00	24,752.00-
348.00		60,221.00	58,690.00	1,531.00-
	102,080,503.64	32,164,236.50	970,014.73	31,194,221.77-
TOTAL	460,916,526.85	137,084,823.31	6,039,699.44	131,045,123.87-

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**EXHIBIT NO. 11-C  
DEPRECIATION STUDY**

**WATER OPERATIONS  
AS OF JUNE 30, 2025**

Exhibit No. 11-C  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WATER OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WATER PLANT

AS OF JUNE 30, 2025

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-C  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WATER PLANT  
AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention: Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant as of June 30, 2025. The results of our study as of June 30, 2024 are presented in our report titled "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of June 30, 2024". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. RESULTS OF STUDY**



**PENNSYLVANIA-AMERICAN WATER COMPANY**

**WATER OPERATIONS**

**DEPRECIATION STUDY**

**RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Tables 1 through 5 presented on pages 3 through 14 summarize the results of the depreciation study as of June 30, 2025. Table 1 sets forth the development of the net original cost by account as of June 30, 2025. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of June 30, 2025, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to June 30, 2025. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended June 30, 2025. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2012 through 2024.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-7. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2020 through 2024, beginning on pages III-2 through III-6.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2025 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2025 (6)
<b>INTANGIBLE PLANT</b>					
301.00 ORGANIZATION	766,405.12				766,405.12
302.00 FRANCHISES AND CONSENTS	2,404,599.20				2,404,599.20
303.00 MISCELLANEOUS INTANGIBLE PLANT	15,572.16				15,572.16
<b>TOTAL INTANGIBLE PLANT</b>	<b>3,186,576.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3,186,576.48</b>
<b>NONDEPRECIABLE PLANT</b>					
303.20 POWER AND PUMPING LAND	6,211,287.02				6,211,287.02
303.30 PURIFICATION LAND	2,621,561.64				2,621,561.64
303.40 TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	3,727,786.24		215,927.20		3,511,859.04
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPE LAND	2,107,863.83				2,107,863.83
303.51 TRANSMISSION AND DISTRIBUTION - LAND	1,865,772.73				1,865,772.73
303.52 TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	5,338,245.56				5,338,245.56
303.61 OFFICE LAND	3,221,899.78				3,221,899.78
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>25,094,416.80</b>	<b>0.00</b>	<b>215,927.20</b>	<b>0.00</b>	<b>24,878,489.60</b>
<b>DEPRECIABLE PLANT</b>					
303.14 WATER RIGHTS - HIBERNIA	1,942,822.51				1,942,822.51
303.35 WASTE HANDLING AND TREATMENT LAND	155,025.17				155,025.17
303.99 COMPREHENSIVE PLANNING STUDIES	13,338,478.83				13,338,478.83
304.15 OTHER WATER SOURCE STRUCTURES	105,718,516.03				105,718,516.03
304.20 POWER AND PUMPING STRUCTURES	113,100,997.62		1,304,029.60	41,310.00	111,755,658.02
304.30 PURIFICATION BUILDINGS	365,272,906.58		281,872.62	230,375.00	364,760,658.96
304.36 WASTE HANDLING AND TREATMENT STRUCTURE	26,629,042.76				26,629,042.76
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	1,403,438.95				1,403,438.95
304.39 PURIFICATION BUILDINGS - TANK PAINTING	119,362.95				119,362.95
304.61 OFFICE BUILDINGS	46,637,432.47		60,000.00	12,834.00	46,564,598.47
304.62 STORES, SHOP AND GARAGE BUILDINGS	74,799,687.69		576.00		74,799,111.69
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	11,514,247.71				11,514,247.71
305.00 COLLECTING AND IMPOUNDING RESERVOIRS	198,449,569.35		3,575.00		198,445,994.35
306.00 LAKE, RIVER AND OTHER INTAKES	18,714,217.32		41,551.00		18,672,666.32
307.00 WELLS AND SPRINGS	17,165,371.95		307,067.27		16,858,304.68
310.00 POWER GENERATION EQUIPMENT	26,016,825.01		118,273.00	26,561.00	25,871,991.01
311.20 PUMPING EQUIPMENT - ELECTRIC	43,165,496.66				43,165,496.66
311.50 PUMPING EQUIPMENT - OTHER	20,857,210.96		1,964,196.05	116,716.00	20,857,210.96
311.52 PUMPING EQUIPMENT - SOURCE OF SUPPLY	12,940,570.90				12,940,570.90
311.53 PUMPING EQUIPMENT - WATER TREATMENT	47,853,790.34				47,853,790.34
311.54 PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION	6,707,900.44				6,707,900.44

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2025 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2025 (6)
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	279,076,665.13		69,357.27	627,852.00	278,379,455.86
320.18 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	103,245.73				103,245.73
320.19 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT	3,667,945.94				3,667,945.94
320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT	159,783,347.00		42,367.00		159,740,980.00
320.29 PURIFICATION SYSTEM - CHEMICAL TREATMENT PAINT	8,167.87				8,167.87
320.30 GRANULAR ACTIVATED CARBON	14,370,730.58				14,370,730.58
320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT	19,048,869.77				19,048,869.77
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	151,911,705.31		3,309,408.10		148,602,297.21
330.10 ELEVATED TANKS AND STANDPIPES	24,572,432.37				24,572,432.37
330.20 GROUND LEVEL FACILITIES	19,913,409.67				19,913,409.67
330.30 BELOW GRADE FACILITIES	818,707.23				818,707.23
330.40 CLEARWELL	12,806,300.04				12,806,300.04
330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	2,303,924.15				2,303,924.15
330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	53,585,998.63				53,585,998.63
331.00 MAINS AND ACCESSORIES	3,843,036,451.13	50,320,457.46	259,199,478.11	502,366.00	3,533,014,149.56
333.00 SERVICES	786,228,313.01	11,443,825.85	15,948,027.95		758,836,469.21
334.00 METERS AND METER INSTALLATIONS	277,333,013.97		1,956,853.15		275,376,160.82
335.00 FIRE HYDRANTS	163,733,934.22	1,914,936.19	5,636,080.03		156,182,918.00
340.10 OFFICE FURNITURE	9,765,026.15				9,765,026.15
340.20 COMPUTERS AND PERIPHERAL EQUIPMENT	20,929,590.90				20,929,590.90
340.30 COMPUTER SOFTWARE	84,090,848.28				84,090,848.28
340.31 COMPUTER SOFTWARE - ENTERPRISE SOLUTIONS	215,330.44				215,330.44
340.50 OTHER OFFICE EQUIPMENT	9,454.95		354.00		9,100.95
341.00 NOT CLASSIFIED	2,587.67				2,587.67
341.10 LIGHT DUTY TRUCKS	75,542,986.69				75,542,986.69
341.20 EQUIPMENT	17,334,733.21				17,334,733.21
341.30 AUTOS	2,120,994.81				2,120,994.81
341.40 OTHER	7,584,706.89				7,584,706.89
342.00 STORES EQUIPMENT	469,790.25				469,790.25
343.00 TOOLS AND WORK EQUIPMENT	53,899,121.52		12,841.25		53,886,280.27
344.00 LABORATORY EQUIPMENT	2,125,988.78				2,125,988.78
345.00 POWER OPERATED EQUIPMENT	2,242,714.26				2,242,714.26
346.00 EQUIPMENT	4,894,351.60				4,837,798.93
346.10 NON-TELEPHONE	11,538,536.76		56,552.67		11,538,536.76
346.19 REMOTE CONTROL AND INSTRUMENTATION	5,985,571.87				5,985,571.87
346.20 TELEPHONE	259,216.96				259,216.96
347.00 MISCELLANEOUS EQUIPMENT	43,814,485.74		4,085.00		43,810,400.74
348.00 OTHER TANGIBLE EQUIPMENT	14,759,295.79				14,759,295.79
<b>TOTAL DEPRECIABLE PLANT</b>	<b>7,322,391,407.47</b>	<b>63,679,219.50</b>	<b>290,316,545.07</b>	<b>1,558,014.00</b>	<b>6,966,837,628.90</b>
<b>TOTAL UTILITY PLANT IN SERVICE</b>	<b>7,350,672,400.75</b>	<b>63,679,219.50</b>	<b>290,532,472.27</b>	<b>1,558,014.00</b>	<b>6,994,902,694.98</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2025 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>INTANGIBLE PLANT</b>							
301.00 ORGANIZATION	NONDEPR.	766,405.12					
302.00 FRANCHISES AND CONSENTS	NONDEPR.	2,404,599.20					
303.00 MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	15,572.16					
<b>TOTAL INTANGIBLE PLANT</b>		<b>3,186,576.48</b>					
<b>NONDEPRECIABLE PLANT</b>							
303.20 POWER AND PUMPING LAND	NONDEPR.	6,211,287.02					
303.30 PURIFICATION LAND	NONDEPR.	2,621,561.64					
303.40 TRANSMISSION AND DISTRIBUTION LAND AND RIGHTS OF WAY	NONDEPR.	3,511,859.04					
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	2,107,863.83					
303.51 TRANSMISSION AND DISTRIBUTION - LAND	NONDEPR.	1,865,772.73					
303.52 TRANSMISSION AND DISTRIBUTION - RIGHTS OF WAY	NONDEPR.	5,338,245.56					
303.61 OFFICE LAND	NONDEPR.	3,221,899.78					
<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>24,878,489.60</b>					
<b>DEPRECIABLE PLANT</b>							
303.14 WATER RIGHTS - HIBERNIA	25-SQ	1,942,822.51	1,942,823	0	0	-	-
303.35 WASTE HANDLING AND TREATMENT LAND	100-R3	155,025.17	134,486	20,539	1,303	0.84	15.8
303.99 COMPREHENSIVE PLANNING STUDIES	5-SQ	13,338,478.83	10,223,405	3,115,074	1,176,824	8.82	2.6
304.15 OTHER WATER SOURCE STRUCTURES	50-S0.5	105,718,516.03	11,659,067	94,059,449	2,995,935	2.83	31.4
304.20 POWER AND PUMPING STRUCTURES	75-S0.5	56,459,468.67	10,740,331	45,719,138	1,602,716	2.84	28.5
LARGE STRUCTURES	55-R3	55,296,189.35	10,044,840	45,251,349	1,428,896	2.58	31.7
OTHER STRUCTURES							
<b>TOTAL ACCOUNT 304.2</b>		<b>111,755,658.02</b>	<b>20,785,171</b>	<b>90,970,487</b>	<b>3,031,612</b>	<b>2.71</b>	<b>30.0</b>
304.30 PURIFICATION BUILDINGS							
LARGE STRUCTURES	55-S1	299,956,857.25	111,411,219	188,545,640	7,483,884	2.49	25.2
OTHER STRUCTURES	60-R3	64,803,801.71	13,452,705	51,351,097	1,200,386	1.85	42.8
<b>TOTAL ACCOUNT 304.3</b>		<b>364,760,658.96</b>	<b>124,863,924</b>	<b>239,896,737</b>	<b>8,684,270</b>	<b>2.38</b>	<b>27.6</b>
304.36 WASTE HANDLING AND TREATMENT STRUCTURES	55-S1	26,629,042.76	8,631,394	17,997,648	815,227	3.06	22.1
304.38 WASTE HANDLING AND TREATMENT STRUCTURES PAINTING	10-SQ	1,403,438.95	603,418	800,021	133,337	9.50	6.0
304.39 PURIFICATION BUILDINGS - TANK PAINTING	10-SQ	119,362.95	119,360	3	0	-	-
304.61 OFFICE BUILDINGS							
LARGE STRUCTURES	55-S0	30,363,147.68	7,107,547	23,255,601	1,529,855	5.04	15.2
OTHER OTHER STRUCTURES	50-R3	16,201,450.79	4,394,978	11,806,473	376,592	2.32	31.4
<b>TOTAL ACCOUNT 304.61</b>		<b>46,564,598.47</b>	<b>11,502,525</b>	<b>35,062,074</b>	<b>1,906,447</b>	<b>4.09</b>	<b>18.4</b>
304.62 STORES, SHOP AND GARAGE BUILDINGS							
LARGE STRUCTURES	55-S0.5	62,301,831.95	18,101,774	44,200,059	1,518,872	2.44	29.1
OTHER OTHER STRUCTURES	45-R3	12,497,279.74	4,223,330	8,273,950	246,966	1.98	33.5
<b>TOTAL ACCOUNT 304.62</b>		<b>74,799,111.69</b>	<b>22,325,104</b>	<b>52,474,009</b>	<b>1,765,838</b>	<b>2.36</b>	<b>29.7</b>
304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS	35-S0.5	11,514,247.71	2,856,281	8,657,967	371,972	3.23	23.3
<b>TOTAL ACCOUNT 304</b>		<b>743,264,635.54</b>	<b>203,346,244</b>	<b>539,918,395</b>	<b>19,704,638</b>	<b>2.65</b>	<b>27.4</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2025

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2025 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (6)
						AMOUNT (6)	RATE (7)=(6)/(3)	
305.00	COLLECTING AND IMPOUNDING RESERVOIRS LARGE RESERVOIRS OTHER RESERVOIRS	130-R2 75-R3	190,471,468.05 7,974,536.30	7,708,843 242,940	182,762,616 7,731,596	3,125,193 147,982	1.64 1.86	58.5 52.2
	TOTAL ACCOUNT 305		198,445,994.35	7,951,783	190,494,212	3,273,175	1.65	58.2
306.00	LAKE, RIVER AND OTHER INTAKES LARGE RESERVOIRS OTHER RESERVOIRS	55-S1.5 50-S0.5	12,329,112.16 6,343,554.16	5,242,607 1,672,477	7,086,505 4,671,077	285,812 167,187	2.32 2.64	24.8 27.9
	TOTAL ACCOUNT 306		18,672,666.32	6,915,084	11,757,582	452,999	2.43	26.0
307.00	WELLS AND SPRINGS	55-S0	16,856,304.68	4,240,951	12,617,354	408,292	2.43	30.8
310.00	POWER GENERATION EQUIPMENT	45-S0.5	25,871,991.01	6,082,054	19,789,937	720,780	2.79	27.5
311.20	PUMPING EQUIPMENT	39-S0	41,084,584.61	1,928,386	39,156,199	1,682,807	4.10	23.3
311.50	ELECTRIC	39-S0	20,857,210.96	251,890	20,605,321	869,380	4.17	23.7
311.52	SOURCE OF SUPPLY	39-S0	12,940,570.90	3,436,500	9,504,071	420,058	3.25	22.6
311.53	WATER TREATMENT	39-S0	47,853,790.34	27,854,875	19,998,915	1,216,638	2.54	16.4
311.54	TRANSMISSION AND DISTRIBUTION	39-S0	6,707,900.44	2,696,554	4,011,346	191,739	2.86	20.9
	TOTAL ACCOUNT 311		129,444,057.25	36,168,205	93,275,852	4,380,622	3.38	21.3
320.10	PURIFICATION SYSTEM LARGE STRUCTURES LARGE STRUCTURES OTHER OTHER STRUCTURES	50-S1 55-R3	257,232,388.91 21,147,066.95	88,380,857 3,479,854	168,851,531 17,667,213	7,115,931 439,184	2.77 2.08	23.7 40.2
	TOTAL ACCOUNT 320.1		278,379,455.86	91,860,711	186,518,744	7,555,115	2.71	24.7
320.18	LARGE STRUCTURES PAINT	10-SQ	103,245.73	103,246	0	0	-	-
320.19	LARGE STRUCTURES PAINT	10-SQ	3,667,945.94	3,220,121	447,825	74,638	2.03	6.0
320.20	CHEMICAL TREATMENT	42-R0.5	159,740,980.00	23,764,484	135,976,496	6,625,402	4.15	20.5
320.29	CHEMICAL TREATMENT PAINT	FULLY ACCRUED	8,167.87	8,168	0	0	-	-
320.30	GRANULAR ACTIVATED CARBON	11-L0.5	14,370,730.58	7,963,693	6,407,038	1,160,194	8.07	5.5
320.37	WASTE HANDLING AND TREATMENT - EQUIPMENT	30-R3	19,048,869.77	10,134,011	8,914,859	471,474	2.48	18.9
	TOTAL ACCOUNT 320		475,319,395.75	137,054,434	338,264,962	15,886,823	3.34	21.3
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	148,602,297.21	43,738,815	104,863,482	2,738,085	1.84	38.3
330.10	ELEVATED TANKS AND STANDPIPES	65-S0.5	24,572,432.37	2,970,426	21,602,006	510,622	2.08	42.3
330.20	GROUND LEVEL FACILITIES	65-S0.5	19,913,409.67	2,865,778	17,047,632	413,105	2.07	41.3
330.30	BELOW GRADE FACILITIES	65-S0.5	818,707.23	190,827	627,880	15,727	1.92	39.9
330.40	CLEARWELL	65-S0.5	12,806,300.04	3,116,599	9,689,701	244,452	1.91	39.6
330.58	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	2,303,924.15	2,304,150	59,774	9,962	0.43	6.0
330.59	DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING	10-SQ	53,585,998.63	29,713,492	23,872,507	3,559,119	6.64	6.7
	TOTAL ACCOUNT 330		262,603,069.30	84,840,087	177,762,982	7,491,072	2.85	23.7
331.00	MAINS AND ACCESSORIES	90-R2	3,533,014,149.56	320,293,493	3,212,720,657	54,371,951	1.54	59.1
333.00	SERVICES	65-R2.5	758,836,459.21	173,808,467	585,027,992	14,059,475	1.85	41.6
334.00	METERS AND METER INSTALLATIONS	20-L1.5	275,376,160.82	98,232,397	177,143,764	16,251,857	5.90	10.9
335.00	FIRE HYDRANTS	60-R2	156,182,918.00	22,126,934	134,055,984	3,532,857	2.26	37.9

PENNSYLVANIA-AMERICAN WATER COMPANY  
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TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET ORIGINAL COST AS OF JUNE 30, 2025 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)		COMPOSITE REMAINING LIFE (8)
					AMOUNT (6)	RATE	
340.00 OFFICE FURNITURE AND EQUIPMENT							
FURNITURE	20-SQ	9,765,026.15	2,225,292	7,539,734	571,595	5.85	13.2
COMPUTERS AND PERIPHERAL EQUIPMENT	5-SQ	20,929,590.90	7,353,689	13,575,902	5,229,815	24.99	2.6
COMPUTER SOFTWARE	5-SQ	84,090,848.28	29,417,612	54,673,236	27,053,786	32.17	2.0
COMPUTER SOFTWARE - ENTERPRISE SOLUTIONS	10-SQ	215,330.44	16,573	198,757	66,253	30.77	3.0
OTHER OFFICE EQUIPMENT	10-SQ	9,100.95	4,261	4,840	1,210	13.29	4.0
TOTAL ACCOUNT 340		115,009,896.72	39,017,427	75,992,469	32,922,659	28.63	2.3
341.00 TRANSPORTATION EQUIPMENT							
NOT CLASSIFIED	10-L2.5	2,587.67	1,902	686	156	6.03	4.4
LIGHT DUTY TRUCKS	10-L2.5	75,542,986.69	32,074,239	43,468,748	7,193,168	9.52	6.0
EQUIPMENT	10-L2.5	17,334,733.21	15,866,742	1,467,991	394,498	2.28	3.7
AUTOS	10-L2.5	2,120,994.81	1,662,086	458,909	172,283	8.12	2.7
OTHER	10-L2.5	7,584,706.89	6,832,146	752,561	190,108	2.51	4.0
TOTAL ACCOUNT 341		102,586,009.27	56,437,115	46,148,895	7,950,213	7.75	5.8
342.00 STORES EQUIPMENT	20-SQ	469,790.25	128,629	341,161	29,150	6.20	11.7
343.00 TOOLS AND WORK EQUIPMENT	20-SQ	53,886,280.27	14,656,979	39,229,301	2,923,285	5.42	13.4
344.00 LABORATORY EQUIPMENT	20-SQ	2,125,988.78	727,066	1,398,923	207,010	9.74	6.8
345.00 POWER OPERATED EQUIPMENT	21-SQ.5	2,242,714.26	1,506,133	736,581	83,224	3.71	8.9
346.00 COMMUNICATION EQUIPMENT							
EQUIPMENT	15-SQ	4,837,798.93	898,903	3,938,896	319,993	6.61	12.3
NON-TELEPHONE	15-SQ	11,538,536.76	2,888,978	8,649,559	796,120	6.90	10.9
REMOTE CONTROL AND INSTRUMENTATION	10-SQ	5,985,571.87	2,361,391	3,624,181	641,528	10.72	5.6
TELEPHONE	10-SQ	259,216.96	138,370	120,847	29,007	11.19	4.2
TOTAL ACCOUNT 346		22,621,124.52	6,287,642	16,333,483	1,786,648	7.90	9.1
347.00 MISCELLANEOUS EQUIPMENT	25-SQ	43,810,400.74	7,309,665	36,500,736	2,007,334	4.58	18.2
348.00 OTHER TANGIBLE EQUIPMENT	25-SQ	14,759,295.79	936,806	13,822,490	606,125	4.11	22.8
<b>TOTAL DEPRECIABLE PLANT</b>		<b>6,966,937,628.90</b>	<b>1,240,368,309</b>	<b>5,726,469,325</b>	<b>190,229,316</b>	<b>2.73</b>	
<b>AMORTIZATION OF NET SALVAGE</b>					<b>26,487,385</b>		
<b>TOTAL UTILITY PLANT IN SERVICE</b>		<b>6,994,902,694.98</b>	<b>1,240,368,309</b>	<b>5,726,469,325</b>	<b>216,716,701</b>		

\* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

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**TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024**

Account (1)	BOOK RESERVE BALANCE AS OF		PROJECTED DEPRECIATION ACCURUALS (3)	PROJECTED RETIREMENTS (4)	PROJECTED COST OF REMOVAL (5)	PROJECTED SALVAGE (6)	ADJUSTMENTS AND ACQUISITIONS (7)	PROJECTED BOOK RESERVE BALANCE AS OF	
	06/30/2024 (2)							06/30/2025 (8)	
303.14	1,942,823							1,942,823	
303.35	133,178	1,308						134,486	
303.61	0							0	
303.99	9,027,061	1,493,958		161,747	135,867			10,223,405	
304.15	8,694,594	3,686,544		396,007	356,407	3,960	26,383	11,659,067	
304.20	18,459,251	3,091,762		676,177	155,521	13,523	52,333	20,785,171	
304.30	120,816,440	8,557,248		4,254,496	297,813	42,545		124,863,924	
304.36	8,232,332	753,652		351,079	3,511			8,631,394	
304.38	467,566	135,852						603,418	
304.39	115,844	3,516						119,360	
304.61	10,999,830	1,353,942		967,325	357,910	473,988	6,585	11,502,525	
304.62	20,685,178	1,633,341						22,325,104	
304.63	3,313,011	291,896		719,831	43,191	14,396		2,856,281	
305.00	25,095,019	2,897,832		15,068,472	4,972,596			7,951,783	
306.00	6,710,138	437,185		221,180	11,059			6,915,084	
307.00	3,612,473	366,481		152,473	19,820		434,290	4,240,951	
310.00	5,546,185	754,799		179,451	39,479			6,082,054	
311.20	3,183,068	1,337,373		2,331,161	512,856		251,962	1,928,386	
311.50	770,023	751,416		1,067,308	234,809		32,568	251,890	
311.52	3,000,408	436,092						3,436,500	
311.53	26,577,175	1,277,700						27,854,875	
311.54	2,497,330	199,224						2,696,554	
320.10	88,028,988	8,254,620		3,595,851	827,046			91,860,711	
320.18	103,246							103,246	
320.19	3,139,061	81,060						3,220,121	
320.20	30,308,513	4,388,722		9,320,612	2,143,742		531,603	23,764,484	
320.29	8,168							8,168	

**PENNSYLVANIA-AMERICAN WATER COMPANY**  
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**TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024**

Account	BOOK RESERVE BALANCE AS OF 06/30/2024 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ADJUSTMENTS AND ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 06/30/2025 (8)
320.30	6,870,691		1,378,894		228,711		57,181						7,963,693
320.37	10,789,269		315,726		882,712		88,272						10,134,011
330.00	42,731,163		4,058,731		1,940,228		1,629,792				518,941		43,738,815
330.10	2,576,544		393,882										2,970,426
330.20	2,447,602		418,176										2,865,778
330.30	174,867		15,960										190,827
330.40	2,868,151		248,448										3,116,599
330.58	2,164,662		79,488										2,244,150
330.59	28,235,459		3,446,079		1,968,046								29,713,492
331.00	317,168,189		67,709,848		41,655,347		24,160,100				1,230,903		320,293,493
333.00	165,593,656		16,098,050		5,718,338		2,287,335				122,434		173,808,467
334.00	86,478,411		17,907,074		5,574,665		1,393,669		111,492		703,754		98,232,397
335.00	20,657,896		4,698,134		2,126,718		1,169,696				67,318		22,126,934
340.10	1,627,429		597,863										2,225,292
340.20	4,881,170		3,766,708		1,294,189								7,353,689
340.30	32,442,490		17,454,811		20,014,689						(465,000)		29,417,612
340.31	343,459		60,600		852,486						465,000		16,573
340.50	3,049		1,212		17,653						17,653		4,261
341.00	1,734		168										1,902
341.10	28,279,582		5,630,712		3,543,734		70,874				431,935		32,074,239
341.20	15,100,515		437,420						1,346,618		328,807		15,866,742
341.30	1,837,721		52,621								(228,256)		1,662,086
341.40	6,612,942		219,204										6,832,146



**PENNSYLVANIA-AMERICAN WATER COMPANY**  
**WATER OPERATIONS**

**TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024**

Account	BOOK RESERVE BALANCE AS OF 06/30/2024 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ADJUSTMENTS AND ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 06/30/2025 (8)
342.00	98,512		30,117										128,629
343.00	11,953,618		2,844,711		200,918						59,568		14,656,979
344.00	624,008		206,368		103,310								727,066
345.00	1,449,816		86,409		30,092		602		602				1,506,133
346.00	671,739		344,391		120,124						2,897		898,903
346.10	2,158,396		730,676		94								2,888,978
346.19	1,864,142		594,197		96,948								2,361,391
346.20	185,515		24,579		71,724								138,370
347.00	5,438,554		1,871,611		25,703						25,203		7,309,665
348.00	510,231		426,575										936,806
<b>TOTAL</b>	<b>1,206,308,085</b>		<b>194,334,966</b>		<b>125,929,599</b>		<b>40,969,148</b>		<b>2,007,124</b>		<b>4,616,882</b>		<b>1,240,368,309</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS**

**TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025**

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2024 (2)	NET ORIGINAL COST AS OF 6/30/2025 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)**	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
303.14	1,942,822.51	1,942,822.51	-			0
303.35	155,025.17	155,025.17	0.84	1,308		1,308
303.61	3,221,899.78	3,221,899.78				0
303.99	11,838,420.51	13,338,478.83	12.08	1,493,651	307	1,493,958
304.15	103,236,517.17	105,718,516.03	2.89	2,988,698	697,846	3,686,544
304.20	109,016,914.72	111,755,658.02	2.76	3,018,144	73,618	3,091,762
304.30	345,578,963.18	364,760,658.96	2.37	8,332,622	224,626	8,557,248
304.36	25,230,121.46	26,629,042.76	2.98	753,597	55	753,652
304.38	1,403,438.95	1,403,438.95	9.68	135,852		135,852
304.39	119,362.95	119,362.95	2.95	3,516		3,516
304.61	43,670,750.85	46,564,598.47	3.12	1,419,037	(65,095)	1,353,942
304.62	70,281,795.83	74,799,111.69	2.36	1,665,932	(32,591)	1,633,341
304.63	8,983,176.16	11,514,247.71	2.69	275,650	16,246	291,896
305.00	138,403,599.63	198,445,994.35	1.41	2,263,047	634,785	2,897,832
306.00	17,791,345.90	18,672,666.32	2.43	433,217	3,968	437,185
307.00	12,416,177.55	16,858,304.68	2.37	330,678	35,803	366,481
310.00	25,156,942.49	25,871,991.01	2.82	713,370	41,429	754,799
311.20	23,116,136.75	41,084,584.61	3.76	958,419	378,954	1,337,373
311.50	16,571,799.32	20,857,210.96	4.02	751,416		751,416
311.52	12,940,570.90	12,940,570.90	3.37	436,092		436,092
311.53	47,853,790.34	47,853,790.34	2.67	1,277,700		1,277,700
311.54	6,707,900.44	6,707,900.44	2.97	199,224		199,224
320.10	261,593,481.26	278,379,455.86	2.66	7,031,328	1,223,292	8,254,620
320.18	103,245.73	103,245.73	-			
320.19	3,667,945.94	3,667,945.94	2.21	81,060		81,060
320.20	118,733,555.85	159,740,980.00	3.42	4,388,722		4,388,722
320.29	8,167.87	8,167.87	-			

**PENNSYLVANIA-AMERICAN WATER COMPANY  
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**TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025**

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2024 (2)	NET ORIGINAL COST AS OF 6/30/2025 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)**	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
320.30	13,459,406.97	14,370,730.58	8.94	1,243,549	135,345	1,378,894
320.37	15,531,581.93	19,048,869.77	1.75	297,801	17,925	315,726
330.00	130,768,568.22	148,602,297.21	1.79	2,358,826	1,699,905	4,058,731
330.10	14,144,856.97	24,572,432.37	1.99	393,882		393,882
330.20	19,913,409.67	19,913,409.67	2.10	418,176		418,176
330.30	818,707.23	818,707.23	1.95	15,960		15,960
330.40	12,806,300.04	12,806,300.04	1.94	248,448		248,448
330.58	2,303,924.15	2,303,924.15	3.45	79,488		79,488
330.59	45,744,045.26	53,585,998.63	6.96	3,446,079		3,446,079
331.00	3,327,488,033.47	3,533,014,149.56	1.53	51,918,017	15,791,831	67,709,848
333.00	719,078,190.47	758,836,459.21	1.85	13,633,883	2,464,167	16,098,050
334.00	249,227,878.51	275,376,160.82	6.06	15,845,804	2,061,270	17,907,074
335.00	145,278,472.78	156,182,918.00	2.27	3,407,391	1,290,743	4,698,134
340.10	8,638,585.84	9,765,026.15	6.01	552,855	45,008	597,863
340.20	17,320,326.29	20,929,590.90	20.00 *	3,766,708		3,766,708
340.30	91,455,720.27	84,090,848.28	20.00 *	17,454,811		17,454,811
340.31	1,067,816.75	215,330.44	10.00 *	60,600		60,600
340.50	9,100.95	9,100.95	13.29	1,212		1,212
341.00	2,587.67	2,587.67	6.53	168		168
341.10	61,327,985.93	75,542,986.69	8.84	6,050,991	(420,279)	5,630,712
341.20	16,793,602.21	17,334,733.21	2.56	437,420		437,420
341.30	1,995,589.81	2,120,994.81	2.55	52,621		52,621
341.40	7,584,706.89	7,584,706.89	2.89	219,204		219,204

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2024 (2)	NET ORIGINAL COST AS OF 6/30/2025 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)**	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
342.00	469,790.25	469,790.25	6.20	29,124	993	30,117
343.00	48,121,656.24	53,886,280.27	5.54	2,813,939	30772	2,844,711
344.00	2,229,299.11	2,125,988.78	9.09	197,555.00	8,813.00	206,368
345.00	2,122,806.77	2,242,714.26	3.84	85,932.00	477.00	86,409
346.00	3,712,250.99	4,837,798.93	6.56	278,846.00	65,545.00	344,391
346.10	9,649,123.69	11,538,536.76	6.95	730,676.00		730,676
346.19	4,902,319.79	5,985,571.87	10.95	594,197.00		594,197
346.20	309,958.34	259,216.96	8.76	24,579.00		24,579
347.00	36,245,335.69	43,810,400.74	4.62	1,838,685.00	32,926.00	1,871,611
348.00	795,577.91	14,759,295.79	4.08	426,494.00	81.00	426,575
TOTAL	<b>6,421,061,386.27</b>	<b>6,970,059,528.68</b>		<b>167,876,201</b>	<b>26,458,765</b>	<b>194,334,966</b>

\* UTILIZING ACCRUAL RATE CONSISTENT WITH AMORTIZATION PERIOD TO MITIGATE ANOMALOUS CALCULATED ACCRUAL RATE.  
 \*\* ANNUAL ACRUAL DEVELOPED BASED ON MONTHLY AVERAGES.

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TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2020			2021			2022			PROJECTED 2023			PROJECTED 2024			NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	+	GROSS SALVAGE (4)	COST OF REMOVAL (5)	+	GROSS SALVAGE (6)	COST OF REMOVAL (7)	+	GROSS SALVAGE (8)	COST OF REMOVAL (9)	+	GROSS SALVAGE (10)	COST OF REMOVAL (11)	=		
303.61	4,483.73			(4,483.73)	666,811.69		11,108.00	850,320.81		15.00			(11,108.00)	(15.00)	0.00	0	
304.15	210.38	577,956.65			37,171.02		23,546.75	23,546.75		796,762.50		9,909.75	9,909.75	891,900.50	(3,750,085.27)	(750,017)	
304.20		771,775.96			137,849.62		10,031.74	850,320.81		124,387.00		12,037.74	12,037.74	138,436.00	(373,566.26)	(74,713)	
304.30		788,178.99			52,542.41		5,749.71	23,546.75		43,949.00		20,624.71	20,624.71	151,215.00	(1,147,360.60)	(229,472)	
304.61	12,850.31	1,346.07	4,483.73		6,818.30		57,449.30	6,818.30		43,380.00		356,667.30	356,667.30	82,426.65	16,485		
304.62	(8.81)	(8.81)			18,876.94		227,444.49	46,017.09		76,293.00		49,045.49	49,045.49	33,351.00	20,392		
304.63	23.48	23.48			79,910.95		22,588.56	79,910.95		18,770.50		12,788.56	12,788.56	40,197.50	(103,525.31)	(20,705)	
305.00		24,577.59			467.17		299,889.33	299,889.33		213,737.00		2,661.50	2,661.50	3,210,544.00	(3,749,215.09)	(749,843)	
306.00		6,896.40			450.15		55,144.80	55,144.80		7,366.00		19,044.00	19,044.00	125,958.00	(129,366.86)	(25,873)	
307.00		42,111.55			5,700.51			5,700.51		119,338.00		125,958.00	125,958.00	248,889.30	(49,778)		
310.00		3,593.30								321,442.00		483,349.00	483,349.00	(1,597,067.00)	(319,413)		
311.00	(214.05)	248,120.57			193,743.82		350,411.61	350,411.61		1,543,362.00		2,008,180.00	2,008,180.00	(6,658,298.50)	(1,331,660)		
320.00		695,879.64			890,085.40		1,520,577.41	1,520,577.41		60,630.50		54,937.50	54,937.50	(492,689.61)	(98,538)		
320.30		76,375.47			1,370.70			1,370.70		7,085.00		74,292.00	74,292.00	(81,377.00)	(16,275)		
320.37		1,196,558.00			1,561,680.99		3,396,011.14	3,396,011.14		581,223.00		529,765.00	529,765.00	(7,265,238.13)	(1,453,048)		
330.00	25,703.04	12,998,210.71			8,196,453.86		111,611.62	13,983,952.63		21,364,445.00		24,327,288.00	24,327,288.00	(80,438,467.01)	(16,087,693)		
333.00		2,528,314.54			2,681,541.01		2,218.42	2,505,397.99		2,514,107.50		2,305,642.50	2,305,642.50	(12,529,680.02)	(2,505,936)		
334.00	42,569.41	1,486,703.66			1,021,270.85		54,380.07	3,625,834.72		112,369.70		96,903.70	96,903.70	(9,599,043.79)	(1,919,809)		
335.00	3,093.12	1,720,769.32			1,074,172.62		6,290.78	1,281,342.15		3,425.00		1,170,078.00	1,170,078.00	(6,586,298.08)	(1,317,260)		
340.00	613.87	23,848.17			78,720.20		8,592.94	67,823.74		26,721.00		35,034.00	35,034.00	(169,173.25)	(33,835)		
341.00	456,214.35	97,003.97	219,365.56		(16,299.55)		820,242.37	1,127.48		21,140.00		1,187,508.48	1,187,508.48	2,913,318.34	582,664		
342.00		122.40			40,863.25			38,089.15		24,009.00		142.40	142.40	(149,229.80)	(29,846)		
343.00	3,000.00	50,715.40			5,126.37			8,395.86		9,236.00		602.00	602.00	(36,603.53)	(7,321)		
344.00		13,845.30						590.23						(590.23)	(118)		
345.00		44,631.89			49,301.95			165,439.94		24,794.00		602.00	602.00	(284,125.78)	(56,825)		
347.00		16,130.85			8,339.46			105,946.50		60,221.00				(131,947.61)	(26,390)		
<b>TOTAL</b>	<b>535,673.85</b>	<b>22,725,185.11</b>	<b>847,279.91</b>	<b>16,655,044.10</b>	<b>28,764,825.44</b>	<b>1,003,336.20</b>	<b>970,014.73</b>	<b>32,164,236.50</b>	<b>1,734,979.73</b>	<b>37,218,917.50</b>	<b>132,436,924.23</b>	<b>26,487,385</b>					

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1892	99,114	21,957		77,157	77,157	0.0
1893	15,527	15,527			77,157	0.0
1900	185,903	24,361	161,542		238,699	0.0
1901	281,262	59,995	221,267		459,966	0.0
1902	20,137	4,328	15,809		475,775	0.0
1904	5,454	764	4,690		480,465	0.0
1906	1,384	1,384			480,465	0.0
1907	187	187			480,465	0.0
1909	3,521	3,521			480,465	0.0
1910	239,040	32,571	206,469		686,934	0.0
1915	1,351	276	1,075		688,009	0.0
1916	9,146	1,600	7,546		695,555	0.0
1917	133	133			695,555	0.0
1918	98,047	19,617	78,430		773,985	0.0
1919	8,727	8,727			773,985	0.0
1920	42,261	10,077	32,184		806,169	0.0
1921	49,980	49,888	92		806,261	0.0
1922	1,862	1,564	298		806,559	0.0
1923	443,111	57,573	385,538		1,192,097	0.0
1924	8,528	7,504	1,024		1,193,121	0.0
1925	1,291	253	1,038		1,194,159	0.0
1926	530	468	62		1,194,221	0.0
1927	1,189	1,025	164		1,194,385	0.0
1928	688	585	103		1,194,488	0.0
1929	81,772	15,290	66,482		1,260,970	0.0
1930	96,403	11,189	85,214		1,346,184	0.0
1931	12,412	11,569	843		1,347,027	0.0
1932	37,406	4,226	33,180		1,380,207	0.0
1933	4,896	591	4,305		1,384,512	0.0
1934	1,282	334	948		1,385,460	0.0
1935	1,820	1,141	679		1,386,139	0.0
1936	86	16	70		1,386,209	0.0
1937	9,281	7,551	1,730		1,387,939	0.0
1938	7,699	6,521	1,178		1,389,117	0.0
1939	20,576	16,188	4,388		1,393,505	0.0
1940	55,182	44,008	11,174		1,404,679	0.0
1941	40,708	30,146	10,562		1,415,241	0.0
1942	31,041	24,258	6,783		1,422,024	0.0
1943	14,608	11,049	3,559		1,425,583	0.0
1944	8,881	6,880	2,001		1,427,584	0.0
1945	21,519	16,708	4,811		1,432,395	0.0
1946	237,157	67,917	169,240		1,601,635	0.0
1947	176,515	115,640	60,875		1,662,510	0.0
1948	258,660	170,125	88,535		1,751,045	0.0
1949	261,716	183,358	78,358		1,829,403	0.0



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1950	311,320	205,318	106,002		1,935,405	0.0
1951	681,964	385,158	296,806		2,232,211	0.0
1952	614,372	381,721	232,651		2,464,862	0.0
1953	1,724,104	1,064,597	659,507		3,124,369	0.1
1954	1,534,882	812,413	722,469		3,846,838	0.1
1955	2,571,800	1,143,563	1,428,237		5,275,075	0.1
1956	1,721,234	834,605	886,629		6,161,704	0.1
1957	2,312,531	1,047,487	1,265,044		7,426,748	0.1
1958	3,303,753	1,280,846	2,022,907		9,449,655	0.2
1959	2,758,709	1,321,474	1,437,235		10,886,890	0.2
1960	3,157,641	1,437,154	1,720,487		12,607,377	0.2
1961	4,541,182	2,128,336	2,412,846		15,020,223	0.3
1962	2,220,695	1,104,862	1,115,833		16,136,056	0.3
1963	2,485,224	1,118,488	1,366,736		17,502,792	0.3
1964	6,227,601	2,049,320	4,178,281		21,681,073	0.4
1965	6,037,150	2,956,807	3,080,343		24,761,416	0.4
1966	5,496,491	2,277,726	3,218,765		27,980,181	0.5
1967	6,831,724	2,862,056	3,969,668		31,949,849	0.6
1968	6,523,819	2,613,530	3,910,289		35,860,138	0.6
1969	7,936,876	3,807,593	4,129,283		39,989,421	0.7
1970	4,821,448	1,959,173	2,862,275		42,851,696	0.7
1971	6,860,586	2,758,959	4,101,627		46,953,323	0.8
1972	12,612,671	6,198,409	6,414,262		53,367,585	0.9
1973	25,715,710	15,687,306	10,028,404		63,395,989	1.1
1974	6,883,112	2,697,934	4,185,178		67,581,167	1.2
1975	7,329,050	2,715,303	4,613,747		72,194,914	1.3
1976	14,970,146	6,935,057	8,035,089		80,230,003	1.4
1977	7,653,704	2,695,991	4,957,713		85,187,716	1.5
1978	12,261,610	4,140,292	8,121,318		93,309,034	1.6
1979	12,233,587	4,439,811	7,793,776		101,102,810	1.8
1980	15,218,814	4,949,639	10,269,175		111,371,985	1.9
1981	11,916,885	4,211,975	7,704,910		119,076,895	2.1
1982	14,539,654	6,958,321	7,581,333		126,658,228	2.2
1983	15,078,566	5,420,297	9,658,269		136,316,497	2.4
1984	19,007,056	5,928,465	13,078,591		149,395,088	2.6
1985	30,826,382	9,411,883	21,414,499		170,809,587	3.0
1986	34,220,903	10,967,692	23,253,211		194,062,798	3.4
1987	38,695,398	13,008,185	25,687,213		219,750,011	3.8
1988	59,380,368	22,711,925	36,668,443		256,418,454	4.5
1989	58,028,589	19,773,262	38,255,327		294,673,781	5.1
1990	96,221,081	44,327,414	51,893,667		346,567,448	6.1
1991	56,938,006	26,571,877	30,366,129		376,933,577	6.6
1992	63,956,618	25,187,621	38,768,997		415,702,574	7.3
1993	100,161,459	42,777,570	57,383,889		473,086,463	8.3
1994	57,803,981	16,080,592	41,723,389		514,809,852	9.0

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	DEPRECIATED ORIGINAL COST		PCT OF COL 4 TOTAL (6)
			AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	
1995	87,378,856	28,160,937	59,217,919	574,027,771	10.0
1996	64,204,638	17,479,227	46,725,411	620,753,182	10.8
1997	90,954,154	32,131,110	58,823,044	679,576,226	11.9
1998	152,733,933	43,278,725	109,455,208	789,031,434	13.8
1999	111,325,880	34,681,739	76,644,141	865,675,575	15.1
2000	87,444,349	21,926,751	65,517,598	931,193,173	16.3
2001	105,984,643	28,635,602	77,349,041	1,008,542,214	17.6
2002	106,847,951	25,416,272	81,431,679	1,089,973,893	19.0
2003	58,016,026	16,256,508	41,759,518	1,131,733,411	19.8
2004	78,588,867	15,141,440	63,447,427	1,195,180,838	20.9
2005	93,739,431	22,083,852	71,655,579	1,266,836,417	22.1
2006	60,076,372	18,428,518	41,647,854	1,308,484,271	22.8
2007	118,861,073	24,511,140	94,349,933	1,402,834,204	24.5
2008	153,996,830	26,432,689	127,564,141	1,530,398,345	26.7
2009	132,701,795	23,514,116	109,187,679	1,639,586,024	28.6
2010	149,639,927	27,908,628	121,731,299	1,761,317,323	30.8
2011	195,748,534	38,405,368	157,343,166	1,918,660,489	33.5
2012	307,097,816	66,244,474	240,853,342	2,159,513,831	37.7
2013	249,559,623	44,717,660	204,841,963	2,364,355,794	41.3
2014	222,737,974	36,043,436	186,694,538	2,551,050,332	44.5
2015	228,398,985	31,802,233	196,596,752	2,747,647,084	48.0
2016	274,095,507	42,580,424	231,515,083	2,979,162,167	52.0
2017	242,784,414	28,750,109	214,034,305	3,193,196,472	55.8
2018	389,599,195	58,747,012	330,852,183	3,524,048,655	61.5
2019	262,193,473	30,138,356	232,055,117	3,756,103,772	65.6
2020	306,708,775	46,875,155	259,833,620	4,015,937,392	70.1
2021	332,981,405	36,407,862	296,573,543	4,312,510,935	75.3
2022	393,023,621	29,377,103	363,646,518	4,676,157,453	81.7
2023	498,748,101	26,505,675	472,242,426	5,148,399,879	89.9
2024	501,320,792	12,526,784	488,794,008	5,637,193,887	98.4
2025	408,133,002	2,476,032	405,656,970	6,042,850,857	105.5
9999	354,014,768-	37,633,228-	316,381,540-	5,726,469,317	100.0
SUBTOTAL	6,966,837,629	1,240,368,309	5,726,469,325		
NONDEPRECIABLE	28,065,066		28,065,066		
TOTAL	6,994,902,695	1,240,368,309	5,754,534,391		

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

ACCOUNT 303.14 WATER RIGHTS - HIBERNIA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	1,942,822.51	1,942,823	1,942,823			
	1,942,822.51	1,942,823	1,942,823			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 100-R3						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1991	70,430.00	48,132	61,437	8,993	15.75	571
1992	84,595.17	57,229	73,049	11,546	15.78	732
	155,025.17	105,361	134,486	20,539		1,303
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.8 0.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 303.99 COMPREHENSIVE PLANNING STUDIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	48,474.73	48,475	48,475			
2014	668,293.04	668,293	668,293			
2015	145,773.72	145,774	145,774			
2016	5,166,691.39	5,166,691	5,166,691			
2017	370,367.21	370,367	370,367			
2018	950,553.09	950,553	950,553			
2019	393,070.67	393,071	393,071			
2020	1,282,572.43	1,282,572	1,282,572			
2021	891,896.17	713,517	510,513	381,383	1.00	381,383
2022	961,088.22	576,653	412,588	548,500	2.00	274,250
2023	270,955.62	108,382	77,546	193,410	3.00	64,470
2024	1,105,641.84	221,128	158,215	947,427	4.00	236,857
2025	1,083,100.70	54,155	38,747	1,044,354	4.75	219,864
	13,338,478.83	10,699,631	10,223,405	3,115,074		1,176,824
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.6 8.82

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
1965	39,947.00	32,836	19,576	20,371	12.99	1,568
1971	5,072.70	3,999	2,384	2,689	14.49	186
1972	11,584.14	9,025	5,380	6,204	15.03	413
1973	65.99	51	30	36	15.11	2
1974	7,661.59	5,861	3,494	4,168	15.67	266
1975	2,445.75	1,859	1,108	1,338	15.79	85
1977	1,709.86	1,272	758	952	16.52	58
1978	1,234.26	905	540	694	17.10	41
1979	60,148.04	43,716	26,062	34,086	17.29	1,971
1980	41,684.95	30,013	17,893	23,792	17.50	1,360
1981	164,788.79	116,736	69,594	95,195	18.11	5,256
1982	4,365.75	3,060	1,824	2,542	18.35	139
1983	20,001.54	13,861	8,263	11,739	18.61	631
1984	885.30	606	361	524	18.88	28
1985	63,474.28	42,909	25,581	37,893	19.17	1,977
1986	57,397.06	38,278	22,820	34,577	19.48	1,775
1987	172.67	114	68	105	19.80	5
1988	4,748.93	3,057	1,822	2,927	20.47	143
1989	124,237.54	78,717	46,929	77,309	20.82	3,713
1990	151,230.67	94,746	56,484	94,747	20.87	4,540
1991	469,478.44	288,917	172,243	297,235	21.25	13,988
1992	277,833.30	167,784	100,027	177,806	21.64	8,217
1993	129,452.24	76,636	45,688	83,764	22.05	3,799
1994	1,181,519.46	684,927	408,331	773,188	22.48	34,394
1995	192,757.11	109,293	65,157	127,600	22.91	5,570
1996	373,454.32	207,939	123,966	249,488	23.08	10,810
1997	26,941.69	14,635	8,725	18,217	23.55	774
1998	246,319.21	131,017	78,108	168,211	23.76	7,080
1999	136,113.81	70,425	41,985	94,129	24.25	3,882
2000	136,580.00	68,973	41,119	95,461	24.50	3,896
2001	9,258.62	4,533	2,702	6,557	25.02	262
2002	712,549.97	339,245	202,247	510,303	25.31	20,162
2003	1,867,977.92	858,896	512,046	1,355,932	25.85	52,454
2004	249,443.28	111,052	66,206	183,237	26.17	7,002
2005	969,864.41	417,042	248,627	721,237	26.51	27,206
2006	494,169.77	204,685	122,027	372,143	26.87	13,850
2007	1,531,426.55	609,201	363,186	1,168,241	27.25	42,871
2008	1,218,756.34	464,102	276,682	942,074	27.64	34,084
2009	230,697.81	83,789	49,952	180,746	28.05	6,444
2010	10,969,693.61	3,784,544	2,256,221	8,713,473	28.48	305,951
2011	342,722.66	111,796	66,649	276,074	28.92	9,546

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
2012	352,191.69	108,052	64,417	287,775	29.37	9,798
2013	2,956,288.71	851,411	507,583	2,448,706	29.67	82,531
2014	1,387,466.35	370,870	221,101	1,166,365	30.15	38,685
2015	940,573.68	232,322	138,503	802,071	30.49	26,306
2016	1,907,681.06	429,228	255,892	1,651,789	31.00	53,284
2017	2,030,818.17	412,662	246,016	1,784,802	31.37	56,895
2018	17,332,487.83	3,130,247	1,866,151	15,466,337	31.76	486,975
2019	3,384,002.03	531,965	317,140	3,066,862	32.17	95,333
2020	5,245,999.51	697,718	415,957	4,830,043	32.59	148,206
2021	5,270,378.45	569,201	339,339	4,931,039	33.04	149,245
2022	26,461,201.25	2,183,049	1,301,462	25,159,739	33.36	754,189
2023	11,338,169.67	634,938	378,529	10,959,641	33.71	325,115
2024	1,916,158.81	54,802	32,671	1,883,488	33.97	55,446
2025	2,665,231.49	19,190	11,441	2,653,790	34.23	77,528
	105,718,516.03	19,556,707	11,659,067	94,059,449		2,995,935
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.4 2.83



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2045						
NET SALVAGE PERCENT.. 0						
1962	15,878.73	12,605	6,941	8,938	16.37	546
1970	6,710.06	5,167	2,845	3,865	16.43	235
1995	1,715,454.62	1,075,590	592,287	1,123,168	17.85	62,923
2001	6,191.06	3,521	1,939	4,252	18.19	234
	1,744,234.47	1,096,883	604,012	1,140,222		63,938
BECKS RUN STATION - NEW						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
2012	23,868,525.21	6,329,933	3,485,654	20,382,871	36.02	565,876
2015	17,442.33	3,750	2,065	15,377	36.51	421
	23,885,967.54	6,333,683	3,487,719	20,398,249		566,297
MILL STREET PUMP STATION AND REGULATOR BYPASS						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	1,277,952.17	796,164	438,417	839,535	21.18	39,638
1994	3,067.93	1,817	1,001	2,067	21.36	97
2001	15,048.48	7,873	4,335	10,713	21.87	490
2018	27,090.40	6,315	3,477	23,613	23.03	1,025
2021	3,362,441.11	494,951	272,551	3,089,891	23.17	133,357
	4,685,600.09	1,307,120	719,781	3,965,819		174,607

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GARDNER CREEK PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1993	1,121,355.16	742,786	409,024	712,331	16.31	43,674
1994	85,662.97	56,032	30,855	54,808	16.39	3,344
2001	13,088.07	7,727	4,255	8,833	16.65	531
2003	7,900.11	4,501	2,479	5,422	16.61	326
	1,228,006.31	811,046	446,612	781,394		47,875
NORRISTOWN BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1997	2,400,581.27	1,411,542	777,283	1,623,299	19.62	82,737
1998	52,044.11	30,212	16,637	35,408	19.51	1,815
2003	1,271.63	669	368	903	19.84	46
2007	10,970.93	5,194	2,860	8,111	20.02	405
2008	97,884.43	44,763	24,649	73,235	20.17	3,631
2012	1,059.31	413	227	832	20.33	41
2013	31,601.32	11,718	6,453	25,149	20.36	1,235
	2,595,413.00	1,504,511	828,477	1,766,936		89,910
MILL ROAD BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1997	2,093,461.42	1,230,955	677,840	1,415,622	19.62	72,152
1998	27,010.00	15,679	8,634	18,376	19.51	942
2015	97,145.43	31,864	17,546	79,599	20.49	3,885
	2,217,616.85	1,278,498	704,020	1,513,597		76,979

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHERRY VALLEY						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
1999	4,596,861.48	2,533,790	1,395,262	3,201,599	21.17	151,233
2014	95,401.19	31,797	17,509	77,892	22.00	3,541
2023	299,969.65	24,538	13,512	286,458	22.45	12,760
	4,992,232.32	2,590,125	1,426,284	3,565,948		167,534
CLARION WATER TREATMENT AND TANK						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
2003	2,349,120.19	1,116,302	614,705	1,734,415	24.30	71,375
2004	146,294.31	67,895	37,387	108,907	24.25	4,491
2006	10,710.36	4,680	2,577	8,133	24.48	332
2007	2,583.58	1,093	602	1,982	24.55	81
	2,508,708.44	1,189,970	655,271	1,853,437		76,279
NORRISTOWN - FOREST AVENUE BOOSTER STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2013	1,327,877.66	366,494	201,814	1,126,064	31.48	35,771
	1,327,877.66	366,494	201,814	1,126,064		35,771
SHIRE OAKS RELAY STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2013	2,585,737.11	713,663	392,987	2,192,750	31.48	69,655
2014	2,220,406.42	571,533	314,722	1,905,685	31.74	60,040
	4,806,143.53	1,285,196	707,709	4,098,435		129,695

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALDRICH STATION						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2063						
NET SALVAGE PERCENT.. 0						
2007	15,755.78	5,814	3,202	12,554	30.78	408
2013	4,835,261.20	1,334,532	734,877	4,100,385	31.48	130,254
2014	1,472,142.36	378,929	208,662	1,263,480	31.74	39,807
2017	3,006.40	601	331	2,675	32.00	84
	6,326,165.74	1,719,876	947,071	5,379,095		170,553
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 75-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2005	11,236.00	3,955	2,178	9,058	36.82	246
2019	130,266.72	17,039	9,383	120,884	39.87	3,032
	141,502.72	20,994	11,561	129,942		3,278
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1948	4,468.99	4,267	2,350	2,119	3.65	581
1949	358.12	340	187	171	4.00	43
1950	127.79	121	67	61	4.37	14
1951	9,982.81	9,382	5,166	4,816	4.74	1,016
1952	4,734.93	4,459	2,455	2,280	4.52	504
1953	13,018.12	12,185	6,710	6,308	4.92	1,282
1954	75,555.06	70,274	38,697	36,858	5.34	6,902
1955	58,216.49	53,792	29,621	28,595	5.76	4,964
1956	15,546.37	14,374	7,915	7,631	5.63	1,355
1957	10,267.57	9,426	5,191	5,077	6.07	836
1958	9,113.89	8,305	4,573	4,541	6.53	695
1959	18,700.21	17,032	9,379	9,321	6.46	1,443
1960	14,216.48	12,845	7,073	7,143	6.94	1,029
1961	54,015.77	48,744	26,841	27,174	6.92	3,927
1962	544.97	488	269	276	7.42	37
1963	35,113.06	31,131	17,143	17,970	7.93	2,266
1964	284,448.02	251,594	138,543	145,905	7.97	18,307
1965	21,539.54	18,869	10,390	11,149	8.49	1,313

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1966	57,170.93	49,922	27,490	29,681	8.57	3,463
1967	76,144.63	65,804	36,236	39,909	9.11	4,381
1968	17,228.65	14,730	8,111	9,117	9.67	943
1969	93,256.48	79,380	43,712	49,545	9.79	5,061
1970	38,650.86	32,525	17,910	20,741	10.36	2,002
1971	107,458.13	89,942	49,528	57,930	10.52	5,507
1972	88,004.36	72,762	40,067	47,937	11.10	4,319
1973	50,403.03	41,149	22,659	27,744	11.69	2,373
1974	108,027.38	87,599	48,237	59,790	11.89	5,029
1975	90,448.74	72,359	39,845	50,603	12.50	4,048
1976	42,777.68	33,747	18,583	24,194	13.11	1,845
1977	28,733.34	22,343	12,303	16,430	13.73	1,197
1978	82,386.44	63,503	34,969	47,418	13.98	3,392
1979	66,272.36	50,301	27,699	38,574	14.61	2,640
1980	107,555.46	80,344	44,242	63,313	15.24	4,154
1981	230,041.46	169,034	93,081	136,961	15.88	8,625
1982	180,850.24	131,424	72,370	108,480	16.17	6,709
1983	150,891.28	107,736	59,326	91,565	16.82	5,444
1984	124,193.03	87,072	47,947	76,246	17.48	4,362
1985	902,134.91	620,669	341,779	560,356	18.14	30,891
1986	203,935.92	137,596	75,769	128,167	18.80	6,817
1987	1,069,747.50	711,382	391,731	678,016	19.14	35,424
1988	341,004.01	222,062	122,281	218,723	19.82	11,035
1989	771,857.07	491,827	270,830	501,027	20.50	24,440
1990	1,859,893.50	1,158,714	638,060	1,221,834	21.18	57,688
1991	285,963.68	174,037	95,836	190,128	21.87	8,694
1992	1,798,159.75	1,068,107	588,166	1,209,994	22.56	53,634
1993	1,426,914.92	826,469	455,105	971,810	23.25	41,798
1994	237,890.67	134,218	73,909	163,982	23.95	6,847
1995	625,810.96	343,570	189,191	436,620	24.64	17,720
1996	960,321.46	512,428	282,175	678,147	25.35	26,751
1997	733,043.15	379,716	209,095	523,948	26.05	20,113
1998	616,613.75	309,663	170,520	446,094	26.76	16,670
1999	653,606.19	317,783	174,991	478,615	27.48	17,417
2000	1,738,336.17	817,018	449,901	1,288,435	28.19	45,705
2001	785,063.54	356,105	196,094	588,970	28.91	20,373
2002	245,456.04	107,264	59,066	186,390	29.63	6,291
2003	4,249,039.88	1,785,447	983,178	3,265,862	30.36	107,571
2004	339,890.70	137,044	75,465	264,426	31.08	8,508
2005	301,754.84	116,477	64,139	237,615	31.81	7,470

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
2006	3,480,254.61	1,282,822	706,401	2,773,853	32.55	85,218
2007	3,980,711.32	1,397,230	769,402	3,211,310	33.28	96,494
2008	1,153,403.10	384,314	211,627	941,776	34.02	27,683
2009	18,814.82	5,930	3,265	15,549	34.76	447
2010	226,401.68	67,241	37,027	189,375	35.51	5,333
2011	559,168.40	155,001	85,353	473,815	36.51	12,978
2012	568,606.09	147,098	81,001	487,605	37.25	13,090
2013	1,552,385.53	372,573	205,162	1,347,224	38.00	35,453
2014	1,878,247.84	415,281	228,680	1,649,568	38.75	42,569
2015	848,084.36	171,313	94,336	753,749	39.50	19,082
2016	3,069,106.80	560,726	308,771	2,760,336	40.26	68,563
2017	595,443.35	97,176	53,511	541,932	41.02	13,211
2018	1,733,566.98	247,553	136,318	1,597,249	42.02	38,012
2019	142,098.65	17,478	9,624	132,474	42.78	3,097
2020	1,384,280.55	142,581	78,514	1,305,767	43.54	29,990
2021	4,175,419.84	345,725	190,378	3,985,042	44.31	89,935
2022	59,098.84	3,705	2,040	57,059	44.85	1,272
2023	3,484,560.77	146,352	80,591	3,403,970	45.62	74,616
2024	2,303,728.88	49,069	27,020	2,276,708	45.95	49,548
2025	2,869,935.26	15,498	8,534	2,861,401	46.05	62,137
9999	1,304,029.60-	430,180-	236,884-	1,067,146-		33,697-
	55,296,189.35	18,241,386	10,044,840	45,251,349		1,428,896
	111,755,658.02	37,745,782	20,785,171	90,970,487		3,031,612
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.0						2.71

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH PURIFICATION BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1972	86.76	71	71	16	11.52	1
1975	71.86	58	58	14	12.11	1
1976	646.40	519	519	128	11.98	11
1979	5,589.48	4,397	4,396	1,193	12.48	96
1980	0.30		0			
1981	3,646.32	2,840	2,839	807	12.50	65
1982	134.42	104	104	30	12.56	2
1983	25,631.05	19,700	19,696	5,935	12.64	470
1986	1,924.52	1,449	1,449	476	12.81	37
1987	30,784.01	22,928	22,923	7,861	13.02	604
1989	2,931.41	2,142	2,142	790	13.26	60
1995	4,049.53	2,782	2,781	1,268	13.67	93
1996	528,486.21	358,631	358,556	169,930	13.74	12,368
1997	1,052.71	704	704	349	13.84	25
1998	31,389.85	20,764	20,760	10,630	13.82	769
2000	60,739.48	38,873	38,865	21,875	14.06	1,556
2001	6,845.33	4,304	4,303	2,542	14.17	179
2002	341,788.26	211,464	211,420	130,368	14.17	9,200
2003	101,130.88	61,407	61,394	39,737	14.23	2,792
2005	37,675.96	21,927	21,922	15,754	14.36	1,097
2006	545,359.53	309,819	309,755	235,605	14.44	16,316
2007	34,532.48	19,083	19,079	15,453	14.57	1,061
2008	6,692.22	3,595	3,594	3,098	14.65	211
2009	56,673.57	29,561	29,555	27,119	14.67	1,849
2010	2,060.89	1,039	1,039	1,022	14.76	69
2011	84,138.85	40,875	40,867	43,272	14.82	2,920
2012	5,488,363.98	2,554,285	2,553,754	2,934,610	14.93	196,558
2013	123,297.92	54,892	54,881	68,417	14.95	4,576
2014	86,143.23	36,387	36,379	49,764	15.04	3,309
2017	1,287,591.24	442,931	442,839	844,752	15.26	55,357
2018	50,813.39	15,935	15,932	34,882	15.32	2,277
2023	898,866.19	102,111	102,090	796,776	15.61	51,043
2025	473,939.72	7,393	7,391	466,548	15.73	29,660
	10,323,077.95	4,392,970	4,392,057	5,931,021		394,632

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE FILTER BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1928	321.93	312	312	10	3.00	3
1938	931.66	867	867	65	6.46	10
1953	15,796.62	13,762	13,759	2,037	10.64	191
1954	58,728.00	51,287	51,276	7,452	10.30	723
1955	10,938.73	9,495	9,493	1,446	10.65	136
1958	1,772.53	1,508	1,508	265	11.74	23
1961	6,297.05	5,279	5,278	1,019	12.34	83
1962	289.11	240	240	49	12.76	4
1963	512.21	426	426	86	12.63	7
1965	305.51	251	251	55	12.99	4
1966	417.37	340	340	77	13.46	6
1969	901.54	722	722	180	13.93	13
1973	484.26	378	378	106	14.67	7
1975	26,467.73	20,248	20,244	6,224	15.36	405
1976	328.63	250	250	79	15.52	5
1977	1,287.38	970	970	318	15.69	20
1979	6,394.46	4,736	4,735	1,659	16.11	103
1980	1,134.27	837	837	297	15.98	19
1981	242.07	177	177	65	16.24	4
1982	175.32	127	127	48	16.52	3
1984	3,501.73	2,484	2,483	1,018	16.80	61
1985	120,919.27	84,643	84,625	36,294	17.14	2,118
1986	76,916.75	53,396	53,385	23,532	17.18	1,370
1987	816.99	562	562	255	17.25	15
1988	3,021.20	2,046	2,046	976	17.64	55
1989	110,411.01	73,931	73,916	36,495	17.76	2,055
1991	165,693.03	108,164	108,142	57,552	18.08	3,183
1995	364.53	224	224	141	18.78	8
1996	13,740.76	8,328	8,326	5,414	18.85	287
1997	40,481.83	24,143	24,138	16,344	18.95	862
2002	76,160.05	40,814	40,806	35,355	19.92	1,775
2003	35,741.53	18,714	18,710	17,031	20.02	851
2005	374,896.12	185,948	185,909	188,987	20.32	9,301
2006	387,084.88	186,072	186,033	201,052	20.53	9,793
2007	93,919.82	43,616	43,607	50,313	20.76	2,424
2008	104,453.85	46,879	46,869	57,585	20.88	2,758
2009	70,770.81	30,573	30,567	40,204	21.04	1,911
2010	5,944.57	2,461	2,460	3,484	21.23	164
2011	50,212.79	19,894	19,890	30,323	21.34	1,421



PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE FILTER BUILDING						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2012	12,817,408.31	4,832,163	4,831,159	7,986,249	21.48	371,799
2013	130,719.11	46,588	46,578	84,141	21.67	3,883
2014	1,576,788.77	529,013	528,903	1,047,886	21.79	48,090
2016	154,207.24	44,550	44,541	109,666	22.15	4,951
2017	998,711.74	263,660	263,605	735,107	22.30	32,964
2018	2,208.11	524	524	1,684	22.50	75
2019	96,326.39	20,171	20,167	76,160	22.65	3,362
2023	2,116,911.01	166,813	166,778	1,950,133	23.38	83,410
	19,762,058.58	6,948,586	6,947,142	12,814,917		590,715
NEW HERSHEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2067						
NET SALVAGE PERCENT.. 0						
1984	39,855.02	26,799	26,793	13,062	19.98	654
1992	4,981,510.20	2,959,017	2,958,402	2,023,108	22.56	89,677
1995	8,711.33	4,887	4,886	3,825	23.48	163
1996	2,126.93	1,166	1,166	961	23.91	40
1999	4,643.87	2,367	2,367	2,277	25.02	91
2001	233,960.66	113,424	113,400	120,560	25.50	4,728
2006	48,986.16	20,104	20,100	28,886	27.30	1,058
2010	7,159.27	2,459	2,458	4,701	28.67	164
2011	65,129.74	21,154	21,150	43,980	29.10	1,511
2012	3,748,675.94	1,150,094	1,149,855	2,598,821	29.37	88,486
2013	165,952.14	47,595	47,585	118,367	29.84	3,967
2014	236,542.01	63,228	63,215	173,327	30.15	5,749
2015	33,979.51	8,393	8,391	25,588	30.49	839
2016	152,039.07	34,209	34,202	117,837	31.00	3,801
2017	164,146.78	33,355	33,348	130,799	31.37	4,170
2018	24,868.41	4,491	4,490	20,378	31.76	642
2021	2,283,885.03	246,660	246,609	2,037,276	33.04	61,661
2022	278,217.77	22,870	22,865	255,353	33.50	7,622
2025	649,997.97	4,680	4,679	645,319	34.71	18,592
	13,130,387.81	4,766,952	4,765,961	8,364,427		293,615

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHINCHILLA WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1893	690.28	690	690			
1910	955.96	956	956			
1921	7,550.49	7,460	7,458	92	1.26	73
1953	44.66	39	39	6	10.64	1
1990	3,174,965.67	2,100,240	2,099,803	1,075,163	17.91	60,031
1995	10,224.61	6,288	6,287	3,938	18.78	210
2006	66,480.93	31,957	31,950	34,531	20.53	1,682
2007	1,592.33	739	739	853	20.76	41
2009	1,945.08	840	840	1,105	21.04	53
2013	13,302.91	4,741	4,740	8,563	21.67	395
2017	44.24	12	12	32	22.30	1
2018	2,722.48	646	646	2,077	22.50	92
2023	2,377.48	187	187	2,191	23.38	94
	3,282,897.12	2,154,795	2,154,347	1,128,550		62,673

FALLBROOK WTP  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	2,232,245.42	1,476,630	1,476,323	755,922	17.91	42,207
1991	14,802.97	9,663	9,661	5,142	18.08	284
1992	3,782.38	2,434	2,433	1,349	18.28	74
1994	5,692.25	3,564	3,563	2,129	18.50	115
1997	5,455.32	3,254	3,253	2,202	18.95	116
1998	18,465.92	10,769	10,767	7,699	19.30	399
1999	2,277.11	1,303	1,303	974	19.45	50
2003	17,373.38	9,097	9,095	8,278	20.02	413
2006	53,490.76	25,713	25,708	27,783	20.53	1,353
2007	70,346.66	32,669	32,662	37,684	20.76	1,815
2008	47,309.49	21,232	21,228	26,082	20.88	1,249
2009	28,023.69	12,106	12,103	15,920	21.04	757
2010	4,824.82	1,997	1,997	2,828	21.23	133
2012	30,878.01	11,641	11,639	19,239	21.48	896
2014	46,182.39	15,494	15,491	30,692	21.79	1,409

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FALLBROOK WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2015	54,662.81	17,055	17,051	37,611	22.05	1,706
2016	58,953.74	17,032	17,028	41,925	22.15	1,893
2018	11,872.00	2,817	2,816	9,056	22.50	402
	2,706,639.12	1,674,470	1,674,122	1,032,517		55,271
SCRANTON AREA WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	8,468,598.33	5,601,978	5,600,814	2,867,785	17.91	160,122
1991	147,129.90	96,046	96,026	51,104	18.08	2,827
1992	456.64	294	294	163	18.28	9
1993	58.83	37	37	22	18.51	1
1994	6,067.68	3,800	3,799	2,268	18.50	123
1995	9,911.69	6,096	6,095	3,817	18.78	203
1996	221,350.91	134,161	134,133	87,218	18.85	4,627
1997	6,113.66	3,646	3,645	2,468	18.95	130
1999	24,939.65	14,265	14,262	10,678	19.45	549
2001	539.61	297	297	243	19.67	12
2002	57,542.98	30,837	30,831	26,712	19.92	1,341
2003	52,107.61	27,284	27,278	24,829	20.02	1,240
2004	3,821.64	1,950	1,950	1,872	20.15	93
2005	271,712.93	134,770	134,742	136,971	20.32	6,741
2006	6,798.09	3,268	3,267	3,531	20.53	172
2007	40,179.95	18,660	18,656	21,524	20.76	1,037
2008	21,647.39	9,715	9,713	11,934	20.88	572
2009	1,599.31	691	691	908	21.04	43
2010	8,936.56	3,700	3,699	5,237	21.23	247
2011	108,567.89	43,015	43,006	65,562	21.34	3,072
2012	124,345.67	46,878	46,868	77,477	21.48	3,607
2013	21,229.16	7,566	7,564	13,665	21.67	631
2014	5,291.32	1,775	1,775	3,517	21.79	161
2017	3,568,740.04	942,147	941,951	2,626,789	22.30	117,793
2018	1,028,041.66	243,954	243,903	784,138	22.50	34,851
2019	17,479.33	3,660	3,659	13,820	22.65	610

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SCRANTON AREA WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2020	31,559.87	5,665	5,664	25,896	22.86	1,133
2022	11,153.91	1,278	1,278	9,876	23.18	426
2023	1,252,772.46	98,718	98,697	1,154,075	23.38	49,362
	15,518,694.67	7,486,151	7,484,595	8,034,100		391,735
BROWNELL WTP						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	4,333,381.56	2,866,532	2,865,937	1,467,445	17.91	81,934
1991	88,970.52	58,080	58,068	30,903	18.08	1,709
1992	72.69	47	47	26	18.28	1
1998	3,431.58	2,001	2,001	1,431	19.30	74
1999	152.98	88	88	65	19.45	3
2003	7,790.06	4,079	4,078	3,712	20.02	185
2005	30,165.72	14,962	14,959	15,207	20.32	748
2007	12,234.92	5,682	5,681	6,554	20.76	316
2008	56,670.86	25,434	25,429	31,242	20.88	1,496
2009	66,342.17	28,660	28,654	37,688	21.04	1,791
2010	10,428.23	4,317	4,316	6,112	21.23	288
2011	5,098.68	2,020	2,020	3,079	21.34	144
2012	56,670.09	21,365	21,361	35,310	21.48	1,644
2013	1,247.32	445	445	802	21.67	37
2014	42,913.80	14,398	14,395	28,519	21.79	1,309
2015	10,206.09	3,184	3,183	7,023	22.05	319
2016	8,246.29	2,382	2,382	5,865	22.15	265
2017	7,772.90	2,052	2,052	5,721	22.30	257
2018	7,323.77	1,738	1,738	5,586	22.50	248
2019	648.49	136	136	513	22.65	23
	4,749,768.72	3,057,602	3,056,967	1,692,802		92,791

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NESBITT WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2048						
NET SALVAGE PERCENT.. 0						
1988	6,091,845.49	4,192,408	4,191,536	1,900,309	16.76	113,384
1989	236,127.92	160,661	160,628	75,500	16.91	4,465
1991	9,200.90	6,100	6,099	3,102	17.28	180
1992	3,913.79	2,570	2,569	1,344	17.25	78
1994	2,637.07	1,684	1,684	953	17.54	54
1998	19,882.52	11,864	11,862	8,021	18.25	440
1999	5,954.90	3,499	3,498	2,457	18.25	135
2001	3,606.32	2,034	2,034	1,573	18.55	85
2002	777.36	427	427	350	18.84	19
2003	16,530.05	8,873	8,871	7,659	18.98	404
2006	33,459.15	16,592	16,589	16,871	19.31	874
2007	18,344.81	8,817	8,815	9,530	19.45	490
2008	64,101.93	29,750	29,744	34,358	19.63	1,750
2009	26,211.66	11,743	11,741	14,471	19.71	734
2010	1,810.10	779	779	1,031	19.84	52
2012	509,430.90	199,340	199,299	310,132	20.22	15,338
2014	96,480.80	33,749	33,742	62,739	20.45	3,068
2015	14,209.06	4,646	4,645	9,564	20.58	465
2016	100,151.34	30,286	30,280	69,872	20.76	3,366
2022	18,429.84	2,245	2,245	16,185	21.63	748
	7,273,105.91	4,728,067	4,727,084	2,546,022		146,129

CRYSTAL LAKE WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2052  
NET SALVAGE PERCENT.. 0

1992	5,023,109.47	3,182,642	3,181,980	1,841,129	19.08	96,495
1993	73,596.13	45,924	45,914	27,682	19.28	1,436
1995	197.94	120	120	78	19.50	4
1999	13,626.50	7,653	7,651	5,975	20.30	294
2004	11,303.55	5,626	5,625	5,679	21.19	268
2006	99,797.96	46,646	46,636	53,162	21.65	2,456
2007	13,173.73	5,952	5,951	7,223	21.84	331
2008	28,589.12	12,442	12,439	16,150	22.06	732
2009	19,356.65	8,114	8,112	11,244	22.17	507
2010	2,858.04	1,149	1,149	1,709	22.31	77
2011	22,252.17	8,536	8,534	13,718	22.50	610

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2052 NET SALVAGE PERCENT.. 0						
2014	3,545.66	1,143	1,143	2,403	23.13	104
2015	2,868.40	861	861	2,008	23.33	86
2016	10,676.66	2,960	2,959	7,717	23.47	329
2018	14,229.77	3,227	3,226	11,003	23.86	461
2020	3,879.66	661	661	3,219	24.33	132
	5,343,061.41	3,333,656	3,332,963	2,010,098		104,322

CEASETOWN WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2053  
NET SALVAGE PERCENT.. 0

1993	8,491,079.67	5,271,262	5,270,167	3,220,913	19.55	164,753
1994	18,958.58	11,578	11,576	7,383	19.76	374
1995	16,043.96	9,626	9,624	6,420	20.00	321
1997	45,655.10	26,462	26,457	19,199	20.31	945
1998	3,202.38	1,816	1,816	1,387	20.62	67
2001	5,100.00	2,705	2,704	2,396	21.25	113
2002	3,150.51	1,630	1,630	1,521	21.44	71
2004	17,119.10	8,412	8,410	8,709	21.74	401
2005	299,398.81	142,514	142,484	156,914	22.02	7,126
2006	93,193.36	43,027	43,018	50,175	22.15	2,265
2007	11,733.64	5,238	5,237	6,497	22.32	291
2008	28,894.84	12,428	12,425	16,469	22.53	731
2009	10,169.23	4,198	4,197	5,972	22.76	262
2010	16,080.19	6,368	6,367	9,714	22.88	425
2011	77,289.61	29,107	29,101	48,189	23.17	2,080
2012	123,725.49	44,232	44,223	79,503	23.36	3,403
2013	2,077.72	701	701	1,377	23.59	58
2014	40,488.30	12,827	12,824	27,664	23.72	1,166
2020	10,209.09	1,700	1,700	8,509	25.03	340
	9,313,569.58	5,635,831	5,634,660	3,678,910		185,192

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
1993	9,042,484.16	5,613,574	5,612,408	3,430,076	19.55	175,451
1994	557,586.68	340,518	340,447	217,139	19.76	10,989
1995	50,819.95	30,492	30,486	20,334	20.00	1,017
1998	1,099.27	623	623	476	20.62	23
2002	1,956.80	1,013	1,013	944	21.44	44
2003	5,173.10	2,618	2,617	2,556	21.48	119
2005	2,174.91	1,035	1,035	1,140	22.02	52
2006	52,855.60	24,403	24,398	28,458	22.15	1,285
2007	1,179.60	527	527	653	22.32	29
2008	34,000.57	14,624	14,621	19,380	22.53	860
2009	5,827.62	2,406	2,406	3,422	22.76	150
2010	15,084.17	5,973	5,972	9,112	22.88	398
2011	95,761.95	36,064	36,057	59,705	23.17	2,577
2013	64,674.64	21,808	21,803	42,871	23.59	1,817
2014	165,655.45	52,480	52,469	113,186	23.72	4,772
2015	9,260.45	2,732	2,731	6,529	23.90	273
2016	8,689.72	2,362	2,362	6,328	24.11	262
2018	716,495.48	158,990	158,957	557,539	24.55	22,710
2019	11,862.12	2,313	2,313	9,550	24.77	386
2020	3,420.65	570	570	2,851	25.03	114
2021	4,578.80	626	626	3,953	25.24	157
	10,850,641.69	6,315,751	6,314,439	4,536,203		223,485

NORRISTOWN  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2057  
NET SALVAGE PERCENT.. 0

1992	4,476.99	2,748	2,747	1,730	20.76	83
1994	3,778.23	2,249	2,249	1,530	21.08	73
1997	5,404,226.75	3,041,499	3,040,867	2,363,360	21.75	108,660
1998	7,937.78	4,372	4,371	3,567	22.02	162
2000	74,588.87	39,159	39,151	35,438	22.62	1,567
2001	2,023,509.89	1,039,275	1,039,059	984,451	22.73	43,311
2002	58,091.88	28,994	28,988	29,104	23.08	1,261
2003	86,104.25	41,864	41,855	44,249	23.25	1,903
2004	98,144.99	46,374	46,364	51,781	23.44	2,209
2005	140.00	64	64	76	23.67	3

PENNSYLVANIA-AMERICAN WATER COMPANY  
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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2006	1,204,036.32	533,027	532,916	671,120	23.92	28,057
2007	45,348.29	19,346	19,342	26,006	24.19	1,075
2009	102,333.83	40,279	40,271	62,063	24.65	2,518
2010	13,901.29	5,213	5,212	8,689	25.00	348
2011	28,104.08	10,033	10,031	18,073	25.22	717
2012	365,613.30	123,577	123,551	242,062	25.46	9,508
2013	21,001.51	6,678	6,677	14,325	25.74	557
2014	69.14	21	21	48	26.04	2
2015	67,794.34	18,711	18,707	49,087	26.23	1,871
2016	1,019,886.77	258,847	258,793	761,094	26.46	28,764
2017	61,609.01	14,195	14,192	47,417	26.72	1,775
2018	83,707.68	17,227	17,223	66,484	27.01	2,461
2019	1,119.07	201	201	918	27.33	34
2020	97,321.03	14,939	14,936	82,385	27.57	2,988
2021	3,789,738.42	475,991	475,892	3,313,846	27.85	118,989
2022	181,172.93	17,447	17,443	163,730	28.15	5,816
2023	400,000.00	26,320	26,315	373,685	28.40	13,158
	15,243,756.64	5,828,650	5,827,439	9,416,318		377,870

HUNTSVILLE  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2059  
NET SALVAGE PERCENT.. 0

1999	5,140,610.11	2,726,580	2,726,013	2,414,597	23.02	104,891
2001	8,125.96	4,115	4,114	4,012	23.39	172
2005	45,477.20	20,465	20,461	25,016	24.44	1,024
2006	30,782.70	13,335	13,332	17,450	24.86	702
2007	7,211.16	3,011	3,010	4,201	25.10	167
2008	59,813.06	23,997	23,992	35,821	25.37	1,412
2009	25,684.93	9,863	9,861	15,824	25.67	616
2010	2,533.46	931	931	1,603	25.82	62
2011	38,290.79	13,348	13,345	24,946	26.16	954
2012	15,722.39	5,192	5,191	10,531	26.37	399
2013	3,295.43	1,020	1,020	2,276	26.76	85



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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HUNTSVILLE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2059						
NET SALVAGE PERCENT.. 0						
2015	2,369.82	635	635	1,735	27.31	64
2016	9,027.44	2,226	2,226	6,802	27.50	247
2022	35,020.59	3,246	3,245	31,775	29.36	1,082
	5,423,965.04	2,827,964	2,827,376	2,596,589		111,877

NEW CASTLE WATER TREATMENT PLANT - NEW  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2060  
NET SALVAGE PERCENT.. 0

2000	1,819,768.35	937,181	936,986	882,782	23.54	37,501
2001	3,164,959.51	1,587,544	1,587,214	1,577,745	23.85	66,153
2003	1,380.93	656	656	725	24.30	30
2004	153,962.49	70,807	70,792	83,170	24.66	3,373
2005	17,819.80	7,948	7,946	9,873	24.84	397
2006	266,771.62	114,552	114,528	152,243	25.25	6,029
2007	42,986.27	17,796	17,792	25,194	25.48	989
2008	208,868.44	83,088	83,071	125,798	25.74	4,887
2014	29,796.67	8,522	8,520	21,276	27.46	775
2015	145,791.46	38,635	38,627	107,164	27.74	3,863
2018	28,464.70	5,579	5,578	22,887	28.71	797
2019	22,300.06	3,827	3,826	18,474	28.97	638
2021	169,427.15	20,128	20,124	149,303	29.67	5,032
2025	2,999,913.33	23,999	23,994	2,975,919	30.90	96,308
	9,072,210.78	2,920,262	2,919,655	6,152,556		226,772

ROCK RUN FILTRATION PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2051  
NET SALVAGE PERCENT.. 0

1976	3,032,325.96	2,303,052	2,302,574	729,752	15.52	47,020
1985	5,833.47	4,060	4,059	1,774	17.47	102
1991	23,116.00	15,012	15,009	8,107	18.36	442
1996	6,671.00	4,005	4,004	2,667	19.31	138
2000	142,779.16	79,242	79,226	63,554	20.05	3,170
2002	373,803.03	197,742	197,701	176,102	20.48	8,599

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2051						
NET SALVAGE PERCENT.. 0						
2006	428,360.75	202,657	202,615	225,746	21.16	10,669
2007	15,986.12	7,338	7,336	8,650	21.22	408
2011	13,009,059.10	5,063,126	5,062,074	7,946,985	21.97	361,720
2013	228,674.96	79,853	79,836	148,839	22.36	6,656
2014	32,558.55	10,709	10,707	21,852	22.44	974
2018	3,850.44	892	892	2,959	23.21	127
2019	4,599.43	938	938	3,662	23.41	156
2020	24,494.60	4,287	4,286	20,208	23.57	857
2022	4,742,093.46	527,795	527,685	4,214,408	23.95	175,967
	22,074,206.03	8,500,708	8,498,942	13,575,264		617,005

NAZARETH(BLUE MOUNTAIN) PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2055  
NET SALVAGE PERCENT.. 0

1951	429.84	379	379	51	10.03	5
1960	45.00	38	38	7	12.52	1
1970	349.00	274	274	75	14.93	5
1975	41,890.00	31,627	31,620	10,270	16.23	633
1976	12,586.04	9,436	9,434	3,152	16.36	193
1977	48,491.99	35,845	35,838	12,654	16.94	747
1978	89.00	65	65	24	17.10	1
1979	1,797.00	1,306	1,306	491	17.29	28
1980	9,400.42	6,768	6,767	2,634	17.50	151
1983	3,194.00	2,227	2,227	967	18.24	53
1985	30.00	21	21	9	18.48	
1988	9,287.67	6,117	6,116	3,172	19.18	165
1989	2,360.00	1,529	1,529	831	19.56	42
1991	4,553.00	2,879	2,878	1,675	19.76	85
1992	72,215.50	44,802	44,793	27,423	20.19	1,358
1995	4,258,824.56	2,516,965	2,516,442	1,742,383	20.76	83,930
1996	7,506.00	4,353	4,352	3,154	21.00	150
1997	7,826.00	4,448	4,447	3,379	21.26	159
1998	541.00	302	302	239	21.31	11
2007	2,222.54	968	968	1,255	23.32	54
2008	360,111.32	151,211	151,180	208,932	23.49	8,895
2009	6,280.49	2,522	2,521	3,759	23.84	158

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NAZARETH (BLUE MOUNTAIN) PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2055						
NET SALVAGE PERCENT.. 0						
2011	12,316.24	4,518	4,517	7,799	24.17	323
2013	17,236.87	5,647	5,646	11,591	24.63	471
2021	2,341,064.49	306,211	306,147	2,034,917	26.58	76,558
	7,220,647.97	3,140,458	3,139,805	4,080,843		174,176

CLARION WATER TREATMENT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2063  
NET SALVAGE PERCENT.. 0

2003	10,342,319.64	4,823,658	4,822,655	5,519,664	25.17	219,295
2004	1,073,637.95	484,748	484,647	588,991	25.51	23,089
2005	51,929.31	22,641	22,636	29,293	25.87	1,132
2008	4,901.24	1,900	1,900	3,002	26.86	112
2009	3,997.32	1,484	1,484	2,514	27.10	93
2010	15,074.97	5,337	5,336	9,739	27.37	356
2012	25,964.22	8,236	8,234	17,730	27.98	634
2013	22,045.21	6,561	6,560	15,486	28.32	547
2015	4,722.08	1,209	1,209	3,513	29.06	121
2017	63,675.57	13,499	13,496	50,179	29.74	1,687
2018	7,287.53	1,377	1,377	5,911	30.04	197
2023	3,480,136.91	204,632	204,589	3,275,547	32.01	102,329
	15,095,691.95	5,575,282	5,574,123	9,521,569		349,592

WEST SHORE REGIONAL TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 55-S1  
PROBABLE RETIREMENT YEAR.. 6-2066  
NET SALVAGE PERCENT.. 0

1969	657.98	516	516	142	15.43	9
1983	37,158.59	25,283	25,278	11,881	19.73	602
1987	5,815.95	3,757	3,756	2,060	20.82	99
1991	12,473.19	7,549	7,547	4,926	22.18	222
1997	3,811.05	2,049	2,049	1,762	24.08	73
2001	126,824.96	61,789	61,776	65,049	25.26	2,575
2006	13,157,980.68	5,425,035	5,423,908	7,734,073	27.08	285,601
2007	3,335,257.81	1,326,766	1,326,490	2,008,768	27.25	73,716

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST SHORE REGIONAL TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2066 NET SALVAGE PERCENT.. 0						
2008	19,820.53	7,548	7,546	12,274	27.64	444
2009	20,877.72	7,583	7,581	13,296	28.05	474
2011	67,592.59	22,143	22,138	45,454	28.74	1,582
2013	108,276.06	31,313	31,306	76,970	29.49	2,610
2014	154,942.54	41,757	41,748	113,194	29.82	3,796
2015	8,669.28	2,159	2,159	6,511	30.16	216
2016	67,082.34	15,275	15,272	51,811	30.53	1,697
2017	185,833.08	38,207	38,199	147,634	30.91	4,776
2018	200,316.62	36,598	36,590	163,726	31.31	5,229
2019	35,086.90	5,579	5,578	29,509	31.74	930
2021	2,920,238.53	318,890	318,824	2,601,415	32.63	79,725
2022	1,292,565.87	107,412	107,390	1,185,176	33.10	35,806
2024	1,517,331.90	43,396	43,387	1,473,945	33.97	43,390
	23,278,614.17	7,530,604	7,529,039	15,749,575		543,572
BECK'S RUN PUMP STATION INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2072 NET SALVAGE PERCENT.. 0						
2012	26,304,729.23	7,830,918	7,829,291	18,475,438	30.67	602,394
	26,304,729.23	7,830,918	7,829,291	18,475,438		602,394
ELLWOOD TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 55-S1 PROBABLE RETIREMENT YEAR.. 6-2078 NET SALVAGE PERCENT.. 0						
1991	15,090.60	8,979	8,977	6,113	23.14	264
2003	1,684.82	745	745	940	27.75	34
2018	34,566,354.68	5,782,951	5,781,749	28,784,606	34.84	826,194
2019	1,001,606.74	144,832	144,802	856,805	35.49	24,142
	35,584,736.84	5,937,507	5,936,273	29,648,464		850,634

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MONTROSE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	2,177,079.01	364,225	364,149	1,812,930	34.84	52,036
2019	11,727.99	1,696	1,696	10,032	35.49	283
2020	37,167.60	4,534	4,533	32,635	35.98	907
2024	699,905.29	17,708	17,704	682,201	38.53	17,706
	2,925,879.89	388,163	388,082	2,537,798		70,932
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2021	7,669,280.13	898,840	898,653	6,770,627	30.13	224,714
	7,669,280.13	898,840	898,653	6,770,627		224,714
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2021	6,943,609.02	872,117	871,936	6,071,673	27.85	218,013
2025	874,888.10	7,524	7,522	867,366	28.90	30,013
	7,818,497.12	879,641	879,458	6,939,039		248,026
STEELTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1973	6,453,439.54	5,201,472	5,200,391	1,253,048	12.52	100,084
2010	4,876,442.37	2,333,378	2,332,893	2,543,549	16.35	155,569
2014	8,092.41	3,213	3,212	4,880	16.70	292
2017	1,950,570.71	625,743	625,613	1,324,958	16.94	78,215
2019	2,024.63	526	526	1,499	17.09	88

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
STEELTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
2020	13,663.11	3,081	3,080	10,583	17.17	616
2022	108,839.25	16,032	16,029	92,811	17.37	5,343
2024	445,147.74	24,038	24,033	421,115	17.52	24,036
	13,858,219.76	8,207,483	8,205,778	5,652,442		364,243

WHITE DEER / MILTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2062						
NET SALVAGE PERCENT.. 0						
2022	3,744,419.29	330,258	330,190	3,414,230	31.01	110,101
2023	2,388,099.85	142,808	142,778	2,245,321	31.44	71,416
	6,132,519.14	473,066	472,968	5,659,551		181,517

OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1972	172,087.42	134,985	134,957	37,130	14.57	2,548
1973	2,895.47	2,243	2,243	653	15.11	43
1974	3,416.29	2,613	2,612	804	15.67	51
1975	124,331.18	93,870	93,850	30,481	16.23	1,878
1976	21,995.09	16,382	16,379	5,616	16.79	334
1977	825.68	606	606	220	17.36	13
1978	7,156.97	5,180	5,179	1,978	17.94	110
1979	1,975.17	1,417	1,417	558	18.10	31
1980	301.29	213	213	88	18.69	5
1981	17,978.34	12,419	12,416	5,562	19.69	282
1982	356,401.48	242,139	242,089	114,313	20.29	5,634
1983	69,448.51	46,378	46,368	23,080	20.89	1,105
1984	25,923.53	17,006	17,002	8,921	21.50	415
1985	490,138.72	315,649	315,583	174,555	22.11	7,895
1986	9,175.69	5,797	5,796	3,380	22.73	149
1987	93,270.23	57,772	57,760	35,510	23.35	1,521
1988	1,096,719.52	665,489	665,351	431,369	23.98	17,989
1989	2,082,775.99	1,237,169	1,236,912	845,864	24.61	34,371
1990	844,725.42	490,785	490,683	354,042	25.24	14,027

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ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1991	989,950.58	562,094	561,977	427,973	25.88	16,537
1992	11,745.50	6,512	6,511	5,235	26.52	197
1993	18,154.31	9,818	9,816	8,338	27.17	307
1994	1,032,022.50	543,876	543,763	488,260	27.82	17,551
1995	1,323,257.83	674,861	674,721	648,537	28.82	22,503
1996	386,631.07	191,730	191,690	194,941	29.48	6,613
1997	1,665,036.10	801,881	801,714	863,322	30.14	28,644
1998	607,338.22	283,688	283,629	323,709	30.80	10,510
1999	1,726,152.35	780,911	780,749	945,404	31.47	30,041
2000	55,552.45	24,304	24,299	31,254	32.14	972
2001	1,537,024.42	645,550	645,416	891,609	33.14	26,904
2002	354,645.11	143,560	143,530	211,115	33.82	6,242
2003	419,646.84	163,410	163,376	256,271	34.50	7,428
2004	332,640.81	124,341	124,315	208,326	35.18	5,922
2005	106,556.39	37,934	37,926	68,630	36.18	1,897
2006	58,290.16	19,824	19,820	38,470	36.87	1,043
2007	270,953.72	87,789	87,771	183,183	37.56	4,877
2008	205,677.73	63,287	63,274	142,404	38.25	3,723
2009	740,672.33	214,499	214,454	526,218	39.25	13,407
2010	700,778.20	191,312	191,272	509,506	39.95	12,754
2011	2,037,013.32	521,883	521,775	1,515,239	40.64	37,284
2012	2,773,745.51	663,480	663,342	2,110,403	41.35	51,038
2013	1,572,118.44	347,124	347,052	1,225,067	42.35	28,927
2014	3,909,086.86	795,499	795,334	3,113,753	43.05	72,329
2015	424,136.10	78,889	78,873	345,263	43.76	7,890
2016	1,503,625.35	251,707	251,655	1,251,971	44.76	27,971
2017	2,250,157.22	336,624	336,554	1,913,603	45.48	42,076
2018	2,235,391.89	294,178	294,117	1,941,275	46.19	42,028
2019	1,909,722.12	216,562	216,517	1,693,205	46.91	36,095
2020	3,442,354.07	327,024	326,956	3,115,398	47.63	65,408
2021	4,264,085.40	324,070	324,003	3,940,083	48.63	81,022
2022	4,140,107.32	238,470	238,420	3,901,687	49.08	79,496
2023	443,953.80	17,137	17,133	426,820	49.81	8,569

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER PURIFICATION STRUCTURES						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
2024	6,966,038.74	135,838	135,810	6,830,229	50.28	135,844
2025	9,249,869.58	46,249	46,239	9,203,630	50.25	183,157
9999	281,872.62-	58,526-	58,514-	223,359-		5,221-
	64,803,801.71	13,455,501	13,452,705	51,351,097		1,200,386
	364,760,658.96	124,889,878	124,863,924	239,896,737		8,684,270
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.6 2.38



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.36 WASTE HANDLING AND TREATMENT STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1991	10,815,702.32	7,759,185	6,794,127	4,021,575	13.39	300,342
1998	68,969.00	45,623	39,949	29,020	13.82	2,100
2000	122,317.58	78,283	68,546	53,771	14.06	3,824
2001	25,833.98	16,244	14,224	11,610	14.17	819
2003	4,063.71	2,467	2,160	1,904	14.23	134
2007	41,023.43	22,670	19,850	21,173	14.57	1,453
2010	77,041.66	38,829	34,000	43,042	14.76	2,916
2012	197,523.29	91,927	80,493	117,030	14.93	7,839
2013	129,535.29	57,669	50,496	79,039	14.95	5,287
2014	18,080.06	7,637	6,687	11,393	15.04	758
2016	167,667.01	62,473	54,703	112,964	15.15	7,456
	11,667,757.33	8,183,007	7,165,236	4,502,521		332,928
YARDLEY - MILL ROAD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 55-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
2021	13,211,523.57	1,659,367	1,452,982	11,758,542	27.85	422,210
2025	1,749,761.86	15,048	13,176	1,736,585	28.90	60,089
	14,961,285.43	1,674,415	1,466,158	13,495,127		482,299
	26,629,042.76	9,857,422	8,631,394	17,997,648		815,227
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.1						3.06

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.38 WASTE HANDLING AND TREATMENT STRUCTURE PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1991	38,331.32	38,331	38,331			
2015	27,627.10	27,627	27,627			
2021	1,337,480.53	534,992	537,460	800,021	6.00	133,337
	1,403,438.95	600,950	603,418	800,021		133,337
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.0 9.50

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.39 PURIFICATION BUILDINGS - TANK PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	26,564.05	26,564	26,564			
1999	12,732.18	12,732	12,732			
2000	10,588.12	10,588	10,588			
2002	28,101.61	28,102	28,102			
2015	41,376.99	41,377	41,374		3	
	119,362.95	119,363	119,360		3	
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW CASTLE OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2031						
NET SALVAGE PERCENT.. 0						
1986	318,195.43	277,976	246,313	71,882	5.64	12,745
1987	8,272.40	7,199	6,379	1,893	5.67	334
1988	37,599.72	32,554	28,846	8,754	5.74	1,525
1989	14,177.96	12,250	10,855	3,323	5.67	586
1990	34,032.13	29,302	25,964	8,068	5.65	1,428
1991	2,572.71	2,204	1,953	620	5.68	109
1992	2,532.12	2,156	1,910	622	5.76	108
1996	12,895.85	10,771	9,544	3,352	5.72	586
1998	881.61	726	643	238	5.79	41
2005	139,676.14	108,389	96,043	43,633	5.77	7,562
2006	221,273.24	169,429	150,130	71,143	5.81	12,245
2008	55,218.52	41,210	36,516	18,703	5.78	3,236
2009	4,088.08	3,002	2,660	1,428	5.79	247
2011	8,092.17	5,721	5,069	3,023	5.80	521
2012	17,681.58	12,206	10,816	6,866	5.83	1,178
2013	98,083.12	66,030	58,509	39,574	5.83	6,788
2014	65,043.79	42,500	37,659	27,385	5.84	4,689
2015	27,858.26	17,579	15,577	12,282	5.85	2,099
2016	103,100.72	62,448	55,335	47,766	5.86	8,151
2017	92,575.97	53,472	47,381	45,195	5.85	7,726
2018	19,026.75	10,349	9,170	9,857	5.87	1,679
2019	661.28	334	296	365	5.88	62
2023	260,525.87	66,017	58,497	202,028	5.89	34,300
2024	2,911,785.05	422,209	374,118	2,537,667	5.90	430,113
2025	867,294.28	35,212	31,201	836,093	5.90	141,711
	5,323,144.75	1,491,245	1,321,386	4,001,759		679,769

WASHINGTON CUSTOMER SERVICE CENTER  
INTERIM SURVIVOR CURVE.. IOWA 55-S0  
PROBABLE RETIREMENT YEAR.. 6-2032  
NET SALVAGE PERCENT.. 0

1987	1,203,127.17	1,028,674	911,504	291,623	6.44	45,283
1988	1,858.44	1,582	1,402	457	6.48	71
1989	281,428.67	238,089	210,970	70,459	6.55	10,757
1992	14,113.15	11,783	10,441	3,672	6.53	562
1994	2,289.38	1,888	1,673	616	6.59	93
1995	65,817.15	53,904	47,764	18,053	6.63	2,723

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WASHINGTON CUSTOMER SERVICE CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. 0						
1996	7,807.45	6,362	5,637	2,170	6.59	329
1997	104,560.69	84,611	74,973	29,587	6.60	4,483
2001	48,048.55	37,593	33,311	14,738	6.67	2,210
2002	4,596.11	3,562	3,156	1,440	6.67	216
2003	69,847.82	53,629	47,520	22,327	6.65	3,357
2010	19,334.13	13,341	11,821	7,513	6.74	1,115
2011	61,248.66	41,331	36,623	24,625	6.75	3,648
2013	81,006.48	51,812	45,910	35,096	6.76	5,192
2014	14,255.72	8,829	7,823	6,432	6.76	951
2023	616,528.00	139,459	123,574	492,954	6.84	72,069
2024	245,791.26	31,338	27,768	218,023	6.84	31,875
	2,841,658.83	1,807,787	1,601,873	1,239,786		184,934

CAPITOL DISTRIBUTION CENTER  
INTERIM SURVIVOR CURVE.. IOWA 55-S0  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1989	347,788.60	211,595	187,493	160,295	23.17	6,918
1990	5,101.58	3,053	2,705	2,396	23.48	102
1991	650.26	385	341	309	23.47	13
1996	1,799.05	976	865	934	24.48	38
2001	12,812.78	6,242	5,531	7,282	25.26	288
2002	5,478.58	2,608	2,311	3,168	25.31	125
2003	1,018.77	473	419	600	25.39	24
2006	28,442.30	12,051	10,678	17,764	25.84	687
2007	23,101.69	9,439	8,364	14,738	26.05	566
2008	47,924.90	18,902	16,749	31,176	26.10	1,194
2010	10,983.00	3,987	3,533	7,450	26.32	283
2011	43,527.16	15,052	13,338	30,190	26.49	1,140
2012	124,750.18	41,030	36,357	88,394	26.53	3,332
2013	174,227.60	53,941	47,797	126,431	26.76	4,725
2018	19,709,050.81	4,042,326	3,581,889	16,127,162	27.13	594,440
2019	1,661,686.84	300,101	265,918	1,395,769	27.22	51,277
	22,198,344.10	4,722,161	4,184,288	18,014,056		665,152

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER OFFICE BUILDINGS						
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1924	648.06	648	648			
1926	173.36	173	173			
1958	12.46	12	12			
1960	46.85	44	39	8	4.44	2
1961	20.42	19	17	4	4.97	1
1963	31,971.02	29,337	25,995	5,976	5.57	1,073
1964	1,046.25	957	848	198	5.67	35
1965	11,611.21	10,589	9,383	2,229	5.79	385
1966	1,094.56	988	875	219	6.36	34
1967	46,930.24	42,190	37,384	9,547	6.52	1,464
1968	56,048.82	50,158	44,444	11,605	6.69	1,735
1969	1,243.71	1,100	975	269	7.29	37
1970	10,878.97	9,573	8,482	2,397	7.50	320
1971	8,833.19	7,727	6,847	1,986	7.73	257
1972	60,261.47	52,060	46,129	14,132	8.35	1,692
1973	1,606.24	1,378	1,221	385	8.61	45
1975	6,419.09	5,392	4,778	1,641	9.52	172
1976	44,971.81	37,462	33,194	11,778	9.82	1,199
1977	13,045.03	10,770	9,543	3,502	10.14	345
1979	27,727.45	22,321	19,778	7,949	11.14	714
1980	1.09	1	1			
1981	45,268.64	35,454	31,415	13,854	12.18	1,137
1982	357,018.18	276,332	244,851	112,167	12.56	8,930
1983	32,026.76	24,347	21,573	10,453	13.25	789
1984	893.10	670	594	299	13.64	22
1985	72,299.75	53,213	47,151	25,149	14.35	1,753
1986	348,333.92	252,681	223,895	124,439	14.76	8,431
1987	591,073.67	420,017	372,167	218,906	15.48	14,141
1988	607,895.24	425,101	376,672	231,223	15.91	14,533
1989	446,542.29	305,435	270,639	175,903	16.63	10,577
1990	142,313.17	95,136	84,298	58,015	17.36	3,342
1991	33,506.83	21,987	19,482	14,025	17.81	787
1992	147,350.55	94,334	83,587	63,763	18.55	3,437
1993	12,827.68	8,004	7,092	5,736	19.28	298
1994	323,655.50	197,656	175,138	148,517	19.76	7,516
1995	58,627.79	34,825	30,858	27,770	20.51	1,354
1996	47,145.81	27,208	24,108	23,037	21.25	1,084
1997	35,037.87	19,719	17,473	17,565	21.75	808
1998	15,898.46	8,671	7,683	8,215	22.50	365
1999	60,775.53	32,077	28,423	32,353	23.26	1,391

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER OFFICE BUILDINGS						
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2000	751,659.19	383,346	339,674	411,985	24.02	17,152
2001	49,136.87	24,293	21,525	27,611	24.54	1,125
2002	6,105.96	2,907	2,576	3,530	25.31	139
2003	84,645.46	38,734	34,321	50,324	26.08	1,930
2004	37,628.15	16,515	14,634	22,995	26.85	856
2005	345,587.23	145,147	128,611	216,976	27.62	7,856
2006	226,303.57	91,155	80,770	145,533	28.17	5,166
2007	94,962.66	36,409	32,261	62,701	28.95	2,166
2008	246,539.03	89,691	79,473	167,066	29.73	5,619
2009	101,747.66	35,001	31,014	70,734	30.51	2,318
2010	61,024.09	19,772	17,520	43,505	31.30	1,390
2011	121,330.10	36,860	32,661	88,669	32.08	2,764
2012	183,590.31	52,029	46,102	137,489	32.87	4,183
2013	88,206.83	23,181	20,540	67,667	33.66	2,010
2014	402,070.81	97,301	86,216	315,855	34.45	9,169
2015	12,602.70	2,785	2,468	10,135	35.25	288
2016	1,287,330.78	257,209	227,907	1,059,424	36.05	29,388
2017	538,977.16	96,154	85,200	453,777	36.84	12,318
2018	2,146,281.83	336,537	298,198	1,848,084	37.64	49,099
2019	2,042,048.03	275,676	244,270	1,797,778	38.44	46,768
2020	636,874.31	71,967	63,768	573,106	39.25	14,601
2021	1,239,513.27	113,044	100,166	1,139,348	39.86	28,584
2022	1,606,550.10	110,370	97,796	1,508,754	40.67	37,097
2023	74,669.36	3,450	3,057	71,612	41.29	1,734
2024	113,909.66	2,654	2,352	111,558	41.92	2,661
2025	59,073.63	349	309	58,764	41.95	1,401
9999	60,000.00-	18,368-	16,276-	43,724-		1,395-
	16,201,450.79	4,959,934	4,394,978	11,806,473		376,592
	46,564,598.47	12,981,127	11,502,525	35,062,074		1,906,447
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.4 4.09

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
UNIONTOWN OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2066						
NET SALVAGE PERCENT.. 0						
2021	3,787,629.81	443,910	570,126	3,217,504	30.13	106,787
	3,787,629.81	443,910	570,126	3,217,504		106,787
NORRISTOWN OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2032						
NET SALVAGE PERCENT.. 0						
1987	747,847.92	639,410	747,848			
1988	14,460.80	12,306	14,461			
1990	21,055.84	17,761	21,056			
1991	515.82	433	516			
2000	8,240.40	6,510	8,240			
2001	106,652.86	83,445	106,653			
2011	2,125.81	1,432	2,126			
2014	364,619.49	225,007	362,064	2,556	6.83	374
2015	19,376.64	11,510	18,521	856	6.84	125
2018	224.06	113	182	42	6.87	6
	1,285,119.64	997,927	1,281,666	3,454		505
BETHEL PARK						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2058						
NET SALVAGE PERCENT.. 0						
1958	1,356.00	1,127	1,356			
1965	653,341.28	517,446	653,341			
1967	45,486.00	35,616	45,486			
1969	4,300.00	3,323	4,300			
1970	2,902.00	2,219	2,873	29	16.94	2
1972	1,319.97	993	1,286	34	17.42	2
1973	9,153.18	6,854	8,874	279	17.44	16
1975	40.52	30	39	2	18.03	
1977	1,690.34	1,225	1,586	104	18.23	6
1979	3,808.27	2,698	3,493	315	18.94	17
1981	0.16		0			
1985	8,909.55	5,952	7,706	1,203	19.88	61



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BETHEL PARK						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2058						
NET SALVAGE PERCENT.. 0						
1986	56,270.95	37,088	48,019	8,252	20.17	409
1987	51,879.47	33,711	43,646	8,233	20.48	402
1988	1,675.90	1,073	1,389	287	20.80	14
1989	365,534.82	231,603	299,861	65,673	20.82	3,154
1991	4,610.90	2,838	3,674	936	21.25	44
1992	10,300.00	6,254	8,097	2,203	21.35	103
1993	2,884.28	1,717	2,223	661	21.76	30
1995	1,257.55	724	937	320	22.08	14
1996	53,669.41	30,350	39,295	14,375	22.28	645
1997	47,281.24	26,213	33,939	13,343	22.51	593
1998	41,194.00	22,467	29,089	12,105	22.50	538
2000	47,532.86	24,717	32,002	15,531	23.08	673
2002	3,229.97	1,605	2,078	1,152	23.30	49
2006	123,630.77	54,496	70,557	53,074	24.10	2,202
2007	61,197.63	26,107	33,801	27,396	24.19	1,133
2008	530,439.54	217,321	281,370	249,069	24.49	10,170
2009	415,793.46	163,656	211,889	203,905	24.65	8,272
2010	105,796.74	39,832	51,571	54,225	24.84	2,183
2011	54,411.31	19,577	25,347	29,065	24.91	1,167
2012	393,497.73	134,025	173,525	219,973	25.17	8,739
2013	23,340.26	7,506	9,718	13,622	25.31	538
2014	26,100.06	7,867	10,186	15,914	25.50	624
	3,153,836.12	1,668,230	2,142,554	1,011,282		41,800

BETHEL PARK (NEW)  
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5  
PROBABLE RETIREMENT YEAR.. 6-2066  
NET SALVAGE PERCENT.. 0

2018	20,032,537.04	3,842,241	4,934,697	15,097,840	29.50	511,791
2019	6,912,393.38	1,161,282	1,491,467	5,420,926	29.71	182,461
2021	5,255,848.12	615,985	791,127	4,464,721	30.13	148,182
	32,200,778.54	5,619,508	7,217,291	24,983,488		842,434

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
STAFFORD AVENUE DISTRIBUTION CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2062						
NET SALVAGE PERCENT.. 0						
1997	6,386.52	3,469	4,455	1,931	23.55	82
2012	1,538,069.70	501,872	644,568	893,501	26.84	33,290
2014	16,744,779.33	4,825,845	6,197,968	10,546,811	27.17	388,179
2015	12,394.22	3,309	4,250	8,144	27.45	297
2019	22,838.07	4,015	5,157	17,681	28.13	629
	18,324,467.84	5,338,510	6,856,398	11,468,070		422,477
SUSQUEHANNA OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 55-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2075						
NET SALVAGE PERCENT.. 0						
2025	3,550,000.00	26,270	33,739	3,516,261	33.53	104,869
	3,550,000.00	26,270	33,739	3,516,261		104,869
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
1967	5,143.00	4,773	5,143			
1969	3.18	3	3			
1970	1,164.98	1,064	1,165			
1971	36.32	33	36			
1972	634.88	575	635			
1973	2,089.97	1,880	2,090			
1974	1,091.06	974	1,091			
1976	2,792.33	2,449	2,792			
1977	953.93	829	954			
1978	169.91	146	170			
1980	2,201.05	1,852	2,201			
1981	1,217.40	1,012	1,217			
1982	5,097.51	4,187	5,098			
1983	5,662.30	4,590	5,662			
1984	42,453.44	33,942	42,453			
1985	30,313.11	23,887	30,313			
1986	23,996.49	18,624	23,946	51	11.25	5
1987	723.36	553	711	12	11.75	1

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
1988	492,224.35	369,710	475,353	16,872	12.26	1,376
1989	60,532.18	44,673	57,438	3,094	12.78	242
1990	892,796.35	643,706	827,642	65,155	13.54	4,812
1991	649,148.20	459,078	590,257	58,891	14.08	4,183
1992	304,212.94	210,820	271,061	33,152	14.62	2,268
1993	10,260.26	6,961	8,950	1,310	15.17	86
1994	64,622.20	42,670	54,863	9,759	15.95	612
1995	6,600.47	4,257	5,473	1,127	16.51	68
1996	86,138.81	54,207	69,696	16,442	17.08	963
1997	113,666.60	69,382	89,208	24,459	17.87	1,369
1998	16,584.74	9,851	12,666	3,919	18.45	212
1999	134,121.79	77,415	99,536	34,586	19.05	1,816
2000	70,168.39	39,119	50,297	19,871	19.84	1,002
2001	112,996.79	61,018	78,454	34,543	20.44	1,690
2002	9,268.80	4,818	6,195	3,074	21.25	145
2004	1,388.50	668	859	530	22.67	23
2005	48,626.36	22,465	28,884	19,742	23.29	848
2006	45,672.04	20,132	25,885	19,787	24.10	821
2007	56,550.01	23,819	30,625	25,925	24.74	1,048
2008	30,604.24	12,226	15,720	14,885	25.55	583
2009	16,248.78	6,162	7,923	8,326	26.19	318
2010	3,269.94	1,167	1,500	1,769	27.02	65
2011	203,116.68	67,963	87,383	115,734	27.84	4,157
2012	212,235.52	66,493	85,493	126,743	28.49	4,449
2013	45,552.60	13,228	17,008	28,545	29.32	974
2014	71,258.20	19,047	24,490	46,769	30.15	1,551
2015	516,657.84	126,065	162,087	354,570	30.98	11,445
2016	77,623.31	17,186	22,097	55,527	31.65	1,754
2017	32,786.00	6,479	8,330	24,456	32.49	753
2018	1,427,984.55	247,898	318,734	1,109,251	33.32	33,291
2019	147,357.90	22,104	28,420	118,938	34.00	3,498
2020	439,490.52	55,156	70,917	368,574	34.84	10,579
2021	1,973,176.14	198,896	255,729	1,717,447	35.68	48,135
2022	392,128.53	29,880	38,418	353,710	36.37	9,725
2023	2,274,105.83	116,434	149,704	2,124,401	37.06	57,323

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2024	372,344.30	9,644	12,400	359,945	37.61	9,570
2025	960,590.86	6,340	8,152	952,439	37.77	25,217
9999	576.00-	152-	195-	381-		11-
	12,497,279.74	3,288,358	4,223,330	8,273,950		246,966
	74,799,111.69	17,382,713	22,325,104	52,474,009		1,765,838
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.7 2.36

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
2003	3,376.30	1,976	3,376			
2004	54,200.10	30,845	54,200			
2005	69,786.41	38,383	69,786			
2006	31,271.70	16,637	31,272			
2007	146,479.19	75,144	146,479			
2008	201,289.42	99,236	201,289			
2009	17,478.70	8,278	16,928	551	17.78	31
2010	103,632.31	46,790	95,682	7,950	18.22	436
2011	1,252.06	538	1,100	152	18.57	8
2012	45,296.95	18,431	37,690	7,607	18.95	401
2013	22,615.23	8,657	17,703	4,912	19.35	254
2014	9,569.99	3,421	6,996	2,574	19.77	130
2015	494,972.25	164,331	336,045	158,927	20.12	7,899
2016	415,804.73	126,488	258,658	157,147	20.59	7,632
2017	324,181.53	89,474	182,968	141,214	20.99	6,728
2018	688,458.06	169,636	346,893	341,565	21.41	15,954
2019	35.34	8	16	19	21.78	1
2020	8,688.55	1,599	3,270	5,419	22.17	244
2021	72,626.32	10,923	22,337	50,289	22.60	2,225
2022	35,813.05	4,136	8,458	27,355	22.97	1,191
2023	4,791,461.81	377,567	772,096	4,019,366	23.38	171,915
2024	2,579,409.47	104,466	213,625	2,365,784	23.69	99,864
2025	1,396,548.24	14,384	29,414	1,367,134	23.96	57,059
	11,514,247.71	1,411,348	2,856,281	8,657,967		371,972
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.3 3.23

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DAM NO. 3 (CITIZENS)						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. 0						
1920	42,226.36	36,800	10,048	32,178	15.48	2,079
1937	48.00	41	11	37	16.17	2
1949	331.00	272	74	257	16.59	15
1961	2,483.15	1,971	538	1,945	16.65	117
1973	1,843.00	1,399	382	1,461	16.49	89
1974	259.00	195	53	206	16.57	12
1978	82,513.54	60,887	16,625	65,888	16.69	3,948
1992	1,385,786.88	919,192	250,987	1,134,799	16.75	67,749
	1,515,490.93	1,020,757	278,720	1,236,771		74,011

SPRUCE RUN IMPOUNDING RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2078  
NET SALVAGE PERCENT.. 0

1957	3,545.00	2,145	586	2,959	44.36	67
1958	937,679.88	565,421	154,389	783,291	44.11	17,758
1962	1,170.00	686	187	983	44.53	22
1964	15,475.00	8,968	2,449	13,026	44.26	294
1965	5,506.28	3,139	857	4,649	45.26	103
1967	0.83			1	45.09	
1985	2,905.50	1,337	365	2,540	46.96	54
1990	18,419.48	7,801	2,130	16,289	47.64	342
1995	1,423,197.85	550,778	150,391	1,272,807	47.52	26,785
2021	36,844.32	2,859	781	36,064	47.55	758
	2,444,744.14	1,143,134	312,135	2,132,609		46,183

ONEIDA DAM AND RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

1918	97,835.35	71,185	19,437	78,398	40.06	1,957
1925	408.75	290	79	330	40.85	8
1930	2,267.00	1,572	429	1,838	41.99	44
1934	1,013.55	683	186	827	44.14	19
1956	775.09	449	123	652	50.05	13

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ONEIDA DAM AND RESERVOIR						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2089						
NET SALVAGE PERCENT.. 0						
1978	134.64	63	17	117	53.00	2
1982	245.51	109	30	216	54.09	4
1985	16,193.21	6,866	1,875	14,318	54.34	263
1989	294,046.08	116,442	31,795	262,251	54.91	4,776
2013	8,655,614.25	1,516,464	414,073	8,241,541	56.49	145,894
	9,068,533.43	1,714,123	468,044	8,600,489		152,980

THORN RUN DAM AND RESERVOIR  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2083  
NET SALVAGE PERCENT.. 0

1904	361.68	284	78	284	32.85	9
1925	882.00	635	173	709	38.89	18
1928	103.00	73	20	83	39.99	2
1930	285.00	200	55	230	40.14	6
1933	93.00	64	17	76	41.33	2
1936	86.00	58	16	70	42.58	2
1956	941.01	565	154	787	45.94	17
1958	951.00	561	153	798	46.64	17
1983	14,744.19	6,688	1,826	12,918	50.59	255
1984	76,177.36	34,044	9,296	66,882	50.74	1,318
1987	14,359.75	6,166	1,684	12,676	50.50	251
1989	210,306.30	87,067	23,774	186,532	50.96	3,660
1994	5,117.89	1,920	524	4,594	51.64	89
2011	7,667,320.88	1,620,872	442,582	7,224,739	52.23	138,325
	7,991,729.06	1,759,197	480,352	7,511,377		143,971

GRIFFIN  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2089  
NET SALVAGE PERCENT.. 0

2024	10,175,150.83	188,240	51,399	10,123,752	53.05	190,834
	10,175,150.83	188,240	51,399	10,123,752		190,834

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LAKE SCRANTON						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2089						
NET SALVAGE PERCENT.. 0						
1901	281,262.27	219,722	59,995	221,267	34.73	6,371
1916	2,609.36	1,934	528	2,081	38.06	55
1935	239.93	162	44	196	43.33	5
1968	1,279.11	671	183	1,096	51.70	21
1970	3,211.00	1,642	448	2,763	52.53	53
1976	2,210.73	1,062	290	1,921	53.04	36
1977	57.10	27	7	50	53.01	1
1978	36,565.70	17,186	4,693	31,873	53.00	601
1982	276.75	123	34	243	54.09	4
1983	15,120.00	6,604	1,803	13,317	54.15	246
1984	35,225.92	15,165	4,141	31,085	54.24	573
1985	30,307.31	12,850	3,509	26,799	54.34	493
1986	30,933.62	12,909	3,525	27,409	54.46	503
1987	17,143.97	7,036	1,921	15,223	54.59	279
1989	1,665,697.07	659,616	180,109	1,485,588	54.91	27,055
1990	99,790.35	38,769	10,586	89,204	55.09	1,619
1991	7,810.44	2,974	812	6,998	55.29	127
1993	173,539.95	63,863	17,438	156,102	54.96	2,840
1994	518.27	186	51	467	55.21	8
1995	0.88			1	55.47	
2001	5,375.23	1,613	440	4,935	56.00	88
2018	9,168,862.63	1,014,076	276,895	8,891,967	56.29	157,967
2019	278,446.50	26,898	7,345	271,102	56.11	4,832
	11,856,484.09	2,105,088	574,798	11,281,686		203,777

WILLIAMS BRIDGE  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2085  
NET SALVAGE PERCENT.. 0

1892	99,114.45	80,412	21,957	77,158	30.93	2,495
1902	20,137.13	15,852	4,328	15,809	33.25	475
1915	1,350.92	1,010	276	1,075	37.06	29
1916	3,362.29	2,492	680	2,682	38.06	70
1930	111.28	77	21	90	41.99	2
1942	202.61	131	36	167	45.21	4
1962	40,618.95	23,031	6,289	34,330	48.11	714
1974	16,787.48	8,476	2,314	14,473	50.01	289



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WILLIAMS BRIDGE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2085						
NET SALVAGE PERCENT.. 0						
1975	78.02	39	11	67	51.01	1
1985	1,916,629.50	835,650	228,176	1,688,454	51.74	32,633
1986	64,940.48	27,859	7,607	57,334	51.91	1,104
1988	23,272.56	9,644	2,633	20,639	52.29	395
1989	83,219.77	33,854	9,244	73,976	52.50	1,409
1990	5.17	2	1	5	52.72	
1993	1,867.84	705	193	1,675	52.75	32
2001	10,426.96	3,228	881	9,546	53.52	178
	2,282,125.41	1,042,462	284,646	1,997,479		39,830

HOLLISTER  
FULLY ACCRUED  
NET SALVAGE PERCENT.. 0

1972	1,589,982.17	1,589,982	1,589,982			
1973	3,536.78	3,537	3,537			
1976	958,017.39	958,017	958,017			
1977	25,124.94	25,125	25,125			
1978	33.29	33	33			
1993	1,202.20	1,202	1,202			
	2,577,896.77	2,577,896	2,577,897			

CHRISTOPHER CHENERY (PIKES CREEK)  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2091  
NET SALVAGE PERCENT.. 0

1910	236,315.37	179,363	29,846	206,470	36.52	5,654
1916	3,174.05	2,353	392	2,783	38.06	73
1929	74,456.00	51,464	8,564	65,892	42.89	1,536
1930	93,721.44	64,105	10,667	83,054	43.89	1,892
1933	4,694.45	3,153	525	4,170	44.99	93
1935	258.54	172	29	230	45.14	5
1964	36,327.26	19,500	3,245	33,082	52.64	628
1983	2,366.25	1,024	170	2,196	55.09	40
1984	40,978.64	17,473	2,907	38,071	55.15	690
1986	40,605.19	16,786	2,793	37,812	55.34	683

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHRISTOPHER CHENERY (PIKES CREEK)						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2091						
NET SALVAGE PERCENT.. 0						
1987	158.58	64	11	148	55.46	3
1988	5,675.53	2,268	377	5,298	55.59	95
1989	619.11	243	40	579	55.74	10
1991	1,085,419.97	409,637	68,163	1,017,257	56.09	18,136
1993	284,909.12	103,023	17,143	267,766	56.50	4,739
2001	8,126.08	2,399	399	7,727	57.30	135
	1,917,805.58	873,027	145,271	1,772,535		34,412

CRYSTAL LAKE  
INTERIM SURVIVOR CURVE.. IOWA 130-R2  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1904	5,092.51	4,128	687	4,406	28.25	156
1933	61.83	46	8	54	31.46	2
1951	79,182.32	54,493	9,068	70,115	33.53	2,091
1953	26,444.91	17,898	2,978	23,467	34.38	683
1954	114.24	77	13	101	34.26	3
1964	1,215,428.80	771,068	128,305	1,087,124	35.15	30,928
1965	1,783.96	1,124	187	1,597	35.24	45
1966	264.25	165	27	237	35.34	7
1967	3,530.07	2,191	365	3,165	35.46	89
1981	7,623.81	4,193	698	6,926	36.00	192
1982	45.13	24	4	41	36.37	1
1987	10,559.42	5,417	901	9,658	36.07	268
1989	1,797.68	893	149	1,649	36.46	45
1990	0.04		0			
1993	184.09	86	14	170	36.49	5
1994	392.40	180	30	362	36.57	10
	1,352,505.46	861,983	143,433	1,209,072		34,525

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GARDNER'S CREEK INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2085						
NET SALVAGE PERCENT.. 0						
1985	1,682,780.31	733,692	122,085	1,560,695	51.74	30,164
1986	7,810.81	3,351	558	7,253	51.91	140
2001	6,053.07	1,874	312	5,741	53.52	107
2023	2,120,687.39	78,890	13,127	2,107,560	51.76	40,718
	3,817,331.58	817,807	136,082	3,681,250		71,129
NESBITT						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2092						
NET SALVAGE PERCENT.. 0						
1900	185,903.19	146,399	24,361	161,543	33.73	4,789
1932	37,406.03	25,395	4,226	33,180	43.99	754
1934	97.08	65	11	86	44.14	2
1946	172,052.80	107,378	17,868	154,185	47.58	3,241
1980	413.30	186	31	382	55.00	7
1981	18,286.47	8,046	1,339	16,948	56.00	303
1984	111,517.46	47,094	7,836	103,681	56.09	1,848
2001	8,137.93	2,383	397	7,741	57.97	134
2012	26,922,112.06	4,899,824	815,325	26,106,787	58.43	446,805
2018	379,381.18	40,632	6,761	372,620	58.36	6,385
2019	4,641.05	434	72	4,569	58.10	79
	27,839,948.55	5,277,836	878,226	26,961,723		464,347
WATRES						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2088						
NET SALVAGE PERCENT.. 0						
1923	436,199.97	311,447	51,824	384,376	40.86	9,407
1941	3,067.89	1,984	330	2,738	45.87	60
1943	445.19	285	47	398	46.21	9
1947	12,218.40	7,624	1,269	10,950	47.00	233
1963	203.31	112	19	185	50.36	4
1976	3,892.59	1,869	311	3,582	53.04	68
1992	1,033.37	389	65	969	54.72	18

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2088						
NET SALVAGE PERCENT.. 0						
2000	31,829.26	9,947	1,655	30,174	55.00	549
2008	10,206,443.00	2,394,432	398,431	9,808,012	55.46	176,848
2013	10,331.83	1,835	305	10,026	55.57	180
	10,705,664.81	2,729,924	454,256	10,251,409		187,376
ROCK RUN DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2065						
NET SALVAGE PERCENT.. 0						
1985	396,616.99	206,241	34,318	362,299	36.92	9,813
1993	42,384.84	19,531	3,250	39,135	37.44	1,045
1996	679,077.89	297,368	49,482	629,596	37.23	16,911
2000	367,446.25	146,978	24,457	342,989	37.50	9,146
2008	12,969.21	4,035	671	12,298	37.64	327
2013	372,069.37	89,743	14,933	357,136	37.75	9,461
2014	1.00			1	37.78	
2020	40,037.56	4,724	786	39,251	37.37	1,050
2025	1,621,550.64	11,351	1,889	1,619,662	35.34	45,831
	3,532,153.75	779,971	129,786	3,402,368		93,584
CEASETOWN DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2117						
NET SALVAGE PERCENT.. 0						
2017	19,328,737.64	1,917,411	319,055	19,009,683	72.65	261,661
	19,328,737.64	1,917,411	319,055	19,009,683		261,661

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ELMHURST DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2117						
NET SALVAGE PERCENT.. 0						
2017	23,538,596.83	2,335,029	388,547	23,150,050	72.65	318,652
	23,538,596.83	2,335,029	388,547	23,150,050		318,652
DUNMORE DAME						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2105						
NET SALVAGE PERCENT.. 0						
2024	16,228,901.36	256,417	42,668	16,186,233	62.29	259,853
	16,228,901.36	256,417	42,668	16,186,233		259,853
LAKE MONTROSE DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2105						
NET SALVAGE PERCENT.. 0						
2024	3,889,821.02	61,459	10,227	3,879,594	62.29	62,283
	3,889,821.02	61,459	10,227	3,879,594		62,283
STONY GARDEN DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2105						
NET SALVAGE PERCENT.. 0						
2024	6,696,201.41	105,800	17,605	6,678,596	62.29	107,218
	6,696,201.41	105,800	17,605	6,678,596		107,218

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CURTIS DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2105						
NET SALVAGE PERCENT.. 0						
2025	13,182,635.73	55,367	9,213	13,173,423	59.27	222,261
	13,182,635.73	55,367	9,213	13,173,423		222,261
MAPLE LAKE						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2125						
NET SALVAGE PERCENT.. 0						
2025	5,540,999.79	20,502	3,412	5,537,588	67.32	82,258
	5,540,999.79	20,502	3,412	5,537,588		82,258
MARSHWOOD DAM						
INTERIM SURVIVOR CURVE.. IOWA 130-R2						
PROBABLE RETIREMENT YEAR.. 6-2125						
NET SALVAGE PERCENT.. 0						
2025	4,987,999.88	18,456	3,071	4,984,929	67.32	74,048
	4,987,999.88	18,456	3,071	4,984,929		74,048
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1964	1,882.22	1,401	233	1,649	20.97	79
1965	1,598.43	1,180	196	1,402	21.30	66
1966	0.23		0			
1967	18,961.64	13,637	2,269	16,692	22.65	737
1968	6,185.00	4,407	733	5,452	23.00	237
1971	295.54	203	34	262	24.74	11
1972	94.49	64	11	84	25.74	3
1973	1,392.23	927	154	1,238	26.12	47
1974	64.05	42	7	57	27.12	2
1975	18,893.88	12,187	2,028	16,866	27.52	613
1976	3,344.35	2,130	354	2,990	27.92	107
1977	40.20	25	4	36	28.92	1
1978	2,094.09	1,289	214	1,880	29.34	64

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1979	2,765.75	1,667	277	2,488	30.34	82
1980	6,561.47	3,898	649	5,913	30.76	192
1981	51,031.67	29,864	4,969	46,062	31.19	1,477
1982	8,033.83	4,595	765	7,269	32.19	226
1983	28,376.78	15,970	2,657	25,719	32.63	788
1984	11,152.18	6,127	1,020	10,133	33.63	301
1985	11,295.69	6,100	1,015	10,281	34.07	302
1986	72,470.71	38,156	6,349	66,122	35.07	1,885
1987	269,057.62	139,049	23,137	245,920	35.53	6,921
1988	5,637.47	2,858	476	5,162	35.99	143
1989	11,760.35	5,800	965	10,795	36.99	292
1990	7,181.12	3,468	577	6,604	37.46	176
1991	69,461.44	32,591	5,423	64,038	38.46	1,665
1992	523,414.72	240,090	39,950	483,464	38.94	12,416
1993	11,505.05	5,117	851	10,654	39.94	267
1994	622.89	270	45	578	40.43	14
1995	421,232.45	176,918	29,439	391,794	41.43	9,457
1996	25,583.31	10,461	1,741	23,843	41.92	569
1997	604,861.70	238,799	39,736	565,126	42.92	13,167
1998	8,837.17	3,388	564	8,273	43.42	191
2000	36,978.65	13,220	2,200	34,779	44.93	774
2001	109,275.10	37,503	6,240	103,035	45.93	2,243
2002	123,682.57	40,964	6,816	116,866	46.44	2,516
2003	6,092.11	1,930	321	5,771	47.44	122
2006	13,646.16	3,785	630	13,016	49.49	263
2007	23,132.88	6,079	1,012	22,121	50.49	438
2014	1,221,965.78	200,280	33,326	1,188,640	56.11	21,184
2016	7,747.39	1,046	174	7,573	57.67	131
2017	107,149.16	12,944	2,154	104,995	58.23	1,803
2019	385,308.62	35,140	5,847	379,461	59.79	6,347
2020	633,177.12	48,121	8,007	625,170	60.79	10,284
2023	1,454,623.40	45,093	7,503	1,447,120	62.52	23,147

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER COLLECTING AND IMPOUNDING RESERVOIRS						
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2024	450,000.00	7,065	1,176	448,824	62.69	7,159
2025	1,199,642.64	4,799	799	1,198,844	62.64	19,139
9999	3,575.00-	655-	109-	3,466-		66-
	7,974,536.30	1,459,992	242,940	7,731,596		147,982
	198,445,994.35	29,121,878	7,951,783	190,494,212		3,273,175
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					58.2	1.65



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2077						
NET SALVAGE PERCENT.. 0						
1966	6,696.14	5,492	4,410	2,286	12.94	177
1997	4,076,795.17	2,157,440	1,732,346	2,344,449	24.91	94,117
1998	86,320.84	44,516	35,745	50,576	25.36	1,994
2004	37,517.86	15,915	12,779	24,739	28.50	868
2005	48,578.25	19,820	15,915	32,664	29.02	1,126
	4,255,908.26	2,243,183	1,801,195	2,454,713		98,282
MILL ROAD INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2077						
NET SALVAGE PERCENT.. 0						
1997	5,185,337.03	2,744,080	2,203,397	2,981,940	24.91	119,709
1998	67,078.68	34,592	27,776	39,303	25.36	1,550
2004	51,910.47	22,020	17,681	34,229	28.50	1,201
	5,304,326.18	2,800,692	2,248,854	3,055,472		122,460
SWATARA CREEK INTAKE						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2072						
NET SALVAGE PERCENT.. 0						
1992	743,957.01	444,366	356,810	387,147	22.25	17,400
2007	52,227.42	19,836	15,928	36,300	29.39	1,235
2008	24,096.05	8,725	7,006	17,090	29.95	571
2018	210,583.17	34,788	27,934	182,650	35.37	5,164
	1,030,863.65	507,715	407,677	623,187		24,370
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1962	4,167.41	3,518	2,825	1,343	11.63	115
1970	1,783.13	1,422	1,142	641	13.97	46

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ALLEGHENY RIVER PUMP STATION						
INTERIM SURVIVOR CURVE.. IOWA 55-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1990	18,120.03	11,225	9,013	9,107	21.50	424
1995	1,697,864.04	952,502	764,825	933,039	23.48	39,738
1996	16,079.46	8,813	7,077	9,003	23.91	377
	1,738,014.07	977,480	784,881	953,133		40,700

OTHER INTAKES  
SURVIVOR CURVE.. IOWA 50-S0.5  
NET SALVAGE PERCENT.. 0

1961	140,771.62	118,924	95,492	45,280	11.76	3,850
1962	1,832.37	1,547	1,242	590	11.63	51
1963	0.27		0			
1964	10,372.02	8,605	6,910	3,463	12.53	276
1966	17,456.27	14,316	11,495	5,961	12.94	461
1967	29,123.72	23,648	18,988	10,135	13.43	755
1968	2,791.27	2,243	1,801	990	13.92	71
1969	291,057.55	233,079	187,154	103,904	13.93	7,459
1970	208.60	165	132	76	14.44	5
1972	2,103.77	1,639	1,316	788	15.03	52
1973	168,745.29	130,744	104,983	63,763	15.11	4,220
1974	617.05	472	379	238	15.67	15
1976	4,436.34	3,326	2,671	1,766	16.36	108
1979	4,179.23	3,037	2,439	1,741	17.29	101
1980	200.95	145	116	85	17.50	5
1982	0.23		0			
1983	545.35	378	304	242	18.61	13
1984	6,611.31	4,527	3,635	2,976	18.88	158
1985	658.71	445	357	301	19.17	16
1986	4,807.86	3,206	2,574	2,234	19.48	115
1987	349.10	229	184	165	19.80	8
1988	309.02	199	160	149	20.47	7
1989	27,979.96	17,728	14,235	13,745	20.82	660
1991	297,404.10	183,022	146,960	150,444	21.25	7,080
1992	12,652.16	7,641	6,135	6,517	21.64	301
1994	6,834.10	3,962	3,181	3,653	22.48	162
1996	950,961.27	529,495	425,165	525,796	23.08	22,781
1997	72,275.96	39,260	31,524	40,752	23.55	1,730
1998	4,002.82	2,129	1,710	2,293	23.76	97

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER INTAKES						
SURVIVOR CURVE.. IOWA 50-S0.5						
NET SALVAGE PERCENT.. 0						
1999	411,555.49	212,939	170,982	240,573	24.25	9,921
2000	3,120.39	1,576	1,265	1,855	24.50	76
2001	11,147.53	5,458	4,383	6,765	25.02	270
2002	107,835.37	51,340	41,224	66,611	25.31	2,632
2006	195,324.79	80,904	64,963	130,362	26.87	4,852
2007	423,321.85	168,397	135,217	288,105	27.25	10,573
2008	70,262.37	26,756	21,484	48,778	27.64	1,765
2011	34,882.42	11,379	9,137	25,745	28.92	890
2013	62,878.91	18,109	14,541	48,338	29.67	1,629
2014	6,638.26	1,774	1,424	5,214	30.15	173
2017	301,216.38	61,207	49,147	252,069	31.37	8,035
2019	144,216.82	22,671	18,204	126,013	32.17	3,917
2020	64,922.75	8,635	6,934	57,989	32.59	1,779
2021	109,660.49	11,843	9,509	100,151	33.04	3,031
2023	1,276,568.62	71,488	57,402	1,219,166	33.71	36,166
2025	1,102,264.45	7,936	6,372	1,095,892	34.23	32,016
9999	41,551.00-	13,643-	10,955-	30,596-		1,095-
	6,343,554.16	2,082,880	1,672,477	4,671,077		167,187
	18,672,666.32	8,611,950	6,915,084	11,757,582		452,999
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.0 2.43

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1918	211.51	210	180	32	0.53	32
1920	32.88	32	27	6	1.38	4
1922	1,862.28	1,822	1,564	298	2.26	132
1923	6,910.70	6,696	5,749	1,162	3.26	356
1924	6,115.00	5,929	5,091	1,024	3.17	323
1926	356.83	343	295	62	4.09	15
1927	934.01	897	770	164	4.04	41
1930	7.48	7	7			
1934	171.78	159	137	35	7.04	5
1935	1,086.97	1,008	865	222	7.09	31
1937	2,690.55	2,462	2,114	577	8.15	71
1938	213.44	195	167	46	8.24	6
1939	2,266.18	2,066	1,774	492	8.34	59
1940	66.85	60	52	15	9.34	2
1941	745.75	670	575	171	9.46	18
1945	3,939.39	3,467	2,977	962	10.91	88
1946	205.18	180	155	50	11.09	5
1948	796.14	693	595	201	11.50	17
1950	99.85	85	73	27	12.72	2
1951	563.46	480	412	151	12.96	12
1953	12,101.65	10,194	8,753	3,349	13.47	249
1954	13,824.26	11,582	9,945	3,879	13.75	282
1955	11,371.80	9,473	8,134	3,238	14.03	231
1956	1,501.00	1,243	1,067	434	14.33	30
1957	422.07	347	298	124	14.64	8
1958	2,437.40	1,992	1,710	727	14.97	49
1959	1,815.65	1,462	1,255	561	15.97	35
1960	43,540.11	34,810	29,889	13,651	16.30	837
1961	4,231.03	3,358	2,883	1,348	16.65	81
1962	2,845.77	2,259	1,940	906	16.37	55
1963	8,209.02	6,464	5,550	2,659	16.74	159
1964	2,012.88	1,572	1,350	663	17.12	39
1965	13,006.25	10,067	8,644	4,362	17.52	249
1966	118,386.62	90,803	77,965	40,422	17.92	2,256
1967	4,014.20	3,050	2,619	1,395	18.34	76
1968	6,792.15	5,110	4,388	2,404	18.76	128
1969	53,998.57	40,218	34,532	19,467	19.19	1,014
1970	4,553.41	3,356	2,882	1,671	19.63	85
1971	30,492.95	22,394	19,228	11,265	19.53	577
1972	97,489.21	70,787	60,779	36,710	19.99	1,836
1973	96,857.34	69,505	59,678	37,179	20.46	1,817

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1974	37,335.73	26,467	22,725	14,611	20.94	698
1975	8,744.97	6,165	5,293	3,452	20.92	165
1976	104,186.57	72,493	62,244	41,943	21.42	1,958
1977	20,094.39	13,793	11,843	8,251	21.93	376
1978	173,050.82	117,934	101,260	71,791	21.97	3,268
1979	64,469.51	43,298	37,176	27,294	22.49	1,214
1980	200,036.34	133,224	114,389	85,647	22.57	3,795
1981	122,242.41	80,142	68,811	53,431	23.11	2,312
1982	289,163.35	187,754	161,209	127,954	23.23	5,508
1983	165,396.84	105,589	90,661	74,736	23.79	3,141
1984	49,653.75	31,351	26,919	22,735	23.94	950
1985	66,351.80	41,138	35,322	31,030	24.52	1,265
1986	77,387.12	47,384	40,685	36,702	24.69	1,487
1987	298,823.43	180,549	155,023	143,800	24.89	5,777
1988	204,291.64	121,697	104,491	99,801	25.11	3,975
1989	64,505.11	37,619	32,300	32,205	25.73	1,252
1990	924,518.06	530,673	455,646	468,872	25.98	18,047
1991	88,718.63	50,073	42,994	45,725	26.24	1,743
1992	217,102.89	120,362	103,345	113,758	26.52	4,290
1993	78,708.89	42,818	36,764	41,945	26.82	1,564
1994	11,050.69	5,892	5,059	5,992	27.14	221
1995	25,237.57	13,174	11,311	13,927	27.47	507
1996	42,926.46	21,910	18,812	24,114	27.82	867
1997	131,135.84	65,358	56,118	75,018	28.18	2,662
1998	60,920.71	29,772	25,563	35,358	28.25	1,252
1999	39,344.10	18,720	16,073	23,271	28.64	813
2000	871,219.45	402,939	345,971	525,248	29.05	18,081
2001	235,513.97	106,264	91,240	144,274	29.19	4,943
2002	302,080.90	132,704	113,942	188,139	29.36	6,408
2003	141,846.79	60,228	51,713	90,134	29.81	3,024
2004	976,795.90	402,049	345,207	631,589	30.02	21,039
2005	2,615.05	1,041	894	1,721	30.25	57
2006	229,076.13	87,919	75,489	153,587	30.50	5,036
2007	494,961.15	182,641	156,819	338,142	30.78	10,986
2008	310,084.81	109,646	94,144	215,941	31.08	6,948
2009	9,313.14	3,144	2,699	6,614	31.39	211
2010	273,926.96	88,341	75,851	198,076	31.51	6,286
2011	335,751.48	102,471	87,984	247,767	31.87	7,774
2012	103,213.63	29,787	25,576	77,638	32.05	2,422
2013	253,438.68	68,733	59,015	194,424	32.25	6,029
2014	171,622.43	43,420	37,281	134,341	32.48	4,136

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2015	1,150,316.08	269,174	231,118	919,198	32.74	28,076
2016	97,310.54	20,844	17,897	79,414	33.02	2,405
2017	31,562.98	6,136	5,269	26,294	33.15	793
2018	119,903.08	20,815	17,872	102,031	33.32	3,062
2019	138,202.40	21,062	18,084	120,118	33.37	3,600
2020	260,775.42	33,770	28,996	231,779	33.61	6,896
2021	176,161.65	18,744	16,094	160,068	33.59	4,765
2022	1,730,729.11	141,747	121,707	1,609,022	33.63	47,845
2023	463,312.01	25,945	22,277	441,035	33.71	13,083
2024	2,130,718.96	61,791	53,055	2,077,664	33.48	62,057
2025	2,030,342.06	15,025	12,900	2,017,442	33.42	60,366
9999	307,067.27-	89,967-	77,247-	229,820-		7,455-
	16,858,304.68	4,939,269	4,240,951	12,617,354		409,292
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.8 2.43

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S0.5						
NET SALVAGE PERCENT.. 0						
1991	29,624.74	19,339	18,434	11,191	18.08	619
1992	37,859.85	24,363	23,223	14,637	18.28	801
1993	18,519.60	11,675	11,129	7,391	18.76	394
1994	87,470.29	54,232	51,695	35,775	19.00	1,883
1995	892.29	541	516	376	19.50	19
1996	6,679.92	3,971	3,785	2,895	19.78	146
1997	888,063.22	517,208	493,011	395,052	20.08	19,674
1998	17,585.78	9,971	9,505	8,081	20.62	392
1999	218,586.49	121,053	115,390	103,196	20.95	4,926
2000	85,264.13	46,043	43,889	41,375	21.30	1,942
2001	3,181.81	1,672	1,594	1,588	21.66	73
2002	211,488.89	107,986	102,934	108,555	22.05	4,923
2003	218,832.90	108,322	103,254	115,579	22.44	5,151
2004	79,086.05	38,032	36,253	42,833	22.67	1,889
2005	240,188.65	111,448	106,234	133,955	23.10	5,799
2006	342,369.24	152,868	145,716	196,653	23.55	8,350
2007	98,618.68	42,426	40,441	58,178	23.84	2,440
2008	125,030.40	51,438	49,031	75,999	24.32	3,125
2009	121,984.05	48,013	45,767	76,217	24.65	3,092
2010	92,342.71	34,629	33,009	59,334	25.00	2,373
2011	380,663.89	134,831	128,523	252,141	25.53	9,876
2012	5,941,652.42	1,985,106	1,892,233	4,049,419	25.91	156,288
2013	5,063,934.65	1,586,024	1,511,822	3,552,113	26.31	135,010
2014	595,993.77	173,732	165,604	430,390	26.74	16,095
2015	606,562.12	163,772	156,110	450,452	27.04	16,659
2016	155,954.12	38,458	36,659	119,295	27.50	4,338
2017	259,808.39	57,989	55,276	204,532	27.84	7,347
2018	962,199.51	190,612	181,694	780,506	28.34	27,541
2019	338,154.19	58,433	55,699	282,455	28.72	9,835
2020	274,628.44	40,233	38,351	236,277	29.13	8,111
2021	71,015.44	8,465	8,069	62,946	29.56	2,129
2023	7,184,941.38	445,466	424,625	6,760,316	30.26	223,408
2024	486,724.02	15,429	14,707	472,017	30.55	15,451
2025	744,361.98	5,955	5,676	738,686	30.81	23,976
9999	118,273.00-	29,169-	27,804-	90,469-		3,295-
	25,871,991.01	6,380,566	6,082,054	19,789,937		720,780

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 27.5 2.79

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.2 PUMPING EQUIPMENT - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1974	5,101.00	4,292	1,567	3,534	9.61	368
1977	10,669.00	8,706	3,179	7,490	10.82	692
1978	19,466.00	15,736	5,746	13,720	11.14	1,232
1979	2,217.00	1,774	648	1,569	11.47	137
1981	6,701.00	5,248	1,916	4,785	12.18	393
1984	1,419.00	1,076	393	1,026	13.05	79
1989	517.00	367	134	383	14.76	26
1990	7,455.00	5,218	1,905	5,550	15.00	370
1991	3,895.00	2,675	977	2,918	15.50	188
1992	7,222.00	4,886	1,784	5,438	15.78	345
1993	5,904.00	3,930	1,435	4,469	16.08	278
1995	1,239.00	795	290	949	16.73	57
1996	13,105.00	8,247	3,011	10,094	17.08	591
1997	16,692.00	10,282	3,754	12,938	17.45	741
1998	15,203.00	9,195	3,357	11,846	17.64	672
2000	1,885.00	1,089	398	1,487	18.29	81
2001	5,337.36	3,010	1,099	4,238	18.55	228
2002	22,701.88	12,427	4,537	18,165	19.02	955
2003	479,719.73	256,458	93,641	386,079	19.15	20,161
2004	83,004.13	43,054	15,720	67,284	19.49	3,452
2005	239,380.84	120,169	43,877	195,504	19.84	9,854
2006	1,924,073.80	935,869	341,714	1,582,360	20.06	78,881
2007	48,088.57	22,505	8,217	39,872	20.46	1,949
2008	196,294.60	88,431	32,289	164,006	20.74	7,908
2009	21,274.46	9,191	3,356	17,918	21.04	852
2010	48,727.39	20,173	7,366	41,361	21.23	1,948
2011	101,261.13	39,836	14,545	86,716	21.59	4,016
2012	797,172.34	297,425	108,599	688,573	21.84	31,528
2013	286,327.26	101,016	36,884	249,443	22.01	11,333
2014	3,738,404.06	1,233,673	450,451	3,287,953	22.33	147,244
2015	375,402.26	115,248	42,081	333,321	22.57	14,768
2016	479,581.04	135,530	49,486	430,095	22.85	18,823
2017	148,878.38	38,351	14,003	134,875	23.06	5,849
2018	1,507,043.12	349,182	127,497	1,379,546	23.21	59,438
2019	786,050.73	160,354	58,550	727,501	23.41	31,077
2020	2,042,635.14	357,461	130,520	1,912,115	23.57	81,125
2021	1,369,116.58	197,700	72,186	1,296,931	23.70	54,723
2023	7,710,442.21	595,246	217,342	7,493,100	23.91	313,388



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.2 PUMPING EQUIPMENT - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
2024	3,499,580.71	141,033	51,496	3,448,085	23.81	144,817
2025	17,019,592.94	177,004	64,630	16,954,963	23.79	712,693
9999	1,964,196.05-	252,495-	92,194-	1,872,002-		80,453-
	41,084,584.61	5,281,367	1,928,386	39,156,199		1,682,807
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.3 4.10

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.5 PUMPING EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1972	183.00	156	18	165	9.11	18
1988	352.00	253	30	322	14.55	22
1990	171.00	120	14	157	15.00	10
1998	1,537.00	930	109	1,428	17.64	81
1999	3,900.00	2,302	269	3,631	18.05	201
2004	26,425.00	13,707	1,604	24,821	19.49	1,274
2007	523.49	245	29	494	20.46	24
2010	42,801.97	17,720	2,074	40,728	21.23	1,918
2011	87,690.57	34,497	4,037	83,654	21.59	3,875
2012	1,400.39	522	61	1,339	21.84	61
2013	494,171.91	174,344	20,405	473,767	22.01	21,525
2014	6,259.19	2,066	242	6,017	22.33	269
2016	8,878.46	2,509	294	8,584	22.85	376
2017	3,405.78	877	103	3,303	23.06	143
2018	5,643.17	1,308	153	5,490	23.21	237
2019	645,714.64	131,726	15,417	630,298	23.41	26,924
2020	2,433,564.16	425,874	49,843	2,383,721	23.57	101,134
2021	2,358,264.69	340,533	39,855	2,318,410	23.70	97,823
2022	4,929,380.00	551,598	64,557	4,864,823	23.81	204,318
2023	3,475,717.59	268,325	31,404	3,444,314	23.91	144,053
2024	3,905,362.31	157,386	18,419	3,886,943	23.81	163,248
2025	2,425,864.64	25,229	2,953	2,422,912	23.79	101,846
	20,857,210.96	2,152,227	251,890	20,605,321		869,380

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.7 4.17

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.52 PUMPING EQUIPMENT - SOURCE OF SUPPLY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1995	418.45	269	244	174	16.73	10
1997	234.53	144	131	104	17.45	6
2007	323,270.08	151,290	137,136	186,134	20.46	9,097
2008	136,117.27	61,321	55,584	80,533	20.74	3,883
2009	105,375.04	45,522	41,263	64,112	21.04	3,047
2010	675,975.27	279,854	253,673	422,302	21.23	19,892
2011	731,330.15	287,705	260,790	470,540	21.59	21,794
2012	228,208.41	85,145	77,180	151,028	21.84	6,915
2013	1,313,491.14	463,400	420,048	893,443	22.01	40,593
2014	1,598,537.47	527,517	478,167	1,120,370	22.33	50,173
2015	1,400,457.07	429,940	389,718	1,010,739	22.57	44,782
2016	1,708,322.35	482,772	437,608	1,270,714	22.85	55,611
2017	2,110,336.21	543,623	492,766	1,617,570	23.06	70,146
2018	1,022,515.03	236,917	214,752	807,763	23.21	34,802
2019	344,455.58	70,269	63,695	280,761	23.41	11,993
2020	118,864.55	20,801	18,855	100,010	23.57	4,243
2021	268,054.92	38,707	35,086	232,969	23.70	9,830
2023	854,607.38	65,976	59,804	794,803	23.91	33,241
	12,940,570.90	3,791,172	3,436,500	9,504,071		420,058
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.6 3.25

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1910	137.73	138	138			
1917	133.00	133	133			
1919	8,727.40	8,727	8,727			
1928	134.45	134	134			
1929	274.09	274	274			
1930	10.36	10	10			
1931	3,609.84	3,610	3,610			
1937	1,084.39	1,084	1,084			
1939	195.67	196	196			
1941	233.57	234	234			
1942	901.65	902	902			
1944	22.40	22	22			
1945	737.81	738	738			
1946	36.51	37	37			
1947	175.93	176	176			
1948	1,721.87	1,710	1,577	145	0.52	145
1950	257.14	253	233	24	1.34	18
1951	14,946.31	14,710	13,562	1,384	1.19	1,163
1952	33,222.64	32,498	29,963	3,260	1.63	2,000
1953	14,955.45	14,537	13,403	1,552	2.07	750
1954	9,834.27	9,496	8,755	1,079	2.53	426
1955	2,307.03	2,212	2,039	268	2.99	90
1956	984.21	937	864	120	3.46	35
1957	15,384.02	14,646	13,503	1,881	3.43	548
1958	3,367.41	3,181	2,933	434	3.92	111
1959	30,581.95	28,661	26,425	4,157	4.42	940
1960	74,885.02	70,092	64,624	10,261	4.44	2,311
1961	172,778.06	160,338	147,830	24,948	4.97	5,020
1962	3,846.01	3,538	3,262	584	5.49	106
1963	22,013.95	20,200	18,624	3,390	5.57	609
1964	33,235.44	30,208	27,851	5,384	6.11	881
1965	199,630.46	179,667	165,651	33,979	6.67	5,094
1966	11,660.13	10,457	9,641	2,019	6.79	297
1967	28,880.66	25,629	23,630	5,251	7.36	713
1968	95,521.75	84,393	77,809	17,713	7.52	2,355
1969	336,092.73	295,493	272,441	63,652	7.69	8,277
1970	5,567.23	4,838	4,461	1,106	8.29	133
1971	51,979.05	44,910	41,407	10,572	8.50	1,244
1972	425,080.09	362,721	334,425	90,655	9.11	9,951
1973	5,713,935.55	4,843,132	4,465,313	1,248,623	9.35	133,543
1974	22,852.56	19,230	17,730	5,123	9.61	533

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1975	113,415.69	94,702	87,314	26,102	9.88	2,642
1976	72,968.72	60,425	55,711	17,258	10.17	1,697
1977	19,388.63	15,821	14,587	4,802	10.82	444
1978	9,787.72	7,912	7,295	2,493	11.14	224
1979	178,767.53	143,086	131,924	46,844	11.47	4,084
1980	150,308.57	119,044	109,757	40,552	11.82	3,431
1981	506,732.79	396,873	365,912	140,821	12.18	11,562
1982	700,388.66	545,112	502,587	197,802	12.25	16,147
1983	235,697.27	181,157	167,025	68,672	12.64	5,433
1984	314,495.98	238,545	219,936	94,560	13.05	7,246
1985	648,586.85	485,143	447,296	201,291	13.48	14,933
1986	416,712.98	308,784	284,695	132,018	13.63	9,686
1987	694,620.55	506,795	467,259	227,362	14.08	16,148
1988	305,870.14	219,554	202,426	103,444	14.55	7,110
1989	629,840.15	446,683	411,837	218,003	14.76	14,770
1990	4,404,508.55	3,083,156	2,842,635	1,561,874	15.00	104,125
1991	1,021,788.90	701,765	647,019	374,770	15.50	24,179
1992	1,175,752.15	795,396	733,346	442,406	15.78	28,036
1993	1,214,390.97	808,299	745,243	469,148	16.08	29,176
1994	343,463.55	224,660	207,134	136,330	16.39	8,318
1995	3,162,140.70	2,030,094	1,871,724	1,290,417	16.73	77,132
1996	1,081,569.17	680,631	627,534	454,035	17.08	26,583
1997	3,450,086.82	2,125,253	1,959,459	1,490,628	17.45	85,423
1998	1,058,295.76	640,057	590,125	468,171	17.64	26,540
1999	3,220,158.30	1,900,537	1,752,274	1,467,884	18.05	81,323
2000	2,461,862.16	1,421,725	1,310,815	1,151,047	18.29	62,933
2001	2,419,398.53	1,364,541	1,258,091	1,161,308	18.55	62,604
2002	1,318,397.32	721,691	665,391	653,006	19.02	34,333
2003	2,250,239.06	1,202,978	1,109,132	1,141,107	19.15	59,588
2004	383,907.57	199,133	183,598	200,310	19.49	10,278
2005	99,429.78	49,914	46,020	53,410	19.84	2,692
2006	248,585.93	120,912	111,480	137,106	20.06	6,835
2007	1,515,671.60	709,334	653,998	861,674	20.46	42,115
2008	334,620.09	150,746	138,986	195,634	20.74	9,433
2009	188,991.93	81,645	75,276	113,716	21.04	5,405
2010	241,344.53	99,917	92,122	149,223	21.23	7,029
2011	413,172.02	162,542	149,862	263,310	21.59	12,196
2012	466,418.48	174,021	160,446	305,972	21.84	14,010
2013	226,704.84	79,981	73,742	152,963	22.01	6,950
2014	142,593.48	47,056	43,385	99,208	22.33	4,443
2015	387,479.97	118,956	109,676	277,804	22.57	12,309

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
2016	301,993.38	85,343	78,685	223,308	22.85	9,773
2017	66,657.04	17,171	15,831	50,826	23.06	2,204
2018	902,376.61	209,081	192,771	709,606	23.21	30,573
2019	112,378.15	22,925	21,137	91,241	23.41	3,898
2020	117,333.16	20,533	18,931	98,402	23.57	4,175
2021	477,892.13	69,008	63,624	414,268	23.70	17,480
2022	117,663.33	13,167	12,140	105,523	23.81	4,432
2023	187,006.36	14,437	13,311	173,695	23.91	7,265
	47,853,790.34	30,210,343	27,854,875	19,998,915		1,216,638
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.4 2.54

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 311.54 PUMPING EQUIPMENT - TRANSMISSION AND DISTRIBUTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-S0						
NET SALVAGE PERCENT.. 0						
1999	50,052.68	29,541	27,542	22,511	18.05	1,247
2000	490,971.15	283,536	264,352	226,619	18.29	12,390
2001	36,531.40	20,604	19,210	17,321	18.55	934
2002	538,352.70	294,694	274,755	263,598	19.02	13,859
2003	72,336.08	38,671	36,055	36,281	19.15	1,895
2004	292,005.04	151,463	141,215	150,790	19.49	7,737
2005	16,038.24	8,051	7,506	8,532	19.84	430
2006	189,538.24	92,191	85,953	103,585	20.06	5,164
2007	1,122,692.14	525,420	489,870	632,822	20.46	30,930
2008	693,194.93	312,284	291,155	402,040	20.74	19,385
2009	1,320,313.42	570,375	531,784	788,529	21.04	37,478
2010	294,909.64	122,093	113,832	181,078	21.23	8,529
2011	162,273.18	63,838	59,519	102,754	21.59	4,759
2012	147,718.84	55,114	51,385	96,334	21.84	4,411
2013	258,192.41	91,090	84,927	173,265	22.01	7,872
2015	107,975.32	33,148	30,905	77,070	22.57	3,415
2016	297,660.73	84,119	78,427	219,234	22.85	9,594
2017	157,968.28	40,693	37,940	120,028	23.06	5,205
2018	177,536.81	41,135	38,352	139,185	23.21	5,997
2019	27,912.06	5,694	5,309	22,603	23.41	966
2021	3,000.02	433	404	2,596	23.70	110
2022	250,727.13	28,056	26,157	224,570	23.81	9,432
	6,707,900.44	2,892,243	2,696,554	4,011,346		191,739

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.9 2.86

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW HERSHEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2067						
NET SALVAGE PERCENT.. 0						
1992	4,605,057.01	2,872,174	2,682,386	1,922,671	19.91	96,568
1993	236.04	144	134	102	20.36	5
1994	5,203.89	3,130	2,923	2,281	20.55	111
1995	830.13	488	456	374	21.02	18
1996	1,183.76	683	638	546	21.25	26
1998	5,798.79	3,194	2,983	2,816	22.02	128
2001	17,726.99	9,019	8,423	9,304	23.17	402
2008	30,628.68	12,184	11,379	19,250	25.74	748
2009	156,208.55	59,484	55,553	100,655	26.02	3,868
2012	3,190,991.80	1,028,776	960,796	2,230,195	27.32	81,632
2013	143,928.90	43,524	40,648	103,281	27.68	3,731
2014	144,316.86	40,640	37,955	106,362	28.06	3,791
2021	1,294,711.77	146,561	136,877	1,157,835	31.34	36,944
	9,596,823.17	4,220,001	3,941,151	5,655,672		227,972

BANGOR TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2064  
NET SALVAGE PERCENT.. 0

1989	2,860,588.15	1,884,555	1,760,027	1,100,561	18.64	59,043
1990	10,623.39	6,879	6,424	4,199	19.05	220
1994	8,028.91	4,853	4,532	3,497	20.28	172
2000	691.60	365	341	351	22.39	16
2007	6,598.67	2,779	2,595	4,003	24.74	162
2008	51,019.15	20,642	19,278	31,741	25.02	1,269
2009	13,787.45	5,316	4,965	8,823	25.49	346
2010	29,160.31	10,716	10,008	19,152	25.82	742
2012	25,731.93	8,463	7,904	17,828	26.53	672
2013	10,033.12	3,094	2,890	7,144	26.91	265
2014	10,972.92	3,150	2,942	8,031	27.31	294
	3,027,235.60	1,950,812	1,821,906	1,205,330		63,201



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
MOSHANNON VALLEY						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
1988	2,378,740.29	1,742,665	1,627,513	751,227	13.51	55,605
1990	6,544.83	4,696	4,386	2,159	13.78	157
1993	8,633.92	5,995	5,599	3,035	14.08	216
1994	35,338.97	24,211	22,611	12,728	14.25	893
1995	21,272.50	14,423	13,470	7,803	14.25	548
2011	15,381.16	7,171	6,697	8,684	16.03	542
	2,465,911.67	1,799,161	1,680,276	785,636		57,961
NORRISTOWN PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2057						
NET SALVAGE PERCENT.. 0						
1997	2,183,940.01	1,271,927	1,187,880	996,060	20.08	49,605
1998	48,570.53	27,671	25,843	22,728	20.39	1,115
1999	240,701.03	134,552	125,661	115,040	20.51	5,609
2000	101,268.00	55,191	51,544	49,724	20.87	2,383
2001	327,308.36	174,390	162,867	164,442	21.05	7,812
2023	4,595,785.73	310,675	290,146	4,305,640	27.59	156,058
2025	999,985.12	8,800	8,219	991,767	28.16	35,219
	8,497,558.78	1,983,206	1,852,159	6,645,400		257,801
NORRISTOWN PLANT NO. 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
1982	316.42	235	219	97	14.80	7
1990	59,105.20	40,339	37,673	21,432	16.28	1,316
1995	1,320,282.91	839,700	784,214	536,069	17.17	31,221
1999	3,573,772.17	2,118,532	1,978,543	1,595,229	17.86	89,319
2004	9,652.67	5,108	4,770	4,882	18.68	261
2006	18,839.86	9,414	8,792	10,048	19.02	528
2010	35,600.00	15,379	14,363	21,237	19.72	1,077
2011	9,238.54	3,816	3,564	5,675	19.90	285
2012	111,639.37	43,830	40,934	70,706	20.11	3,516
2013	126,470.76	46,895	43,796	82,675	20.36	4,061

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NORRISTOWN PLANT NO. 2						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2049						
NET SALVAGE PERCENT.. 0						
2014	92,686.99	32,320	30,184	62,503	20.55	3,042
2018	33,127.07	8,209	7,667	25,461	21.25	1,198
2019	110.86	24	22	88	21.40	4
2021	3,397,278.49	527,258	492,418	2,904,861	21.77	133,434
	8,788,121.31	3,691,059	3,447,160	5,340,961		269,269
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1969	592,011.90	484,029	452,045	139,967	12.49	11,206
1970	0.18		0			
1971	85.00	68	64	21	13.11	2
1972	77.00	62	58	19	13.23	1
1973	159.00	126	118	41	13.79	3
1977	915.82	699	653	263	14.89	18
1982	1,483.91	1,072	1,001	483	16.52	29
1984	2,142.27	1,511	1,411	731	17.14	43
1985	5,679.13	3,975	3,712	1,967	17.14	115
1986	274.00	189	177	97	17.50	6
1989	1,399.32	927	866	534	18.35	29
1990	675,240.20	439,581	410,534	264,706	18.76	14,110
1991	1,328,257.42	849,022	792,920	535,337	19.19	27,897
1992	142.08	90	84	58	19.36	3
1994	3,438.13	2,089	1,951	1,487	20.02	74
1995	41,956.14	25,048	23,393	18,563	20.25	917
2000	21,291.43	11,391	10,638	10,653	21.73	490
2001	8,729.22	4,546	4,246	4,484	22.08	203
2004	27,520.99	13,119	12,252	15,269	23.05	662
2007	0.06		0			
2008	38,004.78	15,635	14,602	23,403	24.32	962
2009	43,188.45	16,999	15,876	27,313	24.65	1,108
2011	1,847,904.99	659,702	616,110	1,231,795	25.22	48,842
2012	4,021.14	1,354	1,265	2,757	25.61	108

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SILVER SPRINGS FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2013	246,296.50	77,731	72,595	173,702	26.02	6,676
2014	12,654.23	3,730	3,484	9,171	26.31	349
2021	4,157,197.84	505,515	472,111	3,685,086	28.89	127,556
	9,060,071.13	3,118,210	2,912,164	6,147,907		241,409
ONEIDA VALLEY TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. 0						
1972	812,923.54	659,200	615,641	197,282	12.36	15,961
1973	4,215.87	3,398	3,173	1,042	12.52	83
1974	84.31	68	64	21	12.69	2
1982	1,397,906.11	1,051,924	982,415	415,492	14.14	29,384
1983	985.80	737	688	297	14.18	21
1984	1,092.20	806	753	339	14.56	23
1985	1,762.52	1,290	1,205	558	14.64	38
1986	158,342.13	114,861	107,271	51,071	14.76	3,460
1987	5,291.21	3,800	3,549	1,742	14.91	117
1990	9,016.06	6,248	5,835	3,181	15.51	205
1994	11,504.67	7,561	7,061	4,443	16.17	275
1996	206,838.17	131,963	123,243	83,595	16.45	5,082
1997	211,238.37	132,489	123,734	87,504	16.64	5,259
1998	143,526.80	88,743	82,879	60,648	16.67	3,638
2006	3,287.36	1,693	1,581	1,706	17.90	95
2007	4,241.17	2,115	1,975	2,266	18.10	125
2008	44,084.18	21,209	19,808	24,277	18.34	1,324
2009	3,924.36	1,821	1,701	2,224	18.48	120
2012	12.52	5	5	8	18.85	
2013	55,551.77	21,465	20,047	35,505	19.06	1,863
2014	2,179.04	793	741	1,438	19.21	75
	3,078,008.16	2,252,189	2,103,368	974,640		67,150

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
TWO LICK CREEK TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2037						
NET SALVAGE PERCENT.. 0						
1906	1,384.00	1,384	1,384			
1909	3,521.00	3,521	3,521			
1910	203.00	203	203			
1924	1,765.00	1,765	1,765			
1927	135.95	136	136			
1928	129.00	128	120	9	1.04	9
1935	11.26	11	11			
1958	29.15	26	24	5	7.63	1
1963	1,322.35	1,172	1,094	228	7.93	29
1965	229,382.77	200,939	187,627	41,756	8.49	4,918
1966	70.40	61	57	13	8.57	2
1967	2.12	2	2			
1969	304,266.24	264,103	246,607	57,660	8.52	6,768
1972	0.36		0			
1973	0.55			1	8.98	
1977	0.27		0			
1982	1,210,091.45	988,645	923,149	286,942	9.63	29,797
1983	68,041.39	55,154	51,500	16,541	9.81	1,686
1987	17,693.12	13,985	13,059	4,635	10.08	460
1988	20,150.57	15,881	14,829	5,322	9.95	535
1989	76,072.02	59,427	55,490	20,582	10.08	2,042
1990	7,021.40	5,431	5,071	1,950	10.25	190
1992	11,166.13	8,512	7,948	3,218	10.29	313
1994	1,181,000.53	882,325	823,873	357,128	10.49	34,045
1996	5,063.26	3,715	3,469	1,594	10.53	151
1997	1,346.73	977	912	434	10.61	41
2000	1,658.35	1,161	1,084	574	10.71	54
2008	8,355.53	5,043	4,709	3,647	11.17	326
2009	44,551.46	26,232	24,494	20,057	11.17	1,796
2013	396,506.56	203,646	190,155	206,352	11.36	18,165
2014	57.46	28	26	31	11.42	3
	3,590,999.38	2,743,613	2,562,320	1,028,679		101,331

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEW CASTLE FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2060						
NET SALVAGE PERCENT.. 0						
2012	301.57	102	95	206	25.31	8
2013	9,677.38	3,089	2,885	6,792	25.59	265
2014	238,533.24	71,107	66,408	172,125	25.90	6,646
2023	5,750,843.24	368,054	343,734	5,407,110	29.25	184,858
2024	11,325,848.33	369,223	344,825	10,981,023	29.67	370,105
2025	4,996,649.02	41,472	38,732	4,957,917	29.96	165,485
	22,321,852.78	853,047	796,679	21,525,174		727,367

E.H. ALDRICH STATION  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2041  
NET SALVAGE PERCENT.. 0

1961	65,606.51	57,524	53,723	11,884	8.99	1,322
1962	4,435.82	3,884	3,627	808	8.94	90
1963	403.51	350	327	77	9.43	8
1964	832.83	721	673	159	9.42	17
1966	208.73	179	167	42	9.97	4
1969	424,020.94	358,552	334,860	89,161	10.23	8,716
1970	3,600.49	3,030	2,830	771	10.36	74
1972	6,229.13	5,183	4,841	1,389	10.69	130
1975	14,408.33	11,815	11,034	3,374	10.98	307
1976	4,930.16	4,010	3,745	1,185	11.24	105
1979	5,449.17	4,362	4,074	1,375	11.47	120
1980	1,287.66	1,026	958	329	11.50	29
1981	8,028.21	6,358	5,938	2,090	11.56	181
1982	279,937.54	219,079	204,603	75,335	11.95	6,304
1983	45,908.25	35,671	33,314	12,594	12.05	1,045
1984	1,253.72	972	908	346	11.91	29
1986	1,742.11	1,325	1,237	505	12.28	41
1987	735.37	556	519	216	12.25	18
1988	1,832.57	1,370	1,279	553	12.50	44
1989	954.29	708	661	293	12.54	23
1990	11,746.58	8,634	8,063	3,683	12.62	292
1991	41,265.01	30,024	28,040	13,225	12.73	1,039
1992	970.03	698	652	318	12.87	25
1993	6,934,651.95	4,948,568	4,621,575	2,313,077	12.84	180,146
1994	16,405.51	11,545	10,782	5,623	13.05	431

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
E.H. ALDRICH STATION						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2041						
NET SALVAGE PERCENT.. 0						
1995	1,127,547.25	784,773	732,917	394,631	13.10	30,125
1996	132,634.13	91,159	85,135	47,499	13.19	3,601
1997	2,156,360.03	1,461,150	1,364,600	791,760	13.32	59,441
2000	60,852.83	39,402	36,798	24,054	13.61	1,767
2001	331,596.01	211,691	197,703	133,893	13.59	9,852
2006	13,864.40	7,955	7,429	6,435	14.11	456
2007	28,428.45	15,914	14,862	13,566	14.15	959
2012	4,118,076.59	1,937,967	1,809,910	2,308,167	14.62	157,877
2013	2,058,061.73	923,658	862,624	1,195,437	14.74	81,102
2014	190,158.24	81,160	75,797	114,361	14.77	7,743
2017	143,475.96	49,815	46,523	96,953	15.04	6,446
2018	139,123.52	44,019	41,110	98,013	15.12	6,482
2019	271,899.35	77,002	71,914	199,986	15.19	13,166
2025	2,523,929.05	39,626	37,008	2,486,921	15.65	158,909
	21,172,851.96	11,481,435	10,722,762	10,450,090		738,466

HAYS MINE STATION TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1957	1.93	2	2			
1958	901.16	791	739	162	9.34	17
1959	102.28	90	84	18	9.19	2
1962	143.73	124	116	28	9.99	3
1963	389.35	333	311	78	10.46	7
1967	153.79	128	120	34	11.44	3
1968	2,631.38	2,190	2,045	586	11.49	51
1969	710.54	585	546	164	12.03	14
1971	280.67	229	214	67	12.23	5
1972	2,272.78	1,831	1,710	563	12.79	44
1975	146,388.29	115,647	108,005	38,383	13.29	2,888
1976	18,520.19	14,520	13,561	4,960	13.50	367
1978	0.03		0			
1979	0.07		0			
1980	833.19	630	588	245	14.52	17
1981	357.61	267	249	108	14.82	7
1982	50.40	37	35	16	14.80	1

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
HAYS MINE STATION TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1983	18,840.14	13,848	12,933	5,907	15.14	390
1985	68,113.65	49,042	45,801	22,312	15.56	1,434
1986	198.63	142	133	66	15.64	4
1987	1,075.46	760	710	366	15.76	23
1989	586,385.70	403,199	376,556	209,829	16.36	12,826
1990	7,996,264.72	5,429,464	5,070,695	2,925,570	16.55	176,772
1991	3,520,183.43	2,357,819	2,202,018	1,318,165	16.76	78,649
1993	8,200.33	5,353	4,999	3,201	17.02	188
1994	5,421.33	3,479	3,249	2,172	17.31	125
1995	6,235.18	3,947	3,686	2,549	17.39	147
1996	4,200.01	2,607	2,435	1,765	17.73	100
1997	71,783.45	43,817	40,922	30,862	17.87	1,727
1998	7,323.12	4,389	4,099	3,224	18.05	179
2001	238,913.98	134,747	125,843	113,071	18.55	6,095
2006	38,443.72	18,918	17,668	20,776	19.61	1,059
2008	65,712.44	30,274	28,274	37,439	19.90	1,881
2009	766.45	340	318	449	20.10	22
2010	29,326.64	12,449	11,626	17,700	20.34	870
2012	11,310,167.56	4,366,856	4,078,302	7,231,866	20.67	349,873
2013	25,553.54	9,322	8,706	16,848	20.89	807
2014	91,355.65	31,253	29,188	62,168	21.15	2,939
2017	197,433.24	53,228	49,711	147,722	21.67	6,817
2018	193,994.43	46,985	43,880	150,114	21.90	6,855
2023	6,716,630.69	538,674	503,079	6,213,551	22.94	270,861
2025	3,036,104.08	32,183	30,056	3,006,048	23.33	128,849
	34,412,364.96	13,730,499	12,823,212	21,589,153		1,052,918

SUSQUEHANNA FILTER PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2070  
NET SALVAGE PERCENT.. 0

1920	2.00	2	2			
1927	119.00	119	119			
1929	5,945.58	5,879	5,490	455	1.09	417
1931	5,319.00	5,250	4,903	416	1.24	335
1947	278.00	258	241	37	6.03	6
1954	493.00	445	416	77	7.74	10

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SUSQUEHANNA FILTER PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2070						
NET SALVAGE PERCENT.. 0						
1956	179.54	160	149	30	8.52	4
1957	631.36	558	521	110	8.92	12
1963	842.00	720	672	170	10.46	16
1973	26,394.70	20,862	19,483	6,911	13.79	501
1979	391.74	292	273	119	15.73	8
1982	7,848.56	5,670	5,295	2,553	16.52	155
1984	1,071.66	751	701	370	17.48	21
1985	34,553.31	23,911	22,331	12,222	17.80	687
1986	19,163.69	13,079	12,215	6,949	18.14	383
1990	8,393.40	5,405	5,048	3,346	19.35	173
1995	1,937,167.63	1,133,243	1,058,353	878,814	21.28	41,298
1998	37.76	21	20	18	22.26	1
2008	12,798.62	5,048	4,714	8,084	26.10	310
2009	27,067.43	10,177	9,504	17,563	26.55	662
2010	27,009.76	9,642	9,005	18,005	27.02	666
2011	5,393.93	1,820	1,700	3,694	27.49	134
2012	68,345.06	21,768	20,329	48,016	27.82	1,726
2014	10,788.07	2,979	2,782	8,006	28.84	278
	2,200,234.80	1,268,059	1,184,268	1,015,967		47,803

YARDLEY - MILL ROAD TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2057  
NET SALVAGE PERCENT.. 0

1997	4,036,898.44	2,351,090	2,195,734	1,841,165	20.08	91,691
1998	636,566.96	362,652	338,689	297,878	20.39	14,609
1999	22,865.33	12,782	11,937	10,928	20.51	533
2001	3,473.57	1,851	1,729	1,745	21.05	83
2007	40,599.49	17,904	16,721	23,879	22.82	1,046
2008	19,404.61	8,247	7,702	11,703	23.00	509
2010	38,695.00	15,033	14,040	24,655	23.61	1,044
2012	12,166.56	4,255	3,974	8,193	24.17	339
2013	106,076.97	34,878	32,573	73,504	24.50	3,000
2014	22,389.82	6,896	6,440	15,949	24.71	645
2021	2,288,196.39	296,550	276,954	2,011,242	26.86	74,879
	7,227,333.14	3,112,138	2,906,493	4,320,840		188,378



PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SCRANTON WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
1990	6,068,557.86	4,120,551	3,848,272	2,220,286	16.55	134,156
1991	10,808.16	7,239	6,761	4,048	16.76	242
1992	63.36	42	39	24	17.00	1
1993	1,858.78	1,213	1,133	726	17.02	43
1994	2,129.12	1,366	1,276	853	17.31	49
1995	42,181.67	26,701	24,937	17,245	17.39	992
1998	71.71	43	40	32	18.05	2
1999	13,304.56	7,818	7,301	6,003	18.25	329
2000	35,457.33	20,388	19,041	16,417	18.48	888
2001	1,233.88	696	650	584	18.55	31
2003	779.79	419	391	388	18.98	20
2004	1,532.72	801	748	785	19.16	41
2007	36,939.80	17,620	16,456	20,484	19.74	1,038
2008	184,433.05	84,968	79,353	105,080	19.90	5,280
2009	133,091.40	58,986	55,088	78,003	20.10	3,881
2010	32,619.58	13,847	12,932	19,688	20.34	968
2012	31,903.15	12,318	11,504	20,399	20.67	987
2013	528.32	193	180	348	20.89	17
2014	77,664.18	26,569	24,813	52,851	21.15	2,499
2017	19,208.64	5,179	4,837	14,372	21.67	663
	6,694,367.06	4,406,957	4,115,753	2,578,614		152,127

BROWNELL WTP  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1990	2,297,805.71	1,560,210	1,457,114	840,691	16.55	50,797
1991	121,464.63	81,357	75,981	45,484	16.76	2,714
1992	1,960.79	1,294	1,208	752	17.00	44
1993	35.91	23	21	14	17.02	1
1995	601.31	381	356	245	17.39	14
1999	5.76	3	3	3	18.25	
2000	2,758.46	1,586	1,481	1,277	18.48	69
2001	375.44	212	198	177	18.55	10
2006	8,629.98	4,247	3,966	4,664	19.61	238
2007	58.48	28	26	32	19.74	2

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWNELL WTP						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2050						
NET SALVAGE PERCENT.. 0						
2009	16,915.26	7,497	7,002	9,914	20.10	493
2010	7,308.81	3,103	2,898	4,411	20.34	217
2012	119,943.23	46,310	43,250	76,693	20.67	3,710
2013	41,899.64	15,285	14,275	27,625	20.89	1,322
2014	19,329.32	6,613	6,176	13,153	21.15	622
2019	1,090.61	233	218	873	22.09	40
	2,640,183.34	1,728,382	1,614,174	1,026,009		60,293

CHINCHILLA WTP  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2050  
NET SALVAGE PERCENT.. 0

1893	14,836.59	14,837	14,837			
1907	187.12	187	187			
1910	1,427.96	1,428	1,428			
1921	42,429.29	42,429	42,429			
1990	1,459,927.15	991,291	922,421	537,506	16.55	32,478
1991	125,225.99	83,876	78,049	47,177	16.76	2,815
1992	1,469.28	970	903	567	17.00	33
1993	650.89	425	395	255	17.02	15
1994	2,419.58	1,553	1,445	974	17.31	56
1995	10,944.29	6,928	6,447	4,498	17.39	259
1997	674.81	412	383	291	17.87	16
1998	244.82	147	137	108	18.05	6
1999	163.20	96	89	74	18.25	4
2001	18,845.86	10,629	9,891	8,955	18.55	483
2005	80,991.72	41,144	38,286	42,706	19.37	2,205
2008	16,964.75	7,816	7,273	9,692	19.90	487
	1,777,403.30	1,204,168	1,124,599	652,804		38,857

PENNSYLVANIA-AMERICAN WATER COMPANY  
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ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NESBITT WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2048						
NET SALVAGE PERCENT.. 0						
1988	3,047,363.02	2,153,571	2,011,267	1,036,096	15.36	67,454
1989	20,213.19	14,117	13,184	7,029	15.55	452
1990	4,961.45	3,421	3,195	1,767	15.76	112
1991	16,130.80	10,969	10,244	5,887	16.00	368
1992	1,148.36	769	718	430	16.26	26
1993	6,916.77	4,582	4,279	2,638	16.31	162
1994	1,753.58	1,142	1,067	687	16.62	41
1995	17,326.81	11,124	10,389	6,938	16.73	415
1997	1,057.68	657	614	444	17.05	26
1998	3,562.34	2,174	2,030	1,532	17.25	89
1999	52,859.37	31,747	29,649	23,210	17.29	1,342
2000	14,759.96	8,671	8,098	6,662	17.55	380
2001	577.08	332	310	267	17.67	15
2007	20,878.82	10,260	9,582	11,297	18.63	606
2008	8,002.36	3,796	3,545	4,457	18.84	237
2009	39,060.79	17,874	16,693	22,368	18.97	1,179
2010	14,986.30	6,564	6,130	8,856	19.25	460
2012	81,800.26	32,646	30,489	51,311	19.57	2,622
2013	32,118.74	12,141	11,339	20,780	19.75	1,052
2014	28,769.10	10,253	9,575	19,194	19.86	966
2016	562,914.51	173,265	161,816	401,099	20.24	19,817
2018	85,920.60	21,832	20,389	65,531	20.55	3,189
	4,063,081.89	2,531,907	2,364,603	1,698,479		101,010

CRYSTAL LAKE WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2052  
NET SALVAGE PERCENT.. 0

1992	4,751,108.26	3,104,374	2,899,242	1,851,866	17.51	105,760
1993	54,356.78	34,962	32,652	21,705	17.75	1,223
1995	32,030.36	19,987	18,666	13,364	18.08	739
1997	3,078.16	1,853	1,731	1,348	18.51	73
1998	3,543.58	2,086	1,948	1,595	18.87	85
2000	3,463.67	1,957	1,828	1,636	19.25	85
2001	1,211.20	669	625	586	19.48	30
2007	5,025.88	2,334	2,180	2,846	20.76	137
2008	8,813.12	3,955	3,694	5,119	20.88	245

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRYSTAL LAKE WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2052 NET SALVAGE PERCENT.. 0						
2009	33,412.18	14,381	13,431	19,981	21.17	944
2010	3,395.99	1,401	1,308	2,088	21.36	98
2012	39,565.46	14,762	13,787	25,779	21.84	1,180
2013	53,719.47	18,952	17,700	36,020	22.01	1,637
2014	49,390.50	16,353	15,272	34,118	22.22	1,535
2019	2,864.92	584	545	2,320	23.41	99
	5,044,979.53	3,238,610	3,024,608	2,020,372		113,870
CEASETOWN WATER TREATMENT PLANT INTERIM SURVIVOR CURVE.. IOWA 50-S1 PROBABLE RETIREMENT YEAR.. 6-2053 NET SALVAGE PERCENT.. 0						
1993	7,988,456.15	5,112,612	4,774,780	3,213,676	18.00	178,538
1994	44,194.91	27,812	25,974	18,221	18.26	998
1995	116,941.50	72,270	67,495	49,447	18.54	2,667
1997	111,789.69	66,671	62,266	49,524	18.95	2,613
1998	3,366.88	1,973	1,843	1,524	19.08	80
1999	532.85	305	285	248	19.45	13
2000	9,264.78	5,188	4,845	4,420	19.64	225
2001	43,265.97	23,675	22,111	21,155	19.86	1,065
2006	0.33		0			
2007	9,549.60	4,383	4,093	5,456	21.22	257
2008	2,264.03	1,001	935	1,329	21.46	62
2009	26,199.97	11,151	10,414	15,786	21.59	731
2010	165,181.88	67,146	62,709	102,473	21.90	4,679
2012	34,593.21	12,727	11,886	22,707	22.34	1,016
2013	128,885.26	44,697	41,743	87,142	22.60	3,856
2014	37,093.23	12,078	11,280	25,813	22.78	1,133
2019	8,081.58	1,615	1,508	6,573	24.03	274
	8,729,661.82	5,465,304	5,104,167	3,625,495		198,207

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WATRES WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2053						
NET SALVAGE PERCENT.. 0						
1993	8,769,938.43	5,612,761	5,241,880	3,528,058	18.00	196,003
1994	463,999.38	291,995	272,701	191,299	18.26	10,476
1995	152,290.96	94,116	87,897	64,394	18.54	3,473
1996	1,500.56	914	854	647	18.62	35
1998	91.08	53	49	42	19.08	2
2000	2,132.55	1,194	1,115	1,017	19.64	52
2001	3,188.33	1,745	1,630	1,559	19.86	78
2003	1,537.06	801	748	789	20.19	39
2008	38,154.92	16,864	15,750	22,405	21.46	1,044
2009	16,416.46	6,987	6,525	9,891	21.59	458
2010	6,304.52	2,563	2,394	3,911	21.90	179
2012	36,404.23	13,393	12,508	23,896	22.34	1,070
2013	70,933.95	24,600	22,974	47,959	22.60	2,122
2014	19,921.37	6,486	6,057	13,864	22.78	609
	9,582,813.80	6,074,472	5,673,082	3,909,732		215,640

HUNTSVILLE WATER TREATMENT PLANT  
INTERIM SURVIVOR CURVE.. IOWA 50-S1  
PROBABLE RETIREMENT YEAR.. 6-2075  
NET SALVAGE PERCENT.. 0

1999	5,824,071.00	3,089,087	2,884,966	2,939,105	23.02	127,676
2001	40,700.36	20,415	19,066	21,634	23.85	907
2007	10,162.55	4,134	3,861	6,302	26.25	240
2008	6,430.94	2,493	2,328	4,103	26.86	153
2009	20,153.37	7,449	6,957	13,197	27.29	484
2010	6,227.91	2,186	2,042	4,186	27.74	151
2012	14,664.07	4,575	4,273	10,391	28.67	362
2013	49,081.55	14,312	13,366	35,715	29.15	1,225
2014	41,390.35	11,200	10,460	30,930	29.65	1,043
	6,012,882.10	3,155,851	2,947,318	3,065,564		132,241

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WEST SHORE REGIONAL TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2081						
NET SALVAGE PERCENT.. 0						
1995	40,740.27	23,711	22,144	18,596	21.55	863
2006	5,492,101.10	2,306,133	2,153,748	3,338,353	26.25	127,175
2008	14,881.08	5,717	5,339	9,542	27.25	350
2009	10,105.34	3,703	3,458	6,647	27.67	240
2011	20,843.84	6,828	6,377	14,467	28.74	503
2012	159,124.19	49,026	45,786	113,338	29.19	3,883
2013	12,202.19	3,514	3,282	8,920	29.67	301
2014	523,557.86	139,371	130,162	393,396	30.32	12,975
2021	1,065,817.06	110,845	103,521	962,296	34.46	27,925
	7,339,372.93	2,648,848	2,473,817	4,865,556		174,215
MCMURRAY/SAXONBURG						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1992	45,446.78	28,645	26,752	18,695	19.36	966
2011	3,266,953.16	1,166,302	1,089,235	2,177,718	25.22	86,349
2012	3,336.82	1,124	1,050	2,287	25.61	89
2018	2,859,613.70	576,498	538,404	2,321,210	27.72	83,738
	6,175,350.46	1,772,569	1,655,441	4,519,909		171,142
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
1992	83,844.40	52,847	49,355	34,489	19.36	1,781
2011	4,500,958.20	1,606,842	1,500,665	3,000,293	25.22	118,965
2012	14,226.50	4,790	4,473	9,753	25.61	381
2013	30,099.87	9,500	8,872	21,228	26.02	816
2014	32,609.09	9,613	8,978	23,631	26.31	898
2017	8,626.95	1,953	1,824	6,803	27.34	249

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ROCK RUN FILTRATION PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2061						
NET SALVAGE PERCENT.. 0						
2019	144,547.37	25,411	23,732	120,815	28.13	4,295
2023	1,246,425.00	78,525	73,336	1,173,089	29.75	39,432
2025	2,000,000.00	16,200	15,130	1,984,870	30.52	65,035
	8,061,337.38	1,805,681	1,686,365	6,374,972		231,852
ELLWOOD TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	38,365,682.82	6,848,274	6,395,751	31,969,931	32.22	992,239
2019	840,408.61	130,095	121,499	718,910	32.76	21,945
	39,206,091.43	6,978,369	6,517,250	32,688,841		1,014,184
MONTROSE TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2078						
NET SALVAGE PERCENT.. 0						
2018	4,704,312.56	839,720	784,233	3,920,079	32.22	121,666
2019	12,721.29	1,969	1,839	10,882	32.76	332
2023	2,170,110.56	116,318	108,632	2,061,479	35.31	58,382
	6,887,144.41	958,007	894,704	5,992,440		180,380
STEELTON WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2043						
NET SALVAGE PERCENT.. 0						
2023	1,443,761.07	149,862	139,959	1,303,802	17.27	75,495
	1,443,761.07	149,862	139,959	1,303,802		75,495

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BUTLER WATER TREATMENT PLANT						
INTERIM SURVIVOR CURVE.. IOWA 50-S1						
PROBABLE RETIREMENT YEAR.. 6-2082						
NET SALVAGE PERCENT.. 0						
2023	3,683,107.12	193,731	180,930	3,502,177	36.02	97,229
2024	4,451,484.43	117,964	110,169	4,341,315	36.74	118,163
	8,134,591.55	311,695	291,099	7,843,493		215,392
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1983	4,598.17	3,283	3,066	1,532	16.82	91
1984	6,970.48	4,887	4,564	2,406	17.48	138
1985	108,771.54	74,835	69,890	38,882	18.14	2,143
1986	154,227.74	104,057	97,181	57,047	18.80	3,034
1987	16,473.83	10,955	10,231	6,243	19.14	326
1988	63,901.34	41,613	38,863	25,038	19.82	1,263
1989	349,221.76	222,524	207,820	141,402	20.50	6,898
1990	231,603.63	144,289	134,755	96,849	21.18	4,573
1991	75,963.09	46,231	43,176	32,787	21.87	1,499
1992	4,330.58	2,572	2,402	1,929	22.56	86
1993	2,784.69	1,613	1,506	1,278	23.25	55
1994	621,264.86	350,518	327,356	293,908	23.95	12,272
1995	64,247.28	35,272	32,941	31,306	24.64	1,271
1996	391,740.79	209,033	195,220	196,520	25.35	7,752
1997	138,477.91	71,732	66,992	71,486	26.05	2,744
1998	931.76	468	437	495	26.76	18
1999	20.60	10	9	11	27.48	
2000	1,957.86	920	859	1,099	28.19	39
2001	647.58	294	275	373	28.91	13
2002	706,624.21	308,795	288,390	418,234	29.63	14,115
2003	161,355.80	67,802	63,322	98,034	30.36	3,229
2004	29,459.51	11,878	11,093	18,366	31.08	591
2005	38,405.49	14,825	13,845	24,560	31.81	772
2006	724,982.38	267,229	249,571	475,411	32.55	14,606
2007	332,980.36	116,876	109,153	223,827	33.28	6,726
2008	263,668.60	87,854	82,049	181,620	34.02	5,339
2009	330,844.66	104,282	97,391	233,453	34.76	6,716
2010	1,753.96	521	487	1,267	35.51	36
2011	102,816.57	28,501	26,618	76,199	36.51	2,087
2012	1,238,112.54	320,300	299,135	938,977	37.25	25,207



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER LARGE STRUCTURES						
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
2013	844,581.32	202,700	189,306	655,275	38.00	17,244
2014	270,709.11	59,854	55,899	214,810	38.75	5,543
2016	161,550.58	29,515	27,565	133,986	40.26	3,328
2017	231,859.08	37,839	35,339	196,520	41.02	4,791
2018	1,122,318.55	160,267	149,677	972,642	42.02	23,147
2019	1,936,557.05	238,197	222,457	1,714,100	42.78	40,068
2020	684,150.79	70,468	65,812	618,339	43.54	14,202
2021	1,723,408.48	142,698	133,269	1,590,140	44.31	35,887
2023	1,006,919.92	42,291	39,496	967,423	45.62	21,206
2024	3,920,556.97	83,508	77,990	3,842,567	45.95	83,625
2025	3,144,672.80	16,981	15,859	3,128,814	46.05	67,944
9999	69,357.27-	12,221-	11,413-	57,944-		1,440-
	21,147,066.95	3,726,066	3,479,854	17,667,213		439,184
	278,379,455.86	98,360,177	91,860,711	186,518,744		7,555,115
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.7 2.71

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.18 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1982	50,562.15	50,562	50,562			
1997	52,683.58	52,684	52,684			
	103,245.73	103,246	103,246			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.19 PURIFICATION SYSTEM - LARGE STRUCTURES PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1983	72,520.43	72,520	72,520			
1984	121,617.90	121,618	121,618			
1985	126,432.86	126,433	126,433			
1986	103,281.57	103,282	103,282			
1987	104,997.90	104,998	104,998			
1988	44,292.18	44,292	44,292			
1989	6,520.49	6,520	6,520			
1991	1,937.55	1,938	1,938			
1994	36.73	37	37			
1996	174,603.42	174,603	174,603			
1997	243,625.95	243,626	243,626			
1998	175,497.41	175,497	175,497			
1999	471,219.17	471,219	471,219			
2004	475,875.22	475,875	475,875			
2005	604,791.57	604,792	604,792			
2007	198,308.24	198,308	198,308			
2008	114,399.73	114,400	114,400			
2015	11,632.92	11,633	11,633			
2021	616,354.70	246,542	168,530	447,825	6.00	74,638
	3,667,945.94	3,298,133	3,220,121	447,825		74,638
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.0 2.03

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-R0.5						
NET SALVAGE PERCENT.. 0						
1968	58,309.00	49,189	35,816	22,493	10.57	2,128
1973	1,136.00	916	667	469	12.52	37
1978	515.00	395	288	227	14.35	16
1979	1,133.00	860	626	507	14.61	35
1980	1,409.00	1,059	771	638	14.88	43
1981	327.00	243	177	150	15.17	10
1985	311,748.52	219,471	159,801	151,948	16.82	9,034
1986	1,164,999.72	808,743	588,862	576,138	17.18	33,535
1987	462,622.46	316,434	230,402	232,220	17.56	13,224
1988	76,885.37	51,775	37,698	39,187	17.95	2,183
1989	841,151.31	557,179	405,694	435,457	18.35	23,731
1990	332,454.04	217,591	158,433	174,021	18.48	9,417
1991	553,781.09	355,860	259,109	294,672	18.91	15,583
1992	3,446,655.12	2,172,427	1,581,789	1,864,866	19.36	96,326
1993	81,414.69	50,282	36,611	44,804	19.81	2,262
1994	614,146.29	373,155	271,702	342,444	20.02	17,105
1995	3,911,796.03	2,323,607	1,691,866	2,219,930	20.51	108,236
1996	1,853,856.81	1,080,613	786,817	1,067,040	20.75	51,424
1997	2,878,539.71	1,644,222	1,197,192	1,681,348	21.02	79,988
1998	1,809,959.36	1,006,699	732,998	1,076,961	21.54	49,998
1999	6,345,087.50	3,447,921	2,510,503	3,834,584	21.85	175,496
2000	67,414.12	35,729	26,015	41,399	22.17	1,867
2001	2,204,570.39	1,137,558	828,279	1,376,291	22.51	61,141
2002	70,218.45	35,208	25,636	44,582	22.87	1,949
2003	1,786,843.81	872,695	635,427	1,151,417	23.05	49,953
2004	1,819,655.41	859,787	626,029	1,193,626	23.44	50,923
2005	2,002,545.93	917,166	667,808	1,334,738	23.67	56,389
2006	526,670.33	233,157	169,766	356,904	23.92	14,921
2007	2,035,443.29	868,320	632,242	1,403,201	24.19	58,007
2008	1,415,369.46	579,877	422,220	993,149	24.49	40,553
2009	191,577.13	75,405	54,904	136,673	24.65	5,545
2010	509,054.15	191,659	139,551	369,503	24.84	14,875
2011	1,146,748.26	410,995	299,254	847,494	25.06	33,819
2012	1,136,860.27	387,215	281,939	854,921	25.17	33,966
2013	339,784.34	109,275	79,565	260,219	25.31	10,281
2014	495,703.91	149,950	109,182	386,522	25.36	15,241
2015	3,806,143.49	1,077,139	784,287	3,021,856	25.34	119,252
2016	5,334,413.96	1,397,083	1,017,245	4,317,169	25.36	170,235
2017	2,475,679.43	596,144	434,065	2,041,614	25.22	80,952
2018	378,846.52	82,475	60,052	318,795	25.15	12,676
2019	3,405,429.28	662,015	482,027	2,923,402	24.86	117,595

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-R0.5						
NET SALVAGE PERCENT.. 0						
2020	7,393,497.77	1,253,198	912,479	6,481,019	24.50	264,531
2021	9,708,401.08	1,390,243	1,012,265	8,696,136	23.93	363,399
2022	16,469,878.90	1,892,389	1,377,887	15,091,992	23.11	653,050
2023	17,410,670.86	1,455,532	1,059,803	16,350,868	21.92	745,934
2024	15,547,771.83	752,512	547,920	14,999,852	19.66	762,963
2025	37,356,227.61	545,401	397,118	36,959,110	16.82	2,197,331
9999	42,367.00-	8,656-	6,303-	36,064-		1,757-
	159,740,980.00	32,638,112	23,764,484	135,976,496		6,625,402
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.5 4.15

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.29 PURIFICATION SYSTEM - CHEMICAL TREATMENT PAINT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY ACCRUED						
NET SALVAGE PERCENT.. 0						
1985	8,167.87	8,168	8,168			
	8,167.87	8,168	8,168			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.3 GRANULAR ACTIVATED CARBON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 11-L0.5						
NET SALVAGE PERCENT.. 0						
1992	587.90	559	588			
1994	2,896.64	2,721	2,877	20	2.00	10
1995	20,908.20	19,570	20,692	216	2.05	105
1996	17,685.21	16,463	17,407	278	2.15	129
1998	22,991.90	21,169	22,383	609	2.33	261
1999	8,431.15	7,716	8,159	272	2.41	113
2000	276,838.38	251,231	265,639	11,199	2.55	4,392
2001	569,241.97	512,318	541,700	27,542	2.67	10,315
2002	243,905.13	217,661	230,144	13,761	2.77	4,968
2003	36,237.68	31,969	33,802	2,436	2.94	829
2007	126,746.15	106,087	112,171	14,575	3.51	4,152
2008	21,400.84	17,609	18,619	2,782	3.66	760
2009	276,204.26	222,731	235,505	40,699	3.84	10,599
2010	240,605.20	189,838	200,725	39,880	4.01	9,945
2011	729,803.42	561,949	594,177	135,626	4.18	32,446
2012	384,414.78	288,350	304,887	79,528	4.33	18,367
2013	1,283,707.69	931,972	985,421	298,287	4.53	65,847
2014	625,768.38	438,476	463,623	162,145	4.70	34,499
2015	41,591.21	27,949	29,552	12,039	4.88	2,467
2016	106,939.75	68,527	72,457	34,483	5.04	6,842
2017	436,302.23	264,225	279,379	156,923	5.21	30,120
2018	1,467,472.65	831,030	878,690	588,783	5.36	109,848
2019	1,317,000.07	687,474	726,901	590,099	5.49	107,486
2020	638,980.41	300,640	317,882	321,098	5.63	57,033
2021	755,179.12	309,019	326,742	428,437	5.78	74,124
2022	2,647,016.04	889,397	940,405	1,706,611	5.93	287,793
2023	708,307.90	175,660	185,734	522,574	6.06	86,233
2024	841,555.53	118,659	125,464	716,092	6.09	117,585
2025	522,010.79	20,776	21,968	500,043	6.03	82,926
	14,370,730.58	7,531,745	7,963,693	6,407,038		1,160,194

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.5 8.07

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R3						
NET SALVAGE PERCENT.. 0						
1991	5,386,080.62	4,797,921	5,270,819	115,262	4.17	27,641
1997	554,507.65	450,260	494,639	59,869	6.48	9,239
1999	1,543,930.31	1,200,251	1,318,552	225,378	7.44	30,293
2000	740,153.90	560,667	615,928	124,226	8.00	15,528
2002	3,054.48	2,185	2,400	654	9.15	71
2003	248,537.71	172,237	189,213	59,325	9.75	6,085
2004	52,652.08	35,272	38,749	13,903	10.35	1,343
2005	13,662.87	8,826	9,696	3,967	10.96	362
2013	14,903.89	6,278	6,897	8,007	16.49	486
2014	581,757.71	226,536	248,864	332,894	17.25	19,298
2015	1,021,552.10	364,694	400,639	620,913	18.01	34,476
2016	3,690,373.58	1,195,681	1,313,531	2,376,843	18.78	126,562
2017	16,426.52	4,770	5,240	11,187	19.55	572
2023	782,414.32	59,620	65,496	716,918	24.25	29,564
2024	3,350,000.00	129,310	142,056	3,207,944	24.91	128,781
2025	1,048,862.03	10,279	11,292	1,037,570	25.20	41,173
	19,048,869.77	9,224,787	10,134,011	8,914,859		471,474
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.9 2.48



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1929	1,096.36	979	962	134	11.53	12
1931	3,482.91	3,110	3,056	427	11.26	38
1933	47.02	42	41	6	12.17	
1935	223.36	195	192	31	13.09	2
1938	5,549.30	4,780	4,697	852	14.01	61
1940	13,136.81	11,278	11,082	2,055	14.01	147
1941	7,036.25	5,970	5,866	1,170	15.01	78
1943	55.91	47	46	10	15.09	1
1949	18,409.84	14,971	14,710	3,700	17.46	212
1950	10,051.26	8,142	8,000	2,051	17.59	117
1951	76,096.87	61,380	60,312	15,785	17.74	890
1952	952.91	765	752	201	17.91	11
1953	695,264.87	555,656	545,987	149,278	18.09	8,252
1954	156,667.71	123,470	121,322	35,346	19.09	1,852
1955	53,934.62	42,285	41,549	12,386	19.29	642
1956	44,605.87	34,779	34,174	10,432	19.50	535
1957	77,668.18	60,208	59,160	18,508	19.72	939
1958	70,312.18	54,176	53,233	17,079	19.96	856
1959	154,235.49	118,083	116,028	38,207	20.21	1,890
1960	22,761.47	17,310	17,009	5,752	20.47	281
1961	372,818.92	281,553	276,654	96,165	20.75	4,634
1962	174,146.75	129,461	127,208	46,939	21.75	2,158
1963	14,149.93	10,440	10,258	3,892	22.03	177
1964	42,649.09	31,219	30,676	11,973	22.33	536
1965	52,969.60	38,456	37,787	15,183	22.64	671
1966	370,529.85	266,707	262,066	108,464	22.97	4,722
1967	760,395.76	542,466	533,027	227,369	23.30	9,758
1968	266,565.29	188,408	185,130	81,435	23.65	3,443
1969	79,659.93	55,762	54,792	24,868	24.00	1,036
1970	66,110.41	46,178	45,374	20,736	23.74	873
1971	356,872.59	246,670	242,378	114,495	24.12	4,747
1972	164,504.48	112,472	110,515	53,989	24.52	2,202
1973	3,358,901.26	2,270,617	2,231,108	1,127,793	24.92	45,257
1974	661,607.33	442,020	434,329	227,278	25.34	8,969
1975	371,967.27	245,498	241,226	130,741	25.76	5,075
1976	384,243.50	250,411	246,054	138,190	26.19	5,276
1977	197,410.90	126,975	124,766	72,645	26.63	2,728
1978	428,438.88	273,858	269,093	159,346	26.53	6,006
1979	291,869.92	183,936	180,735	111,135	26.99	4,118
1980	1,033.31	642	631	402	27.46	15
1981	52,552.93	32,141	31,582	20,971	27.94	751

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1982	1,014,291.22	610,603	599,978	414,313	28.43	14,573
1983	1,340,585.40	799,525	785,613	554,972	28.42	19,528
1984	31,223.74	18,306	17,987	13,237	28.93	458
1985	1,680,311.91	967,860	951,019	729,293	29.44	24,772
1986	1,725,386.13	982,435	965,340	760,046	29.49	25,773
1987	232,997.26	130,152	127,887	105,110	30.03	3,500
1988	3,002,056.00	1,643,926	1,615,321	1,386,735	30.57	45,363
1989	4,956,679.96	2,676,607	2,630,033	2,326,647	30.67	75,861
1990	5,954,731.25	3,147,075	3,092,315	2,862,416	31.23	91,656
1991	656,690.55	341,610	335,666	321,025	31.36	10,237
1992	1,280,592.51	650,797	639,473	641,120	31.94	20,073
1993	7,454,573.65	3,721,323	3,656,571	3,798,003	32.10	118,318
1994	1,978,146.64	962,764	946,012	1,032,135	32.69	31,573
1995	1,548,158.60	738,472	725,622	822,537	32.89	25,009
1996	3,270,192.86	1,517,369	1,490,966	1,779,227	33.50	53,111
1997	2,230,949.22	1,011,959	994,351	1,236,598	33.73	36,662
1998	1,191,140.03	527,437	518,259	672,881	33.98	19,802
1999	4,998,972.15	2,144,559	2,107,243	2,891,729	34.61	83,552
2000	3,622,751.22	1,512,499	1,486,181	2,136,570	34.88	61,255
2001	4,941,673.18	2,004,343	1,969,467	2,972,206	35.17	84,510
2002	2,237,572.24	874,891	859,668	1,377,904	35.82	38,467
2003	2,370,999.42	897,186	881,575	1,489,424	36.14	41,213
2004	1,904,185.06	695,789	683,682	1,220,503	36.47	33,466
2005	3,770,723.63	1,327,295	1,304,200	2,466,524	36.82	66,989
2006	2,841,468.37	960,985	944,264	1,897,204	37.18	51,028
2007	1,514,737.58	490,775	482,235	1,032,503	37.56	27,489
2008	233,273.19	72,175	70,919	162,354	37.95	4,278
2009	24,550.88	7,228	7,102	17,449	38.35	455
2010	788,910.07	220,106	216,276	572,634	38.76	14,774
2011	256,747.12	67,576	66,400	190,347	39.19	4,857
2012	222,122.43	54,864	53,909	168,213	39.63	4,245
2013	4,233,060.05	975,297	958,327	3,274,733	40.08	81,705
2014	6,021,853.53	1,285,064	1,262,704	4,759,150	40.55	117,365
2015	374,150.17	73,333	72,057	302,093	41.02	7,365
2016	8,352,606.94	1,495,952	1,469,922	6,882,685	41.25	166,853
2017	5,236,391.73	842,012	827,361	4,409,031	41.75	105,606
2018	3,538,127.91	502,768	494,020	3,044,108	42.26	72,033
2019	3,408,488.61	421,289	413,958	2,994,531	42.54	70,393
2020	2,140,686.47	223,702	219,810	1,920,876	42.85	44,828
2021	2,320,024.41	195,810	192,403	2,127,621	43.39	49,035
2022	3,445,902.14	221,227	217,377	3,228,525	43.73	73,829

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2023	7,948,214.82	344,953	338,951	7,609,264	44.08	172,624
2024	6,494,581.58	143,530	141,032	6,353,550	44.25	143,583
2025	19,239,236.39	107,740	105,866	19,133,370	44.39	431,029
9999	3,309,408.10-	991,323-	974,074-	2,335,334-		60,978-
	148,602,297.21	44,513,361	43,738,815	104,863,482		2,738,085
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					38.3	1.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.1 ELEVATED TANKS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
1992	189,738.86	96,425	91,774	97,965	31.94	3,067
1994	0.01					
2007	112,587.14	36,478	34,719	77,868	37.56	2,073
2008	452,291.74	139,939	133,189	319,103	37.95	8,409
2009	610,424.47	179,709	171,041	439,383	38.35	11,457
2010	1,113,481.79	310,661	295,677	817,805	38.76	21,099
2011	1.21			1	39.19	
2012	70,427.57	17,396	16,557	53,871	39.63	1,359
2013	7,305,295.40	1,683,140	1,601,957	5,703,338	40.08	142,299
2014	402,306.06	85,852	81,711	320,595	40.55	7,906
2015	75,692.00	14,836	14,120	61,572	41.02	1,501
2017	22,485.50	3,616	3,442	19,044	41.75	456
2018	41,920.13	5,957	5,670	36,250	42.26	858
2019	3,889.76	481	458	3,432	42.54	81
2021	3,744,315.33	316,020	300,777	3,443,538	43.39	79,362
2024	10,427,575.40	230,449	219,334	10,208,241	44.25	230,695
	24,572,432.37	3,120,959	2,970,426	21,602,006		510,622
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.3 2.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.2 GROUND LEVEL FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2007	697,456.92	225,976	181,691	515,766	37.56	13,732
2008	36,106.35	11,171	8,982	27,124	37.95	715
2009	20,943.90	6,166	4,958	15,986	38.35	417
2010	12,681.91	3,538	2,845	9,837	38.76	254
2011	253,273.91	66,662	53,598	199,676	39.19	5,095
2012	1,887,852.66	466,300	374,918	1,512,935	39.63	38,177
2013	4,991,972.34	1,150,150	924,752	4,067,220	40.08	101,478
2014	4,022,161.01	858,329	690,120	3,332,041	40.55	82,171
2015	138,124.29	27,072	21,767	116,357	41.02	2,837
2016	1,655,575.61	296,514	238,405	1,417,171	41.25	34,356
2017	148,132.48	23,820	19,152	128,980	41.75	3,089
2018	113,557.83	16,137	12,975	100,583	42.26	2,380
2019	33,122.12	4,094	3,292	29,830	42.54	701
2021	3,711,782.17	313,274	251,880	3,459,902	43.39	79,740
2023	2,190,666.17	95,075	76,443	2,114,223	44.08	47,963
	19,913,409.67	3,564,278	2,865,778	17,047,632		413,105
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.3 2.07

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.3 BELOW GRADE FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2007	173,959.09	56,363	55,704	118,255	37.56	3,148
2010	31,397.64	8,760	8,657	22,741	38.76	587
2011	100,934.51	26,566	26,255	74,680	39.19	1,906
2014	280,555.88	59,871	59,171	221,385	40.55	5,460
2016	231,860.11	41,526	41,040	190,820	41.25	4,626
	818,707.23	193,086	190,827	627,880		15,727
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.9 1.92

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.4 CLEARWELL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
NET SALVAGE PERCENT.. 0						
2012	12,768,982.03	3,153,939	3,111,464	9,657,518	39.63	243,692
2018	32,063.64	4,556	4,495	27,569	42.26	652
2019	5,254.37	649	640	4,614	42.54	108
	12,806,300.04	3,159,144	3,116,599	9,689,701		244,452
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.6 1.91

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.58 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1959	427.00	427	427			
1961	3,005.00	3,005	3,005			
1962	646.00	646	646			
1963	501.00	501	501			
1984	69,262.85	69,263	69,263			
1990	105,687.39	105,687	105,687			
1997	138,050.00	138,050	138,050			
2002	764,914.30	764,914	764,914			
2003	135,772.35	135,772	135,772			
2004	456,940.96	456,941	456,941			
2007	263,798.12	263,798	263,798			
2015	272,106.38	272,106	272,106			
2021	92,812.80	37,125	33,040	59,773	6.00	9,962
	2,303,924.15	2,248,235	2,244,150	59,774		9,962
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.0 0.43



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 330.59 DISTRIBUTION RESERVOIRS AND STANDPIPES - PAINTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2001	568,001.02	568,001	568,001			
2004	736,540.63	736,541	736,541			
2005	2,772,132.56	2,772,133	2,772,133			
2006	1,898,932.85	1,898,933	1,898,933			
2007	1,611,757.81	1,611,758	1,611,758			
2008	1,742,652.76	1,742,653	1,742,653			
2009	387,058.80	387,059	387,059			
2010	7,332.39	7,332	7,332			
2011	1,233,227.05	1,233,227	1,233,227			
2012	3,394,359.12	3,394,359	3,394,359			
2013	1,350,299.88	1,350,300	1,350,300			
2014	772,333.61	772,334	772,334			
2015	3,817,936.25	3,817,936	3,817,936			
2016	800,361.02	720,325	661,199	139,162	1.00	139,162
2017	602,080.95	481,665	442,128	159,953	2.00	79,976
2018	2,787,180.26	1,951,026	1,790,880	996,300	3.00	332,100
2019	1,065,127.17	639,076	586,619	478,508	4.00	119,627
2020	3,609,228.96	1,804,614	1,656,486	1,952,743	5.00	390,549
2021	4,311,190.90	1,724,476	1,582,926	2,728,265	6.00	454,711
2022	4,651,769.10	1,395,531	1,280,981	3,370,788	7.00	481,541
2023	3,410,000.00	682,000	626,019	2,783,981	8.00	347,998
2024	7,510,000.34	751,000	689,356	6,820,644	9.00	757,849
2025	4,546,495.20	113,662	104,332	4,442,163	9.75	455,606
	53,585,998.63	30,555,941	29,713,492	23,872,507		3,559,119
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.7 6.64

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1947	29,517.43	21,642	11,110	18,407	28.38	649
1948	67,933.88	49,694	25,511	42,423	28.26	1,501
1949	40,626.80	29,333	15,058	25,569	29.26	874
1950	78,548.93	56,555	29,033	49,516	29.17	1,697
1951	207,263.22	147,240	75,586	131,677	30.17	4,365
1952	212,974.47	150,807	77,417	135,557	30.09	4,505
1953	594,084.12	414,908	212,994	381,090	31.09	12,258
1954	830,900.37	578,140	296,789	534,111	31.04	17,207
1955	1,916,260.20	1,314,554	674,829	1,241,431	32.04	38,746
1956	1,093,539.90	746,997	383,473	710,067	32.01	22,183
1957	1,645,504.57	1,107,754	568,668	1,076,837	33.01	32,622
1958	1,516,468.53	1,016,034	521,583	994,886	33.00	30,148
1959	1,719,236.61	1,134,696	582,499	1,136,738	34.00	33,433
1960	2,148,136.20	1,410,251	723,955	1,424,181	34.01	41,875
1961	2,932,208.54	1,895,380	972,997	1,959,212	35.01	55,961
1962	1,126,437.33	723,849	371,589	754,848	35.04	21,542
1963	1,603,440.92	1,014,016	520,547	1,082,894	36.04	30,047
1964	3,912,172.65	2,458,018	1,261,829	2,650,344	36.09	73,437
1965	3,831,545.13	2,367,895	1,215,564	2,615,981	37.09	70,531
1966	3,931,596.35	2,412,428	1,238,425	2,693,171	37.15	72,495
1967	4,759,662.12	2,871,028	1,473,848	3,285,814	38.15	86,129
1968	4,791,349.43	2,867,623	1,472,100	3,319,249	38.24	86,800
1969	4,448,378.68	2,615,647	1,342,748	3,105,631	39.24	79,145
1970	3,276,726.73	1,910,332	980,673	2,296,054	39.34	58,364
1971	4,642,881.20	2,657,585	1,364,277	3,278,604	40.34	81,274
1972	7,385,560.93	4,188,352	2,150,100	5,235,461	40.46	129,398
1973	7,451,205.49	4,145,851	2,128,282	5,322,923	41.46	128,387
1974	4,491,506.46	2,473,922	1,269,993	3,221,513	41.59	77,459
1975	5,351,757.90	2,916,708	1,497,298	3,854,460	41.74	92,345
1976	8,813,407.27	4,707,241	2,416,472	6,396,935	42.74	149,671
1977	5,650,240.76	2,983,327	1,531,497	4,118,744	42.91	95,986
1978	9,118,980.83	4,714,513	2,420,205	6,698,776	43.91	152,557
1979	8,130,716.67	4,151,544	2,131,204	5,999,513	44.09	136,074
1980	11,632,262.28	5,810,315	2,982,738	8,649,524	45.09	191,828
1981	7,826,695.24	3,856,995	1,979,997	5,846,698	45.29	129,095
1982	5,717,307.92	2,753,455	1,413,492	4,303,816	46.29	92,975
1983	9,333,697.65	4,429,773	2,274,034	7,059,664	46.50	151,821
1984	14,004,458.34	6,488,266	3,330,765	10,673,693	47.50	224,709
1985	17,716,274.72	8,078,621	4,147,178	13,569,097	47.72	284,348
1986	23,873,102.06	10,707,086	5,496,506	18,376,596	47.96	383,165
1987	25,409,610.93	11,104,000	5,700,263	19,709,348	48.96	402,560

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
1988	33,659,859.71	14,446,812	7,416,302	26,243,558	49.21	533,297
1989	32,000,977.62	13,363,608	6,860,237	25,140,741	50.21	500,712
1990	32,616,990.56	13,356,658	6,856,669	25,760,322	50.47	510,409
1991	21,029,754.79	8,437,138	4,331,223	16,698,532	50.75	329,035
1992	24,829,995.60	9,668,800	4,963,499	19,866,497	51.75	383,894
1993	35,738,939.92	13,609,388	6,986,409	28,752,531	52.03	552,614
1994	39,295,937.55	14,496,271	7,441,692	31,854,246	53.03	600,683
1995	47,355,738.80	17,048,066	8,751,662	38,604,077	53.33	723,872
1996	39,675,281.16	13,922,056	7,146,918	32,528,363	53.64	606,420
1997	35,265,079.26	11,947,809	6,133,434	29,131,645	54.64	533,156
1998	87,757,205.21	28,907,223	14,839,586	72,917,619	54.97	1,326,498
1999	54,017,072.22	17,274,660	8,867,984	45,149,088	55.30	816,439
2000	56,376,547.29	17,335,788	8,899,364	47,477,183	56.30	843,289
2001	63,177,700.05	18,801,684	9,651,885	53,525,815	56.65	944,851
2002	64,557,630.17	18,560,319	9,527,980	55,029,650	57.00	965,432
2003	23,952,279.77	6,639,572	3,408,439	20,543,841	57.37	358,094
2004	63,356,485.20	16,764,126	8,605,901	54,750,584	58.37	937,992
2005	58,708,577.55	14,911,979	7,655,097	51,053,481	58.74	869,143
2006	17,897,970.51	4,352,786	2,234,512	15,663,459	59.12	264,943
2007	77,462,721.54	17,986,844	9,233,585	68,229,137	59.52	1,146,323
2008	98,245,864.05	21,712,336	11,146,075	87,099,789	59.92	1,453,601
2009	90,949,449.61	19,063,005	9,786,035	81,163,415	60.34	1,345,101
2010	93,995,431.68	18,611,095	9,554,046	84,441,386	60.76	1,389,753
2011	115,976,047.62	21,594,740	11,085,707	104,890,341	61.19	1,714,175
2012	107,486,990.66	18,724,234	9,612,126	97,874,865	61.63	1,588,104
2013	142,295,529.37	23,051,876	11,833,731	130,461,798	62.07	2,101,849
2014	131,912,503.31	19,734,110	10,130,548	121,781,955	62.53	1,947,576
2015	165,792,198.44	22,713,531	11,660,040	154,132,158	62.99	2,446,931
2016	173,482,775.19	21,702,695	11,141,126	162,341,649	62.94	2,579,308
2017	117,005,504.38	13,104,616	6,727,283	110,278,221	63.43	1,738,581
2018	153,520,444.86	15,259,932	7,833,719	145,686,726	63.42	2,297,173
2019	163,459,196.82	14,122,875	7,250,009	156,209,188	63.44	2,462,314
2020	180,995,217.31	13,212,651	6,782,743	174,212,474	63.49	2,743,936
2021	127,818,811.77	7,566,874	3,884,471	123,934,341	63.57	1,949,573
2022	196,798,973.93	8,974,033	4,606,839	192,192,135	62.79	3,060,872
2023	242,233,242.74	7,557,677	3,879,750	238,353,493	62.10	3,838,220

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 90-R2						
NET SALVAGE PERCENT.. 0						
2024	230,693,675.35	3,783,376	1,942,205	228,751,470	59.98	3,813,796
2025	177,875,303.80	782,651	401,775	177,473,529	56.57	3,137,238
9999	309,519,935.57-	54,660,798-	28,060,239-	281,459,697-		4,763,412-
	3,533,014,149.56	623,925,471	320,293,493	3,212,720,657		54,371,951
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						59.1 1.54

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
1937	5,458.28	5,043	4,342	1,116	7.24	154
1938	1,004.32	917	790	214	8.24	26
1939	18,113.81	16,513	14,218	3,896	8.34	467
1940	41,978.31	38,179	32,874	9,104	8.46	1,076
1941	29,624.72	26,876	23,141	6,484	8.59	755
1942	29,936.61	27,084	23,320	6,617	8.74	757
1943	14,106.68	12,724	10,956	3,151	8.91	354
1944	8,858.87	7,965	6,858	2,001	9.09	220
1945	16,841.80	15,090	12,993	3,849	9.29	414
1946	64,862.64	57,903	49,857	15,006	9.50	1,580
1947	134,325.26	119,442	102,844	31,481	9.72	3,239
1948	183,738.93	162,701	140,092	43,647	9.96	4,382
1949	201,989.89	178,074	153,328	48,662	10.21	4,766
1950	222,235.23	195,011	167,912	54,323	10.47	5,188
1951	293,487.18	256,273	220,661	72,826	10.75	6,775
1952	362,487.04	314,892	271,134	91,353	11.03	8,282
1953	352,393.94	301,931	259,974	92,420	12.03	7,682
1954	388,765.16	331,228	285,200	103,565	12.33	8,399
1955	516,403.62	437,394	376,612	139,792	12.64	11,059
1956	555,032.79	467,227	402,300	152,733	12.97	11,776
1957	542,313.85	453,591	390,559	151,755	13.30	11,410
1958	734,392.01	610,133	525,347	209,045	13.65	15,315
1959	796,317.50	656,962	565,669	230,648	14.00	16,475
1960	811,314.32	664,466	572,130	239,184	14.37	16,645
1961	743,187.12	604,062	520,120	223,067	14.74	15,133
1962	802,513.27	647,147	557,217	245,296	15.12	16,223
1963	706,145.46	564,775	486,292	219,853	15.52	14,166
1964	601,812.58	477,237	410,919	190,894	15.92	11,991
1965	903,038.19	709,788	611,154	291,884	16.34	17,863
1966	905,254.84	705,012	607,041	298,214	16.76	17,793
1967	950,178.03	732,967	631,112	319,066	17.19	18,561
1968	1,093,052.50	834,873	718,856	374,196	17.63	21,225
1969	1,192,117.91	901,241	776,002	416,116	18.07	23,028
1970	1,298,120.62	970,994	836,062	462,059	18.53	24,936
1971	1,516,032.93	1,121,561	965,705	550,328	18.99	28,980
1972	1,641,771.32	1,192,090	1,026,434	615,337	19.99	30,782
1973	2,169,417.49	1,556,774	1,340,440	828,977	20.46	40,517
1974	1,270,717.24	900,811	775,632	495,085	20.94	23,643
1975	755,033.64	528,524	455,079	299,955	21.43	13,997
1976	994,605.80	687,173	591,681	402,925	21.92	18,382
1977	1,376,771.22	938,407	808,003	568,768	22.42	25,369

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
1978	1,896,085.86	1,274,359	1,097,270	798,816	22.93	34,837
1979	2,916,959.87	1,932,194	1,663,690	1,253,270	23.44	53,467
1980	2,647,292.17	1,727,358	1,487,319	1,159,973	23.97	48,393
1981	2,566,296.73	1,648,589	1,419,496	1,146,801	24.49	46,827
1982	2,539,634.52	1,594,383	1,372,823	1,166,812	25.49	45,775
1983	2,858,682.04	1,764,950	1,519,687	1,338,995	26.03	51,440
1984	3,376,379.87	2,048,787	1,764,081	1,612,299	26.57	60,681
1985	3,722,073.40	2,218,356	1,910,086	1,811,987	27.11	66,838
1986	4,486,489.61	2,624,596	2,259,874	2,226,616	27.67	80,470
1987	6,352,447.83	3,645,035	3,138,510	3,213,938	28.23	113,848
1988	7,002,388.74	3,938,143	3,390,887	3,611,502	28.79	125,443
1989	7,430,233.33	4,092,573	3,523,856	3,906,377	29.36	133,051
1990	8,338,412.48	4,465,220	3,844,719	4,493,693	30.36	148,014
1991	6,130,364.28	3,209,859	2,763,807	3,366,557	30.94	108,809
1992	6,444,142.57	3,296,179	2,838,132	3,606,011	31.52	114,404
1993	9,544,551.39	4,764,640	4,102,531	5,442,020	32.10	169,533
1994	7,713,017.30	3,753,926	3,232,269	4,480,748	32.69	137,068
1995	10,626,091.65	5,036,767	4,336,842	6,289,250	33.29	188,923
1996	11,268,675.21	5,195,986	4,473,936	6,794,739	33.89	200,494
1997	10,694,318.91	4,791,055	4,125,275	6,569,044	34.50	190,407
1998	46,936,336.78	20,403,226	17,567,931	29,368,406	35.11	836,468
1999	13,890,330.15	5,850,607	5,037,589	8,852,741	35.73	247,768
2000	13,902,701.18	5,630,594	4,848,149	9,054,552	36.73	246,517
2001	16,287,108.95	6,371,517	5,486,112	10,800,997	37.35	289,183
2002	29,783,060.93	11,234,171	9,673,036	20,110,025	37.98	529,490
2003	3,634,541.83	1,319,339	1,136,000	2,498,542	38.61	64,712
2004	2,378,241.00	829,055	713,847	1,664,394	39.24	42,416
2005	18,789,402.02	6,275,660	5,403,575	13,385,827	39.88	335,653
2006	84,263.35	26,897	23,159	61,104	40.52	1,508
2007	12,454,511.98	3,788,663	3,262,179	9,192,333	41.17	223,277
2008	25,982,140.75	7,508,839	6,465,388	19,516,753	41.82	466,685
2009	23,400,146.97	6,402,280	5,512,600	17,887,547	42.48	421,082
2010	18,090,300.85	4,667,298	4,018,716	14,071,585	43.14	326,184
2011	18,972,628.52	4,595,171	3,956,612	15,016,017	43.80	342,831
2012	21,744,894.95	4,918,695	4,235,178	17,509,717	44.47	393,742
2013	22,707,737.85	4,768,625	4,105,962	18,601,776	45.14	412,091
2014	20,583,464.87	4,007,601	3,450,692	17,132,773	45.50	376,544
2015	21,523,077.83	3,831,108	3,298,726	18,224,352	46.18	394,637
2016	28,056,618.72	4,519,921	3,891,819	24,164,800	46.87	515,571
2017	25,517,499.74	3,694,934	3,181,475	22,336,025	47.25	472,720
2018	24,091,589.46	3,069,268	2,642,753	21,448,836	47.95	447,317

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2.5						
NET SALVAGE PERCENT.. 0						
2019	26,664,555.15	2,943,767	2,534,692	24,129,863	48.35	499,066
2020	33,114,786.41	3,079,675	2,651,714	30,463,072	48.76	624,755
2021	30,896,716.23	2,323,433	2,000,561	28,896,155	49.19	587,440
2022	38,178,813.67	2,187,646	1,883,644	36,295,170	49.36	735,315
2023	38,247,980.86	1,491,671	1,284,384	36,963,597	49.28	750,073
2024	40,864,138.50	821,369	707,229	40,156,910	48.75	823,731
2025	25,669,436.64	136,048	117,142	25,552,295	47.14	542,051
9999	27,410,857.61-	7,291,612-	6,278,347-	21,132,511-		507,859-
	758,836,459.21	201,859,476	173,808,467	585,027,992		14,059,475
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.6 1.85

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L1.5						
NET SALVAGE PERCENT.. 0						
1987	206,795.00	187,025	174,158	32,637	4.02	8,119
1989	9,622.00	8,591	8,000	1,622	4.32	375
1990	754.00	668	622	132	4.53	29
1991	555,959.30	489,578	455,895	100,064	4.61	21,706
1992	125,350.24	109,205	101,692	23,658	4.88	4,848
1993	202,203.16	174,704	162,685	39,518	5.04	7,841
1994	171,411.23	146,659	136,569	34,842	5.23	6,662
1995	184,992.45	156,504	145,737	39,255	5.46	7,190
1996	48,752.08	40,859	38,048	10,704	5.60	1,911
1997	1,066,287.33	883,739	822,938	243,349	5.78	42,102
1998	9,262,484.89	7,577,639	7,056,304	2,206,181	6.00	367,697
1999	1,520,003.21	1,229,075	1,144,516	375,487	6.15	61,055
2000	1,524,162.17	1,215,519	1,131,892	392,270	6.35	61,775
2001	3,145,832.88	2,468,850	2,298,995	846,838	6.58	128,699
2002	1,668,072.81	1,289,087	1,200,399	467,674	6.76	69,183
2003	212,508.13	161,761	150,632	61,876	6.90	8,968
2004	86,460.20	64,638	60,191	26,269	7.09	3,705
2005	2,297,808.85	1,686,592	1,570,556	727,253	7.25	100,311
2006	125,838.20	90,616	84,382	41,456	7.39	5,610
2007	2,934,017.14	2,070,242	1,927,811	1,006,206	7.51	133,982
2008	2,985,183.12	2,055,299	1,913,896	1,071,287	7.69	139,309
2009	7,195,309.77	4,823,736	4,491,867	2,703,443	7.87	343,512
2010	10,430,289.88	6,790,119	6,322,964	4,107,326	8.04	510,861
2011	15,231,305.85	9,595,723	8,935,545	6,295,761	8.22	765,908
2012	12,260,144.35	7,443,134	6,931,052	5,329,092	8.41	633,661
2013	8,734,131.59	5,072,784	4,723,781	4,010,351	8.66	463,089
2014	6,271,842.78	3,463,312	3,225,039	3,046,804	8.92	341,570
2015	12,110,399.58	6,297,408	5,864,151	6,246,249	9.23	676,733
2016	14,680,507.89	7,108,302	6,619,256	8,061,252	9.59	840,589
2017	15,213,405.02	6,766,923	6,301,364	8,912,041	9.99	892,096
2018	12,616,253.12	5,069,211	4,720,453	7,895,800	10.42	757,754
2019	17,176,724.90	6,101,173	5,681,417	11,495,308	10.89	1,055,584
2020	10,082,108.56	3,080,084	2,868,177	7,213,932	11.37	634,471
2021	8,003,336.48	2,013,639	1,875,102	6,128,234	11.90	514,978
2022	20,585,833.35	4,001,886	3,726,560	16,859,273	12.43	1,356,337
2023	32,047,146.52	4,268,680	3,974,998	28,072,149	13.02	2,156,079



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L1.5						
NET SALVAGE PERCENT.. 0						
2024	27,676,086.66	1,904,115	1,773,114	25,902,973	13.53	1,914,484
2025	18,683,689.28	332,570	309,689	18,374,000	13.83	1,328,561
9999	1,956,853.15-	749,624-	698,050-	1,258,803-		115,487-
	275,376,160.82	105,490,025	98,232,397	177,143,764		16,251,857
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.9 5.90

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1955	2,367.87	2,039	1,286	1,082	11.30	96
1956	8,128.56	6,955	4,385	3,744	11.65	321
1957	16,792.56	14,274	9,000	7,793	12.00	649
1958	24,959.58	21,071	13,285	11,675	12.37	944
1959	37,292.18	31,258	19,708	17,584	12.74	1,380
1960	42,695.87	35,523	22,397	20,299	13.12	1,547
1961	43,383.87	35,818	22,583	20,801	13.52	1,539
1962	41,178.88	33,726	21,264	19,915	13.92	1,431
1963	60,006.92	48,738	30,729	29,278	14.34	2,042
1964	69,906.12	56,288	35,489	34,417	14.76	2,332
1965	71,944.80	57,412	36,198	35,747	15.19	2,353
1966	75,684.72	59,836	37,726	37,959	15.63	2,429
1967	101,298.90	79,317	50,009	51,290	16.07	3,192
1968	125,090.22	96,970	61,139	63,951	16.53	3,869
1969	113,424.81	87,020	54,865	58,560	16.99	3,447
1970	94,526.89	71,746	45,235	49,292	17.46	2,823
1971	140,265.93	106,041	66,858	73,408	17.43	4,212
1972	144,403.83	107,913	68,038	76,366	17.92	4,261
1973	197,831.58	146,079	92,102	105,730	18.42	5,740
1974	255,983.23	186,689	117,706	138,277	18.93	7,305
1975	255,978.00	184,304	116,202	139,776	19.44	7,190
1976	446,958.94	317,564	200,221	246,738	19.97	12,355
1977	255,278.34	178,899	112,794	142,484	20.49	6,954
1978	400,922.08	276,997	174,644	226,278	21.03	10,760
1979	460,955.13	313,818	197,860	263,095	21.57	12,197
1980	407,721.51	273,377	172,362	235,360	22.11	10,645
1981	286,826.11	190,567	120,151	166,675	22.23	7,498
1982	415,657.37	271,674	171,288	244,369	22.79	10,723
1983	528,446.37	339,580	214,102	314,344	23.36	13,457
1984	504,978.31	318,843	201,028	303,950	23.94	12,696
1985	559,831.44	347,095	218,840	340,991	24.52	13,907
1986	707,928.76	430,704	271,555	436,374	25.10	17,385
1987	771,439.53	460,241	290,178	481,262	25.69	18,733
1988	825,206.10	485,469	306,084	519,122	25.89	20,051
1989	1,038,803.44	598,351	377,255	661,548	26.50	24,964
1990	1,097,521.09	618,453	389,929	707,592	27.11	26,101
1991	926,322.27	510,218	321,688	604,634	27.73	21,804
1992	1,270,073.13	683,172	430,734	839,339	28.35	29,606
1993	1,124,799.79	590,295	372,176	752,624	28.98	25,970
1994	1,495,764.71	769,721	485,302	1,010,463	29.24	34,558
1995	1,629,622.58	816,441	514,759	1,114,864	29.88	37,311

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2						
NET SALVAGE PERCENT.. 0						
1996	1,548,724.47	754,539	475,730	1,072,994	30.52	35,157
1997	1,680,485.34	795,206	501,371	1,179,114	31.17	37,828
1998	1,563,950.73	722,076	455,263	1,108,688	31.48	35,219
1999	2,094,178.28	936,517	590,466	1,503,712	32.14	46,786
2000	1,219,260.12	527,330	332,477	886,783	32.80	27,036
2001	1,730,201.94	726,685	458,169	1,272,033	33.14	38,384
2002	1,561,887.59	632,252	398,629	1,163,259	33.82	34,396
2003	2,137,410.19	832,308	524,763	1,612,647	34.50	46,743
2004	2,174,333.05	817,332	515,321	1,659,012	34.87	47,577
2005	204,797.14	73,727	46,484	158,313	35.56	4,452
2006	5,572,895.91	1,927,107	1,215,024	4,357,872	35.95	121,220
2007	3,230,288.35	1,064,057	670,879	2,559,409	36.64	69,853
2008	4,327,967.86	1,361,146	858,191	3,469,777	37.05	93,651
2009	4,579,195.89	1,362,769	859,214	3,719,982	37.76	98,516
2010	4,192,567.87	1,182,304	745,433	3,447,135	38.19	90,263
2011	3,489,696.35	928,259	585,259	2,904,437	38.63	75,186
2012	4,590,360.90	1,139,787	718,626	3,871,735	39.36	98,367
2013	5,136,478.79	1,189,608	750,038	4,386,441	39.81	110,184
2014	4,605,656.04	987,913	622,871	3,982,785	40.28	98,877
2015	7,646,472.85	1,506,355	949,744	6,696,729	40.76	164,297
2016	7,615,104.64	1,370,719	864,226	6,750,879	41.00	164,656
2017	6,003,249.29	970,125	611,655	5,391,594	41.50	129,918
2018	5,404,991.52	775,616	489,019	4,915,973	41.78	117,663
2019	7,165,743.75	894,285	563,839	6,601,905	42.08	156,889
2020	7,051,128.81	743,894	469,019	6,582,110	42.39	155,275
2021	8,332,100.71	716,561	451,786	7,880,315	42.51	185,376
2022	11,558,527.81	762,863	480,979	11,077,549	42.45	260,955
2023	10,870,130.17	493,504	311,150	10,558,980	42.05	251,105
2024	12,055,893.06	289,341	182,427	11,873,466	40.67	291,947
2025	7,312,052.48	46,797	29,505	7,282,547	38.51	189,108
9999	7,551,016.22-	1,696,735-	1,069,777-	6,481,239-		170,804-
	156,182,918.00	35,094,743	22,126,934	134,055,984		3,532,857
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.9 2.26

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.1 OFFICE FURNITURE AND EQUIPMENT - FURNITURE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	8,614.50	8,184	6,110	2,504	1.00	2,504
2007	90,026.71	81,024	60,492	29,535	2.00	14,768
2008	76,984.00	65,436	48,854	28,130	3.00	9,377
2010	10,963.48	8,223	6,139	4,824	5.00	965
2011	34,863.33	24,404	18,220	16,643	6.00	2,774
2012	104,725.37	68,071	50,821	53,904	7.00	7,701
2013	475,451.73	285,271	212,981	262,471	8.00	32,809
2014	1,427,408.53	785,075	586,131	841,278	9.00	93,475
2015	105,224.65	52,612	39,280	65,945	10.00	6,594
2016	154,380.75	69,471	51,867	102,514	11.00	9,319
2017	87,557.93	35,023	26,148	61,410	12.00	5,118
2018	2,016,595.25	705,808	526,951	1,489,644	13.00	114,588
2019	1,190,614.34	357,184	266,671	923,943	14.00	65,996
2020	278,241.94	69,560	51,933	226,309	15.00	15,087
2021	419,508.42	83,902	62,641	356,867	16.00	22,304
2022	831,377.33	124,707	93,105	738,272	17.00	43,428
2023	1,061,597.55	106,160	79,258	982,340	18.00	54,574
2024	882,572.15	44,129	32,946	849,626	19.00	44,717
2025	508,318.19	6,354	4,744	503,574	19.75	25,497
	9,765,026.15	2,980,598	2,225,292	7,539,734		571,595
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 5.85

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.2 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL  
EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	2,402,513.20	2,402,513	2,402,513			
2021	2,215,572.58	1,772,458	1,130,817	1,084,756	1.00	1,084,756
2022	5,160,104.61	3,096,063	1,975,268	3,184,837	2.00	1,592,418
2023	5,171,450.83	2,068,580	1,319,741	3,851,710	3.00	1,283,903
2024	3,496,289.00	699,258	446,122	3,050,167	4.00	762,542
2025	2,483,660.68	124,183	79,228	2,404,433	4.75	506,196
	20,929,590.90	10,163,055	7,353,689	13,575,902		5,229,815
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.6						24.99

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.3 OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	17,145,049.52	17,145,050	17,145,050			
2021	16,784,591.24	13,427,673	4,880,685	11,903,906	1.00	11,903,906
2022	14,702,503.96	8,821,502	3,206,436	11,496,068	2.00	5,748,034
2023	22,550,450.41	9,020,180	3,278,651	19,271,799	3.00	6,423,933
2024	12,328,917.49	2,465,783	896,261	11,432,656	4.00	2,858,164
2025	579,335.66	28,967	10,529	568,807	4.75	119,749
	84,090,848.28	50,909,155	29,417,612	54,673,236		27,053,786
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.0						32.17

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.31 OFFICE FURNITURE AND EQUIPMENT - COMPUTER SOFTWARE -  
ENTERPRISE SOLUTIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2015	58,280.82	58,281	58,281			
2018	157,049.62	109,935	41,708-	198,758	3.00	66,253
	215,330.44	168,216	16,573	198,757		66,253
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.0 30.77

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 340.5 OFFICE FURNITURE AND EQUIPMENT - OTHER OFFICE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	9,454.95	5,673	4,426	5,029	4.00	1,257
9999	354.00-	212-	165-	189-		47-
	9,100.95	5,461	4,261	4,840		1,210
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.0 13.29



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341 TRANSPORTATION EQUIPMENT - NOT CLASSIFIED

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
1986	349.00	349	349			
2020	2,238.67	1,190	1,553	686	4.41	156
	2,587.67	1,539	1,902	686		156
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.4 6.03

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.1 TRANSPORTATION EQUIPMENT - LIGHT DUTY TRUCKS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2011	4,883.28	4,191	4,883			
2012	884,692.90	741,815	870,056	14,637	2.50	5,855
2013	2,809,322.81	2,299,150	2,696,614	112,709	2.66	42,372
2014	32,190.62	25,672	30,110	2,081	2.79	746
2015	617,377.23	478,467	561,182	56,195	2.90	19,378
2016	1,006,932.63	753,991	884,337	122,596	3.02	40,595
2017	20,193.94	14,427	16,921	3,273	3.20	1,023
2018	1,695,738.64	1,132,414	1,328,179	367,560	3.48	105,621
2019	8,495,746.12	5,158,617	6,050,410	2,445,336	3.88	630,241
2020	7,819,588.71	4,156,111	4,874,596	2,944,993	4.41	667,799
2021	10,384,859.96	4,594,262	5,388,492	4,996,368	5.04	991,343
2022	9,566,929.71	3,274,760	3,840,882	5,726,048	5.76	994,106
2023	13,280,946.27	3,107,741	3,644,990	9,635,956	6.55	1,471,138
2024	11,643,076.52	1,386,690	1,626,414	10,016,663	7.40	1,353,603
2025	7,280,507.35	218,415	256,173	7,024,334	8.08	869,348
	75,542,986.69	27,346,723	32,074,239	43,468,748		7,193,168
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.0 9.52

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.2 TRANSPORTATION EQUIPMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2000	58,209.00	57,190	58,209			
2012	209,536.68	175,697	209,537			
2013	3,042,582.07	2,490,049	3,042,582			
2014	1,011,929.20	807,014	1,011,929			
2015	603,415.74	467,647	603,416			
2016	2,878,515.66	2,155,433	2,803,933	74,583	3.02	24,696
2017	2,354,164.64	1,681,815	2,187,818	166,347	3.20	51,983
2018	5,954,398.21	3,976,347	5,172,700	781,698	3.48	224,626
2019	8,314.30	5,048	6,567	1,747	3.88	450
2020	811,487.16	431,305	561,071	250,416	4.41	56,784
2021	229,580.55	101,566	132,124	97,457	5.04	19,337
2022	172,600.00	59,081	76,856	95,744	5.76	16,622
	17,334,733.21	12,408,192	15,866,742	1,467,991		394,498
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.7 2.28

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.3 TRANSPORTATION EQUIPMENT - AUTOS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
2007	5,276.00	4,853	4,653	623	1.57	397
2010	5,850.22	5,125	4,914	936	2.12	442
2011	9,394.63	8,062	7,730	1,665	2.31	721
2012	1,833,463.96	1,537,360	1,473,996	359,468	2.50	143,787
2013	57,943.00	47,421	45,466	12,477	2.66	4,691
2018	62,186.00	41,528	39,817	22,369	3.48	6,428
2019	146,881.00	89,186	85,510	61,371	3.88	15,817
	2,120,994.81	1,733,535	1,662,086	458,909		172,283
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.7 8.12

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 341.4 TRANSPORTATION EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. 0						
1961	374.92	375	375			
1977	403.11	403	403			
1978	265.00	265	265			
1998	8,060.31	8,030	8,060			
1999	1,561.47	1,547	1,561			
2006	4,626.70	4,307	4,627			
2007	18,169.65	16,712	18,170			
2008	92,592.34	83,898	92,592			
2009	25,526.94	22,790	25,527			
2010	53,306.39	46,696	53,306			
2011	81,120.09	69,617	81,120			
2012	318,512.86	267,073	318,513			
2013	1,116,160.77	913,466	1,116,161			
2014	718,980.22	573,387	718,980			
2015	178,690.77	138,485	178,691			
2016	954,565.45	714,779	935,064	19,501	3.02	6,457
2017	120,461.68	86,058	112,580	7,882	3.20	2,463
2018	2,505,965.54	1,673,484	2,189,228	316,738	3.48	91,017
2019	697,759.80	423,680	554,252	143,508	3.88	36,987
2020	473,035.57	251,418	328,902	144,134	4.41	32,683
2021	78,210.92	34,601	45,264	32,947	5.04	6,537
2022	47,744.96	16,343	21,380	26,365	5.76	4,577
2023	88,611.43	20,735	27,125	61,486	6.55	9,387
	7,584,706.89	5,368,149	6,832,146	752,561		190,108

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.0 2.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 342 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	1,009.93	909	659	351	2.00	176
2008	23,325.31	19,827	14,371	8,954	3.00	2,985
2014	61,104.50	33,607	24,360	36,744	9.00	4,083
2016	92,745.16	41,735	30,251	62,494	11.00	5,681
2017	48,514.27	19,406	14,066	34,448	12.00	2,871
2018	57,628.55	20,170	14,620	43,009	13.00	3,308
2019	88,222.86	26,467	19,184	69,039	14.00	4,931
2020	2,304.60	576	418	1,887	15.00	126
2021	12,195.19	2,439	1,768	10,427	16.00	652
2022	80,982.31	12,147	8,804	72,178	17.00	4,246
2023	1,757.57	176	128	1,630	18.00	91
	469,790.25	177,459	128,629	341,161		29,150
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.7 6.20

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	225,100.69	225,101	225,101			
2006	289,695.96	275,211	243,957	45,739	1.00	45,739
2007	546,753.24	492,078	436,195	110,558	2.00	55,279
2008	241,902.08	205,617	182,266	59,636	3.00	19,879
2009	93,688.77	74,951	66,439	27,250	4.00	6,812
2010	678,599.35	508,950	451,151	227,448	5.00	45,490
2011	1,146,192.08	802,334	711,217	434,975	6.00	72,496
2012	2,326,148.62	1,511,997	1,340,286	985,863	7.00	140,838
2013	2,932,304.68	1,759,383	1,559,578	1,372,727	8.00	171,591
2014	1,038,682.01	571,275	506,398	532,284	9.00	59,143
2015	1,783,290.65	891,645	790,385	992,906	10.00	99,291
2016	4,209,228.78	1,894,153	1,679,043	2,530,186	11.00	230,017
2017	5,196,885.71	2,078,754	1,842,679	3,354,207	12.00	279,517
2018	2,736,698.84	957,845	849,067	1,887,632	13.00	145,202
2019	1,310,548.63	393,165	348,515	962,034	14.00	68,717
2020	4,357,645.66	1,089,411	965,691	3,391,955	15.00	226,130
2021	4,886,827.60	977,366	866,371	4,020,457	16.00	251,279
2022	6,451,897.64	967,785	857,878	5,594,020	17.00	329,060
2023	5,450,785.28	545,079	483,177	4,967,608	18.00	275,978
2024	5,008,109.57	250,405	221,967	4,786,143	19.00	251,902
2025	2,988,135.68	37,352	33,110	2,955,026	19.75	149,622
9999	12,841.25-	3,933-	3,492-	9,349-		697-
	53,886,280.27	16,505,924	14,656,979	39,229,301		2,923,285

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.4 5.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	17,344.50	17,344	17,344			
2006	128,711.88	122,276	81,070	47,642	1.00	47,642
2007	103,111.94	92,801	61,528	41,584	2.00	20,792
2008	53,452.75	45,435	30,124	23,329	3.00	7,776
2009	196,304.71	157,044	104,122	92,183	4.00	23,046
2010	107,001.34	80,251	53,207	53,794	5.00	10,759
2011	214,311.99	150,018	99,464	114,848	6.00	19,141
2012	86,552.44	56,259	37,301	49,251	7.00	7,036
2013	30,519.21	18,312	12,141	18,378	8.00	2,297
2014	57,772.94	31,775	21,067	36,706	9.00	4,078
2015	17,712.59	8,856	5,872	11,841	10.00	1,184
2016	44,332.75	19,950	13,227	31,106	11.00	2,828
2017	94,878.08	37,951	25,162	69,716	12.00	5,810
2018	291,357.49	101,975	67,611	223,746	13.00	17,211
2019	152,368.57	45,711	30,307	122,062	14.00	8,719
2020	212,824.35	53,206	35,276	177,548	15.00	11,837
2021	110,412.37	22,082	14,641	95,771	16.00	5,986
2022	116,937.65	17,541	11,630	105,308	17.00	6,195
2023	90,081.23	9,008	5,972	84,109	18.00	4,673
	2,125,988.78	1,087,795	727,066	1,398,923		207,010
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.8 9.74



PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-S0.5						
NET SALVAGE PERCENT.. 0						
1951	11.79	12	12			
1967	1,818.65	1,819	1,819			
1968	974.20	974	974			
1969	773.74	774	774			
1970	6,383.68	6,384	6,384			
1972	6,015.59	6,016	6,016			
1975	269.51	270	270			
1977	572.13	572	572			
1978	1,720.11	1,720	1,720			
1980	7,174.98	7,175	7,175			
1982	2,369.64	2,370	2,370			
1984	1,667.77	1,655	1,668			
1985	16,282.08	16,022	16,282			
1986	13,602.62	13,263	13,534	69	1.00	69
1987	4,614.41	4,454	4,545	69	1.37	50
1988	9,942.81	9,528	9,722	221	1.61	137
1989	12,771.91	12,092	12,339	433	2.02	214
1990	9,258.46	8,684	8,861	397	2.31	172
1991	11,802.92	10,955	11,179	624	2.63	237
1992	17,613.47	16,159	16,489	1,124	2.97	378
1993	76,071.48	69,134	70,545	5,526	3.21	1,721
1994	149,598.97	134,026	136,762	12,837	3.60	3,566
1995	145,174.36	128,479	131,102	14,072	3.90	3,608
1996	77,978.61	68,294	69,688	8,291	4.11	2,017
1997	40,316.50	34,769	35,479	4,838	4.47	1,082
1998	54,085.17	45,999	46,938	7,147	4.75	1,505
1999	250,633.33	209,830	214,113	36,520	5.06	7,217
2001	45,220.95	36,466	37,210	8,011	5.76	1,391
2002	106,373.89	84,163	85,881	20,493	6.07	3,376
2003	167,818.19	129,958	132,611	35,207	6.41	5,493
2004	18,874.25	14,309	14,601	4,273	6.70	638
2005	32,759.09	24,242	24,737	8,022	7.03	1,141
2006	13,407.81	9,655	9,852	3,556	7.39	481
2007	5,566.17	3,897	3,977	1,589	7.71	206
2008	46,813.86	31,833	32,483	14,331	8.00	1,791
2009	61,227.65	40,165	40,985	20,243	8.39	2,413
2010	16,462.41	10,421	10,634	5,828	8.70	670
2012	21,178.12	12,279	12,530	8,648	9.42	918
2013	21,309.16	11,737	11,976	9,333	9.79	953
2014	100,037.58	52,050	53,112	46,926	10.14	4,628
2015	5,946.73	2,896	2,955	2,992	10.53	284

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-S0.5						
NET SALVAGE PERCENT.. 0						
2016	126,179.43	57,008	58,171	68,008	10.92	6,228
2017	26,484.33	10,975	11,199	15,285	11.31	1,351
2018	291,449.34	109,148	111,376	180,073	11.69	15,404
2019	12,955.96	4,299	4,387	8,569	12.08	709
2022	53,171.30	9,778	9,977	43,194	13.31	3,245
2024	149,979.15	9,944	10,147	139,832	14.08	9,931
	2,242,714.26	1,476,652	1,506,133	736,581		83,224
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.9 3.71

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	258.22	241	247	11	1.00	11
2012	3,640.24	3,155	3,232	408	2.00	204
2013	103,009.53	82,408	84,421	18,589	3.00	6,196
2015	17,452.26	11,635	11,919	5,533	5.00	1,107
2016	35,790.32	21,474	21,999	13,791	6.00	2,298
2018	11,496.50	5,365	5,496	6,000	8.00	750
2019	417,135.37	166,854	170,930	246,205	9.00	27,356
2020	299,532.41	99,843	102,282	197,250	10.00	19,725
2021	425,092.22	113,359	116,128	308,964	11.00	28,088
2022	680,468.10	136,094	139,419	541,049	12.00	45,087
2023	1,271,106.48	169,477	173,617	1,097,489	13.00	84,422
2024	1,013,175.01	67,548	69,198	943,977	14.00	67,427
2025	616,194.94	10,272	10,523	605,672	14.75	41,063
9999	56,552.67-	10,257-	10,508-	46,045-		3,741-
	4,837,798.93	877,468	898,903	3,938,896		319,993
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 6.61

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.1 COMMUNICATION EQUIPMENT - NON-TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	1,083.00	1,083	1,083			
2011	18,194.10	16,981	16,026	2,168	1.00	2,168
2012	39,624.20	34,341	32,410	7,214	2.00	3,607
2013	721,836.04	577,469	545,001	176,835	3.00	58,945
2014	138,898.47	101,858	96,131	42,767	4.00	10,692
2015	3,007.59	2,005	1,892	1,116	5.00	223
2017	75,197.83	40,105	37,850	37,348	7.00	5,335
2018	602,810.61	281,314	265,497	337,314	8.00	42,164
2019	729,975.54	291,990	275,573	454,403	9.00	50,489
2020	1,640,804.93	546,930	516,179	1,124,626	10.00	112,463
2021	2,131,641.07	568,445	536,484	1,595,157	11.00	145,014
2022	1,549,647.04	309,929	292,504	1,257,143	12.00	104,762
2023	1,189,705.48	158,623	149,704	1,040,001	13.00	80,000
2024	1,700,121.50	113,347	106,974	1,593,148	14.00	113,796
2025	995,989.36	16,603	15,670	980,319	14.75	66,462
	11,538,536.76	3,061,023	2,888,978	8,649,559		796,120
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.9 6.90

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.19 COMMUNICATION EQUIPMENT - REMOTE CONTROL AND INSTRUMENTATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2015	113,844.36	113,844	113,844			
2016	717,219.42	645,497	613,556	103,663	1.00	103,663
2017	318,372.46	254,698	242,095	76,277	2.00	38,138
2018	760,200.33	532,140	505,808	254,392	3.00	84,797
2019	64,999.04	38,999	37,069	27,930	4.00	6,982
2020	535,905.67	267,953	254,694	281,212	5.00	56,242
2021	275,985.00	110,394	104,932	171,053	6.00	28,509
2022	710,843.82	213,253	202,701	508,143	7.00	72,592
2023	962,468.57	192,494	182,969	779,500	8.00	97,438
2024	946,399.98	94,640	89,957	856,443	9.00	95,160
2025	579,333.22	14,483	13,766	565,567	9.75	58,007
	5,985,571.87	2,478,395	2,361,391	3,624,181		641,528
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.6 10.72

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 346.20 COMMUNICATION EQUIPMENT - TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2015	11,214.16	11,214	11,214			
2016	21,782.06	19,604	18,163	3,619	1.00	3,619
2017	35,766.67	28,613	26,510	9,257	2.00	4,628
2018	66,703.59	46,693	43,261	23,443	3.00	7,814
2020	63,300.51	31,650	29,324	33,977	5.00	6,795
2022	24,688.05	7,406	6,862	17,826	7.00	2,547
2023	5,387.96	1,078	999	4,389	8.00	549
2024	19,196.43	1,920	1,779	17,417	9.00	1,935
2025	11,177.53	279	258	10,920	9.75	1,120
	259,216.96	148,457	138,370	120,847		29,007
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.2 11.19

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2000	11,327.73	11,328	11,328			
2001	1,124,164.98	1,079,198	926,593	197,572	1.00	197,572
2002	237,394.60	218,403	187,520	49,875	2.00	24,938
2003	269,249.53	236,940	203,435	65,815	3.00	21,938
2004	589,851.03	495,475	425,412	164,439	4.00	41,110
2005	409,678.13	327,743	281,398	128,280	5.00	25,656
2006	32,215.49	24,484	21,022	11,193	6.00	1,866
2008	148,764.62	101,160	86,855	61,910	8.00	7,739
2009	15,603.42	9,986	8,574	7,029	9.00	781
2010	25,913.81	15,548	13,349	12,565	10.00	1,256
2011	67,243.18	37,656	32,331	34,912	11.00	3,174
2012	211,006.25	109,723	94,208	116,798	12.00	9,733
2013	1,921,577.23	922,357	791,930	1,129,647	13.00	86,896
2014	304,208.62	133,852	114,925	189,284	14.00	13,520
2015	242,341.45	96,937	83,230	159,111	15.00	10,607
2016	777,191.88	279,789	240,225	536,967	16.00	33,560
2017	546,849.76	174,992	150,247	396,603	17.00	23,330
2018	1,208,042.02	338,252	290,421	917,621	18.00	50,979
2019	736,997.02	176,879	151,867	585,130	19.00	30,796
2020	6,298,678.56	1,259,736	1,081,602	5,217,077	20.00	260,854
2021	4,955,441.76	792,871	680,755	4,274,687	21.00	203,557
2022	7,440,610.10	892,873	766,616	6,673,994	22.00	303,363
2023	6,039,423.36	483,154	414,833	5,624,590	23.00	244,547
2024	6,370,415.69	254,817	218,784	6,151,632	24.00	256,318
2025	3,830,295.52	38,303	32,887	3,797,409	24.75	153,431
9999	4,085.00-	794-	682-	3,403-		187-
	43,810,400.74	8,511,662	7,309,665	36,500,736		2,007,334
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.2 4.58

PENNSYLVANIA-AMERICAN WATER COMPANY  
 WATER OPERATIONS

ACCOUNT 348 OTHER TANGIBLE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2003	5,843.07	5,142	4,357	1,486	3.00	495
2004	20,479.05	17,202	14,575	5,904	4.00	1,476
2006	12,840.00	9,758	8,268	4,572	6.00	762
2007	694,887.82	500,319	423,920	270,968	7.00	38,710
2015	1,360.35	544	461	899	15.00	60
2019	52,243.29	12,538	10,623	41,620	19.00	2,191
2020	7,924.33	1,585	1,343	6,581	20.00	329
2024	13,963,717.88	558,549	473,259	13,490,459	24.00	562,102
	14,759,295.79	1,105,637	936,806	13,822,490		606,125
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.8 4.11



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**PART III. EXPERIENCED AND ESTIMATED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
303.61			4,483.73	4,483.73
304.15	549,086.47	577,956.65	210.38	577,746.27-
304.20	8,384.32	71,775.96		71,775.96-
304.30	409,196.21	788,178.99		788,178.99-
304.61	35,517.97	12,850.31		12,850.31-
304.62	72,882.00	8.81-		8.81
304.63		23.48		23.48-
305.00		24,577.59		24,577.59-
306.00	4,621.01	6,896.40		6,896.40-
307.00	44,317.44	42,111.55		42,111.55-
310.00	8,443.54	3,593.30		3,593.30-
311.00	482,184.81	248,120.57		248,120.57-
320.00	1,647,036.23	695,879.64	214.05-	696,093.69-
320.30	146,562.96	76,375.47		76,375.47-
330.00	316,910.67	1,196,558.00		1,196,558.00-
331.00	32,399,513.98	12,998,210.71	25,703.04	12,972,507.67-
333.00	1,279,015.58	2,528,314.54		2,528,314.54-
334.00	4,974,584.57	1,486,703.66	42,569.41	1,444,134.25-
335.00	1,427,031.44	1,720,769.32	3,093.12	1,717,676.20-
340.00	12,731,491.25	23,848.17	613.87	23,234.30-
341.00	203,634.46	97,003.97	456,214.35	359,210.38
342.00	13,022.51	122.40		122.40-
343.00	191,196.62	50,715.40	3,000.00	47,715.40-
344.00	39,028.26	13,845.30		13,845.30-
345.00	681.55			
346.00	950,181.45	44,631.89		44,631.89-
347.00	145,584.81	16,130.65		16,130.65-
348.00	823.15			
	58,080,933.26	22,725,185.11	535,673.85	22,189,511.26-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2021 TRANSACTION YEAR				
303.20	20,254.74			
303.61			4,483.73-	4,483.73-
304.15	126,490.86	666,811.69		666,811.69-
304.20	2,974.34	37,171.02		37,171.02-
304.30	496,969.98	137,849.62		137,849.62-
304.61		1,346.07	4,483.73	3,137.66
304.62		18,876.94		18,876.94-
305.00	10,586.76	467.17		467.17-
306.00	507.53	450.15		450.15-
307.00	36,953.56	5,700.51		5,700.51-
311.00	270,914.29	193,743.82		193,743.82-
320.00	2,230,482.23	890,085.40		890,085.40-
320.30	33,915.10	1,370.70		1,370.70-
320.37	10,486.03			
330.00	256,778.51	1,561,680.99		1,561,680.99-
331.00	15,748,750.26	8,196,453.86	282,490.53	7,913,963.33-
333.00	7,520,801.90	2,681,541.01	1,799.10	2,679,741.91-
334.00	5,495,660.10	1,021,270.85	331,737.56	689,533.29-
335.00	2,860,930.58	1,074,172.62	11,562.11	1,062,610.51-
340.00	35,664,062.09	78,720.20	325.05	78,395.15-
341.00		16,299.55-	219,365.56	235,665.11
343.00	162,936.71	40,863.25		40,863.25-
344.00		5,126.37		5,126.37-
346.00	738,074.13	49,301.95		49,301.95-
347.00	203,387.56	8,339.46		8,339.46-
348.00	5,662.47			
	71,897,579.73	16,655,044.10	847,279.91	15,807,764.19-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
304.15	981,518.44	850,320.81		850,320.81-
304.20	545,894.57	23,865.76		23,865.76-
304.30	2,017,524.85	52,542.41		52,542.41-
304.36	662.50			
304.61		6,818.30		6,818.30-
304.62	193,622.53	46,017.09		46,017.09-
304.63	3,204.02	79,910.95		79,910.95-
305.00	228,547.61	299,889.33		299,889.33-
306.00	152,202.89			
307.00	158,236.88	55,144.80		55,144.80-
310.00	4,791.22			
311.00	1,206,205.82	350,411.61		350,411.61-
320.00	3,732,867.80	1,520,577.41		1,520,577.41-
320.30	32,480.56	299,375.44		299,375.44-
320.37	18,895.53			
330.00	287,248.73	3,396,011.14		3,396,011.14-
331.00	19,475,471.04	13,983,952.63	111,611.62	13,872,341.01-
333.00	6,765,263.95	2,505,397.99	2,218.42	2,503,179.57-
334.00	9,009,490.02	3,625,834.72	54,380.07	3,571,454.65-
335.00	1,654,590.34	1,281,342.15	6,290.78	1,275,051.37-
340.00	45,059,382.50	67,823.74	8,592.94	59,230.80-
341.00		1,127.48	820,242.37	819,114.89
342.00	63,146.52			
343.00	237,075.29	38,089.15		38,089.15-
344.00	680,132.13	8,395.86		8,395.86-
345.00	332,927.29	590.23		590.23-
346.00	352,393.47	165,439.94		165,439.94-
347.00	260,681.45	105,946.50		105,946.50-
	93,454,457.95	28,764,825.44	1,003,336.20	27,761,489.24-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2023 TRANSACTION YEAR				
303.61		15.00	11,108.00	11,093.00
304.15	1,380,150.46	796,762.50	23,546.75	773,215.75-
304.20	1,003,174.19	124,387.00	10,031.74	114,355.26-
304.30	1,149,941.81	43,949.00	5,749.71	38,199.29-
304.61	234,486.94	43,380.00	57,449.30	14,069.30
304.62	392,363.88	76,293.00	227,444.49	151,151.49
304.63	467,955.43	18,770.50	22,588.56	3,818.06
305.00	647,687.81	213,737.00		213,737.00-
306.00	106,463.87	2,661.50		2,661.50-
307.00	111,214.30	7,366.00		7,366.00-
310.00	1,084,889.03	119,338.00		119,338.00-
311.00	2,463,421.79	321,442.00		321,442.00-
320.00	10,939,053.43	1,543,362.00		1,543,362.00-
320.30	166,821.44	60,630.50		60,630.50-
320.37	141,695.39	7,085.00		7,085.00-
330.00	2,284,730.54	581,223.00		581,223.00-
331.00	56,063,568.39	21,364,445.00	12,078.00	21,352,367.00-
333.00	6,043,953.42	2,514,107.50	1,306.00	2,512,801.50-
334.00	5,345,569.99	2,786,541.00	112,369.70	2,674,171.30-
335.00	2,041,116.22	1,364,307.00	3,425.00	1,360,882.00-
340.00	7,776,692.79	35,034.00	26,721.00	8,313.00-
341.00	2,084,302.52	21,140.00	396,017.48	374,877.48
343.00	947.22	24,009.00	1,447.00	22,562.00-
344.00	32,721.95	9,236.00		9,236.00-
346.00	80,105.78			
347.00	37,475.05	24,794.00	42.00	24,752.00-
348.00		60,221.00	58,690.00	1,531.00-
	102,080,503.64	32,164,236.50	970,014.73	31,194,221.77-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2024 TRANSACTION YEAR				
303.61		15.00-	11,108.00-	11,093.00-
303.99	161,747.00			
304.15	396,007.00	891,900.50	9,909.75	881,990.75-
304.20	676,177.00	138,436.00	12,037.74	126,398.26-
304.30	4,254,496.00	151,215.00	20,624.71	130,590.29-
304.36	351,079.00			
304.61	967,325.00	271,779.00	356,667.30	84,888.30
304.62		33,351.00	49,045.49	15,694.49
304.63	719,831.00	40,197.50	12,788.56	27,408.94-
305.00	15,068,472.00	3,210,544.00		3,210,544.00-
306.00	221,180.00	2,661.50		2,661.50-
307.00	152,473.00	19,044.00		19,044.00-
310.00	179,451.00	125,958.00		125,958.00-
311.00	3,398,469.00	483,349.00		483,349.00-
320.00	12,916,463.00	2,008,180.00		2,008,180.00-
320.30	228,711.00	54,937.50		54,937.50-
320.37	882,712.00	74,292.00		74,292.00-
330.00	3,908,274.00	529,765.00		529,765.00-
331.00	41,655,347.00	24,327,288.00		24,327,288.00-
333.00	5,718,338.00	2,305,642.50		2,305,642.50-
334.00	5,574,665.00	1,316,654.00	96,903.70	1,219,750.30-
335.00	2,126,718.00	1,170,078.00		1,170,078.00-
340.00	22,179,017.00			
341.00	3,543,734.00	63,058.00	1,187,508.48	1,124,450.48
343.00	200,918.00			
344.00	103,310.00			
345.00	30,092.00	602.00	602.00	
346.00	288,890.00			
347.00	25,703.00			
	125,929,599.00	37,218,917.50	1,734,979.73	35,483,937.77-
TOTAL	451,443,073.58	137,528,208.65	5,091,284.42	132,436,924.23-

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**EXHIBITS NO. 11-D, 11-E, 11-F  
DEPRECIATION STUDY**

**WASTEWATER SSS GENERAL OPERATIONS  
AS OF JUNE 30, 2023, 2024, 2025**

**EXHIBIT NO. 11-D - DEPRECIATION STUDY**

**WASTEWATER SSS GENERAL OPERATIONS**

**AS OF JUNE 30, 2023**



Exhibit No. 11-D  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS GENERAL OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2023

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-D  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS GENERAL OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2023

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
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[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of June 30, 2023. Summaries of the original cost, annual accruals and the book depreciation reserve are presented in Tables 1 through 3, beginning on page I-3 of the attached report.

A description of the methods and procedures upon which the study was based, as well as support for the service life estimates, is set forth in a companion report "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2024".

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, reading "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink, reading "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. RESULTS OF STUDY**

**PENNSYLVANIA-AMERICAN WATER COMPANY**  
**WASTEWATER SSS GENERAL OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of net original cost used in the study. The net original cost is the original cost of wastewater plant less advances and contributions. The results of the depreciation study are summarized in Table 2, which sets forth the book reserve and the calculated annual depreciation related to net original cost as of June 30, 2023, and the annual amortization of net negative salvage. Table 3 presents the calculation of the amortization of experienced net salvage, by account, based on the five-year period, 2018 through 2022.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-6. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage, and cost of removal are set forth by account for the years 2018 through 2022, on pages III-2 through III-5.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2023

DEPRECIABLE GROUP (1)	ORIGINAL COST	CUSTOMER	CONTRIBUTIONS	EXCLUDED	NET ORIGINAL COST
	AS OF JUNE 30, 2023 (2)	ADVANCES (3)	IN AID OF CONSTRUCTION (4)	PROPERTY (5)	AS OF JUNE 30, 2023 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	8,479,164.99				8,479,164.99
354.30 STRUCTURES AND IMPROVEMENTS - SPP	24,871,672.73		2,734,528.70		22,137,144.03
354.40 STRUCTURES AND IMPROVEMENTS - TDP	279,877,250.99		1,853,012.73		278,024,238.26
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	4,565,732.11				4,565,732.11
355.00 POWER GENERATING EQUIPMENT	6,013,488.59		144,517.16		5,868,971.43
360.10 COLLECTION SEWERS - FORCE MAINS	53,705,956.04		11,251,126.61		42,454,829.43
361.10 COLLECTION SEWERS - GRAVITY MAINS	244,560,609.25		16,139,879.94		228,420,729.31
361.20 MANHOLES	46,127,843.16		4,387,312.76		41,740,530.40
363.00 SERVICES	60,710,596.23		6,703,782.96		54,006,813.27
364.00 FLOW MEASURING DEVICES	673,701.43		14,726.81		658,974.62
365.00 FLOW MEASURING INSTALLATIONS	272,564.04				272,564.04
370.00 RECEIVING WELLS	677,388.38				677,388.38
371.00 PUMPING EQUIPMENT	17,248,171.00		66,626.22		17,181,544.78
380.00 TREATMENT EQUIPMENT	135,952,509.55		2,200,080.47		133,752,429.08
381.00 PLANT SEWERS	6,608,601.61		30,192.33		6,578,409.28
382.00 OUTFALL SEWER LINES	603,464.81				603,464.81
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	2,477,449.88				2,477,449.88
390.00 OFFICE FURNITURE AND EQUIPMENT	1,266,542.71				1,266,542.71
391.00 TRANSPORTATION EQUIPMENT	3,747,275.07				3,747,275.07
392.00 STORES EQUIPMENT	107,351.44				107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,200,526.19				1,200,526.19
394.00 LABORATORY EQUIPMENT	705,529.59				705,529.59
395.00 POWER OPERATED EQUIPMENT	571,397.06		10,000.00		561,397.06
396.00 COMMUNICATION EQUIPMENT	3,257,338.04				3,257,338.04
397.00 MISCELLANEOUS EQUIPMENT	1,490,600.87		29,000.00		1,461,600.87
398.00 OTHER TANGIBLE PLANT	14,231.50				14,231.50
<b>TOTAL DEPRECIABLE PLANT</b>	<b>905,786,957.26</b>	<b>0.00</b>	<b>45,564,786.69</b>	<b>0.00</b>	<b>860,222,170.57</b>
<b>TOTAL NONDEPRECIABLE PLANT</b>					
352.00 FRANCHISES	221,139.78				221,139.78
353.20 STRUCTURES AND IMPROVEMENTS - SPP	3,611,014.00				3,611,014.00
353.30 STRUCTURES AND IMPROVEMENTS - TDP	254,944.62				254,944.62
353.40 POWER GENERATING EQUIPMENT	11,040,870.25		125,000.00		10,915,870.25
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>15,127,968.65</b>	<b>0.00</b>	<b>125,000.00</b>	<b>0.00</b>	<b>15,002,968.65</b>
<b>TOTAL UTILITY PLANT</b>	<b>920,914,925.91</b>	<b>0.00</b>	<b>45,689,786.69</b>	<b>0.00</b>	<b>875,225,139.22</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2023

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	ACCURUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	8,479,164.99	45,562	8,433,603	229,852	2.71	36.7
354.30	STRUCTURES AND IMPROVEMENTS - SPP	22,137,144.03	8,246,486	13,890,658	438,757	1.98	31.7
354.40	STRUCTURES AND IMPROVEMENTS - TDP	278,024,238.26	81,813,715	196,210,524	7,316,907	2.63	26.8
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	4,565,732.11	1,813,015	2,752,717	112,972	2.47	24.4
355.00	POWER GENERATING EQUIPMENT	5,868,971.43	3,429,449	2,439,523	126,620	2.16	19.3
360.10	COLLECTION SEWERS - FORCE MAINS	42,454,829.43	4,624,342	37,830,488	728,279	1.72	51.9
361.10	COLLECTION SEWERS - GRAVITY MAINS	228,420,729.31	48,387,077	180,033,652	3,851,652	1.69	46.7
361.20	MANHOLES	41,740,530.40	10,598,056	31,142,474	2,106,512	5.05	14.8
363.00	SERVICES	54,006,813.27	24,434,472	29,572,342	1,802,159	3.34	16.4
364.00	FLOW MEASURING DEVICES	658,974.62	278,146	380,829	76,896	11.67	5.0
365.00	FLOW MEASURING INSTALLATIONS	272,564.04	219,699	52,865	12,972	4.76	4.1
370.00	RECEIVING WELLS	677,388.38	47,932	629,457	16,395	2.42	38.4
371.00	PUMPING EQUIPMENT	17,181,544.78	2,202,233	14,979,312	852,150	4.96	17.6
380.00	TREATMENT EQUIPMENT	133,752,429.08	23,479,248	110,273,181	5,915,173	4.42	18.6
381.00	PLANT SEWERS	6,578,409.28	1,613,223	4,965,186	150,565	2.29	33.0
382.00	OUTFALL SEWER LINES	603,464.81	247,981	355,484	12,744	2.11	27.9
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	2,477,449.88	280,396	2,197,054	135,100	5.45	16.3
390.00	OFFICE FURNITURE AND EQUIPMENT	1,266,542.71	127,679	1,138,863	71,282	5.63	16.0
391.00	TRANSPORTATION EQUIPMENT	3,747,275.07	790,481	2,956,794	311,164	8.30	9.5
392.00	STORES EQUIPMENT	107,351.44	35,455	71,896	4,302	4.01	16.7
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	1,200,526.19	361,985	838,541	55,905	4.66	15.0
394.00	LABORATORY EQUIPMENT	705,529.59	147,330	558,200	113,283	16.06	4.9
395.00	POWER OPERATED EQUIPMENT	561,397.06	226,648	334,749	26,080	4.65	12.8
396.00	COMMUNICATION EQUIPMENT	3,257,338.04	1,192,577	2,064,761	202,677	6.22	10.2
397.00	MISCELLANEOUS EQUIPMENT	1,461,600.87	309,606	1,151,994	85,941	5.88	13.4
398.00	OTHER TANGIBLE PLANT	14,231.50	1,363	12,869	613	4.31	21.0
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>860,222,170.57</b>	<b>214,954,156</b>	<b>645,268,016</b>	<b>24,756,952</b>	<b>2.88</b>	
<b>NONDEPRECIABLE PLANT</b>							
352.00	FRANCHISES	221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION	3,611,014.00					
353.30	LAND AND LAND RIGHTS - SPP	254,944.62					
353.40	LAND AND LAND RIGHTS - TDP	10,915,870.25					
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>15,002,968.65</b>					
<b>AMORTIZATION OF NET SALVAGE</b>							
	<b>TOTAL UTILITY PLANT</b>	<b>875,225,139.22</b>	<b>214,954,156</b>	<b>645,268,016</b>	<b>26,045,923</b>		



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

ACCOUNT (1)	2018		2019		2020		2021		2022		NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(2)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
354.20		2,367.05		27,531.06		122,315.77					(152,213.88)	(30,443)
354.30		87.11		61,135.00						66,248.65	(146,647.06)	(29,329)
354.40		(18,538.55)		1,985.51						5,052.37	(17,494.41)	(3,499)
354.70		36,099.63		18,075.18		248.65				34,027.64	(100,126.96)	(20,025)
355.00		4,538.63		9,730.05		23,920.78				333.24	(39,776.07)	(7,955)
360.10		85,350.18		245,202.29		186,669.20				169,252.01	(834,069.48)	(166,814)
361.10		345,943.14		1,038,558.77		323,715.46				251,743.85	(2,205,002.42)	(441,000)
361.20				109,567.01		34,151.69				58,813.67	(222,848.08)	(44,570)
363.00		48,455.35		150,830.30		76,222.67				91,479.25	(472,665.49)	(94,533)
364.00				239.58							(239.58)	(48)
371.00		(18,884.54)		141,438.05		273,771.37				53,057.74	(655,942.19)	(131,188)
380.00		12,304.03		214,843.19		652,150.29				336,246.38	(1,484,574.34)	(296,915)
381.00											(90.22)	(18)
382.00		980.65		5,681.56							(980.65)	(196)
389.10		(3,678.20)									(2,003.36)	(401)
390.00		93.95									(7,451.87)	(1,490)
391.00		9,708.42		6,028.96		10.19				3,736.83	11,725.23	2,345
393.00				1,931.40		5,643.88				855.08	(8,430.36)	(1,686)
394.00		117.59		5,593.49		1,075.22				2,855.31	(10,754.65)	(2,151)
395.00				2,048.24						645.90	(2,694.14)	(539)
396.00				1,897.96		52,576.21				2,348.88	(61,353.39)	(12,271)
397.00		6,019.17		5,512.61		9,909.72				5,312.99	(29,974.85)	(5,995)
398.00				1,251.49							(1,251.49)	(250)
<b>TOTAL</b>	<b>0.00</b>	<b>510,963.51</b>	<b>0.00</b>	<b>2,049,081.70</b>	<b>1,369.21</b>	<b>1,762,381.10</b>	<b>246.00</b>	<b>1,070,509.82</b>	<b>27,472.80</b>	<b>1,081,011.79</b>	<b>(6,444,859.71)</b>	<b>(1,288,971)</b>

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1912	28,032	26,479	1,553		1,553	0.0
1915	74,556	44,463	30,093		31,646	0.0
1916	188,373	117,765	70,608		102,254	0.0
1917	59,222	51,795	7,427		109,681	0.0
1919	10,272	8,323	1,949		111,630	0.0
1920	122,709	72,254	50,455		162,085	0.0
1921	5,218	4,935	283		162,368	0.0
1922	7,761	5,390	2,371		164,739	0.0
1924	15,269	14,457	812		165,551	0.0
1925	675,541	550,929	124,612		290,163	0.0
1926	522,804	407,213	115,591		405,754	0.1
1927	132,061	108,280	23,781		429,535	0.1
1928	67,988	50,618	17,370		446,905	0.1
1929	18,987	11,205	7,782		454,687	0.1
1930	551,110	381,330	169,780		624,467	0.1
1931	228,348	170,048	58,300		682,767	0.1
1932	84,670	67,525	17,145		699,912	0.1
1933	21,154	13,032	8,122		708,034	0.1
1934	25,700	19,168	6,532		714,566	0.1
1935	1,256,020	733,067	522,953		1,237,519	0.2
1936	643,425	424,253	219,172		1,456,691	0.2
1937	193,098	133,802	59,296		1,515,987	0.2
1938	194,749	136,075	58,674		1,574,661	0.2
1939	219,489	141,218	78,271		1,652,932	0.3
1940	70,312	45,377	24,935		1,677,867	0.3
1941	17,742	11,058	6,684		1,684,551	0.3
1942	145,002	95,916	49,086		1,733,637	0.3
1943	7,856,394	5,691,039	2,165,355		3,898,992	0.6
1944	32,287	23,574	8,713		3,907,705	0.6
1945	62,803	35,002	27,801		3,935,506	0.6
1946	249,497	136,826	112,671		4,048,177	0.6
1947	119,074	67,510	51,564		4,099,741	0.6
1948	19,056	10,023	9,033		4,108,774	0.6
1949	14,967	8,036	6,931		4,115,705	0.6
1950	124,989	64,086	60,903		4,176,608	0.6
1951	931,459	911,385	20,074		4,196,682	0.7
1952	19,814	10,195	9,619		4,206,301	0.7
1953	1,570,588	867,198	703,390		4,909,691	0.8
1954	4,566,445	2,296,571	2,269,874		7,179,565	1.1
1955	254,102	128,674	125,428		7,304,993	1.1
1956	129,575	65,267	64,308		7,369,301	1.1
1957	1,361,667	697,543	664,124		8,033,425	1.2
1958	209,164	129,081	80,083		8,113,508	1.3
1961	483,408	229,422	253,986		8,367,494	1.3
1962	111,470	53,700	57,770		8,425,264	1.3

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST	PCT OF
			(2)	(3)	CUMULATIVE AMOUNT (5)	COL 4 TOTAL (6)
1963	1,737,376	812,725	924,651		9,349,915	1.4
1965	602,379	278,303	324,076		9,673,991	1.5
1966	35,783,648	17,747,319	18,036,329		27,710,320	4.3
1967	24,165,949	10,901,639	13,264,310		40,974,630	6.4
1968	488,920	221,555	267,365		41,241,995	6.4
1969	722,739	309,846	412,893		41,654,888	6.5
1970	1,341,100	661,812	679,288		42,334,176	6.6
1971	31,098	15,225	15,873		42,350,049	6.6
1972	7,955,115	3,322,394	4,632,721		46,982,770	7.3
1973	167,578	61,425	106,153		47,088,923	7.3
1974	1,640,324	563,452	1,076,872		48,165,795	7.5
1975	7,267,573	3,161,386	4,106,187		52,271,982	8.1
1976	1,315,348	470,820	844,528		53,116,510	8.2
1977	719,568	257,506	462,062		53,578,572	8.3
1978	20,895,233	8,413,858	12,481,375		66,059,947	10.2
1979	239,548	93,637	145,911		66,205,858	10.3
1980	5,485,529	2,186,115	3,299,414		69,505,272	10.8
1981	15,393,158	5,990,964	9,402,194		78,907,466	12.2
1982	141,020	64,215	76,805		78,984,271	12.2
1983	25,928,701	8,687,857	17,240,844		96,225,115	14.9
1984	4,504,365	1,607,681	2,896,684		99,121,799	15.4
1985	6,983,074	2,693,343	4,289,731		103,411,530	16.0
1986	2,872,502	1,074,859	1,797,643		105,209,173	16.3
1987	2,423,277	938,123	1,485,154		106,694,327	16.5
1988	20,228,357	6,975,285	13,253,072		119,947,399	18.6
1989	11,622,172	4,036,925	7,585,247		127,532,646	19.8
1990	20,542,012	7,245,861	13,296,151		140,828,797	21.8
1991	34,822,531	11,757,311	23,065,220		163,894,017	25.4
1992	59,924,521	19,212,688	40,711,833		204,605,850	31.7
1993	14,656,099	5,299,280	9,356,819		213,962,669	33.2
1994	1,557,732	498,837	1,058,895		215,021,564	33.3
1995	20,623,334	6,347,587	14,275,747		229,297,311	35.5
1996	1,666,876	481,389	1,185,487		230,482,798	35.7
1997	7,039,156	1,787,859	5,251,297		235,734,095	36.5
1998	8,550,666	2,529,944	6,020,722		241,754,817	37.5
1999	5,616,294	1,583,135	4,033,159		245,787,976	38.1
2000	11,694,349	3,116,598	8,577,751		254,365,727	39.4
2001	7,731,549	1,959,378	5,772,171		260,137,898	40.3
2002	3,904,190	894,741	3,009,449		263,147,347	40.8
2003	8,183,868	1,969,234	6,214,634		269,361,981	41.7
2004	7,382,829	1,780,107	5,602,722		274,964,703	42.6
2005	16,925,520	3,620,794	13,304,726		288,269,429	44.7
2006	8,179,660	1,886,397	6,293,263		294,562,692	45.6
2007	10,990,126	1,879,213	9,110,913		303,673,605	47.1
2008	25,621,580	5,561,581	20,059,999		323,733,604	50.2

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2009	59,394,628	13,402,500	45,992,128		369,725,732	57.3
2010	54,478,014	10,424,396	44,053,618		413,779,350	64.1
2011	28,949,877	5,006,043	23,943,834		437,723,184	67.8
2012	11,171,390	1,828,667	9,342,723		447,065,907	69.3
2013	10,279,403	1,511,984	8,767,419		455,833,326	70.6
2014	46,103,755	6,314,847	39,788,908		495,622,234	76.8
2015	18,962,230	2,467,982	16,494,248		512,116,482	79.4
2016	12,777,248	1,165,400	11,611,848		523,728,330	81.2
2017	24,690,795	1,742,598	22,948,197		546,676,527	84.7
2018	13,048,360	1,308,748	11,739,612		558,416,139	86.5
2019	26,615,369	1,565,003	25,050,366		583,466,505	90.4
2020	22,417,019	1,203,405	21,213,614		604,680,119	93.7
2021	25,611,589	833,808	24,777,781		629,457,900	97.5
2022	38,985,857	845,484	38,140,374		667,598,273	103.5
2023	13,121,670	77,764	13,043,906		680,642,178	105.5
9999	46,349,947-	10,975,783-	35,374,164-		645,268,014	100.0
SUBTOTAL	860,222,171	214,954,156	645,268,016			
NONDEPRECIABLE	15,002,968		15,002,968			
TOTAL	875,225,139	214,954,156	660,270,984			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2007	5,708.78	2,165	229	5,480	26.19	209
2008	111,043.49	39,643	4,185	106,858	27.02	3,955
2009	158,630.86	53,078	5,603	153,028	27.84	5,497
2011	8,586.64	2,494	263	8,324	29.32	284
2013	101,201.33	24,693	2,607	98,594	30.98	3,183
2014	14,766.25	3,269	345	14,421	31.65	456
2015	41,897.14	8,279	874	41,023	32.49	1,263
2016	36,654.91	6,363	672	35,983	33.32	1,080
2017	197,636.56	29,645	3,129	194,508	34.00	5,721
2018	185,763.69	23,313	2,461	183,303	34.84	5,261
2019	271,022.14	27,319	2,884	268,138	35.68	7,515
2020	444,301.66	33,856	3,574	440,728	36.37	12,118
2021	1,233,847.63	63,173	6,669	1,227,179	37.06	33,113
2022	3,985,191.47	103,216	10,895	3,974,296	37.61	105,671
2023	1,682,912.44	11,107	1,172	1,681,740	37.77	44,526
	8,479,164.99	431,613	45,562	8,433,603		229,852

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 36.7 2.71



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1935	16,444.43	15,050	16,444			
1958	63,683.83	50,915	60,152	3,532	16.30	217
1976	26,258.22	17,895	21,141	5,117	21.97	233
1978	11,146.44	7,424	8,771	2,375	22.57	105
1980	109,629.29	71,182	84,095	25,534	23.23	1,099
1982	12,204.98	7,706	9,104	3,101	23.94	130
1983	86,589.73	53,686	63,425	23,165	24.52	945
1984	29,556.43	18,097	21,380	8,176	24.69	331
1985	109,617.31	66,231	78,246	31,371	24.89	1,260
1986	110,140.47	65,611	77,514	32,626	25.11	1,299
1987	29,681.60	17,310	20,450	9,232	25.73	359
1988	230,555.18	132,339	156,347	74,208	25.98	2,856
1989	253,789.18	143,239	169,225	84,564	26.24	3,223
1990	195,083.34	108,154	127,775	67,308	26.52	2,538
1991	285,470.50	155,296	183,469	102,002	26.82	3,803
1992	76,688.69	40,890	48,308	28,381	27.14	1,046
1993	2,172,966.53	1,134,289	1,340,066	832,901	27.47	30,320
1994	41,573.85	21,219	25,068	16,506	27.82	593
1996	24,175.73	11,815	13,958	10,218	28.25	362
1997	208,448.09	99,180	117,173	91,275	28.64	3,187
1998	429,870.49	198,815	234,883	194,987	29.05	6,712
1999	305,065.23	137,645	162,616	142,449	29.19	4,880
2000	237,524.37	104,344	123,274	114,250	29.36	3,891
2001	179,000.00	76,003	89,791	89,209	29.81	2,993
2002	9,723.14	4,002	4,728	4,995	30.02	166
2003	271,071.10	107,886	127,458	143,613	30.25	4,748
2004	1,143,084.50	438,716	518,306	624,778	30.50	20,485
2005	428,604.11	158,155	186,847	241,757	30.78	7,854
2006	928,740.33	328,403	387,980	540,760	31.08	17,399
2007	516,608.48	174,407	206,047	310,561	31.39	9,894
2008	1,959,895.68	632,066	746,732	1,213,164	31.51	38,501
2009	2,933,040.76	895,164	1,057,560	1,875,481	31.87	58,848
2010	2,451,233.54	707,426	835,763	1,615,471	32.05	50,405
2011	298,754.41	81,022	95,721	203,033	32.25	6,296
2012	37,883.52	9,585	11,324	26,560	32.48	818
2013	181,693.78	42,516	50,229	131,465	32.74	4,015
2014	4,038,886.37	865,129	1,022,076	3,016,810	33.02	91,363
2015	1,545,002.12	300,348	354,835	1,190,167	33.15	35,902
2016	544,942.14	94,602	111,764	433,178	33.32	13,001
2017	463,399.48	70,622	83,434	379,965	33.37	11,386
2018	388,079.03	50,256	59,373	328,706	33.61	9,780

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2019	1,004,042.79	106,830	126,211	877,832	33.59	26,134
2020	87,458.80	7,163	8,463	78,996	33.63	2,349
2021	128,856.38	7,216	8,525	120,331	33.71	3,570
2022	265,508.36	7,700	9,097	256,411	33.48	7,659
9999	2,734,528.70-	862,363-	1,018,662-	1,715,867-		54,198-
	22,137,144.03	6,981,186	8,246,486	13,890,658		438,757
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.7 1.98

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1916	175,472.68	174,613	105,775	69,698	0.53	69,698
1932	602.40	559	339	263	7.04	37
1935	564,423.15	516,560	312,915	251,508	8.15	30,860
1946	484.94	422	256	229	11.50	20
1954	3,945,835.14	3,267,151	1,979,130	1,966,705	14.33	137,244
1957	137,083.79	110,380	66,864	70,220	15.97	4,397
1961	346,385.67	272,744	165,219	181,167	16.74	10,822
1963	1,573,909.30	1,218,206	737,948	835,961	17.52	47,715
1965	53,759.86	40,847	24,744	29,016	18.34	1,582
1967	24,003,838.66	17,878,059	10,829,925	13,173,914	19.19	686,499
1968	361,924.73	266,739	161,581	200,344	19.63	10,206
1969	221,599.62	162,743	98,584	123,016	19.53	6,299
1973	38,481.00	27,129	16,434	22,047	20.92	1,054
1975	419,410.21	287,883	174,390	245,020	21.93	11,173
1976	17,438.45	11,884	7,199	10,239	21.97	466
1978	20,502,042.62	13,654,360	8,271,350	12,230,693	22.57	541,900
1981	12,789,541.84	8,164,844	4,945,987	7,843,555	23.79	329,700
1984	693,417.71	424,580	257,196	436,222	24.69	17,668
1985	133,860.33	80,878	48,993	84,867	24.89	3,410
1986	416,595.46	248,166	150,331	266,264	25.11	10,604
1988	15,069,660.19	8,649,985	5,239,869	9,829,791	25.98	378,360
1989	7,357,194.15	4,152,400	2,515,384	4,841,810	26.24	184,520
1990	6,479,888.32	3,592,450	2,176,185	4,303,703	26.52	162,281
1991	31,895,650.39	17,351,234	10,510,792	21,384,858	26.82	797,347
1992	52,490,038.28	27,987,688	16,953,997	35,536,041	27.14	1,309,360
1993	401,002.87	209,323	126,801	274,202	27.47	9,982
1994	16,680.06	8,514	5,157	11,523	27.82	414
1995	124,581.42	62,091	37,613	86,968	28.18	3,086
1996	647,409.73	316,389	191,658	455,752	28.25	16,133
1997	274,432.07	130,575	79,098	195,334	28.64	6,820
1998	599,628.40	277,328	167,996	431,632	29.05	14,858
1999	234,102.55	105,627	63,985	170,118	29.19	5,828
2000	6,483,934.82	2,848,393	1,725,460	4,758,475	29.36	162,073
2001	2,266,355.22	962,294	582,925	1,683,430	29.81	56,472
2002	879,550.45	362,023	219,301	660,249	30.02	21,994
2003	1,983,806.66	789,555	478,286	1,505,521	30.25	49,769
2004	203,091.82	77,947	47,218	155,874	30.50	5,111
2005	887,279.57	327,406	198,331	688,949	30.78	22,383
2006	1,012,988.84	358,193	216,981	796,008	31.08	25,612
2007	46,539.86	15,712	9,518	37,022	31.39	1,179
2008	2,853,651.92	920,303	557,488	2,296,164	31.51	72,871

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2009	17,731,630.97	5,411,694	3,278,222	14,453,409	31.87	453,511
2010	20,536,198.92	5,926,747	3,590,223	16,945,976	32.05	528,736
2011	16,125,548.83	4,373,249	2,649,167	13,476,382	32.25	417,872
2012	3,496,681.74	884,660	535,897	2,960,785	32.48	91,157
2013	231,088.74	54,075	32,757	198,332	32.74	6,058
2014	10,279,133.56	2,201,790	1,333,770	8,945,364	33.02	270,907
2015	149,213.17	29,007	17,571	131,642	33.15	3,971
2016	453,213.66	78,678	47,661	405,553	33.32	12,171
2017	990,597.57	150,967	91,451	899,147	33.37	26,945
2018	275,973.16	35,739	21,649	254,324	33.61	7,567
2019	206,079.04	21,927	13,283	192,796	33.59	5,740
2020	2,230,611.63	182,687	110,666	2,119,946	33.63	63,037
2021	2,299,804.80	128,789	78,016	2,221,789	33.71	65,909
2022	5,454,129.36	158,170	95,814	5,358,315	33.48	160,045
2023	813,770.69	6,022	3,647	810,124	33.42	24,241
9999	1,853,012.73-	900,154-	545,282-	1,307,730-		48,767-
	278,024,238.26	135,058,224	81,813,715	196,210,524		7,316,907
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.8 2.63

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
1939	3,508.43	3,508	3,508			
1972	450.26	409	450			
1984	11,260.27	9,178	11,260			
1992	13,845.31	10,129	13,845			
1993	16,941.89	12,198	16,942			
1994	29,220.00	20,591	29,220			
1997	5,855.00	3,882	5,855			
2003	3,759.70	2,113	3,760			
2007	1,139.15	547	1,129	10	17.33	1
2008	354,558.47	162,211	334,772	19,786	17.79	1,112
2009	51,447.64	22,328	46,081	5,367	18.26	294
2010	38,934.54	15,944	32,905	6,030	18.75	322
2011	7,105.08	2,728	5,630	1,475	19.25	77
2012	28,465.52	10,176	21,001	7,465	19.77	378
2013	25,257.86	8,335	17,202	8,056	20.30	397
2014	413,665.01	124,720	257,398	156,267	20.85	7,495
2015	1,021,769.08	277,104	571,890	449,879	21.50	20,925
2016	9,177.69	2,210	4,561	4,617	22.07	209
2017	131,543.68	27,466	56,685	74,859	22.74	3,292
2018	372,536.26	65,566	135,315	237,221	23.41	10,133
2019	84,483.65	12,030	24,828	59,656	24.09	2,476
2020	174,920.13	18,839	38,880	136,040	24.86	5,472
2021	645,467.93	46,603	96,180	549,288	25.70	21,373
2022	1,059,042.73	38,443	79,339	979,704	26.55	36,900
2023	52,851.03	481	992	51,859	27.22	1,905
9999	8,525.80	1,680	3,387	5,139		211
	4,565,732.11	899,419	1,813,015	2,752,717		112,972
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.4 2.47

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1980	5,976.33	4,985	5,976			
1983	14,573.73	11,776	14,574			
1987	19,246.40	14,758	19,246			
1989	49,338.78	36,905	49,339			
1990	26,650.73	19,612	26,651			
1992	59,866.38	42,685	58,442	1,424	12.48	114
1993	267,544.17	187,816	257,146	10,398	12.74	816
1994	20,325.00	13,969	19,125	1,200	13.19	91
1997	30,447.00	19,711	26,987	3,460	14.16	244
1998	74,281.11	46,983	64,326	9,955	14.53	685
1999	54,144.46	33,396	45,724	8,420	14.91	565
2000	115,244.22	69,446	95,081	20,163	15.17	1,329
2001	38,477.83	22,517	30,829	7,649	15.59	491
2002	56,915.93	32,391	44,348	12,568	15.90	790
2005	68,295.28	35,035	47,968	20,327	17.09	1,189
2007	12,208.69	5,782	7,916	4,293	17.78	241
2008	1,263,581.59	570,507	781,101	482,481	18.22	26,481
2009	2,526,515.89	1,085,897	1,486,741	1,039,775	18.57	55,992
2010	20,681.36	8,415	11,521	9,160	18.95	483
2011	62,203.16	23,811	32,600	29,603	19.35	1,530
2012	81,422.26	29,108	39,853	41,569	19.77	2,103
2013	26,762.41	8,885	12,165	14,597	20.12	725
2014	609,411.88	185,383	253,814	355,598	20.59	17,270
2015	90,933.42	25,098	34,363	56,570	20.99	2,695
2016	10,498.31	2,587	3,542	6,956	21.41	325
2017	13,046.73	2,818	3,858	9,189	21.78	422
2018	4,307.88	793	1,086	3,222	22.17	145
2019	9,195.02	1,383	1,894	7,301	22.60	323
2020	160,993.90	18,595	25,459	135,535	22.97	5,901
2022	220,398.74	8,926	12,220	208,179	23.69	8,788
9999	144,517.16-	61,762-	84,446-	60,071-		3,118-
	5,868,971.43	2,508,211	3,429,449	2,439,523		126,620

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.3 2.16

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1935	46,716.55	42,344	22,467	24,250	9.09	2,668
1957	7,035.53	5,526	2,932	4,104	18.03	228
1958	32,519.35	25,154	13,346	19,173	19.03	1,008
1965	13,337.78	9,593	5,090	8,248	22.65	364
1972	82,114.26	53,604	28,441	53,673	27.12	1,979
1973	125,694.50	81,073	43,016	82,678	27.52	3,004
1974	1,503,776.46	957,906	508,244	995,532	27.92	35,657
1975	849,779.52	530,262	281,345	568,435	28.92	19,655
1976	971,420.09	598,103	317,340	654,080	29.34	22,293
1977	458,850.00	276,503	146,706	312,144	30.34	10,288
1978	270,355.19	160,591	85,206	185,149	30.76	6,019
1979	73,749.33	43,158	22,899	50,850	31.19	1,630
1980	153,505.40	87,790	46,579	106,926	32.19	3,322
1981	160,944.25	90,579	48,059	112,885	32.63	3,460
1982	49,998.70	27,469	14,574	35,425	33.63	1,053
1983	192,381.70	103,886	55,120	137,262	34.07	4,029
1985	309,939.29	160,177	84,986	224,953	35.53	6,331
1986	64,235.29	32,561	17,276	46,959	35.99	1,305
1987	225,949.78	111,438	59,127	166,823	36.99	4,510
1988	489,155.66	236,262	125,355	363,801	37.46	9,712
1989	92,110.83	43,218	22,931	69,180	38.46	1,799
1990	94,085.10	43,157	22,898	71,187	38.94	1,828
1991	75,459.60	33,564	17,808	57,652	39.94	1,443
1992	34,682.29	15,052	7,986	26,696	40.43	660
1993	585,692.44	245,991	130,517	455,175	41.43	10,987
1994	287,028.44	117,366	62,272	224,756	41.92	5,362
1995	933,614.65	368,591	195,566	738,049	42.92	17,196
1996	132,298.94	50,723	26,912	105,387	43.42	2,427
1997	1,678,151.28	619,573	328,732	1,349,419	44.42	30,379
1998	525,641.24	187,917	99,705	425,936	44.93	9,480
1999	402,468.56	138,127	73,287	329,182	45.93	7,167
2000	489,230.36	162,033	85,971	403,259	46.44	8,683
2001	874,205.20	276,948	146,942	727,263	47.44	15,330
2002	556,204.52	169,364	89,861	466,344	47.97	9,722
2003	410,588.41	119,071	63,176	347,412	48.97	7,094
2004	2,412,532.77	669,237	355,082	2,057,451	49.49	41,573
2005	655,722.60	172,324	91,431	564,292	50.49	11,176
2006	1,981,527.29	495,184	262,734	1,718,793	51.03	33,682
2007	1,276,591.81	300,254	159,308	1,117,284	52.03	21,474
2008	3,804,768.86	838,952	445,130	3,359,639	53.03	63,354
2009	535,945.98	111,048	58,920	477,026	53.57	8,905

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2010	760,840.68	146,386	77,669	683,172	54.57	12,519
2013	306,529.32	45,979	24,395	282,134	56.67	4,979
2014	4,405,978.64	594,807	315,592	4,090,387	57.67	70,927
2015	2,390,999.91	288,833	153,248	2,237,752	58.23	38,430
2016	3,136,411.58	331,519	175,897	2,960,515	59.23	49,983
2017	3,493,507.23	318,608	169,046	3,324,461	59.79	55,602
2018	1,048,285.61	79,670	42,271	1,006,015	60.79	16,549
2019	4,282,229.06	262,072	139,050	4,143,179	61.36	67,522
2020	2,934,951.16	135,595	71,944	2,863,007	61.94	46,222
2021	3,149,014.86	97,619	51,794	3,097,221	62.52	49,540
2022	2,005,591.01	31,488	16,707	1,988,884	62.69	31,726
2023	2,498,983.37	9,996	5,304	2,493,679	62.64	39,810
9999	11,878,502.80-	2,438,572-	1,293,852-	10,584,651-		203,766-
	42,454,829.43	8,715,673	4,624,342	37,830,488		728,279
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						51.9 1.72



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1912	3,869.28	3,565	2,316	1,553	9.48	164
1915	74,556.50	68,443	44,463	30,094	9.65	3,119
1916	2,264.32	2,084	1,354	910	9.28	98
1917	18,213.24	16,603	10,786	7,427	10.28	722
1919	4,729.87	4,280	2,780	1,950	10.94	178
1920	122,709.20	111,224	72,254	50,455	10.64	4,742
1921	692.58	629	409	284	10.36	27
1922	5,699.88	5,124	3,329	2,371	11.36	209
1924	1,957.59	1,764	1,146	812	10.89	75
1925	138,403.05	123,428	80,182	58,221	11.89	4,897
1926	113,284.49	101,095	65,674	47,610	11.70	4,069
1927	21,652.70	19,124	12,424	9,229	12.70	727
1928	16,934.55	14,962	9,720	7,215	12.53	576
1929	18,270.37	16,144	10,488	7,782	12.38	629
1930	270,770.24	236,707	153,772	116,998	13.38	8,744
1931	54,151.30	47,328	30,746	23,405	13.26	1,765
1932	24,015.69	20,980	13,629	10,387	13.17	789
1933	14,232.60	12,297	7,988	6,245	14.17	441
1934	3,907.37	3,373	2,191	1,716	14.09	122
1935	482,558.63	411,912	267,590	214,969	15.09	14,246
1936	356,940.02	304,327	197,700	159,240	15.04	10,588
1937	55,326.44	47,105	30,601	24,725	15.01	1,647
1938	50,807.56	42,755	27,775	23,033	16.01	1,439
1939	61,927.87	52,019	33,793	28,135	16.00	1,758
1940	18,414.47	15,437	10,028	8,386	16.01	524
1941	8,087.28	6,698	4,351	3,736	17.01	220
1942	32,564.04	26,904	17,478	15,086	17.04	885
1943	2,181,156.84	1,797,273	1,167,560	1,013,597	17.09	59,309
1944	3,914.21	3,185	2,069	1,845	18.09	102
1945	39,141.40	31,752	20,627	18,514	18.15	1,020
1946	127,317.34	101,956	66,234	61,083	19.15	3,190
1947	23,247.89	18,552	12,052	11,196	19.24	582
1948	4,853.93	3,859	2,507	2,347	19.34	121
1949	2,909.04	2,282	1,482	1,427	20.34	70
1950	64,255.76	50,190	32,605	31,651	20.46	1,547
1951	9,357.18	7,276	4,727	4,630	20.59	225
1952	3,101.48	2,378	1,545	1,556	21.59	72
1953	419,902.85	320,386	208,132	211,771	21.74	9,741
1954	209,709.65	157,723	102,461	107,249	22.74	4,716
1955	85,941.59	64,284	41,761	44,181	22.91	1,928
1956	36,536.86	27,172	17,652	18,885	23.09	818

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1957	966,456.90	708,026	459,954	506,503	24.09	21,025
1958	41,596.91	30,283	19,673	21,924	24.29	903
1961	44,879.38	31,721	20,607	24,272	25.72	944
1962	45,642.03	31,739	20,619	25,023	26.72	936
1963	30,105.33	20,773	13,495	16,610	26.96	616
1965	319,829.73	215,181	139,788	180,042	28.21	6,382
1966	21,592,285.96	14,399,896	9,354,586	12,237,700	28.47	429,845
1968	34,420.00	22,339	14,512	19,908	29.75	669
1969	401,852.73	256,061	166,345	235,508	30.75	7,659
1970	781,349.79	492,797	320,135	461,215	31.03	14,864
1971	7,126.07	4,447	2,889	4,237	31.33	135
1972	6,228,452.78	3,811,813	2,476,263	3,752,190	32.33	116,059
1974	112,985.01	66,989	43,518	69,467	33.64	2,065
1975	3,714,031.13	2,174,937	1,412,902	2,301,129	33.97	67,740
1976	246,041.90	141,080	91,650	154,392	34.97	4,415
1977	161,159.15	91,184	59,236	101,923	35.30	2,887
1978	78,508.62	43,808	28,459	50,050	35.65	1,404
1979	86,228.75	47,046	30,562	55,667	36.65	1,519
1980	3,223,142.22	1,732,439	1,125,442	2,097,700	37.00	56,695
1982	19,290.42	9,965	6,474	12,816	38.37	334
1983	24,537,500.26	12,465,050	8,097,654	16,439,846	38.74	424,364
1984	2,803,782.15	1,388,713	902,148	1,901,634	39.74	47,852
1985	3,490,753.96	1,697,903	1,103,007	2,387,747	40.12	59,515
1986	1,042,054.14	493,517	320,603	721,451	41.12	17,545
1987	1,007,322.58	467,801	303,897	703,426	41.52	16,942
1988	2,979,493.48	1,345,241	873,907	2,105,586	42.52	49,520
1989	2,341,591.92	1,034,984	672,355	1,669,237	42.92	38,892
1990	6,027,373.24	2,605,633	1,692,694	4,334,679	43.34	100,016
1992	5,295,818.59	2,167,049	1,407,777	3,888,042	44.76	86,864
1993	6,538,894.74	2,589,402	1,682,150	4,856,745	45.76	106,135
1994	594,962.59	229,477	149,075	445,888	46.19	9,653
1995	10,247,152.66	3,844,732	2,497,648	7,749,505	46.63	166,191
1996	418,494.03	151,411	98,361	320,133	47.63	6,721
1997	3,304,189.93	1,159,771	753,421	2,550,769	48.07	53,064
1998	2,273,457.10	772,975	502,147	1,771,310	48.53	36,499
1999	2,097,803.63	684,723	444,816	1,652,988	49.53	33,373
2000	2,783,873.73	877,199	569,854	2,214,020	49.99	44,289
2001	1,796,577.63	541,488	351,766	1,444,812	50.99	28,335
2002	1,493,974.65	432,954	281,259	1,212,716	51.46	23,566
2003	2,136,820.89	594,036	385,903	1,750,918	51.94	33,710
2004	1,184,085.08	312,717	203,150	980,935	52.94	18,529

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2005	7,388,029.67	1,861,783	1,209,468	6,178,562	53.43	115,638
2006	1,921,244.91	460,522	299,168	1,622,077	53.92	30,083
2007	6,292,793.38	1,429,723	928,789	5,364,004	54.42	98,567
2008	8,356,892.16	1,780,018	1,156,351	7,200,541	55.42	129,927
2009	7,871,427.50	1,575,860	1,023,724	6,847,704	55.93	122,433
2010	5,170,927.25	967,998	628,839	4,542,088	56.44	80,476
2011	3,149,642.79	548,038	356,021	2,793,622	56.97	49,037
2012	2,049,295.02	329,117	213,804	1,835,491	57.49	31,927
2013	4,152,674.44	610,443	396,561	3,756,113	58.03	64,727
2014	12,136,614.16	1,616,597	1,050,188	11,086,426	58.57	189,285
2015	5,354,324.14	638,235	414,616	4,939,708	59.11	83,568
2016	5,949,427.37	624,690	405,817	5,543,610	59.67	92,904
2017	15,526,038.73	1,406,659	913,806	14,612,233	60.23	242,607
2018	3,120,012.54	238,681	155,054	2,964,959	60.36	49,121
2019	12,913,705.52	795,484	516,769	12,396,937	60.94	203,429
2020	3,382,457.68	159,314	103,495	3,278,963	60.69	54,028
2021	5,274,018.02	168,769	109,637	5,164,381	60.50	85,362
2022	4,454,853.07	73,505	47,751	4,407,102	59.61	73,932
2023	2,508,328.07	10,786	7,007	2,501,321	57.55	43,463
9999	16,271,626.05-	5,305,906-	3,446,870-	12,824,756-		274,374-
	228,420,729.31	74,484,195	48,387,077	180,033,652		3,851,652
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						46.7 1.69

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1912	1,572.72	1,573	1,573			
1916	1,911.68	1,912	1,912			
1917	11,474.98	11,475	11,475			
1921	3,790.15	3,790	3,790			
1924	2,735.16	2,735	2,735			
1925	130,561.92	130,510	64,171	66,391	0.04	66,391
1926	133,622.37	133,502	65,642	67,980	0.09	67,980
1927	28,585.36	28,540	14,033	14,552	0.15	14,552
1928	19,749.81	19,513	9,594	10,156	1.15	8,831
1930	102,431.77	100,977	49,650	52,782	1.34	39,390
1931	67,628.80	66,574	32,734	34,895	1.46	23,901
1932	12,566.11	12,350	6,072	6,494	1.59	4,084
1933	3,626.04	3,557	1,749	1,877	1.74	1,079
1934	9,285.87	9,091	4,470	4,816	1.91	2,521
1935	62,008.89	60,570	29,782	32,227	2.09	15,420
1936	115,058.29	112,113	55,126	59,932	2.29	26,171
1937	66,205.54	64,339	31,635	34,571	2.50	13,828
1938	68,078.15	65,968	32,436	35,642	2.72	13,104
1939	95,491.18	92,244	45,356	50,135	2.96	16,938
1940	31,426.02	30,257	14,877	16,549	3.21	5,155
1941	5,580.70	5,354	2,633	2,948	3.47	850
1942	64,632.82	62,300	30,633	34,000	3.03	11,221
1943	2,181,478.24	2,094,219	1,029,720	1,151,758	3.33	345,873
1944	12,957.82	12,386	6,090	6,868	3.64	1,887
1945	11,217.09	10,674	5,248	5,969	3.97	1,504
1946	69,934.23	66,235	32,568	37,366	4.30	8,690
1947	54,472.68	51,749	25,445	29,028	4.00	7,257
1948	10,708.15	10,119	4,975	5,733	4.37	1,312
1949	8,292.42	7,793	3,832	4,460	4.74	941
1950	46,927.54	43,849	21,560	25,368	5.12	4,955
1951	24,689.71	23,110	11,363	13,327	4.92	2,709
1952	12,799.58	11,905	5,854	6,946	5.34	1,301
1953	625,274.35	582,130	286,231	339,043	5.19	65,326
1954	300,399.77	277,750	136,569	163,831	5.63	29,100
1955	126,303.26	116,805	57,433	68,870	5.53	12,454
1956	70,764.47	64,955	31,938	38,826	5.99	6,482
1957	35,807.16	32,849	16,152	19,655	5.94	3,309
1958	55,429.01	50,440	24,801	30,628	6.43	4,763
1961	80,479.17	72,351	35,575	44,904	6.97	6,442
1962	48,649.72	43,327	21,304	27,346	7.49	3,651
1963	46,793.72	41,553	20,431	26,363	7.57	3,483

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1965	73,070.90	64,419	31,675	41,396	7.79	5,314
1966	4,622,443.35	4,031,233	1,982,143	2,640,300	8.36	315,825
1968	35,388.05	30,558	15,025	20,363	8.69	2,343
1969	84,594.90	72,633	35,713	48,882	8.89	5,499
1970	147,368.99	124,969	61,447	85,922	9.50	9,044
1971	13,739.30	11,574	5,691	8,048	9.73	827
1972	1,038,848.07	868,893	427,232	611,616	9.98	61,284
1974	13,998.60	11,524	5,666	8,333	10.52	792
1975	599,973.89	489,579	240,724	359,250	10.82	33,202
1977	42,780.69	34,242	16,837	25,944	11.47	2,262
1979	34,431.77	26,815	13,185	21,247	12.50	1,700
1980	1,193,863.10	918,916	451,828	742,035	12.87	57,656
1983	809,610.51	599,112	294,581	515,030	14.05	36,657
1984	134,019.84	97,741	48,059	85,961	14.48	5,937
1985	768,564.12	551,983	271,408	497,156	14.91	33,344
1986	205,518.24	145,240	71,414	134,104	15.36	8,731
1987	236,554.49	163,506	80,395	156,159	16.08	9,711
1988	295,673.19	200,762	98,714	196,959	16.55	11,901
1989	21,431.94	14,282	7,022	14,410	17.02	847
1990	1,674,480.37	1,094,105	537,967	1,136,513	17.51	64,907
1992	572,844.23	356,939	175,506	397,338	18.75	21,191
1993	358,744.07	218,475	107,423	251,321	19.26	13,049
1994	240,277.70	142,148	69,894	170,384	20.02	8,511
1995	2,835,618.70	1,635,585	804,211	2,031,408	20.54	98,900
1996	176,864.14	98,849	48,604	128,260	21.31	6,019
1997	1,036,369.93	560,469	275,581	760,789	22.08	34,456
1998	436,827.22	229,334	112,763	324,064	22.62	14,326
1999	572,929.58	290,132	142,657	430,273	23.39	18,396
2000	534,225.82	260,489	128,081	406,145	24.17	16,804
2001	386,599.26	181,160	89,076	297,523	24.95	11,925
2002	417,410.92	187,584	92,234	325,177	25.73	12,638
2003	631,044.62	271,349	133,421	497,624	26.51	18,771
2004	604,016.76	247,888	121,886	482,131	27.30	17,660
2005	2,284,646.16	888,270	436,759	1,847,887	28.30	65,296
2006	171,037.75	63,096	31,024	140,014	29.08	4,815
2007	2,053,375.92	716,218	352,162	1,701,214	29.87	56,954
2008	2,372,131.15	775,687	381,402	1,990,729	30.87	64,487
2009	238,824.56	73,224	36,004	202,821	31.66	6,406
2010	783,441.59	223,046	109,671	673,771	32.66	20,630
2011	1,314,648.76	347,067	170,652	1,143,997	33.45	34,200
2012	96,983.02	23,470	11,540	85,443	34.45	2,480

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2013	1,061,797.09	233,595	114,858	946,939	35.45	26,712
2014	2,194,357.17	434,483	213,634	1,980,723	36.45	54,341
2015	5,519,178.30	971,375	477,621	5,041,557	37.45	134,621
2016	283,133.88	43,801	21,537	261,597	38.25	6,839
2017	406,388.58	53,887	26,496	379,893	39.25	9,679
2018	185,761.31	20,527	10,093	175,668	40.25	4,364
2019	153,157.12	13,539	6,657	146,500	41.25	3,552
2020	389,420.66	25,819	12,695	376,726	42.25	8,917
2021	198,658.46	8,781	4,317	194,341	43.25	4,493
2022	703,119.93	15,539	7,641	695,479	44.25	15,717
2023	6,252.07	34	16	6,236	45.00	139
9999	4,387,312.76-	2,263,418-	1,113,953-	3,273,360-		221,414-
	41,740,530.40	21,533,970	10,598,056	31,142,474		2,106,512
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.8 5.05

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1912	22,589.57	22,590	22,590			
1916	8,724.19	8,724	8,724			
1917	29,533.87	29,534	29,534			
1919	5,542.61	5,543	5,543			
1921	735.56	736	736			
1922	2,061.14	2,061	2,061			
1924	10,576.28	10,576	10,576			
1925	406,575.78	406,576	406,576			
1926	275,896.64	275,897	275,897			
1927	81,823.31	81,823	81,823			
1928	31,303.91	31,304	31,304			
1929	717.00	717	717			
1930	177,907.55	177,908	177,908			
1931	106,567.72	106,568	106,568			
1932	47,485.32	47,485	47,485			
1933	3,294.89	3,295	3,295			
1934	12,506.52	12,507	12,507			
1935	83,868.66	83,869	83,869			
1936	171,427.07	171,427	171,427			
1937	71,566.46	71,566	71,566			
1938	75,863.59	75,864	75,864			
1939	58,561.23	58,561	58,561			
1940	20,471.70	20,472	20,472			
1941	4,074.41	4,074	4,074			
1942	47,804.75	47,805	47,805			
1943	3,493,758.53	3,493,759	3,493,759			
1944	15,414.58	15,415	15,415			
1945	12,444.98	12,425	9,127	3,318	0.12	3,318
1946	51,760.96	51,414	37,768	13,993	0.52	13,993
1947	41,353.68	40,857	30,013	11,341	0.92	11,341
1948	3,494.17	3,459	2,541	953	0.76	953
1949	3,765.73	3,706	2,722	1,044	1.19	877
1950	13,805.72	13,505	9,921	3,885	1.63	2,383
1951	7,539.28	7,382	5,423	2,116	1.53	1,383
1952	3,913.23	3,806	2,796	1,117	1.99	561
1953	525,410.70	507,547	372,835	152,576	2.46	62,023
1954	110,500.49	106,743	78,411	32,089	2.43	13,205
1955	41,856.73	40,132	29,480	12,377	2.92	4,239
1956	22,273.98	21,341	15,677	6,597	2.93	2,252
1957	193,104.07	184,801	135,751	57,353	2.97	19,311
1958	15,935.24	15,123	11,109	4,826	3.49	1,383

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1961	11,663.58	10,919	8,021	3,643	4.23	861
1962	17,177.97	16,032	11,777	5,401	4.36	1,239
1963	7,650.64	7,115	5,227	2,424	4.52	536
1965	58,981.00	54,050	39,704	19,277	5.29	3,644
1966	9,568,918.57	8,726,854	6,410,590	3,158,329	5.50	574,242
1968	12,368.97	11,157	8,196	4,173	5.98	698
1969	12,546.57	11,247	8,262	4,285	6.24	687
1970	382,020.04	340,151	249,869	132,151	6.52	20,269
1971	10,232.80	9,046	6,645	3,588	6.82	526
1972	605,250.06	530,925	390,008	215,242	7.14	30,146
1973	2,456.22	2,137	1,570	886	7.47	119
1974	9,563.95	8,201	6,024	3,540	8.14	435
1975	1,680,201.42	1,427,499	1,048,615	631,586	8.50	74,304
1976	54,189.63	45,590	33,490	20,700	8.87	2,334
1977	56,778.47	47,274	34,727	22,051	9.25	2,384
1978	33,180.60	27,324	20,072	13,109	9.64	1,360
1979	45,138.57	36,743	26,991	18,148	10.05	1,806
1980	799,412.49	642,808	472,195	327,217	10.48	31,223
1981	72,360.52	57,136	41,971	30,390	11.19	2,716
1982	59,525.72	46,371	34,063	25,463	11.63	2,189
1983	288,044.64	221,218	162,503	125,542	12.08	10,393
1984	250,999.93	189,907	139,502	111,498	12.55	8,884
1985	1,693,355.21	1,254,776	921,736	771,619	13.28	58,104
1986	226,760.23	165,286	121,416	105,344	13.76	7,656
1987	759,749.71	544,285	399,822	359,928	14.25	25,258
1988	329,311.48	230,518	169,334	159,977	15.00	10,665
1989	311,615.14	214,017	157,213	154,402	15.50	9,961
1990	3,463,154.40	2,319,967	1,704,206	1,758,948	16.26	108,176
1991	79,126.91	51,907	38,130	40,997	16.78	2,443
1992	459,275.48	293,293	215,448	243,827	17.54	13,901
1993	754,574.85	470,855	345,882	408,693	18.08	22,605
1994	250,014.08	152,259	111,847	138,167	18.62	7,420
1995	6,475,030.72	3,825,448	2,810,105	3,664,926	19.39	189,011
1996	129,486.81	74,118	54,446	75,041	20.17	3,720
1997	437,673.46	243,522	178,887	258,786	20.73	12,484
1998	401,410.66	215,758	158,492	242,919	21.51	11,293
1999	277,325.07	144,431	106,096	171,229	22.08	7,755
2000	1,039,266.17	521,088	382,782	656,484	22.87	28,705
2001	363,172.65	175,776	129,122	234,051	23.45	9,981
2002	362,565.21	168,267	123,606	238,959	24.25	9,854
2003	584,302.97	259,431	190,573	393,730	25.05	15,718



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2004	952,452.23	405,364	297,773	654,679	25.64	25,534
2005	2,840,211.69	1,150,286	844,979	1,995,233	26.44	75,463
2006	1,024,086.05	393,454	289,024	735,062	27.25	26,975
2007	699,608.98	254,098	186,656	512,953	28.05	18,287
2008	2,451,007.73	841,921	618,460	1,832,548	28.67	63,919
2009	2,444,550.13	787,145	578,223	1,866,327	29.48	63,308
2010	962,723.77	289,106	212,372	750,352	30.29	24,772
2011	235,577.57	65,585	48,178	187,400	31.10	6,026
2012	244,628.25	62,698	46,057	198,571	31.92	6,221
2013	568,674.86	133,639	98,169	470,506	32.55	14,455
2014	646,789.81	137,378	100,915	545,875	33.37	16,358
2015	1,284,189.77	243,482	178,857	1,105,333	34.19	32,329
2016	681,502.92	113,538	83,403	598,100	35.02	17,079
2017	2,247,855.84	322,343	236,788	2,011,068	35.84	56,112
2018	784,805.88	94,177	69,181	715,625	36.67	19,515
2019	447,976.33	43,364	31,854	416,122	37.32	11,150
2020	656,066.41	47,827	35,133	620,933	38.15	16,276
2021	754,771.37	36,984	27,168	727,603	38.82	18,743
2022	1,265,931.98	31,395	23,062	1,242,870	39.32	31,609
2023	838,359.47	5,282	3,880	834,479	39.43	21,164
9999	6,774,603.14-	3,960,417-	3,065,055-	3,709,548-		226,063-
	54,006,813.27	31,572,252	24,434,472	29,572,342		1,802,159
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.4 3.34

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1989	7,979.00	7,650	4,846	3,133	1.46	2,146
1990	3,478.54	3,317	2,101	1,378	1.60	861
1991	8,740.98	8,307	5,262	3,479	1.67	2,083
1992	6,784.52	6,394	4,050	2,735	1.89	1,447
1999	51,368.90	45,739	28,975	22,394	2.95	7,591
2001	7,764.93	6,748	4,275	3,490	3.32	1,051
2002	4,455.38	3,817	2,418	2,037	3.51	580
2004	2,628.68	2,183	1,383	1,246	3.88	321
2005	8,722.16	7,128	4,515	4,207	4.03	1,044
2006	15,631.29	12,543	7,946	7,685	4.19	1,834
2007	9,030.61	7,123	4,512	4,519	4.28	1,056
2008	29,418.95	22,770	14,424	14,995	4.38	3,424
2009	92,082.61	69,743	44,181	47,902	4.48	10,692
2010	29,477.55	21,728	13,764	15,714	4.64	3,387
2011	53,822.99	38,430	24,345	29,478	4.81	6,128
2013	26,874.75	17,442	11,049	15,826	5.41	2,925
2014	152,277.99	92,509	58,603	93,675	5.81	16,123
2015	112,570.79	62,860	39,821	72,750	6.33	11,493
2016	5,515.89	2,776	1,759	3,757	6.91	544
2018	1,269.20	478	303	966	8.28	117
2020	30,025.23	7,026	4,450	25,575	9.82	2,604
2021	13,780.49	2,177	1,379	12,401	10.66	1,163
9999	14,726.81-	9,812-	6,215-	8,512-		1,718-
	658,974.62	439,076	278,146	380,829		76,896

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.0 11.67

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
1970	30,360.76	30,361	30,361			
1991	227,265.28	203,630	181,723	45,542	3.71	12,275
2009	14,938.00	8,533	7,615	7,323	10.51	697
	272,564.04	242,524	219,699	52,865		12,972
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.1 4.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2007	6,261.10	2,154	1,182	5,079	30.51	166
2009	92,112.20	27,984	15,355	76,757	32.08	2,393
2013	33,467.05	7,396	4,058	29,409	35.25	834
2017	1,547.02	209	115	1,432	38.44	37
2019	544,001.01	49,613	27,222	516,779	39.86	12,965
	677,388.38	87,356	47,932	629,457		16,395
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						38.4 2.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1968	44,818.41	43,384	22,241	22,577	1.82	12,405
1985	508.69	429	220	289	7.05	41
1986	70,932.97	59,314	30,407	40,526	7.25	5,590
1989	4,752.26	3,813	1,955	2,797	8.37	334
1992	112,975.50	86,856	44,526	68,450	9.32	7,344
1993	200,011.41	151,809	77,824	122,187	9.53	12,821
1994	19,130.99	14,258	7,309	11,822	9.91	1,193
1996	56,678.77	40,707	20,868	35,811	10.59	3,382
1997	43,544.85	30,682	15,729	27,816	10.90	2,552
1998	68,611.64	47,342	24,270	44,342	11.23	3,949
1999	542,406.50	365,799	187,525	354,882	11.59	30,620
2001	15,000.00	9,636	4,940	10,060	12.25	821
2002	417.20	261	134	283	12.56	23
2003	120,731.71	73,163	37,507	83,225	13.00	6,402
2004	163,146.82	95,783	49,103	114,044	13.36	8,536
2005	99,949.30	56,851	29,144	70,805	13.65	5,187
2006	66,325.64	36,307	18,613	47,713	14.06	3,394
2007	6,031.45	3,175	1,628	4,403	14.40	306
2008	735,447.73	370,666	190,020	545,428	14.76	36,953
2009	599,115.88	287,695	147,486	451,630	15.15	29,811
2010	573,007.33	260,718	133,656	439,351	15.57	28,218
2011	65,408.03	28,099	14,405	51,003	15.93	3,202
2012	51,866.03	20,881	10,705	41,161	16.32	2,522
2013	60,261.59	22,538	11,554	48,708	16.74	2,910
2014	1,687,126.24	581,552	298,130	1,388,996	17.11	81,180
2015	231,880.48	72,718	37,279	194,601	17.51	11,114
2016	615,209.84	172,689	88,528	526,682	17.94	29,358
2017	401,872.92	99,102	50,804	351,069	18.33	19,153
2018	478,004.65	100,620	51,582	426,423	18.75	22,743
2019	3,987,162.58	688,982	353,204	3,633,959	19.15	189,763
2020	2,189,241.45	290,950	149,154	2,040,087	19.57	104,246
2021	645,423.04	58,863	30,176	615,247	19.93	30,870
2022	2,781,095.89	130,712	67,009	2,714,087	20.28	133,831
2023	510,073.21	6,121	3,138	506,935	20.54	24,680
9999	66,626.22-	16,658-	8,540-	58,086-		3,304-
	17,181,544.78	4,295,817	2,202,233	14,979,312		852,150

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.6 4.96

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1951	889,872.35	889,872	889,872			
1957	10,040.14	9,873	4,642	5,398	1.11	4,863
1963	78,917.20	75,761	35,624	43,293	2.50	17,317
1965	83,399.24	79,329	37,302	46,097	2.98	15,469
1967	162,110.25	152,513	71,714	90,396	3.52	25,681
1969	2,145.15	2,004	942	1,203	3.80	317
1973	946.11	861	405	541	4.95	109
1981	2,370,310.92	2,030,882	954,947	1,415,364	7.02	201,619
1984	581,328.63	485,177	228,136	353,193	7.73	45,691
1985	476,475.05	392,901	184,747	291,728	8.08	36,105
1986	729,639.26	593,926	279,272	450,367	8.45	53,298
1987	144,303.20	116,366	54,717	89,586	8.64	10,369
1988	834,507.53	663,016	311,759	522,749	9.05	57,762
1989	1,182,368.41	928,632	436,655	745,713	9.29	80,271
1990	2,547,386.07	1,967,092	924,952	1,622,434	9.74	166,574
1991	2,228,886.39	1,697,520	798,196	1,430,690	10.02	142,783
1992	801,701.61	601,437	282,803	518,899	10.32	50,281
1993	3,157,249.77	2,330,050	1,095,619	2,061,631	10.65	193,580
1994	58,519.34	42,257	19,870	38,649	11.16	3,463
1995	7,336.00	5,197	2,444	4,892	11.53	424
1996	81,467.87	56,531	26,582	54,886	11.91	4,608
1997	20,044.11	13,602	6,396	13,648	12.31	1,109
1998	3,740,938.21	2,478,372	1,165,362	2,575,576	12.74	202,165
1999	1,078,679.72	696,396	327,454	751,226	13.17	57,041
2000	5,188.88	3,270	1,538	3,651	13.50	270
2001	1,782,034.68	1,089,892	512,481	1,269,554	13.97	90,877
2002	117,583.55	69,633	32,742	84,842	14.46	5,867
2003	2,041,741.80	1,167,876	549,150	1,492,592	14.97	99,706
2004	716,094.49	394,568	185,531	530,563	15.48	34,274
2005	2,244,375.24	1,187,723	558,482	1,685,893	16.01	105,302
2006	694,642.10	351,906	165,471	529,171	16.56	31,955
2007	56,165.28	27,139	12,761	43,404	17.11	2,537
2008	1,000,480.15	459,220	215,931	784,549	17.68	44,375
2009	18,998,815.52	8,245,486	3,877,133	15,121,683	18.26	828,132
2010	21,412,844.27	8,740,723	4,109,999	17,302,845	18.85	917,923
2011	7,085,169.53	2,695,198	1,267,316	5,817,854	19.55	297,588
2012	4,830,556.84	1,705,670	802,028	4,028,529	20.15	199,927
2013	3,065,020.04	993,066	466,952	2,598,068	20.86	124,548
2014	8,900,047.96	2,619,284	1,231,621	7,668,427	21.58	355,349
2015	1,060,123.88	279,873	131,600	928,524	22.30	41,638
2016	569,051.98	132,646	62,372	506,680	23.03	22,001

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
2017	662,164.15	133,492	62,770	599,394	23.76	25,227
2018	4,975,791.82	840,909	395,406	4,580,386	24.59	186,270
2019	1,908,147.55	259,508	122,024	1,786,124	25.41	70,292
2020	8,605,139.55	882,887	415,144	8,189,996	26.24	312,119
2021	10,553,982.21	724,003	340,435	10,213,547	27.15	376,190
2022	12,426,524.78	427,472	201,003	12,225,522	28.07	435,537
2023	965,127.64	8,300	3,903	961,225	28.82	33,353
9999	2,192,957.34-	802,514-	384,957-	1,808,000-		96,983-
	133,752,429.08	48,946,797	23,479,248	110,273,181		5,915,173
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.6 4.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2008	294,411.86	95,389	83,754	210,658	31.30	6,730
2009	4,434,866.70	1,347,313	1,182,973	3,251,894	32.08	101,368
2010	1,187,964.50	336,669	295,603	892,362	32.87	27,148
2011	6,597.06	1,734	1,522	5,075	33.66	151
2012	1,684.33	408	358	1,326	34.45	38
2014	234,044.45	46,762	41,059	192,985	36.05	5,353
2015	6,136.63	1,095	961	5,176	36.84	140
2016	45,239.43	7,094	6,229	39,010	37.64	1,036
2021	1,641.43	76	67	1,574	41.29	38
2022	396,015.22	9,227	8,102	387,913	41.92	9,254
9999	30,192.33-	8,433-	7,405-	22,787-		691-
	6,578,409.28	1,837,334	1,613,223	4,965,186		150,565
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						33.0 2.29



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1957	12,139.53	11,377	11,248	892	4.42	202
1975	4,177.28	3,449	3,410	767	10.14	76
1993	202,475.94	120,271	118,910	83,566	20.51	4,074
2004	1,695.94	683	675	1,021	28.17	36
2005	9,240.93	3,543	3,503	5,738	28.95	198
2006	201,117.58	73,167	72,339	128,779	29.73	4,332
2009	26,051.26	7,914	7,825	18,226	32.08	568
2010	27,827.93	7,886	7,797	20,031	32.87	609
2014	100,305.10	20,041	19,814	80,491	36.05	2,233
2017	18,433.32	2,488	2,460	15,973	38.44	416
	603,464.81	250,819	247,981	355,484		12,744
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.9 2.11

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2010	273,149.74	176,127	176,199	96,951	7.16	13,541
2013	8,814.50	4,619	4,621	4,194	9.08	462
2018	39,036.86	10,696	10,700	28,337	13.25	2,139
2019	268,065.51	58,974	58,999	209,067	14.18	14,744
2022	91,911.93	5,074	5,076	86,836	17.12	5,072
2023	1,796,471.34	24,791	24,801	1,771,670	17.87	99,142
	2,477,449.88	280,281	280,396	2,197,054		135,100
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.3 5.45

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,529.23	2,647	1,597	1,932	5.00	386
2009	52,251.63	36,576	22,073	30,179	6.00	5,030
2010	7,240.80	4,707	2,841	4,400	7.00	629
2011	2,249.52	1,350	815	1,435	8.00	179
2012	30,582.71	16,820	10,151	20,432	9.00	2,270
2013	52,070.05	26,035	15,712	36,358	10.00	3,636
2014	34,888.89	15,700	9,475	25,414	11.00	2,310
2015	27,346.34	10,939	6,601	20,745	12.00	1,729
2016	33,090.02	11,582	6,990	26,100	13.00	2,008
2017	28,119.56	8,436	5,091	23,029	14.00	1,645
2018	10,405.16	2,601	1,570	8,835	15.00	589
2019	20,626.43	4,125	2,489	18,137	16.00	1,134
2020	74,563.91	11,185	6,750	67,814	17.00	3,989
2021	360,930.38	36,093	21,781	339,149	18.00	18,842
2022	431,088.92	21,554	13,008	418,081	19.00	22,004
2023	97,559.16	1,219	735	96,824	19.75	4,902
	1,266,542.71	211,569	127,679	1,138,863		71,282

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.0 5.63

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
1986	6,625.93	6,626	6,626			
1987	468.88	469	469			
1990	30,431.59	30,432	30,432			
1991	21,931.10	21,931	21,931			
2000	5,861.06	5,621	4,557	1,304	0.98	1,304
2001	22,361.85	21,253	17,231	5,131	1.15	4,462
2002	5,389.24	5,070	4,110	1,279	1.32	969
2005	3,310.52	2,997	2,430	881	1.88	469
2006	73,113.90	65,254	52,904	20,210	2.05	9,859
2011	149,228.96	119,622	96,981	52,248	2.97	17,592
2012	73,865.31	56,226	45,584	28,281	3.45	8,197
2013	62,726.96	44,536	36,107	26,620	4.08	6,525
2014	3,075.33	2,007	1,627	1,448	4.79	302
2016	2,423.80	1,267	1,027	1,397	6.39	219
2017	8,526.46	3,852	3,123	5,403	7.28	742
2018	927,895.26	351,208	284,736	643,159	8.21	78,338
2019	299,081.56	90,682	73,519	225,563	9.19	24,544
2020	26,190.18	5,956	4,829	21,361	10.19	2,096
2022	1,422,366.36	107,815	87,409	1,334,957	12.19	109,512
2023	573,917.31	10,904	8,840	565,077	12.94	43,669
9999	28,483.51	7,305	6,009	22,475		2,365
	3,747,275.07	961,033	790,481	2,956,794		311,164

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.5 8.30

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2012	58,391.33	25,692	25,608	32,783	14.00	2,342
2017	2,199.71	528	526	1,674	19.00	88
2018	46,760.40	9,352	9,321	37,439	20.00	1,872
	107,351.44	35,572	35,455	71,896		4,302
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.7 4.01

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	7,132.96	6,420	6,937	196	2.00	98
2006	85,717.68	72,860	78,726	6,992	3.00	2,331
2007	5,060.13	4,048	4,374	686	4.00	172
2008	2,776.47	2,082	2,250	526	5.00	105
2009	378.54	265	286	93	6.00	16
2010	61,467.53	39,954	43,171	18,297	7.00	2,614
2012	58,472.38	32,160	34,749	23,723	9.00	2,636
2013	28,453.57	14,227	15,373	13,081	10.00	1,308
2014	40,133.99	18,060	19,514	20,620	11.00	1,875
2015	62,657.78	25,063	27,081	35,577	12.00	2,965
2016	105,803.20	37,031	40,013	65,790	13.00	5,061
2017	7,458.66	2,238	2,418	5,041	14.00	360
2018	94,551.82	23,638	25,541	69,011	15.00	4,601
2019	14,014.13	2,803	3,029	10,985	16.00	687
2020	193,729.12	29,059	31,399	162,330	17.00	9,549
2021	102,950.07	10,295	11,124	91,826	18.00	5,101
2022	284,959.55	14,248	15,395	269,565	19.00	14,188
2023	44,808.61	560	605	44,204	19.75	2,238
	1,200,526.19	335,011	361,985	838,541		55,905

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.0 4.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	552.01	552	552			
2008	26,269.80	26,270	26,270			
2009	63,768.04	59,517	22,193	41,575	1.00	41,575
2010	31,269.93	27,101	10,106	21,164	2.00	10,582
2011	16,841.59	13,473	5,024	11,818	3.00	3,939
2012	13,442.75	9,858	3,676	9,767	4.00	2,442
2013	5,917.50	3,945	1,471	4,446	5.00	889
2014	112,033.68	67,220	25,066	86,968	6.00	14,495
2015	43,434.75	23,165	8,638	34,797	7.00	4,971
2016	123,948.53	57,843	21,569	102,380	8.00	12,798
2017	48,566.17	19,426	7,244	41,322	9.00	4,591
2018	43,803.48	14,601	5,445	38,358	10.00	3,836
2019	57,097.59	15,226	5,677	51,421	11.00	4,675
2020	32,405.64	6,481	2,417	29,989	12.00	2,499
2021	17,137.92	2,285	852	16,286	13.00	1,253
2022	37,565.86	2,505	934	36,632	14.00	2,617
2023	31,474.35	525	196	31,278	14.75	2,121
	705,529.59	349,993	147,330	558,200		113,283

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.9 16.06

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
2011	345,636.00	184,984	216,001	129,635	10.42	12,441
2015	3,257.24	1,261	1,472	1,785	12.66	141
2018	19,634.12	5,095	5,950	13,684	14.27	959
2022	64,677.17	3,939	4,599	60,078	15.42	3,896
2023	138,192.53	2,280	2,663	135,530	14.88	9,108
9999	10,000.00-	3,457-	4,037-	5,963-		465-
	561,397.06	194,102	226,648	334,749		26,080
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.8 4.65



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	3,487.00	3,487	3,487			
2007	2,450.35	2,450	2,450			
2008	1,714.38	1,714	1,714			
2009	521,963.46	487,164	498,032	23,931	1.00	23,931
2010	144,621.29	125,339	128,135	16,486	2.00	8,243
2011	7,975.30	6,380	6,522	1,453	3.00	484
2012	3,344.78	2,453	2,508	837	4.00	209
2013	263,689.84	175,794	179,716	83,974	5.00	16,795
2014	98,016.16	58,810	60,122	37,894	6.00	6,316
2015	13,210.61	7,046	7,203	6,008	7.00	858
2016	172,002.57	80,268	82,059	89,944	8.00	11,243
2017	13,811.63	5,525	5,648	8,164	9.00	907
2018	12,412.19	4,137	4,229	8,183	10.00	818
2019	7,055.35	1,881	1,923	5,132	11.00	467
2020	674,118.03	134,824	137,833	536,285	12.00	44,690
2021	39,621.14	5,283	5,401	34,220	13.00	2,632
2022	852,798.77	56,856	58,124	794,675	14.00	56,762
2023	424,395.88	7,075	7,233	417,163	14.75	28,282
9999	649.31	233	238	411		40
	3,257,338.04	1,166,719	1,192,577	2,064,761		202,677

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.2 6.22

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2009	6,270.00	5,852	6,270			
2010	4,161.94	3,607	4,162			
2011	14,880.36	11,904	14,880			
2012	13,823.71	10,137	13,824			
2013	16,427.62	10,952	16,428			
2014	2,202.56	1,322	2,084	119	6.00	20
2015	4,104.14	2,189	3,451	653	7.00	93
2017	28,080.87	11,232	17,706	10,375	9.00	1,153
2018	33,269.93	11,090	17,482	15,788	10.00	1,579
2019	123,994.70	33,066	52,124	71,871	11.00	6,534
2020	130,423.87	26,085	41,120	89,304	12.00	7,442
2021	191,683.21	25,557	40,287	151,396	13.00	11,646
2022	783,085.43	52,208	82,299	700,786	14.00	50,056
2023	138,192.53	2,304	3,632	134,561	14.75	9,123
9999	29,000.00-	4,037-	6,143-	22,857-		1,705-
	1,461,600.87	203,468	309,606	1,151,994		85,941
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.4 5.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 398.00 OTHER TANGIBLE PLANT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	14,231.50	2,277	1,363	12,869	21.00	613
	14,231.50	2,277	1,363	12,869		613
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.0 4.31

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## **PART III. EXPERIENCED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2018 TRANSACTION YEAR				
354.20	416.47	2,367.05		2,367.05-
354.30	573,594.97	87.11		87.11-
354.40	744,885.32	18,538.55-		18,538.55
354.70		36,099.53		36,099.53-
355.00	422,792.78	4,538.63		4,538.63-
360.10	276,235.14	85,350.18		85,350.18-
361.10	2,339,080.10	345,943.14		345,943.14-
361.20	13,749.21			
363.00	56,288.53	48,455.35		48,455.35-
364.00	31,450.72			
371.00	113,724.18	18,884.54-		18,884.54
380.00	1,203,983.11	12,304.03		12,304.03-
382.00	5.76	980.65		980.65-
389.10		3,678.20-		3,678.20
390.00	5,925.73	93.95		93.95-
391.00	79,247.81	9,708.42		9,708.42-
393.00	17,334.55			
394.00	28,673.47	117.59		117.59-
396.00	3,064.59			
397.00		6,019.17		6,019.17-
	5,910,452.44	510,963.51		510,963.51-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
354.20	3,076.09	27,531.06		27,531.06-
354.30		61,135.00		61,135.00-
354.40	913,340.30	1,985.51		1,985.51-
354.70	3,125.06	18,075.18		18,075.18-
355.00		9,730.05		9,730.05-
360.10	55,943.69	245,202.29		245,202.29-
361.10	352,132.81	1,038,558.77		1,038,558.77-
361.20	1,170.55	109,567.01		109,567.01-
363.00	5,384.61	150,830.30		150,830.30-
364.00	3,202.68	239.58		239.58-
370.00	1,108.89			
371.00	5,188.39	141,438.05		141,438.05-
380.00	36,603.24	214,843.19		214,843.19-
381.00	2,120.40			
389.10		5,681.56		5,681.56-
390.00	67,403.59			
391.00		6,028.96		6,028.96-
393.00	60,983.28	1,931.40		1,931.40-
394.00	26,823.05	5,593.49		5,593.49-
395.00		2,048.24		2,048.24-
396.00	48,155.78	1,897.96		1,897.96-
397.00	141,002.08	5,512.61		5,512.61-
398.00		1,251.49		1,251.49-
	1,726,764.49	2,049,081.70		2,049,081.70-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
354.20	3,007.76	122,315.77		122,315.77-
354.30	39,414.10			
354.40	120,604.23			
354.70	6,910.37	246.65		246.65-
355.00		23,920.78		23,920.78-
360.10	40,213.82	186,669.20		186,669.20-
361.10	361,924.39	323,715.46		323,715.46-
361.20	22,020.95	34,151.69		34,151.69-
363.00	128,735.68	76,222.67		76,222.67-
371.00	144,361.10	273,771.37		273,771.37-
380.00	92,274.49	652,150.29		652,150.29-
391.00	31,332.59	10.19		10.19-
393.00		5,643.88		5,643.88-
394.00	10,122.79	1,075.22		1,075.22-
395.00	7,833.15			
396.00	234,211.01	52,578.21		52,578.21-
397.00		9,909.72	1,369.21	8,540.51-
	1,242,966.43	1,762,381.10	1,369.21	1,761,011.89-
2021 TRANSACTION YEAR				
354.30	7,989.66	20,176.30		20,176.30-
354.40	11,481.83	28,995.08		28,995.08-
354.70	2,875.51	11,677.96		11,677.96-
355.00		1,253.37		1,253.37-
360.10	11,013.00	147,595.80		147,595.80-
361.10	796,849.84	245,041.20		245,041.20-
361.20	83,125.55	20,315.71		20,315.71-
363.00	414,022.10	105,836.92	159.00	105,677.92-
364.00	6,151.40			
371.00	16,177.71	206,559.57		206,559.57-
380.00	231,513.16	269,030.45		269,030.45-
381.00		90.22		90.22-
390.00		3,619.09		3,619.09-
394.00	1,401.00	1,113.04		1,113.04-
396.00		4,528.34		4,528.34-
397.00	20,048.36	4,676.57	87.00	4,589.57-
	1,602,649.12	1,070,509.62	246.00	1,070,263.62-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
354.20	15,702.45			
354.30	26,680.07	65,248.65		65,248.65-
354.40	199,172.52	5,052.37		5,052.37-
354.70	28,082.13	34,027.64		34,027.64-
355.00	96,801.74	333.24		333.24-
360.10	325,168.00	169,252.01		169,252.01-
361.10	599,713.73	251,743.85		251,743.85-
361.20	26,444.42	58,813.67		58,813.67-
363.00	61,602.50	91,479.25		91,479.25-
364.00	9,014.72			
371.00	187,895.88	53,057.74		53,057.74-
380.00	631,925.26	336,246.38		336,246.38-
390.00		3,738.83		3,738.83-
391.00			27,472.80	27,472.80
393.00	16,369.00	855.08		855.08-
394.00	54,586.97	2,855.31		2,855.31-
395.00		645.90		645.90-
396.00	239,917.65	2,348.88		2,348.88-
397.00	86,974.00	5,312.99		5,312.99-
	2,606,051.04	1,081,011.79	27,472.80	1,053,538.99-
TOTAL	13,088,883.52	6,473,947.72	29,088.01	6,444,859.71-



**EXHIBIT NO. 11-E - DEPRECIATION STUDY**

**WASTEWATER SSS GENERAL OPERATIONS**

**AS OF JUNE 30, 2024**

Exhibit No. 11-E  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS GENERAL OPERATIONS

2024 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2024

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-E  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
Mechanicsburg, Pennsylvania

WASTEWATER SSS GENERAL OPERATIONS

2024 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant. The results of our study as of June 30, 2024 are presented in the attached report. The results of our study as of June 30, 2023 are presented in our report, "2023 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2023." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of June 30, 2024.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, reading "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink, reading "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. INTRODUCTION**

# **PENNSYLVANIA-AMERICAN WATER COMPANY**

## **WASTEWATER SSS GENERAL OPERATIONS**

### **DEPRECIATION STUDY**

#### **PART I. INTRODUCTION**

##### **SCOPE**

This report sets forth the results of the depreciation study for Pennsylvania-American Water Company to determine the annual depreciation accrual rates and amounts applicable to the original cost of wastewater plant as of June 30, 2024. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to wastewater plant in service as of June 30, 2024.

Part I, Introduction, contains statements with respect to the basis of the study and the development of net original cost. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VI, Service Life Statistics, presents the statistical analysis of service life estimates, Part VII, Detailed Depreciation Calculations, presents the detailed tabulations of annual depreciation and Part VIII, Experienced and Estimated Net Salvage, presents the cost of removal and gross salvage recorded for the period 2019-



2023.

## **BASIS OF THE STUDY**

The purpose of the depreciation study was to determine the annual depreciation accruals applicable to the original cost of wastewater plant in service as of June 30, 2024. For most accounts, the straight line remaining life method using attained ages, the book depreciation reserve and estimated survivor curves, was the basis for the calculation of annual depreciation. For certain accounts, the annual and accrued amortization amounts were based on the age of the property and the selected amortization period.

The survivor curve estimates were based on judgment which incorporated (1) analyses of historical data related to wastewater property for all Pennsylvania-American Water Company Wastewater Operations; (2) consideration of the character, use and location of the property; (3) probable future events and management plans; and (4) a general knowledge of wastewater property lives. The use of lowa type survivor curves is a generally-accepted method of estimating average service life when the actual lives of individual property units are dispersed.

## **DEVELOPMENT OF NET ORIGINAL COST**

The original cost data used in this study were obtained from the Company's continuing property records and work order system which show in detail the original cost of the property including descriptions, locations and years of installation of property units. The net original cost was developed from the original cost data by deducting contributions in aid of construction. The development of net original cost by plant account is set forth in Table 1 on page V-4.

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## **PART II. ESTIMATION OF SURVIVOR CURVES**

## **PART II. ESTIMATION OF SURVIVOR CURVES**

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

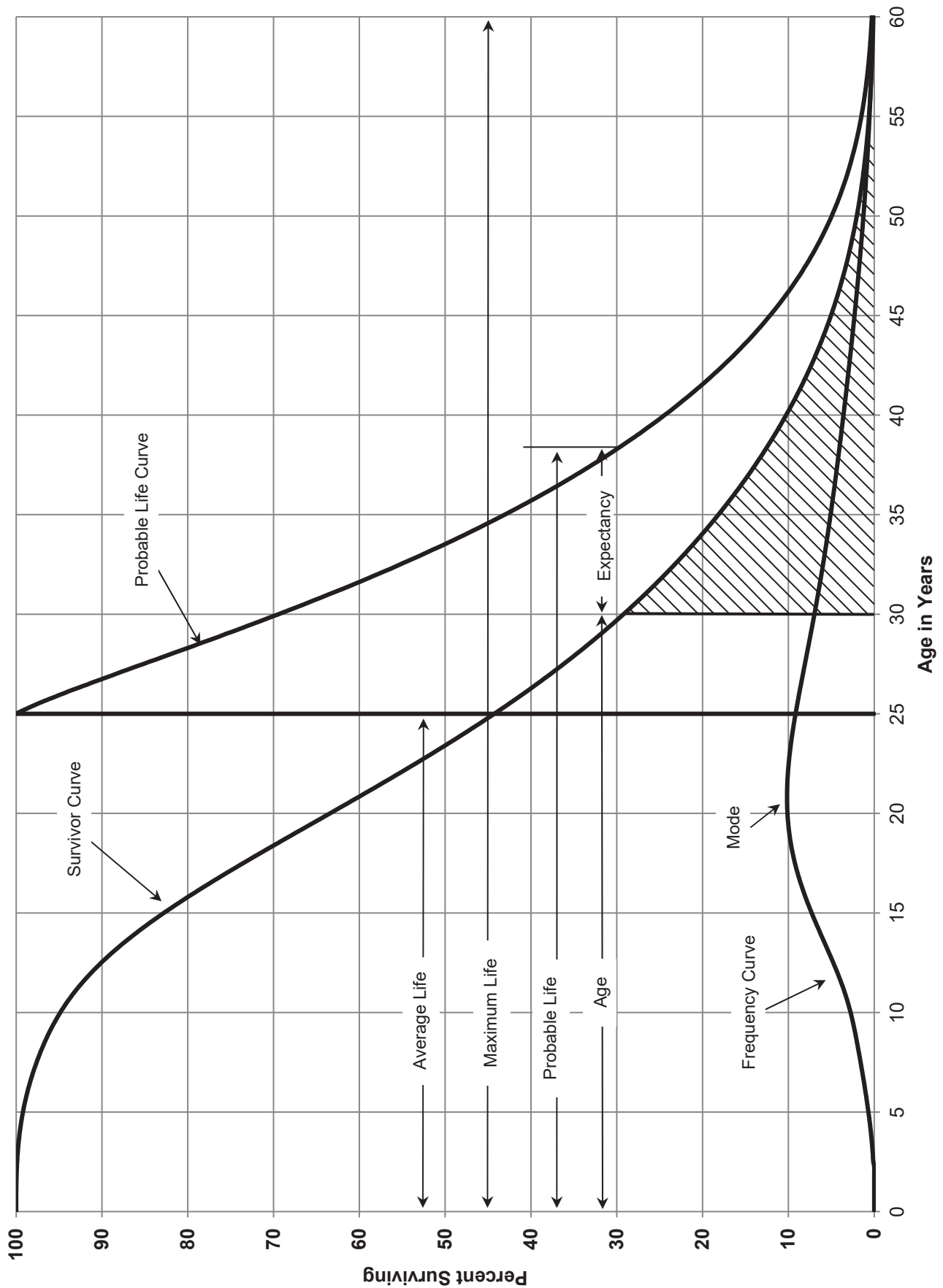
The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

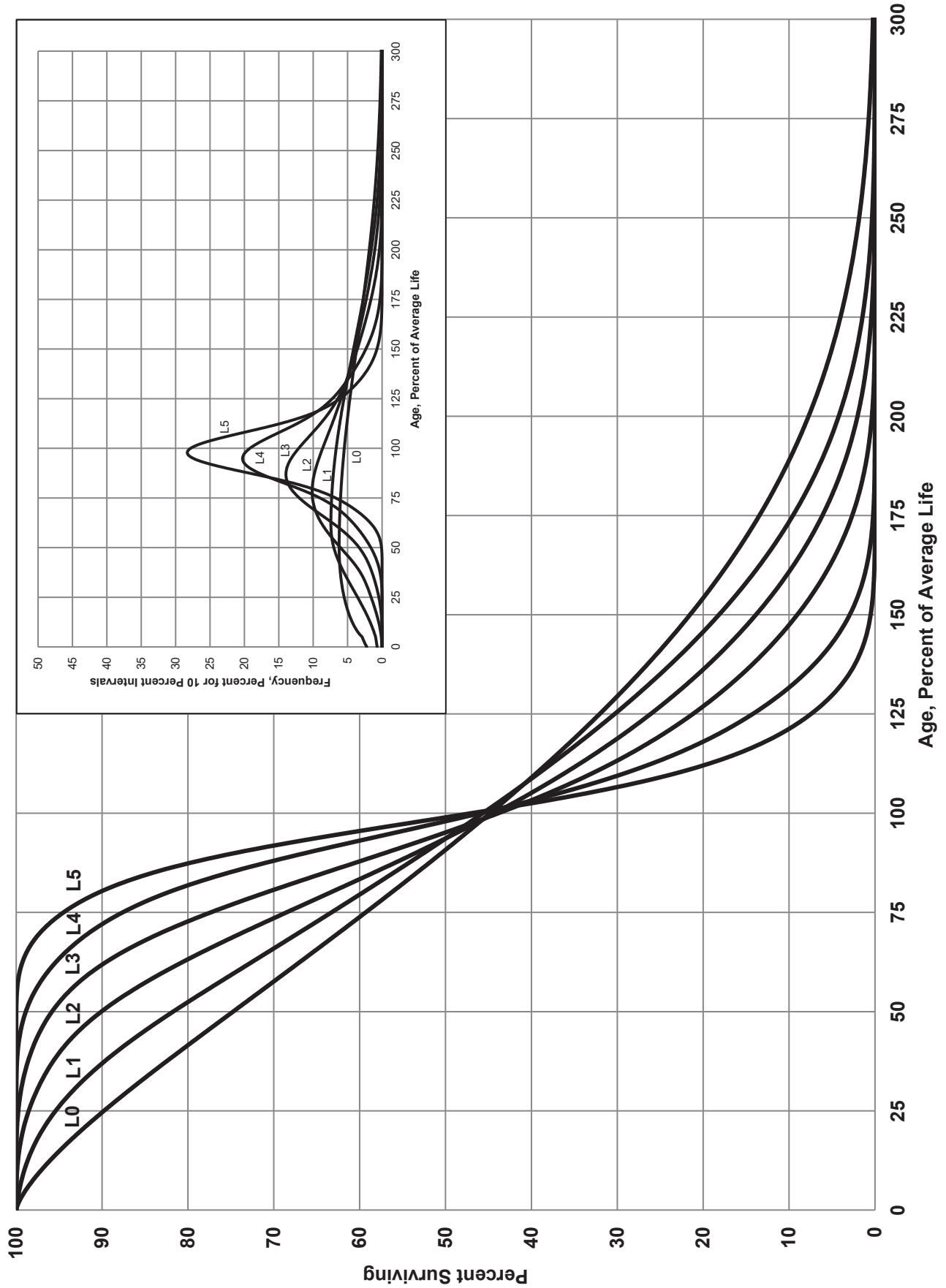
### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

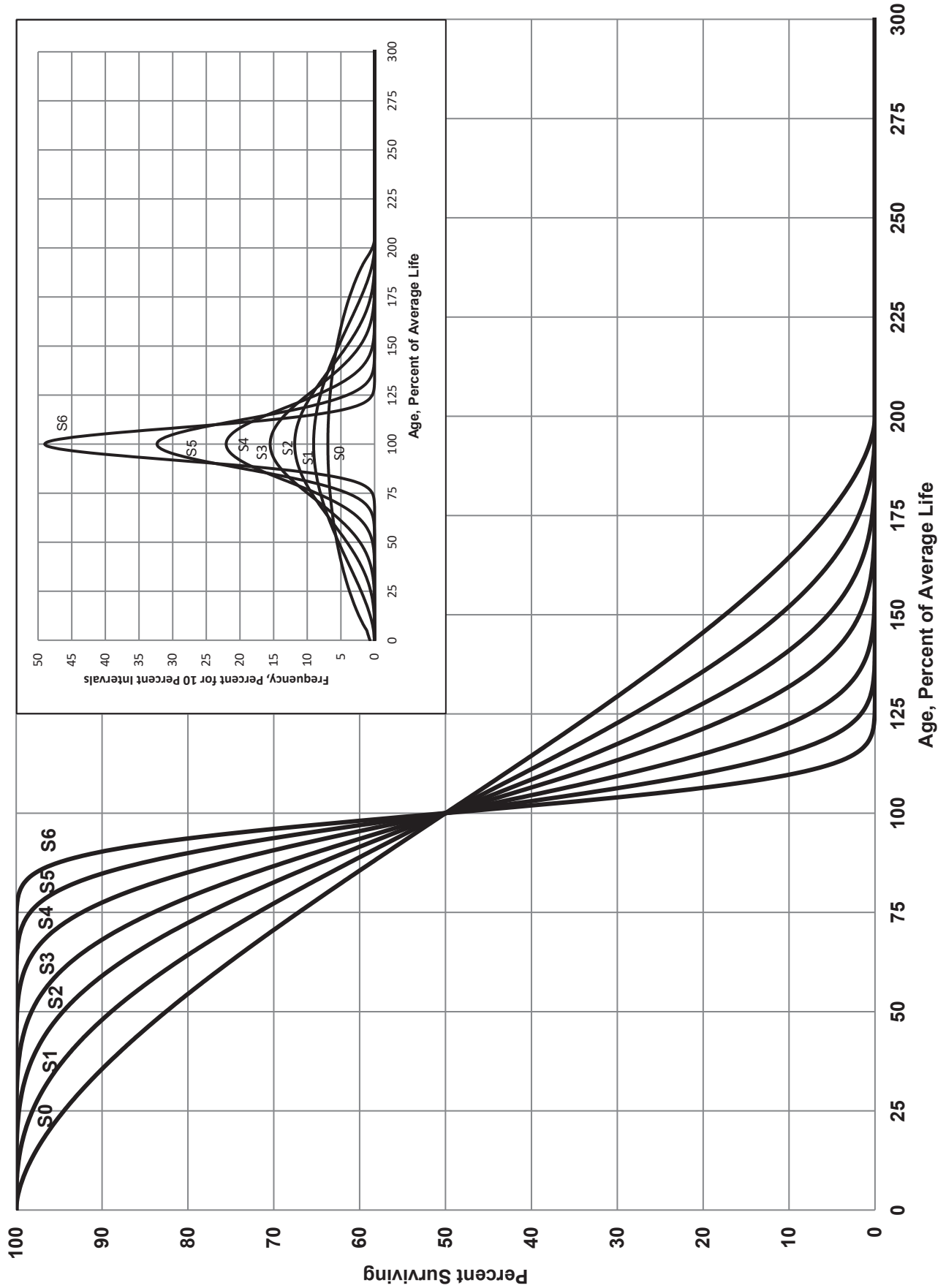
The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.



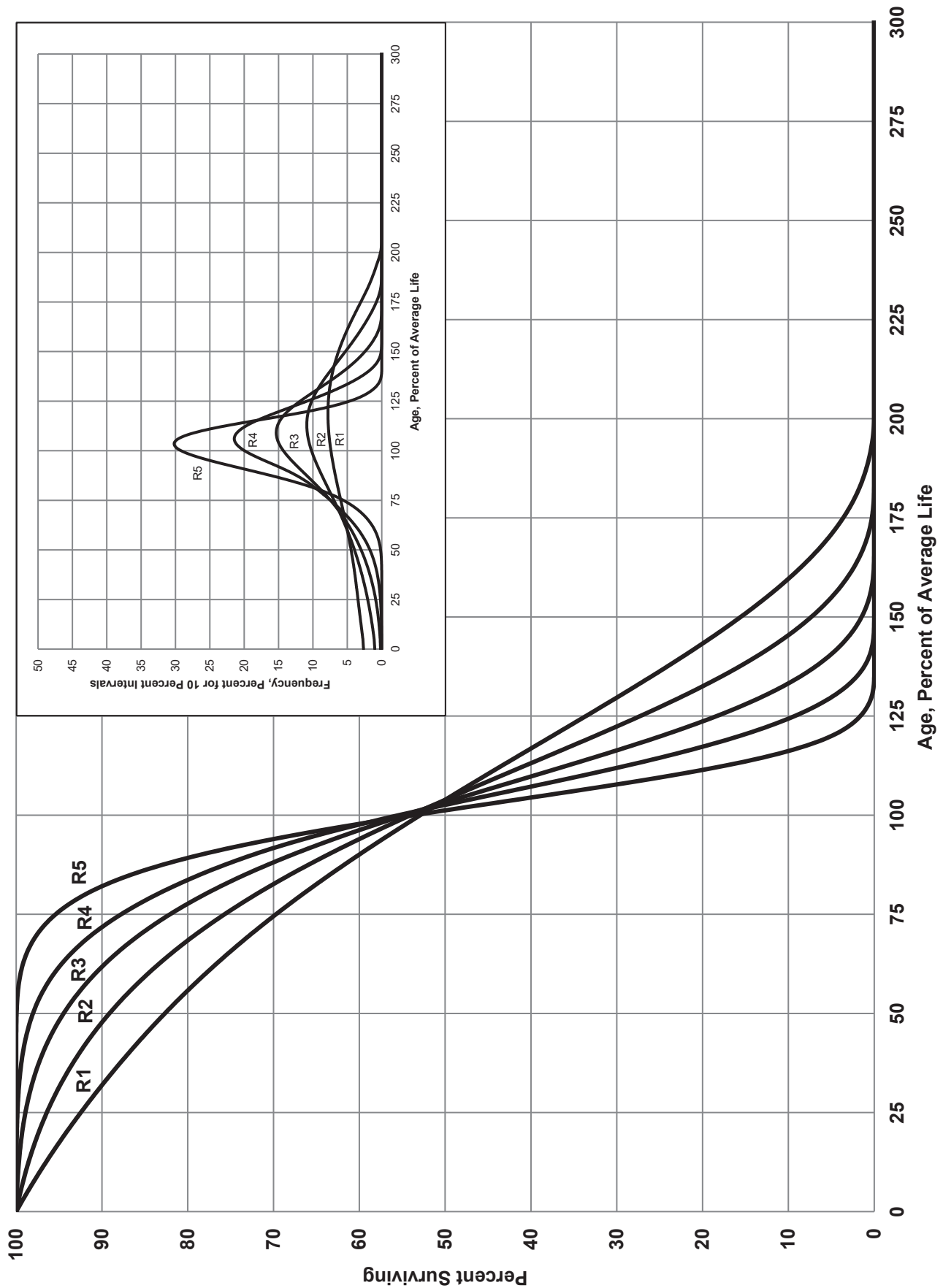
**FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES**



**FIGURE 2.. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES**



**FIGURE 3.. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES**



**FIGURE 4.. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES**



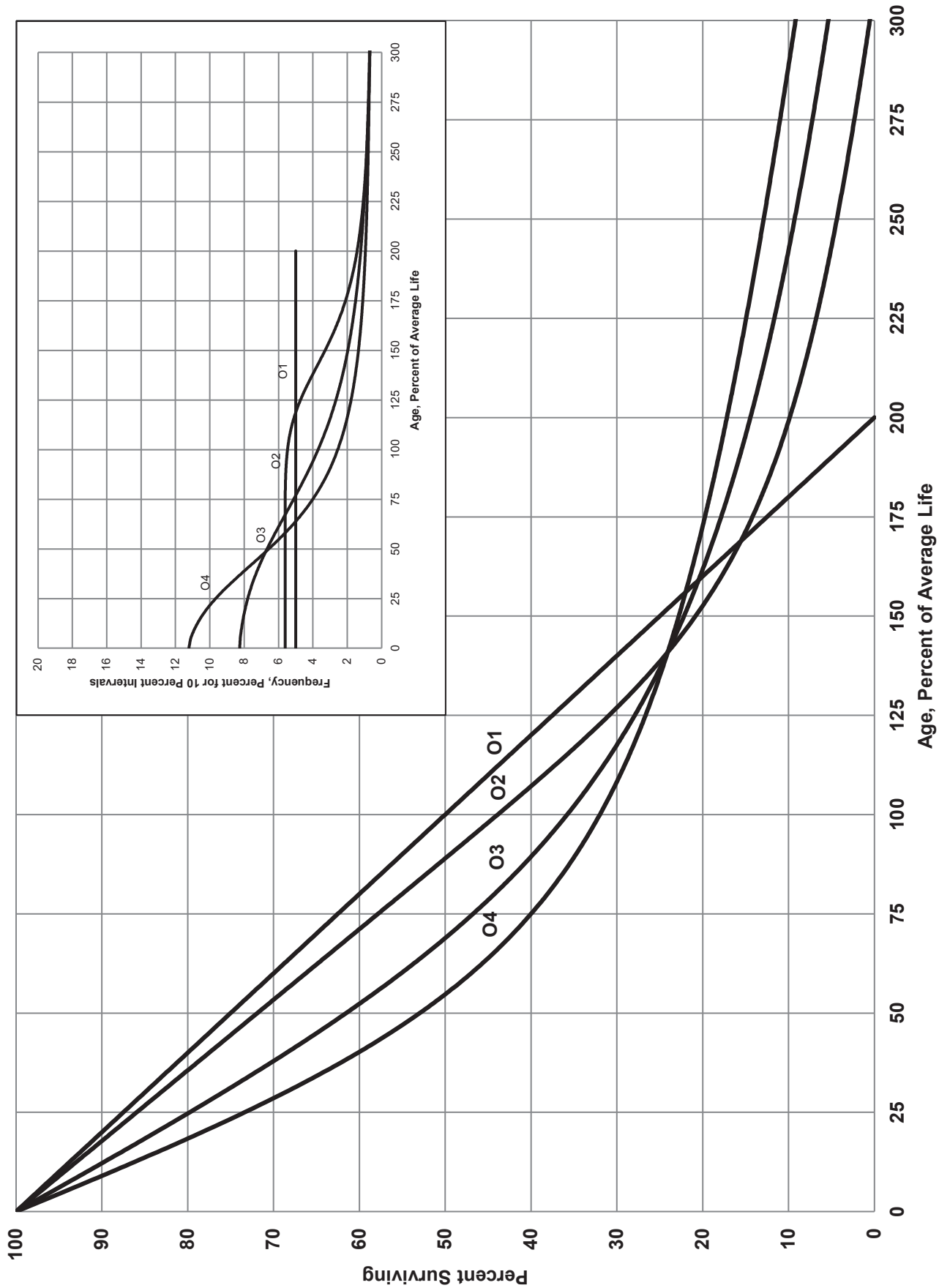


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

## **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2015-2024 for which there were placements during the years 2010-2024. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2010 were retired in 2015. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2015 retirements of 2010 installations and ending with the 2024 retirements of the 2019 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL

Placement Band 2010-2024

Experience Band 2015-2024

Year	Retirements, Thousands of Dollars													Total During		Age Interval
	During Year													Age Interval	Age Interval	
Placed	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(11)	(12)	(13)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
2010	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½			
2011	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½			
2012	11	12	13	14	16	17	19	21	22	18	64	11½-12½				
2013	8	9	10	11	11	13	14	15	16	17	83	10½-11½				
2014	9	10	11	12	13	14	16	17	19	20	93	9½-10½				
2015	4	9	10	11	12	13	14	15	16	20	105	8½-9½				
2016		5	11	12	13	14	15	16	18	20	113	7½-8½				
2017			6	12	13	15	16	17	19	19	124	6½-7½				
2018				6	13	15	16	17	19	19	131	5½-6½				
2019					7	14	16	17	19	20	143	4½-5½				
2020						8	18	20	22	23	146	3½-4½				
2021							9	20	22	25	150	2½-3½				
2022								11	23	25	151	1½-2½				
2023									11	24	153	½-1½				
2024										13	80	0-½				
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>					

**SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL**

Experience Band 2015-2024		Placement Band 2010-2024													
		Acquisitions, Transfers and Sales, Thousands of Dollars													
Year Placed	(1)	During Year										Total During Age Interval (12)	Age Interval (13)		
		2015 (2)	2016 (3)	2017 (4)	2018 (5)	2019 (6)	2020 (7)	2021 (8)	2022 (9)	2023 (10)	2024 (11)				
2010	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	-	-	-	13½-14½
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2013	-	-	-	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	60	10½-11½
2014	-	-	-	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	9½-10½
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2018	-	-	-	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	5½-6½
2019	-	-	-	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	4½-5½
2020	-	-	-	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	10	3½-4½
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2022	-	-	-	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	1½-2½
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)				

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

**Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2015 through 2024 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2020 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

**SCHEDULE 3. PLANT EXPOSED TO RETIREMENT**  
**JANUARY 1 OF EACH YEAR 2015-2024**  
**SUMMARIZED BY AGE INTERVAL**

Year Placed	Experience Band 2015-2024										Placement Band 2010-2024	
	Exposures, Thousands of Dollars										Total at	
	Annual Survivors at the Beginning of the Year										Beginning of	Age
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Age Interval	Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2010	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2011	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2012	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2013	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2014	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2015	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2016		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	7½-8½
2017			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	6½-7½
2018				580 <sup>a</sup>	574	561	546	530	501	482	3,057	5½-6½
2019					660 <sup>a</sup>	653	639	623	628	609	3,789	4½-5½
2020						750 <sup>a</sup>	742	724	685	663	4,332	3½-4½
2021							850 <sup>a</sup>	841	821	799	4,955	2½-3½
2022								960 <sup>a</sup>	949	926	5,719	1½-2½
2023									1,080 <sup>a</sup>	1,069	6,579	½-1½
2024										1,220 <sup>a</sup>	7,490	0-½
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>44,780</b>	

<sup>a</sup>Additions during the year

For the entire experience band 2015-2024, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.



SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2015-2024

Placement Band 2010-2024

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
Total	<u>44,780</u>	<u>1,606</u>			35.66

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

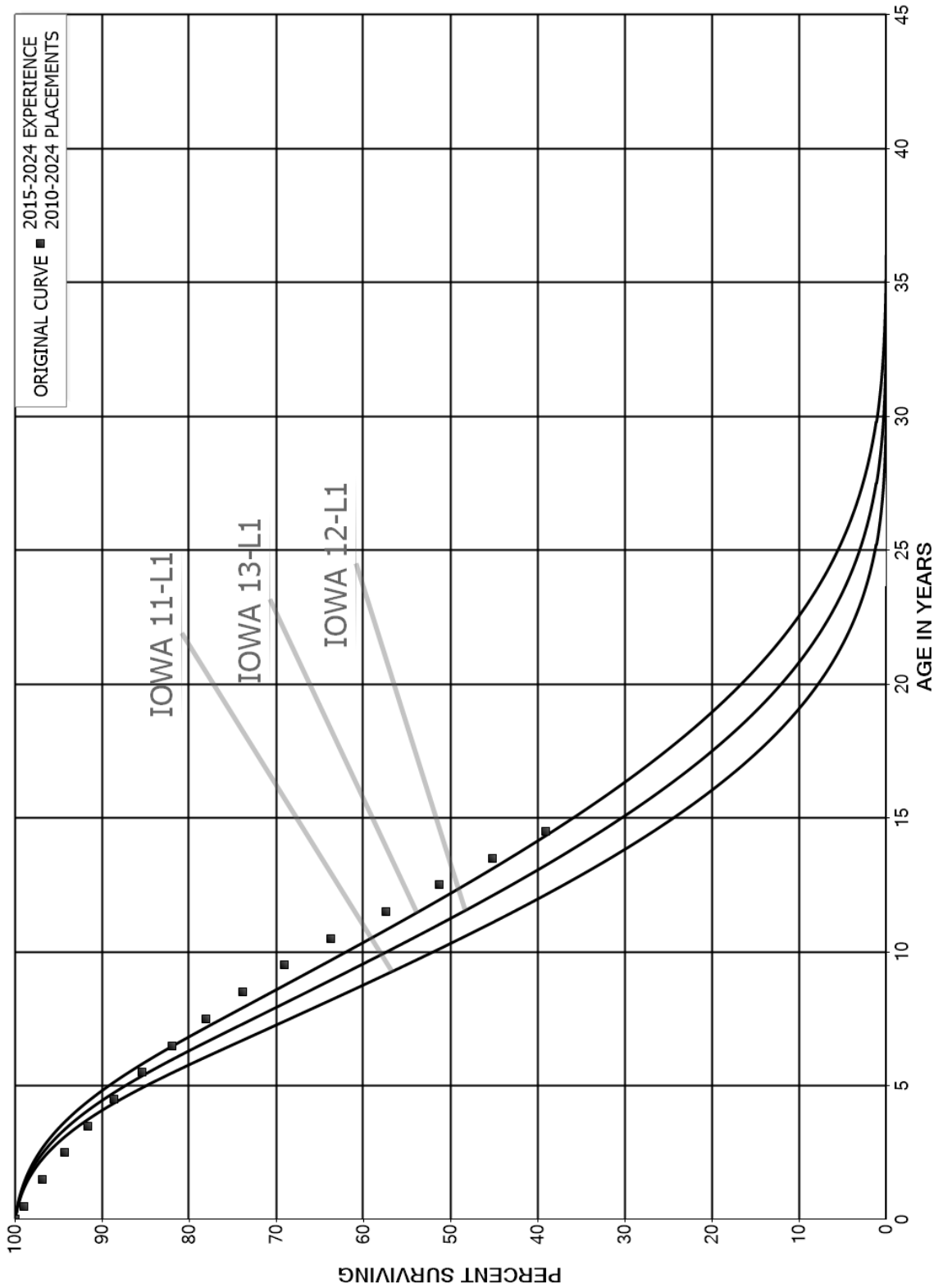
The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

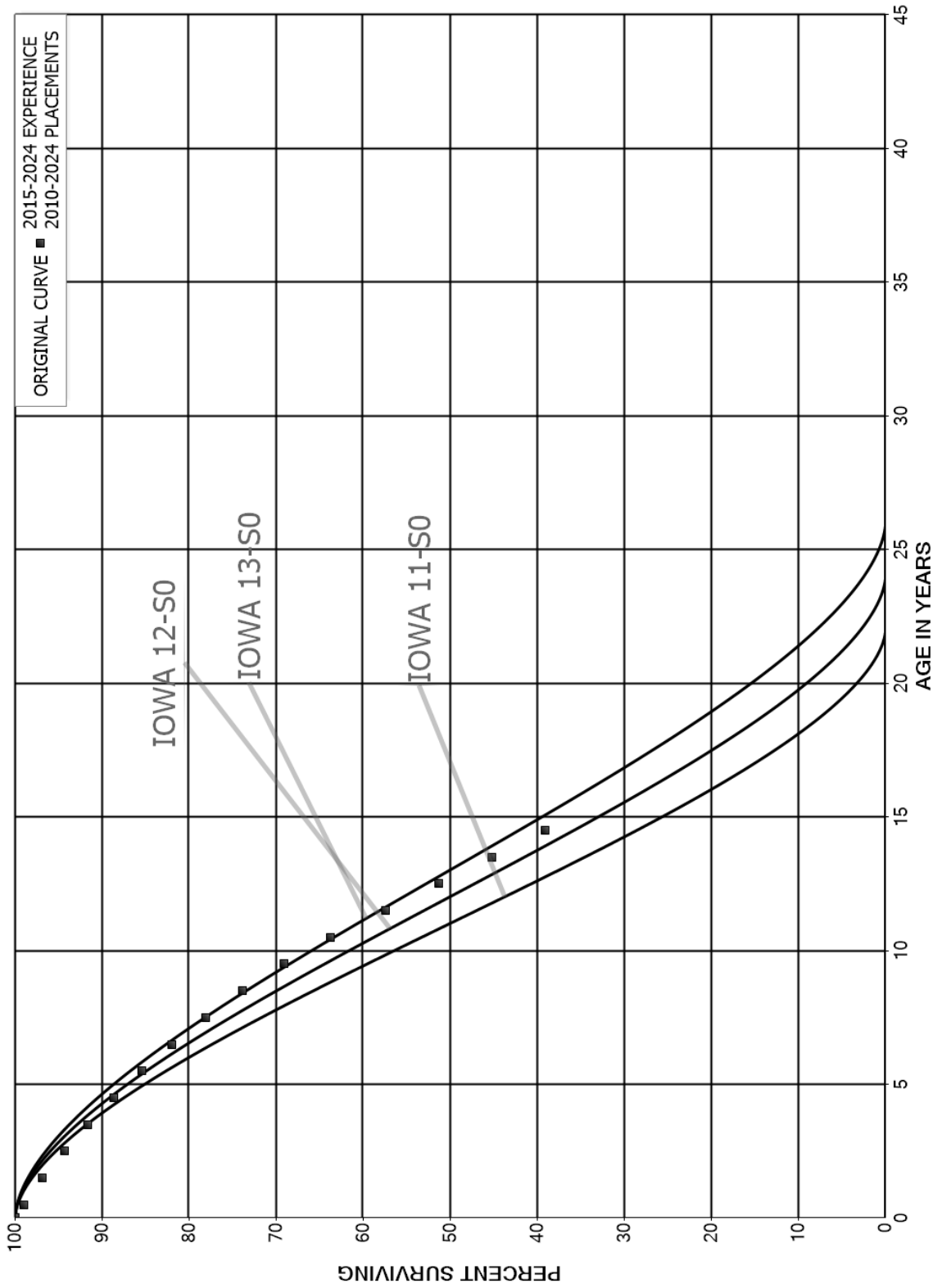
### **Smoothing the Original Survivor Curve**

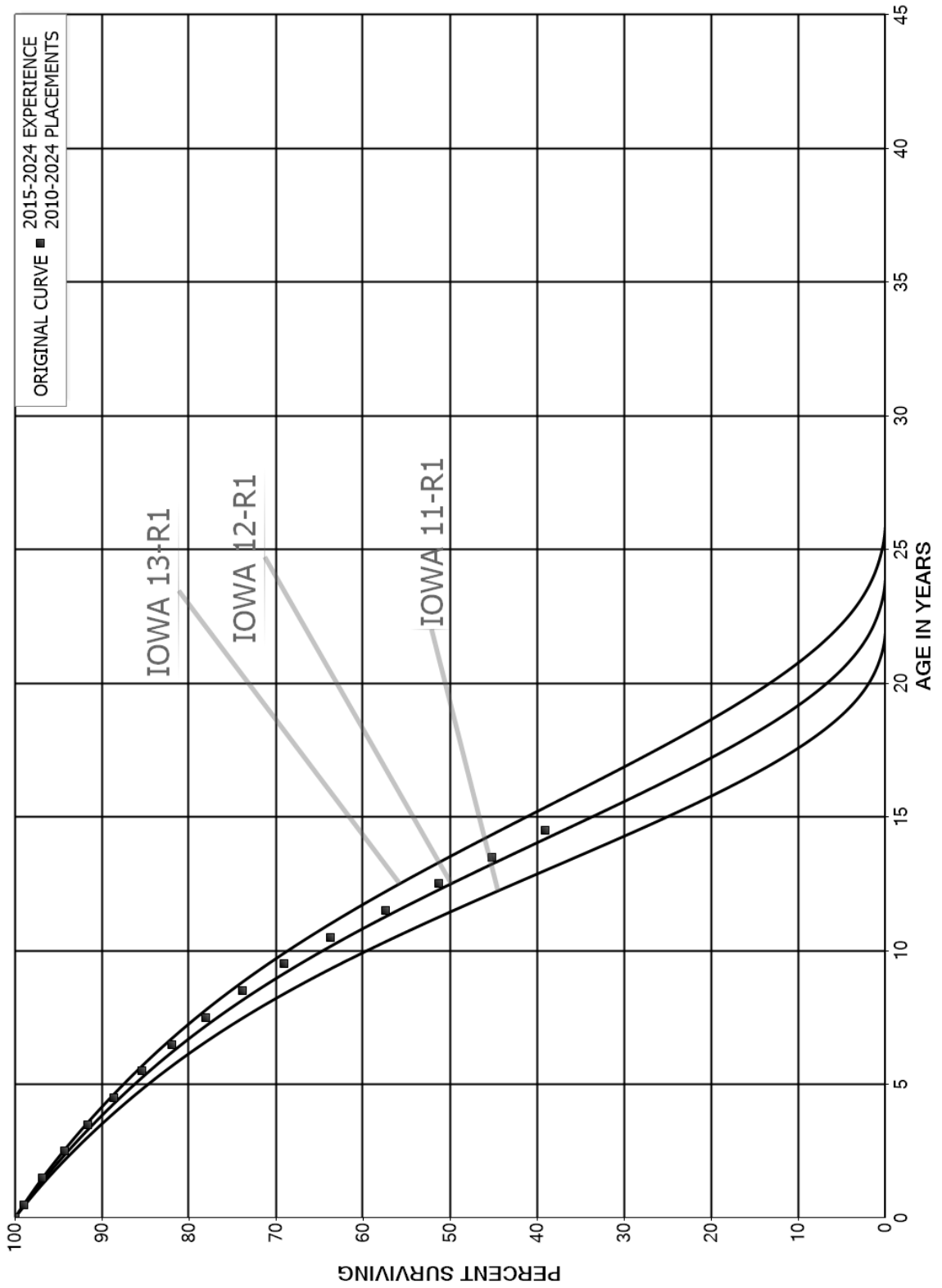
The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

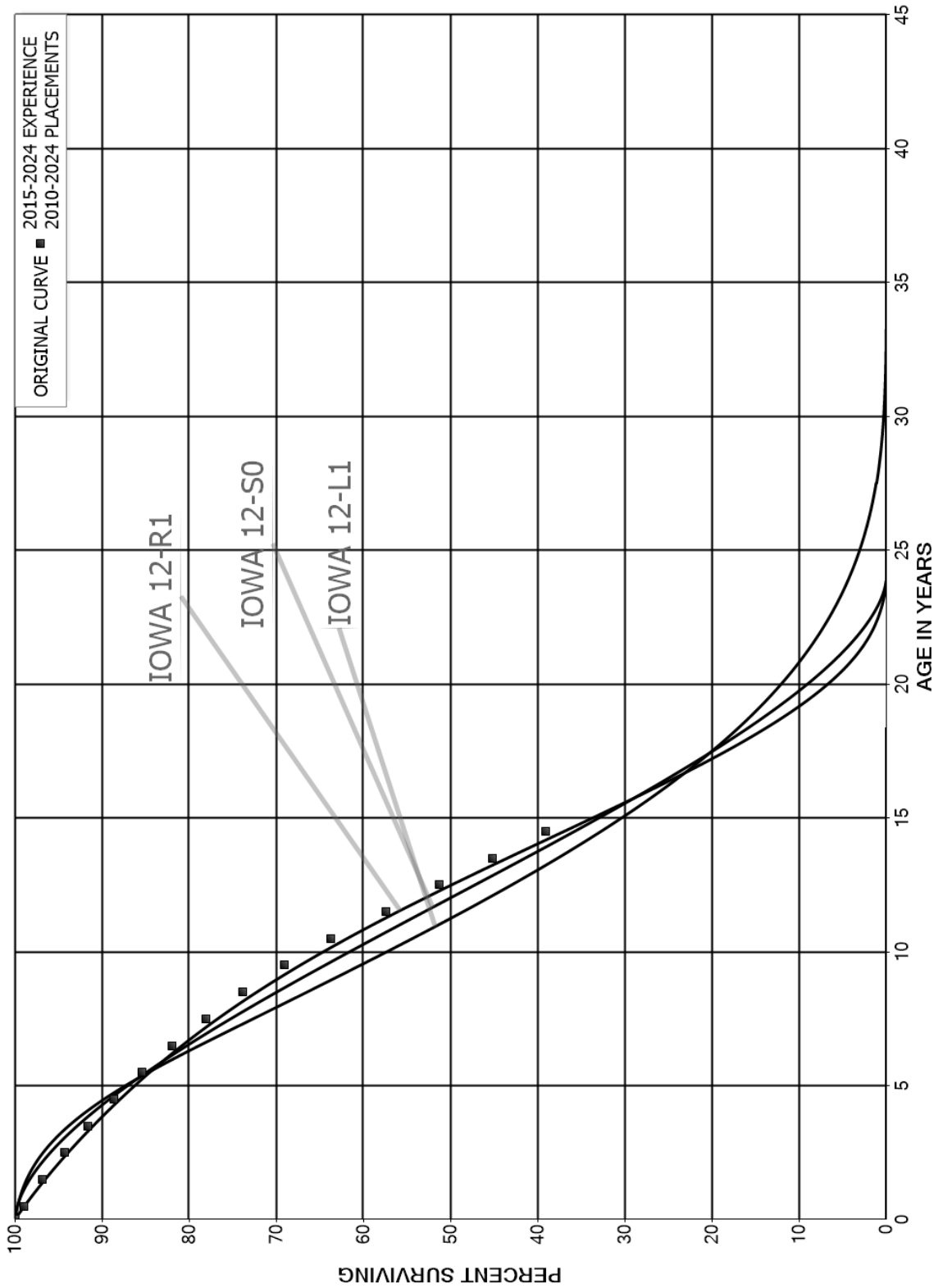
The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.









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## **PART III. SERVICE LIFE CONSIDERATIONS**

## PART III. SERVICE LIFE CONSIDERATIONS

### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips are conducted for each study. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during our recent field trips.

#### September 14, 2016

Blue Mountain Lake Wastewater Plant  
Winona Lake Lift Station  
Saw Creek Wastewater Plant  
Marcel Lake Wastewater Plant  
Pocono Wastewater Plant

#### September 6, 2016

Clarion Wastewater Plant  
Paint Elk Wastewater Plant  
Shippensville Wastewater Plant

#### September 1, 2016

Franklin Wastewater Plant  
Hamilton Ban Pump Station  
Franklin Sand Mound Facility  
Fairview North Wastewater Plant  
South Fairview Wastewater Plant

#### March 16, 2010

Coatesville Wastewater Plant  
Lehman Pike Wastewater Plant  
Winona Lake Lift Station

#### July 28, 2008

Claysville Treatment Plant



**Judgments.** The survivor curve estimates were based on judgment which considered factors including statistical analyses of retirements, Company policies and outlook as determined during discussions with management, and survivor curve estimates from previous studies of the predecessor wastewater systems, as well as other wastewater companies. For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group.

Account 363.00, Services, is used to illustrate the manner in which the study was conducted for the accounts in the preceding list. Aged plant accounting data have been compiled for the years through 2019. These data have been coded according to account or property group, type of transaction, year in which the transaction took place, and year in which the utility plant was placed in service. The retirements, other plant transactions and plant additions were analyzed by the retirement rate method.

The survivor curve estimate for this account is the 47-R3 and is based on the statistical indication for the period 1999-2019. The 47-R3 is a good fit of the significant portion of the original survivor curve as set forth on page VI-25, is consistent with management outlook for a continuation of the historical experience and is within the typical service life range of 40 to 55 years for services.

The amortization periods selected for general plant Accounts 390.00, 392.00, 393.00, 394.00, 396.00, 397.00 and 398.00 are discussed in the section, "Amortization of General Plant Accounts."

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**PART IV. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**

## **PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION**

### **BOOK RESERVE**

The book reserve as of June 30, 2023, is the result of a bringforward of the book reserves established by the Commission for all Wastewater SSS Operations systems. The projected book reserve as of June 30, 2024, is a bringforward of the June 30, 2023 book reserve based on projected accruals, retirements, cost of removal, gross salvage and other credits.

### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

### **Single Unit of Property**

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10}\right) = \$400.$$

### **Remaining Life Annual Accruals**

For the purpose of calculating remaining life accruals as of June 30, 2024, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of June 30, 2024, are set forth in the Results of Study section of the report.

### **Equal Life Group Procedure**

In the equal life group procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the composite remaining life for the surviving original cost of that vintage. The composite remaining life is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left( \frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}}$$

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accruals}}$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc. Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

The annual accrual rate for each account is equal to the sum of the remaining life annual accruals for all vintages divided by the account's total original cost. The account's "composite remaining life" is calculated by dividing the sum of the future book accruals for all vintages by the sum of the remaining life annual accruals for all vintages.

The calculated accrued depreciation in the equal life group procedure also represents that portion of depreciable cost which will not be allocated to expense through future accruals. However, the calculation is based at the equal life group level rather than the vintage group level and does not require the use of averages. The equal life group accrued depreciation ratio is calculated as follows:

$$\text{Ratio} = 1 - \left( \frac{\text{Remaining Life}}{\text{Service Life}} \right)$$

Inasmuch as service life minus remaining life equals age, when averages are not employed, the foregoing equation reduces to:

$$\text{Ratio} = \left( \frac{\text{Age}}{\text{Service Life}} \right)$$

## **AMORTIZATION OF GENERAL PLANT ACCOUNTS**

In order to use a more efficient and cost effective accounting process for equipment recorded in general plant Accounts 390.00, 392.00, 393.00, 394.00, 396.00, 397.00 and 398.00, amounts capitalized in these accounts are amortized rather than depreciated. Amortization as defined in the Uniform System of Accounts is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

The primary reasons for the amortization of certain general plant accounts are that the effort required to unitize additions, periodically inventory equipment and determine amounts to be retired for equipment recorded in these accounts is disproportionate to the original cost of the equipment when compared to other wastewater plant accounts.

Accounting for such equipment using an amortization concept consists of capitalization of amounts to these accounts based on the same criteria as used previously under depreciation accounting, amortization of the asset over a fixed period, retirement of the equipment at the end of the amortization period and recognition of any net salvage related to disposition of equipment in these accounts as a gain or loss. For equipment in these accounts that was placed in service prior to implementation of amortization accounting, the net book value by vintage amortized over the remaining amortization period specified for each account and the original cost will be retired at the end of this period.

The amortization periods selected for each account or subaccount are based on a review of the existing depreciation rates for the accounts, typical service lives used for

each type of equipment and a consideration of the period during which it is anticipated that most of the benefit of the equipment will be realized. The amortization periods are as follows:

<u>Account Number</u>	<u>Description</u>	<u>Amortization Period, Years</u>
390.00	Office Furniture and Equipment	20
390.20	Computers and Peripheral	5
392.00	Stores Equipment	25
393.00	Tools, Shop and Garage Equipment	20
394.00	Laboratory Equipment	15
396.00	Communication Equipment	15
397.00	Miscellaneous Equipment	15
398.00	Other Tangible Plant	25

## **NET SALVAGE**

Experienced net salvage is incorporated in the results of the study as it was reported on the Company's books and records for the period January 1, 2019 through June 30, 2023, and estimated for the period July 1, 2023 through December 31, 2023. The calculation of the amortization is shown in Table 5 on page V-8. The amounts of salvage and removal cost by account for each year are set forth in the section beginning on page VIII-2.

Net salvage is presented in this manner to determine the amount of net salvage to be amortized to the cost of service for ratemaking purposes. In order to be consistent with this manner of recognizing net salvage, no adjustments for net salvage were made to the annual depreciation calculated for the individual accounts.

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## **PART V. RESULTS OF STUDY**



## **PART V. RESULTS OF STUDY**

### **DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of the net original cost used in the study. The results of the depreciation study are summarized in Table 2 which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 3 presents the bringforward to June 30, 2024 of the book reserve as of June 30, 2023. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months ended June 30, 2024. Table 5 presents the amortization of experienced and estimated net salvage, by account, based on the five-year period, 2019-2023. The total amortization amount is incorporated in the total annual accrual in Table 2.

### **DESCRIPTION OF DETAILED TABULATIONS**

Supporting statistical data for the estimates of average service lives and survivor curves, the annual depreciation calculations, and gross salvage and cost of removal for the years 2019-2023 are presented in three sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3. The tabulations of experienced and estimated net salvage, by year and account for the five-year period 2019-2023, are presented in the section beginning on

page VIII-2.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to net original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

Detailed tabulations setting forth the cost of removal, gross salvage and net salvage amounts, by account and year, are presented in the third section. The net salvage amounts, by account and year, are carried forward to Table 5, which presents the five-year amortization of net salvage.

**PENNSYLVANIA-AMERICAN WATER COMPANY  
 WASTEWATER SSS GENERAL OPERATIONS**
**TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2024**

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2024 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2024 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	9,024,450.07				9,024,450.07
354.30 STRUCTURES AND IMPROVEMENTS - SPP	25,222,566.75		3,077,062.72		22,145,494.03
354.40 STRUCTURES AND IMPROVEMENTS - TDP	280,547,114.80		2,375,147.51		278,171,967.29
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	5,798,402.29				5,798,402.29
355.00 POWER GENERATING EQUIPMENT	7,397,397.32		144,517.16		7,252,880.16
360.10 COLLECTION SEWERS - FORCE MAINS	59,885,680.44	627,376.41	11,251,126.61		48,007,177.42
361.10 COLLECTION SEWERS - GRAVITY MAINS	252,939,837.25	133,423.53	17,767,408.10		235,039,005.62
361.20 MANHOLES	47,705,980.33		4,553,264.84		43,152,715.49
363.00 SERVICES	63,399,073.80	72,789.60	6,881,426.36		56,444,857.84
364.00 FLOW MEASURING DEVICES	673,701.43		14,726.81		658,974.62
365.00 FLOW MEASURING INSTALLATIONS	272,564.04				272,564.04
370.00 RECEIVING WELLS	677,388.38				677,388.38
371.00 PUMPING EQUIPMENT	18,749,782.71		315,245.20		18,434,537.51
380.00 TREATMENT EQUIPMENT	157,191,247.46		2,720,254.13		154,470,993.33
381.00 PLANT SEWERS	6,608,601.61		30,192.33		6,578,409.28
382.00 OUTFALL SEWER LINES	603,464.81				603,464.81
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	2,630,632.88				2,630,632.88
390.00 OFFICE FURNITURE AND EQUIPMENT	1,291,592.71				1,291,592.71
390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL	45,090.00				45,090.00
391.00 TRANSPORTATION EQUIPMENT	4,095,346.93				4,095,346.93
392.00 STORES EQUIPMENT	107,351.44				107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,434,297.35		600.00		1,433,697.35
394.00 LABORATORY EQUIPMENT	728,154.04		42,162.45		685,991.59
395.00 POWER OPERATED EQUIPMENT	605,377.19		10,000.00		595,377.19
396.00 COMMUNICATION EQUIPMENT	4,774,493.85				4,774,493.85
397.00 MISCELLANEOUS EQUIPMENT	2,138,739.98		29,000.00		2,109,739.98
398.00 OTHER TANGIBLE PLANT	14,231.50				14,231.50
<b>TOTAL DEPRECIABLE PLANT</b>	<b>954,562,551.36</b>	<b>833,589.54</b>	<b>49,212,134.22</b>	<b>0.00</b>	<b>904,516,827.60</b>
<b>NONDEPRECIABLE PLANT</b>					
352.00 FRANCHISES	221,139.78				221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	3,611,014.00				3,611,014.00
353.30 LAND AND LAND RIGHTS - SPP	953,050.62				953,050.62
353.40 LAND AND LAND RIGHTS - TDP	11,062,535.99		125,000.00		10,937,535.99
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>15,847,740.39</b>	<b>0.00</b>	<b>125,000.00</b>	<b>0.00</b>	<b>15,722,740.39</b>
<b>TOTAL UTILITY PLANT</b>	<b>970,410,291.75</b>	<b>833,589.54</b>	<b>49,337,134.22</b>	<b>0.00</b>	<b>920,239,567.99</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2024 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>							
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	9,024,450.07	176,042	8,848,408	243,682	2.70	36.3
354.30 STRUCTURES AND IMPROVEMENTS - SPP	55-S0	22,145,494.03	8,716,727	13,428,767	426,359	1.93	31.5
354.40 STRUCTURES AND IMPROVEMENTS - TDP	55-S0	278,171,967.29	89,164,962	189,007,005	7,102,130	2.55	26.6
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	5,798,402.29	1,376,318	4,422,084	181,459	3.13	24.4
355.00 POWER GENERATING EQUIPMENT	35-S0.5	7,252,880.16	3,253,556	3,999,324	194,006	2.67	20.6
360.10 COLLECTION SEWERS - FORCE MAINS	75-R3	48,007,177.42	5,043,190	42,963,987	814,671	1.70	52.7
361.10 COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	235,039,005.62	51,938,655	183,100,351	3,902,626	1.66	46.9
361.20 MANHOLES	50-S2.5	43,152,715.49	12,533,389	30,619,326	1,991,551	4.62	15.4
363.00 SERVICES	47-R3	56,444,857.84	25,757,379	30,687,479	1,795,672	3.18	17.1
364.00 FLOW MEASURING DEVICES	15-L2.5	658,974.62	355,096	303,879	63,595	9.65	4.8
365.00 FLOW MEASURING INSTALLATIONS	25-S2	272,564.04	232,673	39,891	10,201	3.74	3.9
370.00 RECEIVING WELLS	50-R3	677,388.38	64,325	613,063	16,235	2.40	37.8
371.00 PUMPING EQUIPMENT	30-S0.5	18,434,537.51	2,784,876	15,649,662	879,026	4.77	17.8
380.00 TREATMENT EQUIPMENT	35-S1.5	154,470,993.33	29,034,139	125,436,854	6,434,720	4.17	19.5
381.00 PLANT SEWERS	50-R3	6,578,409.28	1,763,887	4,814,522	149,503	2.27	32.2
382.00 OUTFALL SEWER LINES	50-R3	603,464.81	260,812	342,653	12,604	2.09	27.2
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	2,630,632.88	420,360	2,210,273	139,770	5.31	15.8
390.00 OFFICE FURNITURE AND EQUIPMENT	20-SQ	1,291,592.71	201,196	1,090,397	71,793	5.56	15.2
390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL	5-SQ	45,090.00	4,509	40,581	8,543	18.95	4.8
391.00 TRANSPORTATION EQUIPMENT	14-L4	4,095,346.93	1,061,888	3,033,459	320,037	7.81	9.5
392.00 STORES EQUIPMENT	25-SQ	107,351.44	39,760	67,591	4,301	4.01	15.7
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,433,697.35	429,941	1,003,756	65,560	4.57	15.3
394.00 LABORATORY EQUIPMENT	15-SQ	685,991.59	233,954	452,038	70,819	10.32	6.4
395.00 POWER OPERATED EQUIPMENT	22-R2	595,377.19	244,267	351,110	27,211	4.57	12.9
396.00 COMMUNICATION EQUIPMENT	15-SQ	4,774,493.85	1,450,052	3,324,442	267,620	5.61	12.4
397.00 MISCELLANEOUS EQUIPMENT	15-SQ	2,109,739.98	419,996	1,689,744	128,214	6.08	13.2
398.00 OTHER TANGIBLE PLANT	25-SQ	14,231.50	2,226	12,006	600	4.22	20.0
<b>TOTAL DEPRECIABLE PLANT</b>		<b>904,516,827.60</b>	<b>236,964,175</b>	<b>667,552,652</b>	<b>25,322,508</b>	<b>2.80</b>	
<b>NONDEPRECIABLE PLANT</b>							
352.00 FRANCHISES		221,139.78					
353.20 LAND AND LAND RIGHTS - COLLECTION		3,611,014.00					
353.30 LAND AND LAND RIGHTS - SPP		953,050.62					
353.40 LAND AND LAND RIGHTS - TDP		10,937,535.99					
<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>15,722,740.39</b>					
<b>AMORTIZATION OF NET SALVAGE</b>							
<b>TOTAL UTILITY PLANT</b>		<b>920,239,567.99</b>	<b>236,964,175</b>	<b>667,552,652</b>	<b>1,562,777</b>		
					<b>26,885,285</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2023 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2024 (8)
354.20	45,562		276,913		119,051		27,382				1,023		176,042
354.30	8,246,486		469,218								30,398		8,716,727
354.40	81,813,715		7,320,849										89,164,962
354.70	1,813,015		160,766		269,127		328,335						1,376,318
355.00	3,429,449		150,426		302,147		24,172						3,253,556
360.10	4,624,342		963,375		684,258		403,712				543,444		5,043,190
361.10	48,387,077		4,391,137		1,046,813		523,407				730,661		51,938,655
361.20	10,598,056		2,196,599		193,412		146,993				79,139		12,533,389
363.00	24,434,472		1,955,629		390,177		277,026				34,481		25,757,379
364.00	278,146		76,950										355,096
365.00	219,699		12,974										232,673
370.00	47,932		16,393										64,325
371.00	2,202,233		1,028,938		268,894		188,226				10,824		2,784,876
380.00	23,479,248		6,685,770		847,634		288,196				4,951		29,034,139
381.00	1,613,223		150,664										1,763,887
382.00	247,981		12,831										260,812
389.10	280,396		139,964										420,360
390.00	127,679		73,517										201,196
390.20	0		4,509										4,509
391.00	790,481		321,779		67,942		9,512		16,986		10,097		1,061,888
392.00	35,455		4,305										39,760
393.00	361,985		63,187								4,769		429,941
394.00	147,330		113,446		26,822		2,522						233,954
395.00	226,648		27,560		7,419						3,065		244,267
396.00	1,192,577		262,061		7,652								1,450,052
397.00	309,606		110,390										419,996
398.00	1,363		863										2,226
<b>TOTAL</b>	<b>214,954,156</b>		<b>26,991,013</b>		<b>4,231,348</b>		<b>2,219,482</b>		<b>16,986</b>		<b>1,452,853</b>		<b>236,964,175</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024

ACCOUNT (1)	NET ORIGINALCOST AS OF 6/30/2023 (2)	NET ORIGINALCOST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)=((2)+(3))/2*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	8,479,164.99	9,024,450.07	2.71	237,174	39,739	276,913
354.30	22,137,144.03	22,145,494.03	1.98	438,398	30,820	469,218
354.40	278,024,238.26	278,171,967.29	2.63	7,313,980	6,869	7,320,849
354.70	4,565,732.11	5,798,402.29	2.47	127,997	32,769	160,766
355.00	5,868,971.43	7,252,880.16	2.16	141,716	8,710	150,426
360.10	42,454,829.43	48,007,177.42	1.72	777,973	185,402	963,375
361.10	228,420,729.31	235,039,005.62	1.69	3,916,235	474,902	4,391,137
361.20	41,740,530.40	43,152,715.49	5.05	2,143,554	53,045	2,196,599
363.00	54,006,813.27	56,444,857.84	3.34	1,844,543	111,086	1,955,629
364.00	658,974.62	658,974.62	11.67	76,902	48	76,950
365.00	272,564.04	272,564.04	4.76	12,974	12,974	25,948
370.00	677,388.38	677,388.38	2.42	16,393		16,393
371.00	17,181,544.78	18,434,537.51	4.96	883,279	145,659	1,028,938
380.00	133,752,429.08	154,470,993.33	4.42	6,369,738	316,032	6,685,770
381.00	6,578,409.28	6,578,409.28	2.29	150,646	18	150,664
382.00	603,464.81	603,464.81	2.11	12,733	98	12,831
389.10	2,477,449.88	2,630,632.88	5.45	139,195	769	139,964
390.00	1,266,542.71	1,291,592.71	5.63	72,012	1,505	73,517
390.20	0.00	45,090.00	20.00	4,509		4,509
391.00	3,747,275.07	4,095,346.93	8.30	325,469	(3,690)	321,779
392.00	107,351.44	107,351.44	4.01	4,305		4,305
393.00	1,200,526.19	1,433,697.35	4.66	61,377	1,810	63,187
394.00	705,529.59	685,991.59	16.06	111,739	1,707	113,446
395.00	561,397.06	595,377.19	4.65	26,895	665	27,560
396.00	3,257,338.04	4,774,493.85	6.22	249,790	12,271	262,061
397.00	1,461,600.87	2,109,739.98	5.88	104,997	5,393	110,390
398.00	14,231.50	14,231.50	4.31	613	250	863
TOTAL	860,222,170.57	904,516,827.60		25,565,136	1,425,877	26,991,013

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2019			2020			2021			2022			PROJECTED 2023			NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	+ (4)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	+ (6)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	+ (8)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	+ (10)	GROSS SALVAGE (10)	COST OF REMOVAL (11)	+ (11)		
354.20		27,531.06		122,315.77											95,322.37	(245,169.20)	(49,034)
354.30		61,135.00					20,176.30			65,248.65					14,994.65	(161,554.60)	(32,311)
354.40		1,985.51					28,995.08			5,052.37					15,159.82	(51,192.78)	(10,239)
354.70		18,075.18	246.65				11,677.96			34,027.64					163,536.33	(227,563.76)	(45,513)
355.00		9,730.05					1,253.37			333.24					12,086.00	(47,323.44)	(9,465)
360.10		245,202.29		186,669.20			147,595.80			169,252.01					271,225.09	(1,019,944.39)	(203,989)
361.10		1,038,558.77		323,715.46			245,041.20			251,743.85					691,307.65	(2,544,016.47)	(508,803)
361.20		109,567.01		34,151.69			20,315.71			58,813.67					85,486.72	(307,597.26)	(61,519)
363.00		150,830.30		76,222.67			105,836.92			91,479.25					213,986.21	(638,196.35)	(127,639)
364.00		239.58														(239.58)	(48)
371.00		141,438.05		273,771.37			206,559.57			53,057.74					125,823.03	(800,649.76)	(160,130)
380.00		214,843.19		652,150.29			269,030.45			336,246.38					203,471.67	(1,675,741.98)	(335,148)
381.00							90.22									(90.22)	(18)
389.10			5,681.56													(5,681.56)	(1,136)
390.00							3,619.09			3,738.83						(7,600.63)	(1,520)
391.00			6,028.96	10.19											242.71	(7,600.63)	(1,520)
393.00			1,931.40	5,643.88						27,472.80					4,756.00	25,170.65	5,034
394.00			5,593.49	1,075.22											1,237.81	(9,668.17)	(1,934)
395.00			2,048.24							1,113.04					(4,325.75)	(6,311.31)	(1,262)
396.00			1,897.96	52,578.21						645.90					1,261.00	(3,955.14)	(791)
397.00			5,512.61	9,909.72						2,348.88					(23,955.68)	(61,353.39)	(12,271)
398.00			1,251.49							5,312.99						(1,251.49)	(250)
<b>TOTAL</b>	<b>0.00</b>	<b>2,049,081.70</b>		<b>1,762,381.10</b>			<b>1,070,509.62</b>			<b>1,081,011.79</b>			<b>15,561.00</b>		<b>1,895,571.31</b>	<b>(7,813,886.51)</b>	<b>(1,562,777)</b>

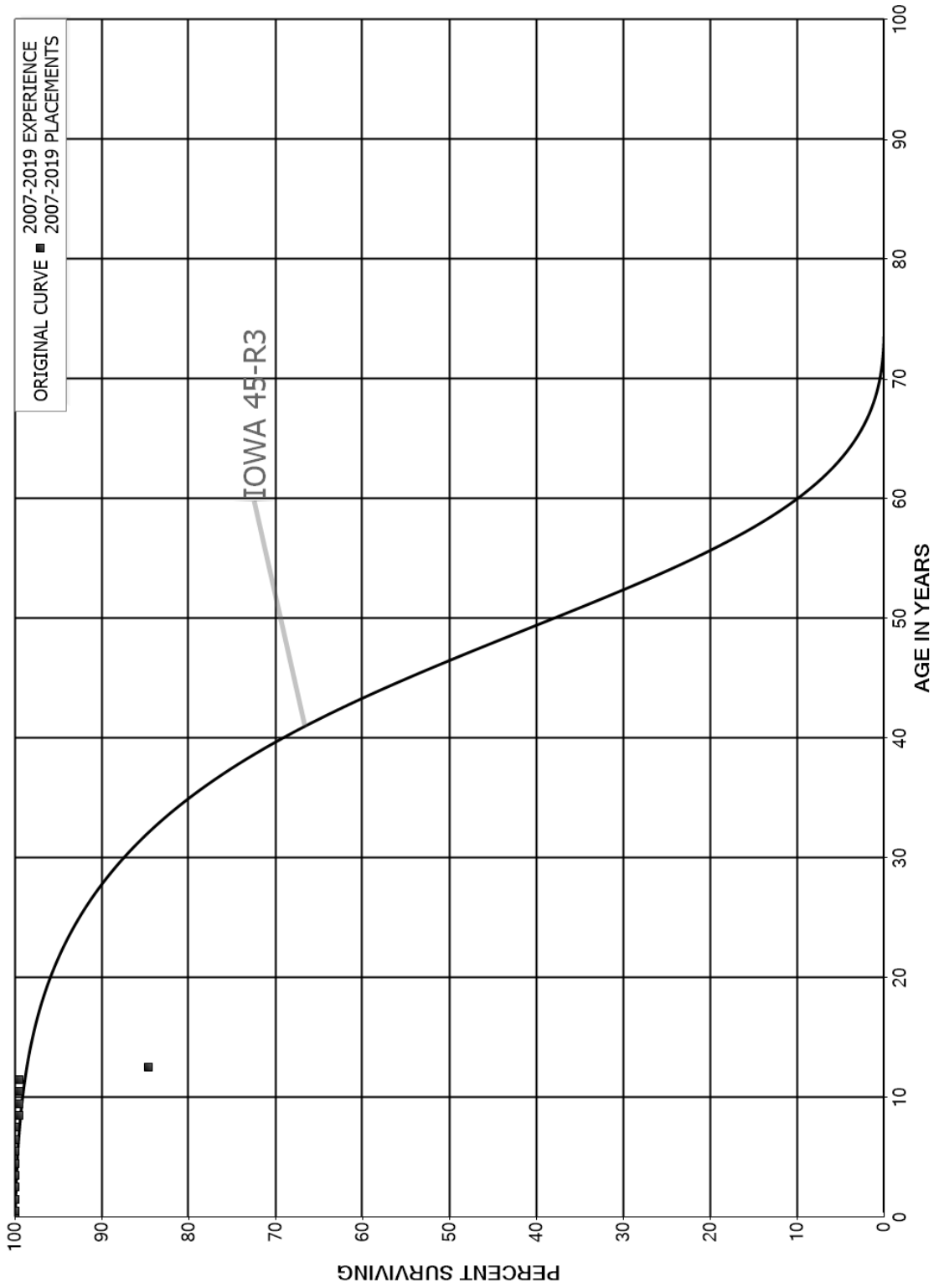
\* Column (12) equals the summation of Columns (2) through (11).

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## **PART VI. SERVICE LIFE STATISTICS**



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



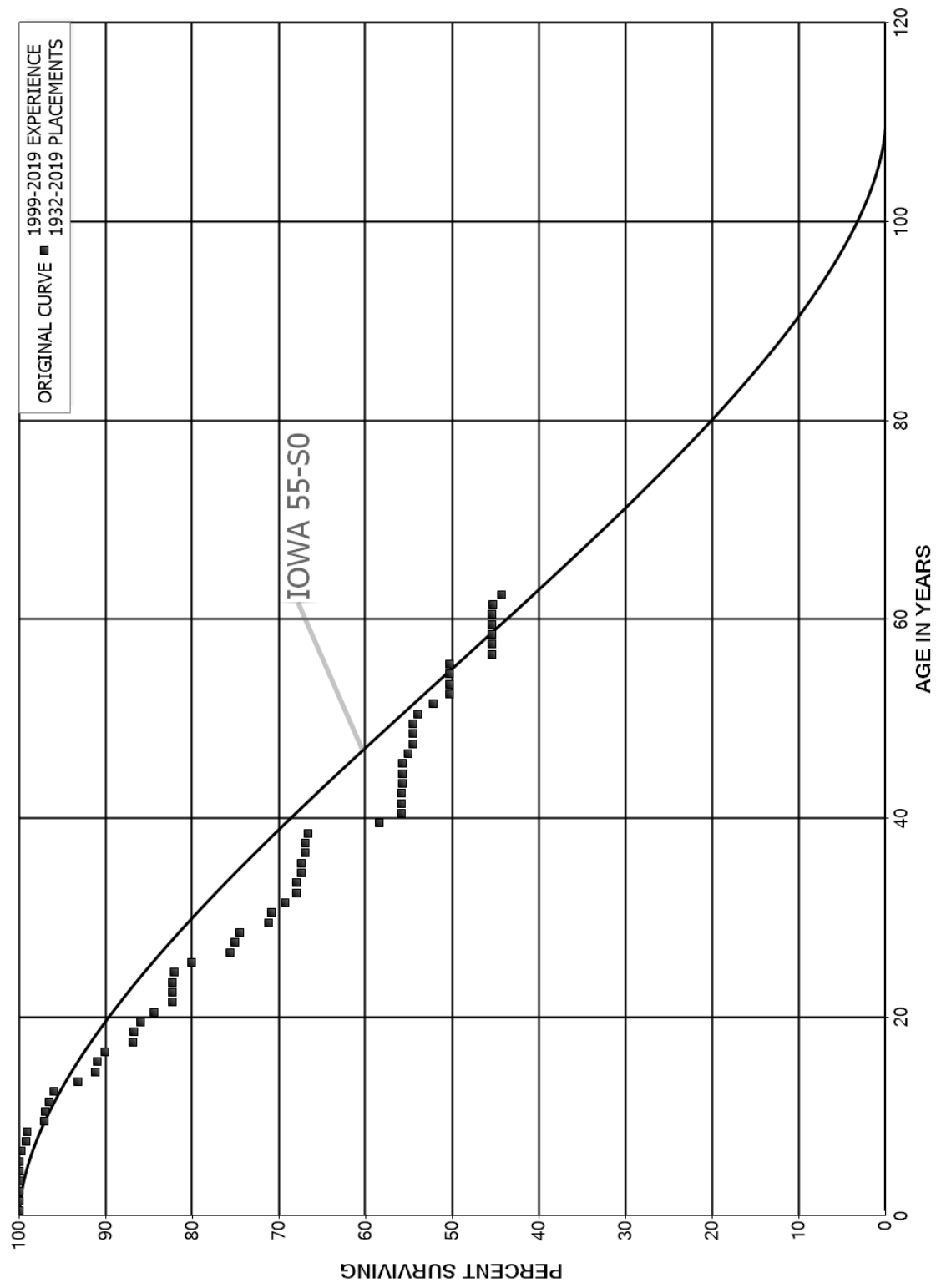
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,844,636		0.0000	1.0000	100.00
0.5	3,478,774		0.0000	1.0000	100.00
1.5	1,864,154		0.0000	1.0000	100.00
2.5	516,452	0	0.0000	1.0000	100.00
3.5	479,797		0.0000	1.0000	100.00
4.5	437,900	416	0.0010	0.9990	100.00
5.5	422,717		0.0000	1.0000	99.90
6.5	321,516		0.0000	1.0000	99.90
7.5	321,516	1,408	0.0044	0.9956	99.90
8.5	311,522		0.0000	1.0000	99.47
9.5	311,522		0.0000	1.0000	99.47
10.5	134,415		0.0000	1.0000	99.47
11.5	20,659	3,076	0.1489	0.8511	99.47
12.5					84.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE

PLACEMENT BAND 1932-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	70,500,767		0.0000	1.0000	100.00
0.5	76,131,665		0.0000	1.0000	100.00
1.5	80,233,751	6,642	0.0001	0.9999	100.00
2.5	105,447,960		0.0000	1.0000	99.99
3.5	85,605,007	28,836	0.0003	0.9997	99.99
4.5	79,002,174	4,425	0.0001	0.9999	99.96
5.5	46,624,214	105,422	0.0023	0.9977	99.95
6.5	51,444,895	277,564	0.0054	0.9946	99.73
7.5	50,906,335	75,090	0.0015	0.9985	99.19
8.5	50,793,050	1,027,715	0.0202	0.9798	99.04
9.5	34,780,266	28,544	0.0008	0.9992	97.04
10.5	15,695,508	65,025	0.0041	0.9959	96.96
11.5	15,618,899	88,716	0.0057	0.9943	96.56
12.5	20,002,643	601,564	0.0301	0.9699	96.01
13.5	17,169,269	353,428	0.0206	0.9794	93.12
14.5	16,203,968	41,247	0.0025	0.9975	91.20
15.5	16,204,082	163,309	0.0101	0.9899	90.97
16.5	13,585,539	481,677	0.0355	0.9645	90.06
17.5	12,995,837	17,548	0.0014	0.9986	86.86
18.5	12,210,208	114,143	0.0093	0.9907	86.74
19.5	7,393,964	134,551	0.0182	0.9818	85.93
20.5	6,513,761	157,405	0.0242	0.9758	84.37
21.5	6,711,244	2,801	0.0004	0.9996	82.33
22.5	7,374,817	1,543	0.0002	0.9998	82.30
23.5	6,783,698	15,823	0.0023	0.9977	82.28
24.5	6,921,413	166,617	0.0241	0.9759	82.09
25.5	6,763,696	380,532	0.0563	0.9437	80.11
26.5	5,899,041	38,147	0.0065	0.9935	75.60
27.5	4,281,769	34,820	0.0081	0.9919	75.12
28.5	3,967,252	175,318	0.0442	0.9558	74.50
29.5	4,051,668	21,732	0.0054	0.9946	71.21
30.5	5,300,696	114,682	0.0216	0.9784	70.83
31.5	4,027,463	76,382	0.0190	0.9810	69.30
32.5	2,813,504	2,190	0.0008	0.9992	67.98
33.5	2,649,698	20,846	0.0079	0.9921	67.93
34.5	1,122,954		0.0000	1.0000	67.40
35.5	398,615	2,457	0.0062	0.9938	67.40
36.5	369,394		0.0000	1.0000	66.98
37.5	339,885	1,942	0.0057	0.9943	66.98
38.5	249,055	30,753	0.1235	0.8765	66.60

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	877,505	37,754	0.0430	0.9570	58.37
40.5	1,351,121		0.0000	1.0000	55.86
41.5	19,298,436	4,893	0.0003	0.9997	55.86
42.5	19,293,543	30,808	0.0016	0.9984	55.85
43.5	32,745,779		0.0000	1.0000	55.76
44.5	14,343,608	10,968	0.0008	0.9992	55.76
45.5	14,332,640	153,806	0.0107	0.9893	55.72
46.5	14,199,715	156,087	0.0110	0.9890	55.12
47.5	552,598		0.0000	1.0000	54.51
48.5	1,223,925		0.0000	1.0000	54.51
49.5	1,265,936	12,500	0.0099	0.9901	54.51
50.5	1,284,936	43,517	0.0339	0.9661	53.98
51.5	570,093	20,853	0.0366	0.9634	52.15
52.5	524,823		0.0000	1.0000	50.24
53.5	524,823		0.0000	1.0000	50.24
54.5	447,474		0.0000	1.0000	50.24
55.5	447,474	42,843	0.0957	0.9043	50.24
56.5	13,313,486	1,903	0.0001	0.9999	45.43
57.5	13,311,583		0.0000	1.0000	45.42
58.5	13,049,341	13	0.0000	1.0000	45.42
59.5	140,486		0.0000	1.0000	45.42
60.5	140,486	363	0.0026	0.9974	45.42
61.5	140,123	3,040	0.0217	0.9783	45.31
62.5					44.32
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	39,928		0.0000		
69.5	39,928		0.0000		
70.5	39,928		0.0000		
71.5	39,928		0.0000		
72.5	40,428		0.0000		
73.5	39,928		0.0000		
74.5	39,928		0.0000		
75.5	39,928		0.0000		
76.5	602		0.0000		
77.5	602		0.0000		
78.5	602		0.0000		

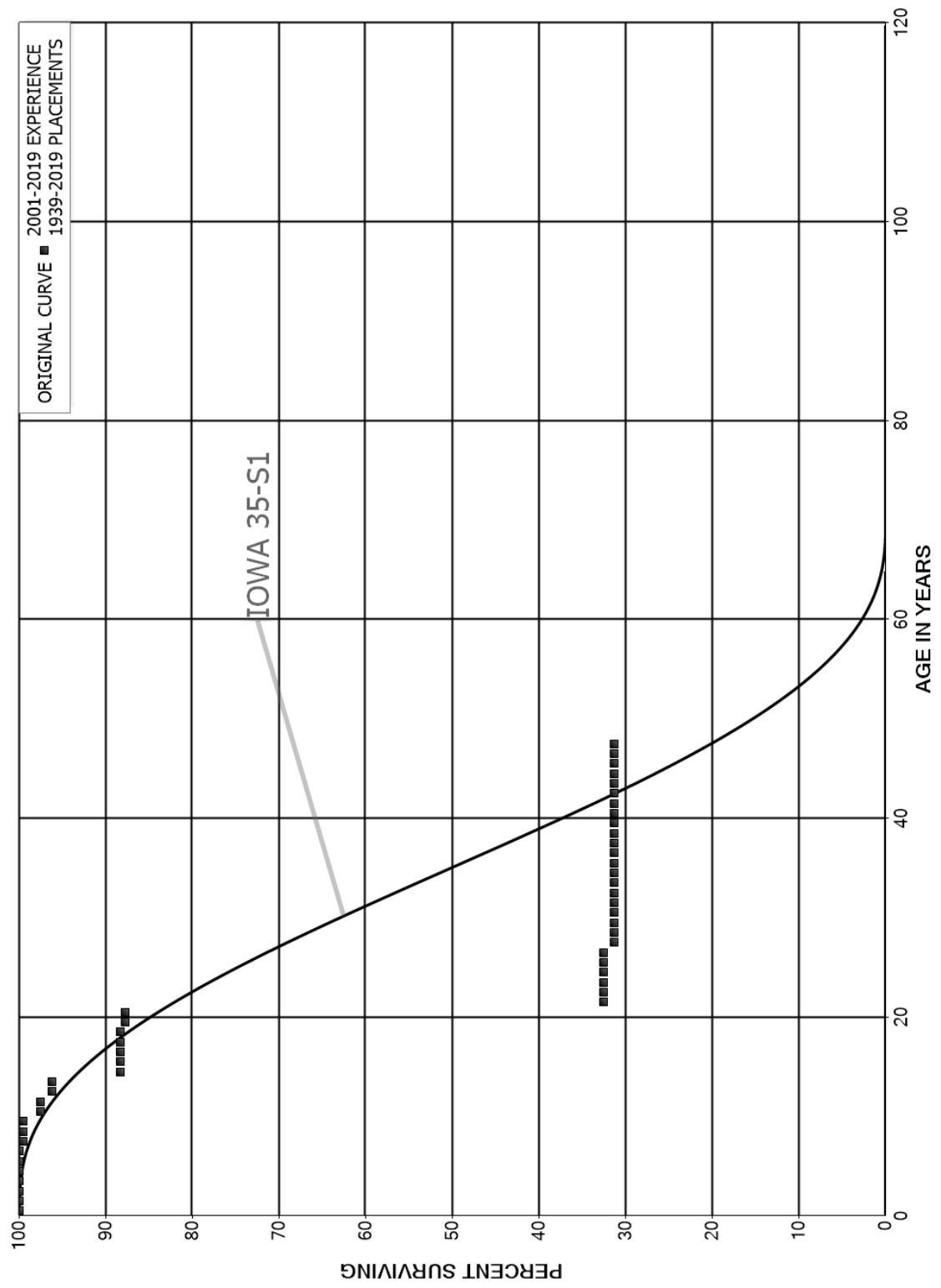
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	602		0.0000		
80.5	602		0.0000		
81.5	602		0.0000		
82.5	602		0.0000		
83.5	602		0.0000		
84.5	602		0.0000		
85.5	602		0.0000		
86.5	602		0.0000		
87.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,331,347		0.0000	1.0000	100.00
0.5	2,248,872	400	0.0002	0.9998	100.00
1.5	2,139,519		0.0000	1.0000	99.98
2.5	2,007,976		0.0000	1.0000	99.98
3.5	1,998,798		0.0000	1.0000	99.98
4.5	978,189		0.0000	1.0000	99.98
5.5	566,034		0.0000	1.0000	99.98
6.5	540,776	2,524	0.0047	0.9953	99.98
7.5	668,631		0.0000	1.0000	99.52
8.5	661,526		0.0000	1.0000	99.52
9.5	622,592	12,303	0.0198	0.9802	99.52
10.5	529,371	373	0.0007	0.9993	97.55
11.5	209,362	2,752	0.0131	0.9869	97.48
12.5	204,311		0.0000	1.0000	96.20
13.5	220,425	18,073	0.0820	0.9180	96.20
14.5	208,207		0.0000	1.0000	88.31
15.5	208,207		0.0000	1.0000	88.31
16.5	165,317		0.0000	1.0000	88.31
17.5	193,471		0.0000	1.0000	88.31
18.5	210,457	1,510	0.0072	0.9928	88.31
19.5	223,914		0.0000	1.0000	87.68
20.5	223,914	140,772	0.6287	0.3713	87.68
21.5	67,028		0.0000	1.0000	32.56
22.5	73,481		0.0000	1.0000	32.56
23.5	73,481		0.0000	1.0000	32.56
24.5	73,481		0.0000	1.0000	32.56
25.5	44,261		0.0000	1.0000	32.56
26.5	27,275	1,047	0.0384	0.9616	32.56
27.5	11,260		0.0000	1.0000	31.31
28.5	11,260		0.0000	1.0000	31.31
29.5	11,260		0.0000	1.0000	31.31
30.5	11,260		0.0000	1.0000	31.31
31.5	11,260		0.0000	1.0000	31.31
32.5	11,260		0.0000	1.0000	31.31
33.5	11,260		0.0000	1.0000	31.31
34.5	11,260		0.0000	1.0000	31.31
35.5	450		0.0000	1.0000	31.31
36.5	450		0.0000	1.0000	31.31
37.5	450		0.0000	1.0000	31.31
38.5	450		0.0000	1.0000	31.31



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	450		0.0000	1.0000	31.31
40.5	450		0.0000	1.0000	31.31
41.5	450		0.0000	1.0000	31.31
42.5	450		0.0000	1.0000	31.31
43.5	450		0.0000	1.0000	31.31
44.5	450		0.0000	1.0000	31.31
45.5	450		0.0000	1.0000	31.31
46.5	450		0.0000	1.0000	31.31
47.5					31.31
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	3,802		0.0000		
69.5	3,802		0.0000		
70.5	3,802	283	0.0744		
71.5	3,519		0.0000		
72.5	3,519		0.0000		
73.5	3,519		0.0000		
74.5	3,519		0.0000		
75.5	3,519		0.0000		
76.5	3,519		0.0000		
77.5	3,519		0.0000		
78.5	3,519		0.0000		

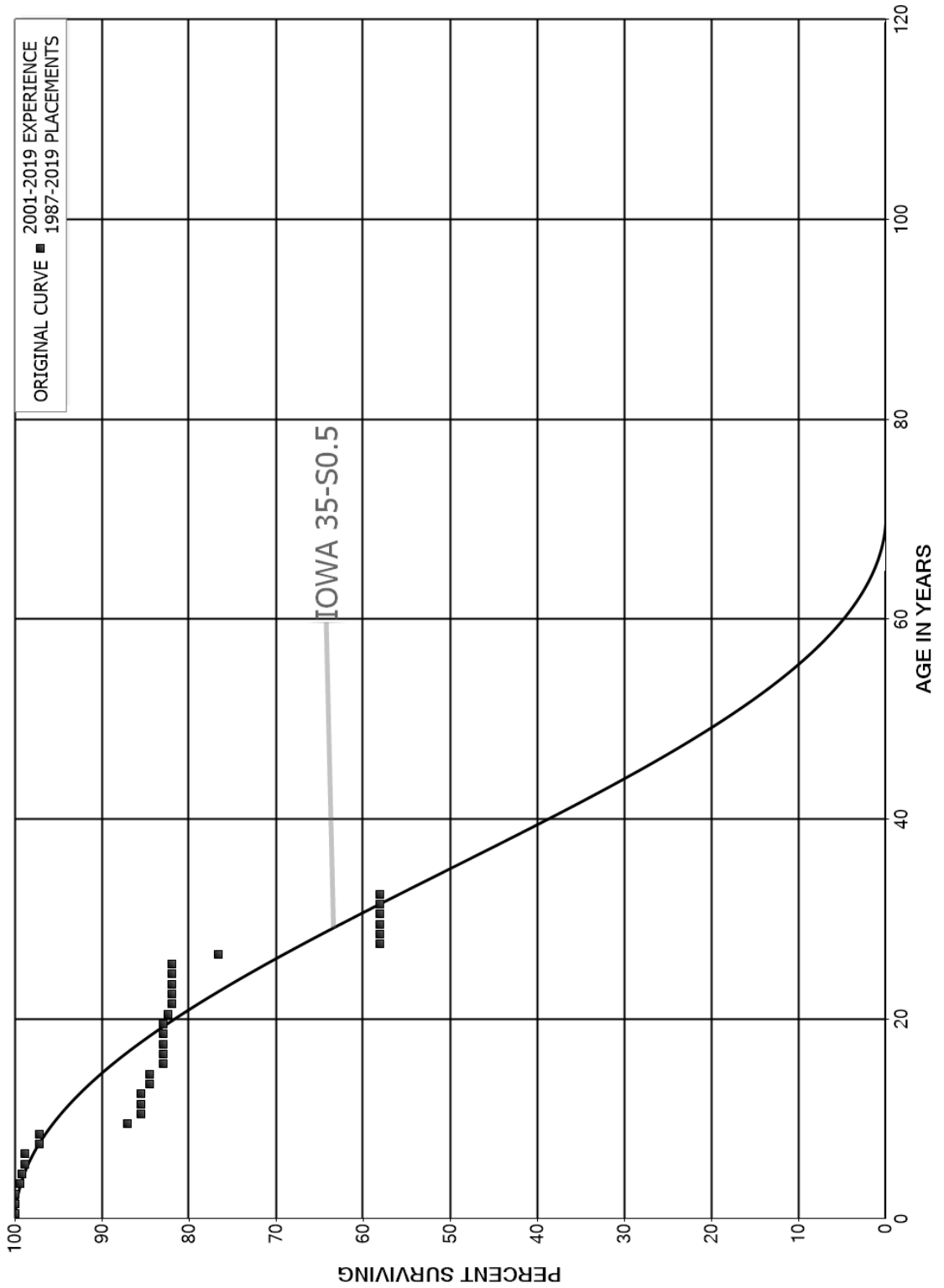
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5	3,519		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 355.00 POWER GENERATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



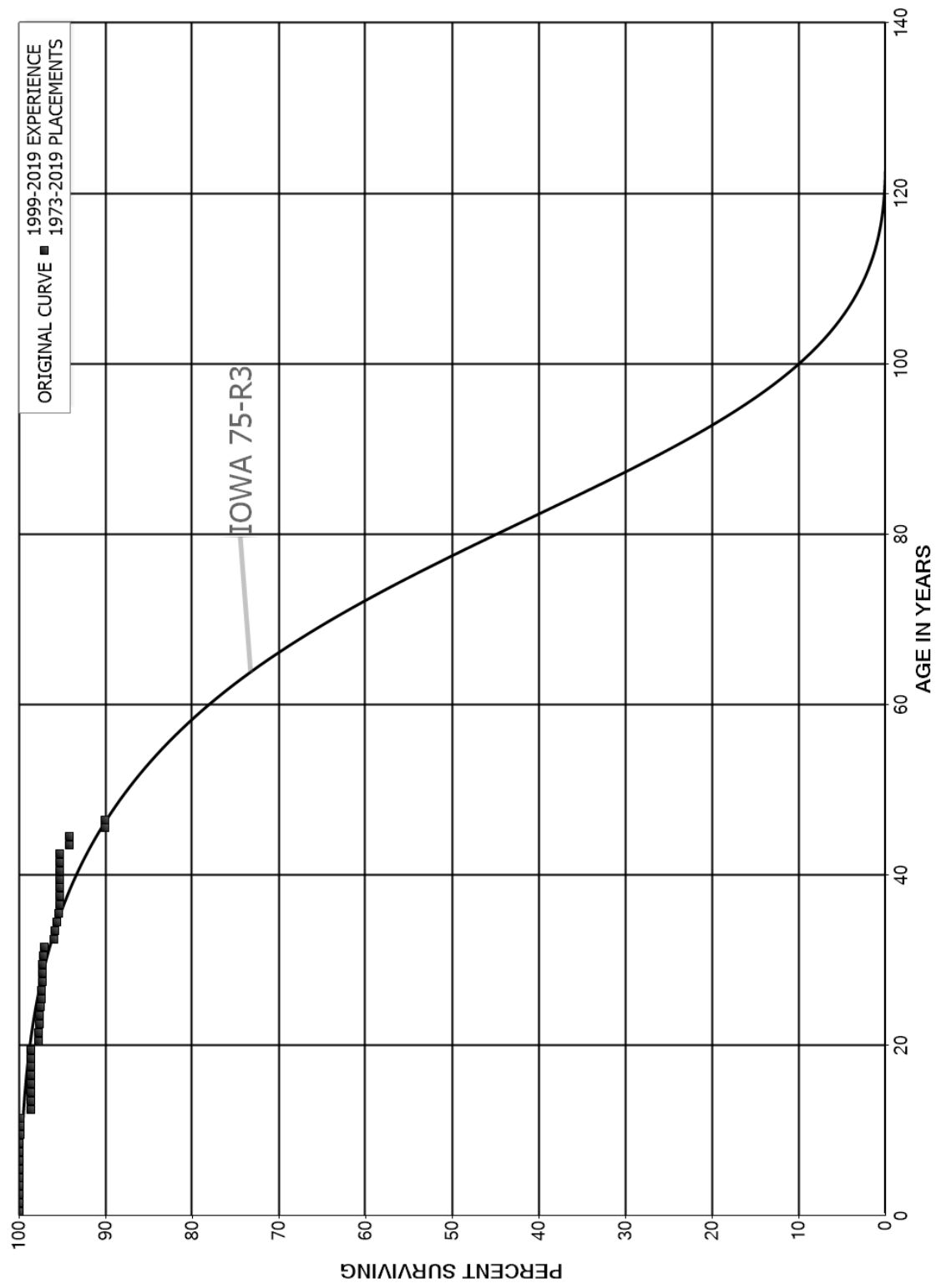
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1987-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,656,122		0.0000	1.0000	100.00
0.5	3,685,338		0.0000	1.0000	100.00
1.5	4,385,880		0.0000	1.0000	100.00
2.5	4,494,639	26,926	0.0060	0.9940	100.00
3.5	4,479,665	10,161	0.0023	0.9977	99.40
4.5	4,398,000	14,523	0.0033	0.9967	99.18
5.5	3,773,674	1,387	0.0004	0.9996	98.85
6.5	3,828,658	61,470	0.0161	0.9839	98.81
7.5	3,336,361		0.0000	1.0000	97.23
8.5	3,321,984	347,576	0.1046	0.8954	97.23
9.5	2,953,727	51,388	0.0174	0.9826	87.05
10.5	328,249		0.0000	1.0000	85.54
11.5	144,528		0.0000	1.0000	85.54
12.5	267,555	3,097	0.0116	0.9884	85.54
13.5	327,093		0.0000	1.0000	84.55
14.5	278,538	5,336	0.0192	0.9808	84.55
15.5	281,064		0.0000	1.0000	82.93
16.5	293,645		0.0000	1.0000	82.93
17.5	241,944		0.0000	1.0000	82.93
18.5	203,466		0.0000	1.0000	82.93
19.5	203,466	1,204	0.0059	0.9941	82.93
20.5	202,262	1,103	0.0055	0.9945	82.44
21.5	432,455		0.0000	1.0000	81.99
22.5	402,008		0.0000	1.0000	81.99
23.5	402,008		0.0000	1.0000	81.99
24.5	402,008		0.0000	1.0000	81.99
25.5	402,978	26,388	0.0655	0.9345	81.99
26.5	174,978	42,310	0.2418	0.7582	76.62
27.5	89,880		0.0000	1.0000	58.09
28.5	68,585		0.0000	1.0000	58.09
29.5	68,585		0.0000	1.0000	58.09
30.5	19,246		0.0000	1.0000	58.09
31.5	19,246		0.0000	1.0000	58.09
32.5					58.09

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	31,766,704	19	0.0000	1.0000	100.00
0.5	28,215,316	26	0.0000	1.0000	100.00
1.5	35,558,986	33	0.0000	1.0000	100.00
2.5	23,783,577	70	0.0000	1.0000	100.00
3.5	21,373,939	350	0.0000	1.0000	100.00
4.5	18,774,036	315	0.0000	1.0000	100.00
5.5	14,425,014	397	0.0000	1.0000	100.00
6.5	14,188,090	1,611	0.0001	0.9999	99.99
7.5	14,122,868	1,747	0.0001	0.9999	99.98
8.5	13,850,582	16,747	0.0012	0.9988	99.97
9.5	13,465,099	64	0.0000	1.0000	99.85
10.5	13,318,392	82	0.0000	1.0000	99.85
11.5	10,748,868	127,626	0.0119	0.9881	99.85
12.5	9,661,386		0.0000	1.0000	98.66
13.5	7,868,737	3,291	0.0004	0.9996	98.66
14.5	7,779,655	99	0.0000	1.0000	98.62
15.5	5,905,707	9	0.0000	1.0000	98.62
16.5	5,774,986	949	0.0002	0.9998	98.62
17.5	5,344,267	1,253	0.0002	0.9998	98.60
18.5	4,614,847	826	0.0002	0.9998	98.58
19.5	4,197,905	37,017	0.0088	0.9912	98.56
20.5	3,986,776	70	0.0000	1.0000	97.69
21.5	4,475,797	1,897	0.0004	0.9996	97.69
22.5	3,907,599	569	0.0001	0.9999	97.65
23.5	4,900,347	3,932	0.0008	0.9992	97.64
24.5	6,419,851	13,411	0.0021	0.9979	97.56
25.5	6,580,720	788	0.0001	0.9999	97.35
26.5	6,033,834	1,095	0.0002	0.9998	97.34
27.5	6,011,515	2,049	0.0003	0.9997	97.32
28.5	5,991,855	3,135	0.0005	0.9995	97.29
29.5	6,011,945	3,365	0.0006	0.9994	97.24
30.5	5,911,879	4,784	0.0008	0.9992	97.19
31.5	5,517,306	65,876	0.0119	0.9881	97.11
32.5	5,225,480	4,106	0.0008	0.9992	95.95
33.5	5,192,765	13,636	0.0026	0.9974	95.87
34.5	4,869,190	12,733	0.0026	0.9974	95.62
35.5	4,856,457	2,869	0.0006	0.9994	95.37
36.5	4,661,206	15	0.0000	1.0000	95.31
37.5	4,607,713		0.0000	1.0000	95.31
38.5	4,446,768	1,883	0.0004	0.9996	95.31

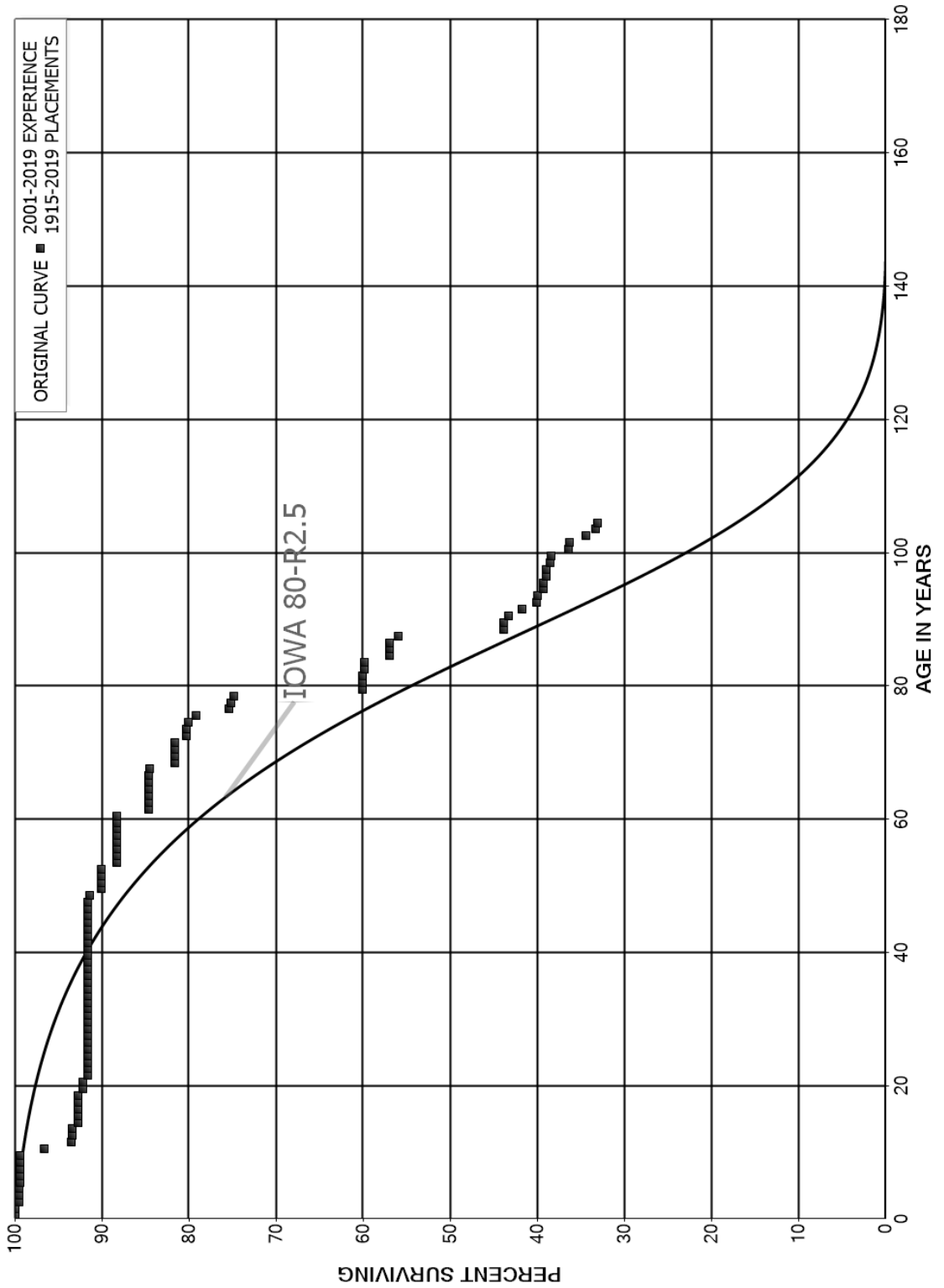
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	4,369,779	82	0.0000	1.0000	95.27	
40.5	4,295,948	6	0.0000	1.0000	95.27	
41.5	4,025,587	0	0.0000	1.0000	95.27	
42.5	3,566,737	42,283	0.0119	0.9881	95.27	
43.5	2,553,034		0.0000	1.0000	94.14	
44.5	1,703,254	73,783	0.0433	0.9567	94.14	
45.5	125,695		0.0000	1.0000	90.06	
46.5					90.06	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	123,698,865	1,489	0.0000	1.0000	100.00
0.5	80,968,134	1,744	0.0000	1.0000	100.00
1.5	71,427,735	349,743	0.0049	0.9951	100.00
2.5	61,491,291		0.0000	1.0000	99.51
3.5	47,985,505		0.0000	1.0000	99.51
4.5	43,496,282	26,093	0.0006	0.9994	99.51
5.5	34,622,702	11,064	0.0003	0.9997	99.45
6.5	36,236,717	10,556	0.0003	0.9997	99.42
7.5	44,473,440	0	0.0000	1.0000	99.39
8.5	44,403,805	13,334	0.0003	0.9997	99.39
9.5	42,579,956	1,180,167	0.0277	0.9723	99.36
10.5	27,257,562	886,763	0.0325	0.9675	96.60
11.5	23,041,413	10,064	0.0004	0.9996	93.46
12.5	15,696,984	13,300	0.0008	0.9992	93.42
13.5	13,197,516	82,522	0.0063	0.9937	93.34
14.5	9,898,866	187	0.0000	1.0000	92.76
15.5	8,175,329	367	0.0000	1.0000	92.75
16.5	11,005,722	1,374	0.0001	0.9999	92.75
17.5	22,668,123		0.0000	1.0000	92.74
18.5	22,367,436	144,378	0.0065	0.9935	92.74
19.5	21,841,271		0.0000	1.0000	92.14
20.5	10,429,000	56,430	0.0054	0.9946	92.14
21.5	13,494,984		0.0000	1.0000	91.64
22.5	12,095,717		0.0000	1.0000	91.64
23.5	13,846,891		0.0000	1.0000	91.64
24.5	14,182,481		0.0000	1.0000	91.64
25.5	19,071,002		0.0000	1.0000	91.64
26.5	16,170,692		0.0000	1.0000	91.64
27.5	36,060,280		0.0000	1.0000	91.64
28.5	35,923,542		0.0000	1.0000	91.64
29.5	33,683,971		0.0000	1.0000	91.64
30.5	8,391,683	866	0.0001	0.9999	91.64
31.5	8,167,272	21	0.0000	1.0000	91.63
32.5	8,027,418		0.0000	1.0000	91.63
33.5	7,266,714		0.0000	1.0000	91.63
34.5	5,540,059		0.0000	1.0000	91.63
35.5	3,406,034		0.0000	1.0000	91.63
36.5	3,951,146		0.0000	1.0000	91.63
37.5	4,287,296		0.0000	1.0000	91.63
38.5	4,273,219		0.0000	1.0000	91.63

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,243,666		0.0000	1.0000	91.63
40.5	41,503,891	5,447	0.0001	0.9999	91.63
41.5	41,043,016	49	0.0000	1.0000	91.62
42.5	41,341,828		0.0000	1.0000	91.62
43.5	20,516,395		0.0000	1.0000	91.62
44.5	17,262,745	4,573	0.0003	0.9997	91.62
45.5	17,447,879		0.0000	1.0000	91.60
46.5	16,922,111	1,617	0.0001	0.9999	91.60
47.5	1,493,981	2,878	0.0019	0.9981	91.59
48.5	1,491,103	21,283	0.0143	0.9857	91.41
49.5	995,707	187	0.0002	0.9998	90.11
50.5	1,249,631		0.0000	1.0000	90.09
51.5	1,214,773		0.0000	1.0000	90.09
52.5	1,253,366	24,618	0.0196	0.9804	90.09
53.5	28,374,663		0.0000	1.0000	88.32
54.5	38,998,170		0.0000	1.0000	88.32
55.5	39,986,553		0.0000	1.0000	88.32
56.5	13,005,874		0.0000	1.0000	88.32
57.5	59,432,346		0.0000	1.0000	88.32
58.5	60,820,282	557	0.0000	1.0000	88.32
59.5	59,761,303	747	0.0000	1.0000	88.32
60.5	2,094,297	87,761	0.0419	0.9581	88.32
61.5	22,663,762	8	0.0000	1.0000	84.62
62.5	21,213,491	61	0.0000	1.0000	84.62
63.5	21,215,934	289	0.0000	1.0000	84.62
64.5	46,353		0.0000	1.0000	84.62
65.5	1,102,303		0.0000	1.0000	84.62
66.5	1,102,303	1,673	0.0015	0.9985	84.62
67.5	1,100,630	37,140	0.0337	0.9663	84.49
68.5	1,259,440		0.0000	1.0000	81.64
69.5	290,689		0.0000	1.0000	81.64
70.5	962,463	168	0.0002	0.9998	81.64
71.5	962,295	15,230	0.0158	0.9842	81.62
72.5	1,042,298	993	0.0010	0.9990	80.33
73.5	946,072	2,053	0.0022	0.9978	80.25
74.5	683,176	7,508	0.0110	0.9890	80.08
75.5	675,668	32,767	0.0485	0.9515	79.20
76.5	642,901	1,310	0.0020	0.9980	75.36
77.5	1,531,686	8,017	0.0052	0.9948	75.20
78.5	1,523,669	299,242	0.1964	0.8036	74.81

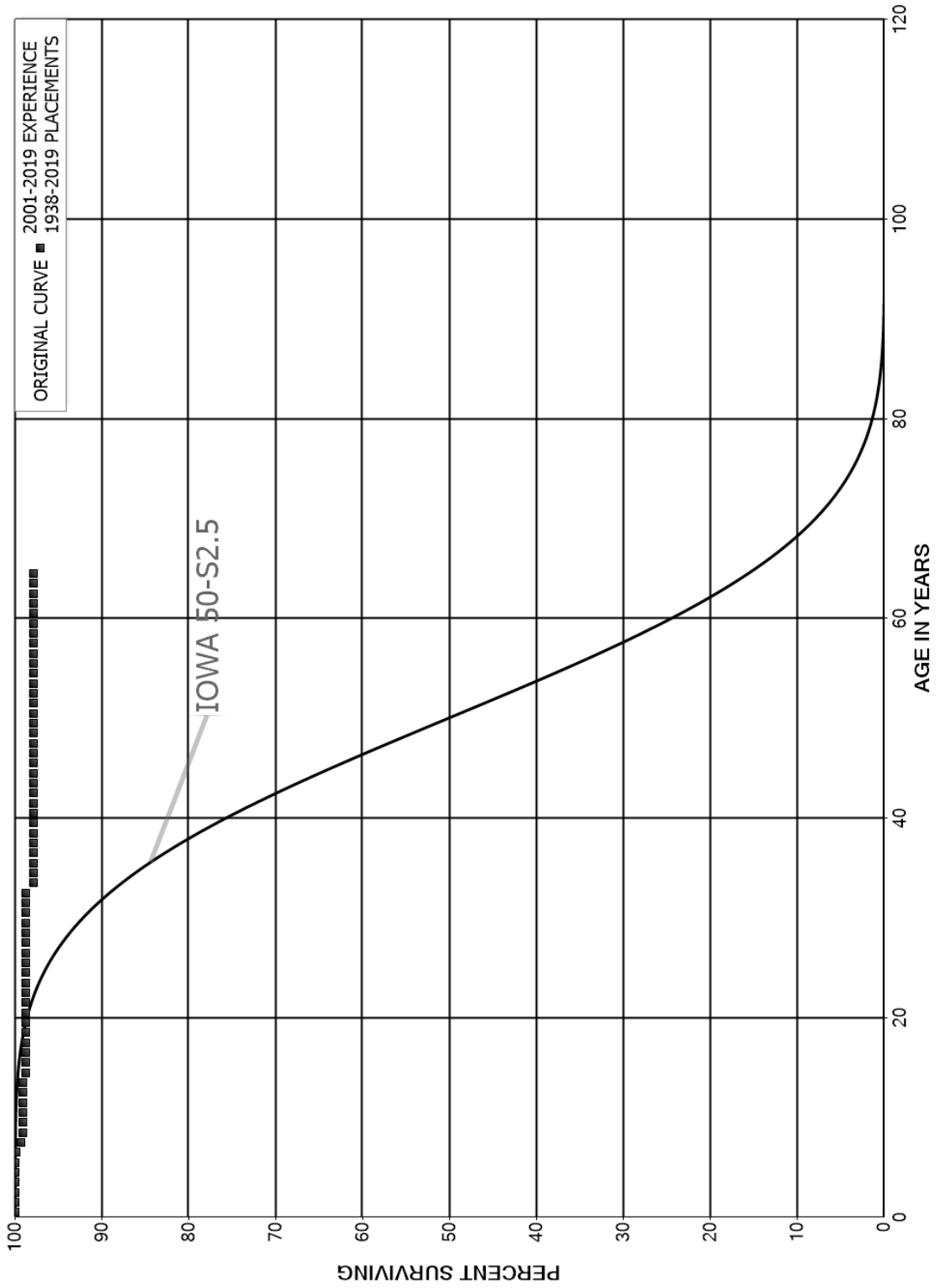
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,224,427	291	0.0002	0.9998	60.12	
80.5	1,522,508		0.0000	1.0000	60.10	
81.5	632,413	2,303	0.0036	0.9964	60.10	
82.5	648,868		0.0000	1.0000	59.89	
83.5	648,868	31,252	0.0482	0.9518	59.89	
84.5	601,981	10	0.0000	1.0000	57.00	
85.5	722,814		0.0000	1.0000	57.00	
86.5	722,814	13,485	0.0187	0.9813	57.00	
87.5	709,329	153,014	0.2157	0.7843	55.94	
88.5	556,315	264	0.0005	0.9995	43.87	
89.5	329,027	4,352	0.0132	0.9868	43.85	
90.5	306,175	11,276	0.0368	0.9632	43.27	
91.5	294,898	11,132	0.0377	0.9623	41.68	
92.5	283,767	1,273	0.0045	0.9955	40.10	
93.5	282,494	4,366	0.0155	0.9845	39.92	
94.5	278,128	221	0.0008	0.9992	39.31	
95.5	277,906	1,967	0.0071	0.9929	39.27	
96.5	275,939	42	0.0002	0.9998	39.00	
97.5	3,804,626	42,906	0.0113	0.9887	38.99	
98.5	3,761,720	15,091	0.0040	0.9960	38.55	
99.5	3,616,599	191,754	0.0530	0.9470	38.40	
100.5	3,424,846	6,012	0.0018	0.9982	36.36	
101.5	96,405	5,167	0.0536	0.9464	36.30	
102.5	91,238	2,967	0.0325	0.9675	34.35	
103.5	88,271	309	0.0035	0.9965	33.23	
104.5					33.12	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.20 MANHOLES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-2019

EXPERIENCE BAND 2001-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,379,651		0.0000	1.0000	100.00
0.5	10,176,887		0.0000	1.0000	100.00
1.5	10,661,285	0	0.0000	1.0000	100.00
2.5	11,952,425		0.0000	1.0000	100.00
3.5	12,083,028	911	0.0001	0.9999	100.00
4.5	7,585,455		0.0000	1.0000	99.99
5.5	5,573,639	6,667	0.0012	0.9988	99.99
6.5	4,589,383	27,566	0.0060	0.9940	99.87
7.5	4,569,090	10,961	0.0024	0.9976	99.27
8.5	5,066,097		0.0000	1.0000	99.03
9.5	5,304,644		0.0000	1.0000	99.03
10.5	5,838,060		0.0000	1.0000	99.03
11.5	5,353,439		0.0000	1.0000	99.03
12.5	4,555,554		0.0000	1.0000	99.03
13.5	4,114,028	12,188	0.0030	0.9970	99.03
14.5	2,635,311		0.0000	1.0000	98.74
15.5	2,105,291	0	0.0000	1.0000	98.74
16.5	2,247,105	472	0.0002	0.9998	98.74
17.5	2,934,821		0.0000	1.0000	98.72
18.5	2,849,242		0.0000	1.0000	98.72
19.5	2,782,656		0.0000	1.0000	98.72
20.5	2,425,509	0	0.0000	1.0000	98.72
21.5	1,772,096		0.0000	1.0000	98.72
22.5	970,343		0.0000	1.0000	98.72
23.5	1,299,611		0.0000	1.0000	98.72
24.5	1,741,110		0.0000	1.0000	98.72
25.5	2,636,710		0.0000	1.0000	98.72
26.5	3,361,749		0.0000	1.0000	98.72
27.5	3,450,899		0.0000	1.0000	98.72
28.5	3,240,536		0.0000	1.0000	98.72
29.5	2,574,979		0.0000	1.0000	98.72
30.5	1,538,799		0.0000	1.0000	98.72
31.5	1,635,548		0.0000	1.0000	98.72
32.5	1,551,747	13,277	0.0086	0.9914	98.72
33.5	1,328,056		0.0000	1.0000	97.88
34.5	1,038,030		0.0000	1.0000	97.88
35.5	1,093,592		0.0000	1.0000	97.88
36.5	1,326,879		0.0000	1.0000	97.88
37.5	1,450,927		0.0000	1.0000	97.88
38.5	1,304,196		0.0000	1.0000	97.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	994,944		0.0000	1.0000	97.88
40.5	2,263,935		0.0000	1.0000	97.88
41.5	2,043,826		0.0000	1.0000	97.88
42.5	2,216,232		0.0000	1.0000	97.88
43.5	2,406,018		0.0000	1.0000	97.88
44.5	2,040,304		0.0000	1.0000	97.88
45.5	2,008,665		0.0000	1.0000	97.88
46.5	1,708,150		0.0000	1.0000	97.88
47.5	301,817		0.0000	1.0000	97.88
48.5	301,817		0.0000	1.0000	97.88
49.5	170,327		0.0000	1.0000	97.88
50.5	201,568		0.0000	1.0000	97.88
51.5	166,180		0.0000	1.0000	97.88
52.5	172,781		0.0000	1.0000	97.88
53.5	1,995,623		0.0000	1.0000	97.88
54.5	1,827,036		0.0000	1.0000	97.88
55.5	1,951,871		0.0000	1.0000	97.88
56.5	131,436		0.0000	1.0000	97.88
57.5	10,950,272		0.0000	1.0000	97.88
58.5	10,950,272		0.0000	1.0000	97.88
59.5	10,825,437		0.0000	1.0000	97.88
60.5	89,564		0.0000	1.0000	97.88
61.5	89,564		0.0000	1.0000	97.88
62.5	89,564		0.0000	1.0000	97.88
63.5	89,564		0.0000	1.0000	97.88
64.5					97.88
65.5	100,437		0.0000		
66.5	100,437		0.0000		
67.5	123,426		0.0000		
68.5	167,059	22,989	0.1376		
69.5	43,633		0.0000		
70.5	84,331		0.0000		
71.5	84,331		0.0000		
72.5	90,699		0.0000		
73.5	84,331		0.0000		
74.5	43,633		0.0000		
75.5	43,633		0.0000		
76.5	43,633		0.0000		
77.5	306,691		0.0000		
78.5	306,691		0.0000		

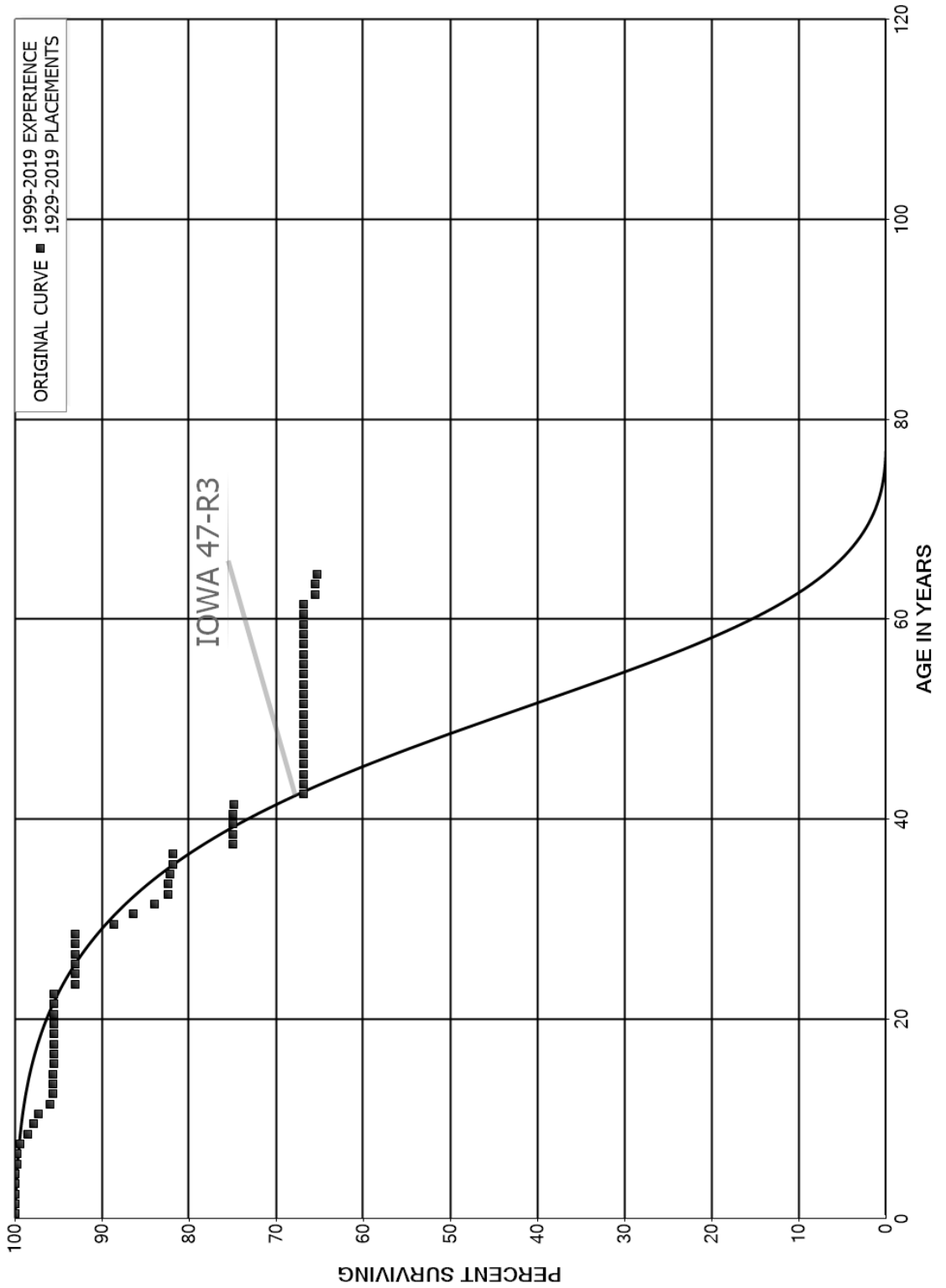
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	306,691	1,171	0.0038		
80.5	263,058		0.0000		
81.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 363.00 SERVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	10,615,796	0	0.0000	1.0000	100.00	
0.5	10,038,138	0	0.0000	1.0000	100.00	
1.5	9,510,472	60	0.0000	1.0000	100.00	
2.5	8,790,677	5,668	0.0006	0.9994	100.00	
3.5	8,679,530	421	0.0000	1.0000	99.93	
4.5	7,932,683	12,635	0.0016	0.9984	99.93	
5.5	6,966,530	2,890	0.0004	0.9996	99.77	
6.5	8,411,000	31,963	0.0038	0.9962	99.73	
7.5	8,278,555	65,894	0.0080	0.9920	99.35	
8.5	8,313,922	64,649	0.0078	0.9922	98.56	
9.5	8,351,147	42,617	0.0051	0.9949	97.79	
10.5	6,470,010	87,729	0.0136	0.9864	97.29	
11.5	6,246,021	19,892	0.0032	0.9968	95.98	
12.5	5,858,877	0	0.0000	1.0000	95.67	
13.5	4,698,450	4,942	0.0011	0.9989	95.67	
14.5	4,095,435	871	0.0002	0.9998	95.57	
15.5	3,284,377		0.0000	1.0000	95.55	
16.5	3,511,888	0	0.0000	1.0000	95.55	
17.5	3,953,464	0	0.0000	1.0000	95.55	
18.5	3,909,166	55	0.0000	1.0000	95.55	
19.5	3,630,733		0.0000	1.0000	95.55	
20.5	3,925,137		0.0000	1.0000	95.55	
21.5	3,646,749		0.0000	1.0000	95.55	
22.5	3,395,484	87,997	0.0259	0.9741	95.55	
23.5	3,780,922		0.0000	1.0000	93.07	
24.5	4,115,954	497	0.0001	0.9999	93.07	
25.5	5,003,579		0.0000	1.0000	93.06	
26.5	5,176,777		0.0000	1.0000	93.06	
27.5	4,635,070		0.0000	1.0000	93.06	
28.5	4,421,930	209,578	0.0474	0.9526	93.06	
29.5	3,596,999	92,585	0.0257	0.9743	88.65	
30.5	2,947,708	80,733	0.0274	0.9726	86.37	
31.5	2,783,645	51,927	0.0187	0.9813	84.00	
32.5	2,491,265	1,241	0.0005	0.9995	82.43	
33.5	2,228,511	4,871	0.0022	0.9978	82.39	
34.5	1,965,612	8,461	0.0043	0.9957	82.21	
35.5	1,925,423	503	0.0003	0.9997	81.86	
36.5	1,973,278	167,021	0.0846	0.9154	81.84	
37.5	1,839,375	192	0.0001	0.9999	74.91	
38.5	1,657,395		0.0000	1.0000	74.90	

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,207,182		0.0000	1.0000	74.90
40.5	1,197,802	385	0.0003	0.9997	74.90
41.5	1,022,673	110,064	0.1076	0.8924	74.88
42.5	886,687		0.0000	1.0000	66.82
43.5	1,408,938		0.0000	1.0000	66.82
44.5	900,914		0.0000	1.0000	66.82
45.5	855,938		0.0000	1.0000	66.82
46.5	736,586		0.0000	1.0000	66.82
47.5	156,414		0.0000	1.0000	66.82
48.5	155,860		0.0000	1.0000	66.82
49.5	82,277		0.0000	1.0000	66.82
50.5	145,022		0.0000	1.0000	66.82
51.5	132,653		0.0000	1.0000	66.82
52.5	134,754	0	0.0000	1.0000	66.82
53.5	137,757		0.0000	1.0000	66.82
54.5	20,119		0.0000	1.0000	66.82
55.5	100,869		0.0000	1.0000	66.82
56.5	100,869		0.0000	1.0000	66.82
57.5	97,866		0.0000	1.0000	66.82
58.5	256,316		0.0000	1.0000	66.82
59.5	180,162	20	0.0001	0.9999	66.82
60.5	228,822		0.0000	1.0000	66.81
61.5	228,822	4,595	0.0201	0.9799	66.81
62.5	50,781		0.0000	1.0000	65.47
63.5	50,781	162	0.0032	0.9968	65.47
64.5					65.26
65.5	60,144		0.0000		
66.5	60,144		0.0000		
67.5	60,144		0.0000		
68.5	70,211		0.0000		
69.5	13,932	819	0.0588		
70.5	36,101		0.0000		
71.5	36,101	4,521	0.1252		
72.5	31,580	1,251	0.0396		
73.5	30,329	442	0.0146		
74.5	6,899	644	0.0933		
75.5	6,255		0.0000		
76.5	6,255		0.0000		
77.5	151,010		0.0000		
78.5	151,010		0.0000		

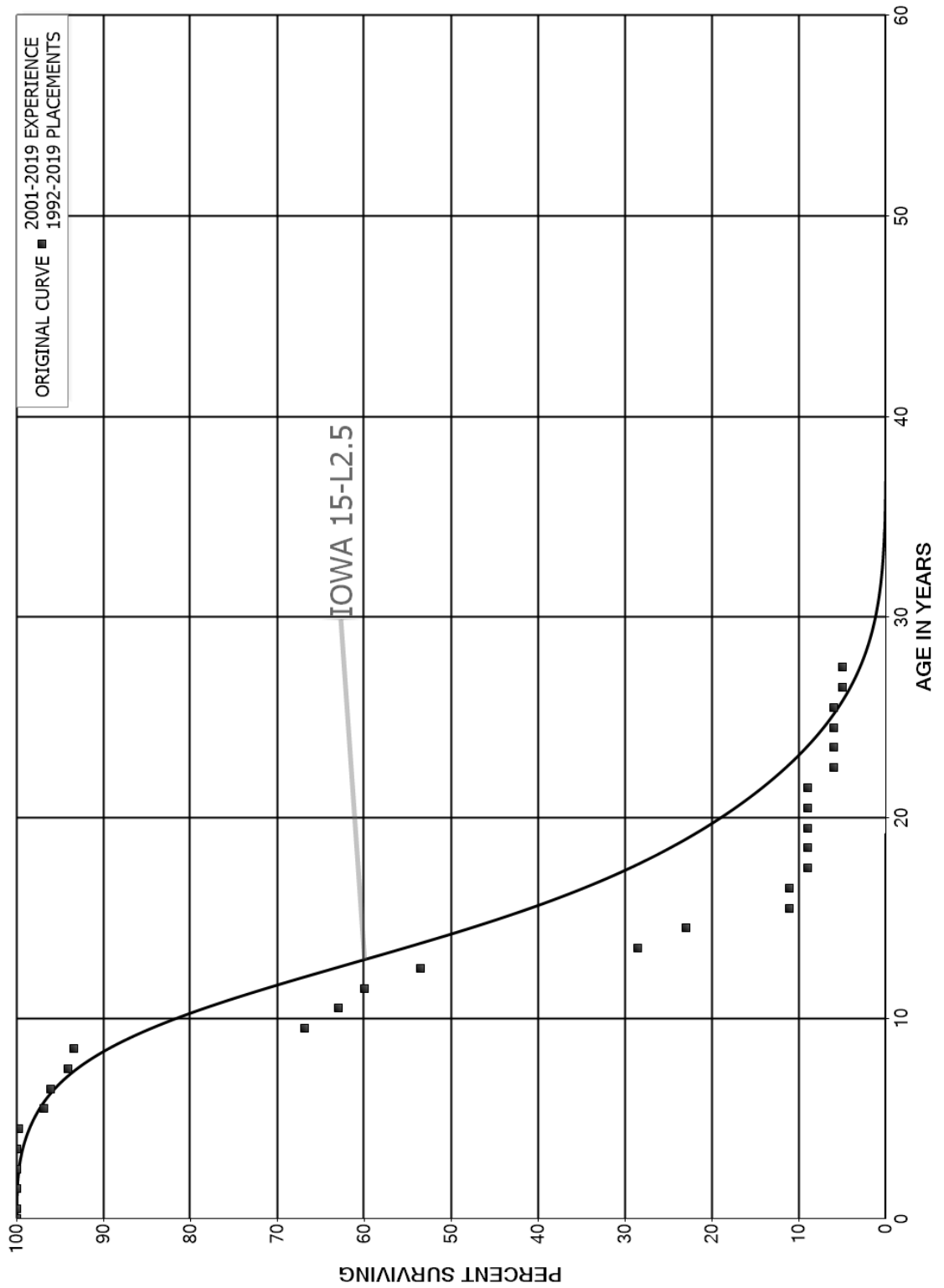
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	151,010		0.0000		
80.5	144,755	1,628	0.0112		
81.5					
82.5	717		0.0000		
83.5	717		0.0000		
84.5	717		0.0000		
85.5	717		0.0000		
86.5	717		0.0000		
87.5	717		0.0000		
88.5	717		0.0000		
89.5	717		0.0000		
90.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 364.00 FLOW MEASURING DEVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



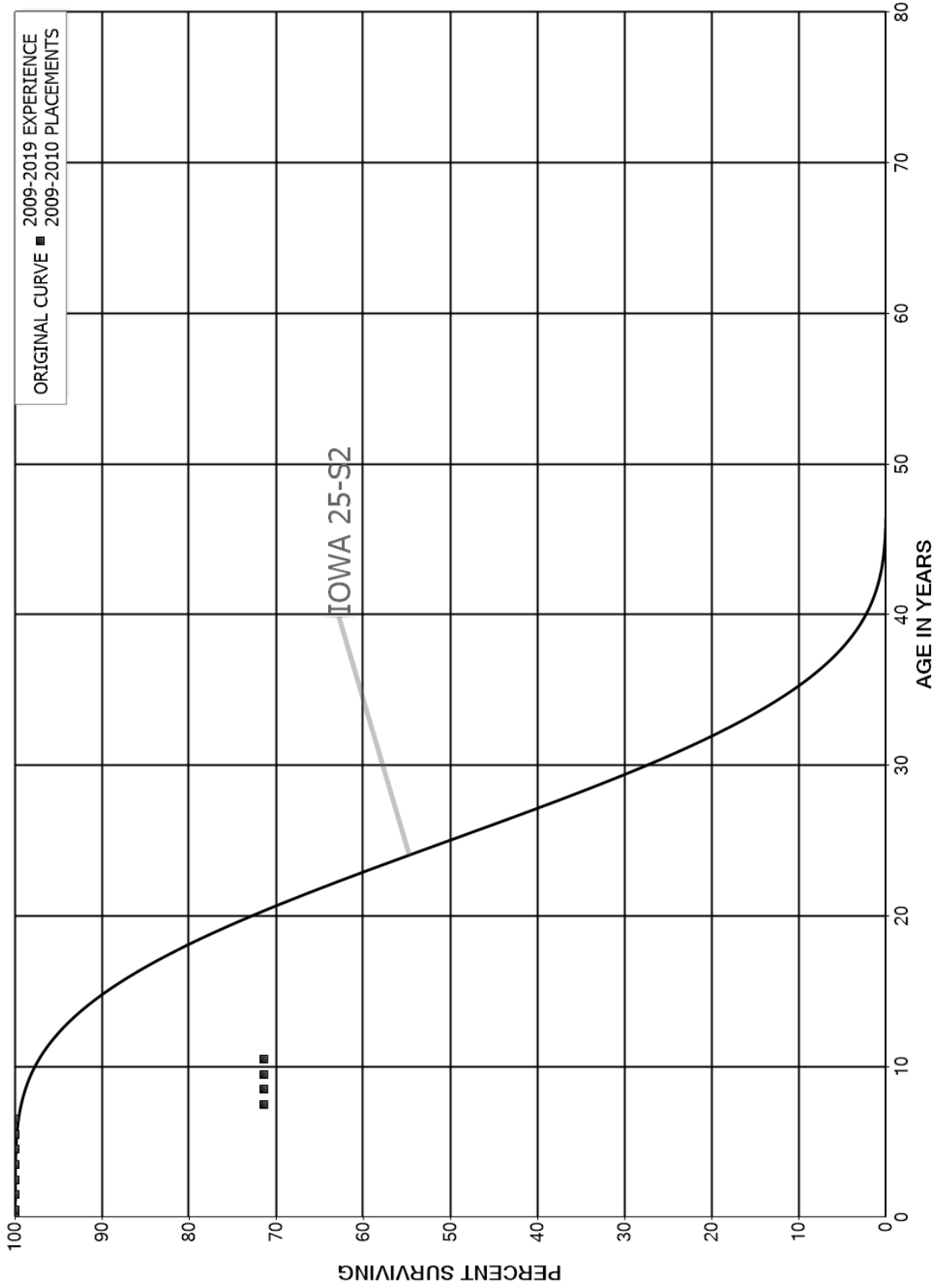
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,359,184		0.0000	1.0000	100.00
0.5	993,961		0.0000	1.0000	100.00
1.5	1,007,023		0.0000	1.0000	100.00
2.5	1,088,761		0.0000	1.0000	100.00
3.5	829,368	2,564	0.0031	0.9969	100.00
4.5	790,917	22,463	0.0284	0.9716	99.69
5.5	745,466	5,882	0.0079	0.9921	96.86
6.5	575,156	12,254	0.0213	0.9787	96.10
7.5	576,785	4,337	0.0075	0.9925	94.05
8.5	639,652	181,670	0.2840	0.7160	93.34
9.5	332,968	19,182	0.0576	0.9424	66.83
10.5	221,704	10,816	0.0488	0.9512	62.98
11.5	90,287	9,617	0.1065	0.8935	59.91
12.5	71,639	33,466	0.4671	0.5329	53.53
13.5	31,704	6,133	0.1934	0.8066	28.52
14.5	16,849	8,739	0.5187	0.4813	23.00
15.5	16,281		0.0000	1.0000	11.07
16.5	16,281	3,203	0.1967	0.8033	11.07
17.5	13,078		0.0000	1.0000	8.90
18.5	13,078		0.0000	1.0000	8.90
19.5	13,078		0.0000	1.0000	8.90
20.5	13,078		0.0000	1.0000	8.90
21.5	13,078	4,272	0.3266	0.6734	8.90
22.5	8,806		0.0000	1.0000	5.99
23.5	8,806		0.0000	1.0000	5.99
24.5	8,806		0.0000	1.0000	5.99
25.5	8,806	1,522	0.1728	0.8272	5.99
26.5	7,285		0.0000	1.0000	4.95
27.5					4.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



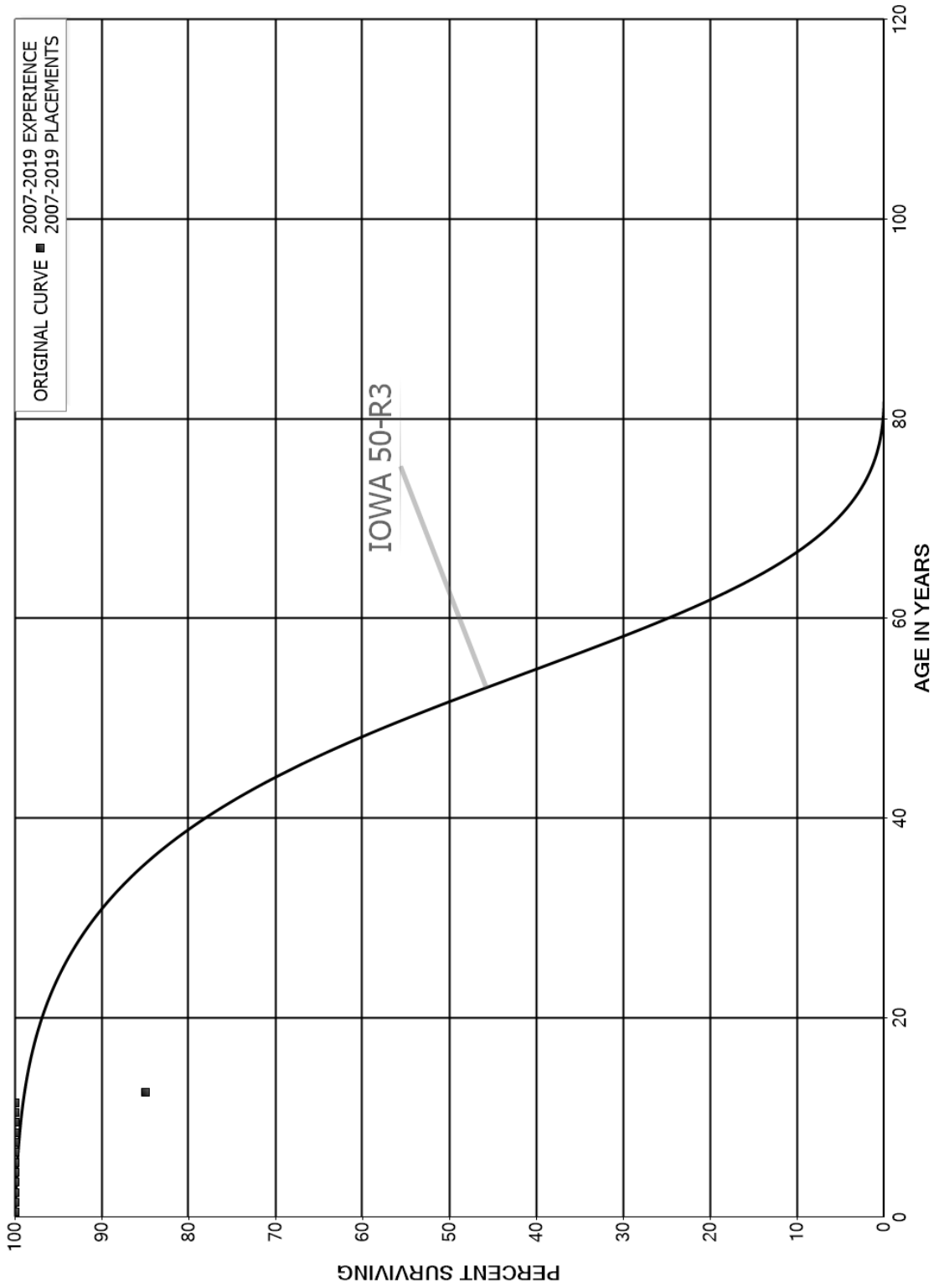
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2009-2010			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,918		0.0000	1.0000	100.00
0.5	20,918		0.0000	1.0000	100.00
1.5	20,918		0.0000	1.0000	100.00
2.5	20,918		0.0000	1.0000	100.00
3.5	20,918		0.0000	1.0000	100.00
4.5	20,918		0.0000	1.0000	100.00
5.5	20,918		0.0000	1.0000	100.00
6.5	20,918	5,980	0.2859	0.7141	100.00
7.5	14,938		0.0000	1.0000	71.41
8.5	14,938		0.0000	1.0000	71.41
9.5	14,938		0.0000	1.0000	71.41
10.5					71.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 370.00 RECEIVING WELLS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





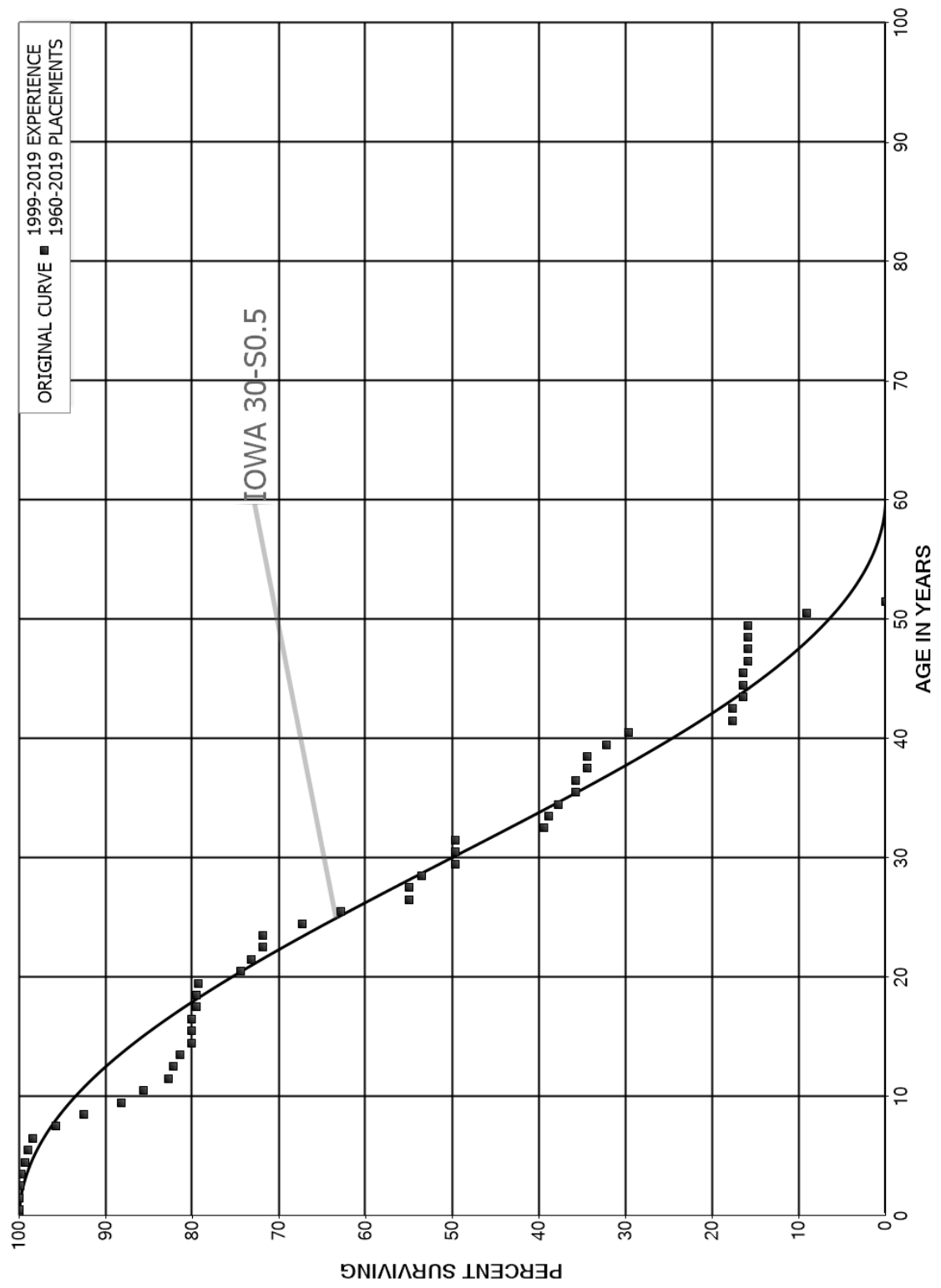
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	121,180		0.0000	1.0000	100.00
0.5	111,148		0.0000	1.0000	100.00
1.5	111,148		0.0000	1.0000	100.00
2.5	132,949		0.0000	1.0000	100.00
3.5	132,949		0.0000	1.0000	100.00
4.5	132,949		0.0000	1.0000	100.00
5.5	132,949		0.0000	1.0000	100.00
6.5	99,482		0.0000	1.0000	100.00
7.5	99,482		0.0000	1.0000	100.00
8.5	99,482		0.0000	1.0000	100.00
9.5	99,482		0.0000	1.0000	100.00
10.5	7,370		0.0000	1.0000	100.00
11.5	7,370	1,109	0.1505	0.8495	100.00
12.5					84.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 371.00 PUMPING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,928,914		0.0000	1.0000	100.00
0.5	8,653,630	5,419	0.0006	0.9994	100.00
1.5	11,021,964	12,306	0.0011	0.9989	99.94
2.5	10,781,219	12,096	0.0011	0.9989	99.83
3.5	9,453,412	44,345	0.0047	0.9953	99.71
4.5	6,817,321	23,246	0.0034	0.9966	99.25
5.5	5,785,361	27,560	0.0048	0.9952	98.91
6.5	5,413,591	148,677	0.0275	0.9725	98.44
7.5	3,768,518	126,794	0.0336	0.9664	95.73
8.5	3,446,810	160,001	0.0464	0.9536	92.51
9.5	2,549,487	73,710	0.0289	0.9711	88.22
10.5	1,455,129	50,056	0.0344	0.9656	85.67
11.5	1,043,502	7,445	0.0071	0.9929	82.72
12.5	1,137,255	10,025	0.0088	0.9912	82.13
13.5	837,345	14,096	0.0168	0.9832	81.41
14.5	784,395		0.0000	1.0000	80.04
15.5	677,887		0.0000	1.0000	80.04
16.5	534,434	3,610	0.0068	0.9932	80.04
17.5	610,401	101	0.0002	0.9998	79.50
18.5	664,971	1,413	0.0021	0.9979	79.48
19.5	663,558	41,426	0.0624	0.9376	79.31
20.5	588,736	9,514	0.0162	0.9838	74.36
21.5	638,927	11,409	0.0179	0.9821	73.16
22.5	599,786		0.0000	1.0000	71.85
23.5	517,501	33,177	0.0641	0.9359	71.85
24.5	484,324	31,555	0.0652	0.9348	67.25
25.5	497,723	62,415	0.1254	0.8746	62.87
26.5	428,133		0.0000	1.0000	54.98
27.5	312,603	8,673	0.0277	0.9723	54.98
28.5	241,647	17,595	0.0728	0.9272	53.46
29.5	235,281		0.0000	1.0000	49.56
30.5	280,168		0.0000	1.0000	49.56
31.5	280,168	57,666	0.2058	0.7942	49.56
32.5	222,502	2,887	0.0130	0.9870	39.36
33.5	140,599	3,932	0.0280	0.9720	38.85
34.5	136,159	7,170	0.0527	0.9473	37.77
35.5	183,946		0.0000	1.0000	35.78
36.5	183,946	7,008	0.0381	0.9619	35.78
37.5	176,938		0.0000	1.0000	34.41
38.5	127,299	8,408	0.0660	0.9340	34.41

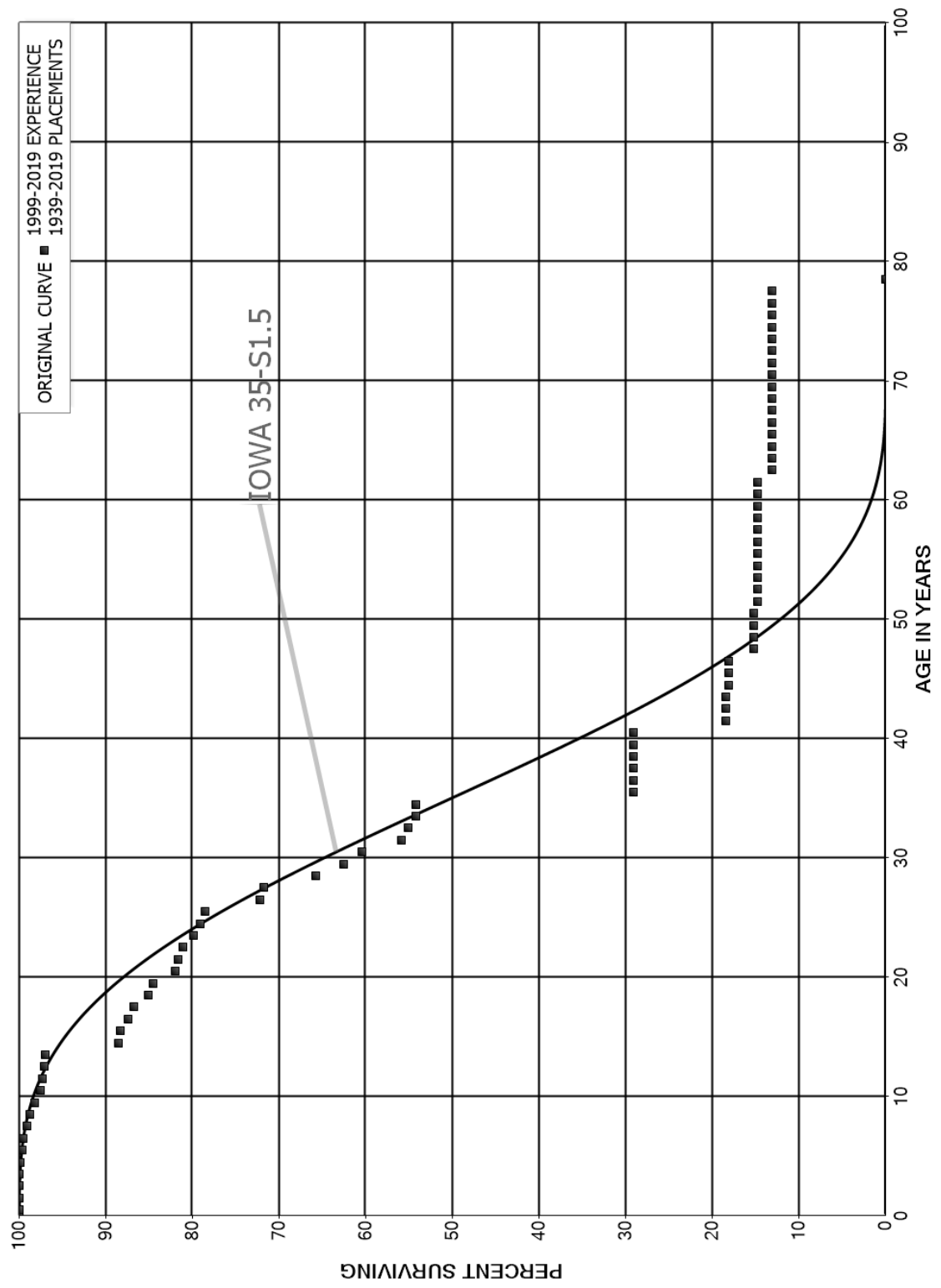
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	128,004	9,910	0.0774	0.9226	32.14
40.5	140,361	56,891	0.4053	0.5947	29.65
41.5	83,470		0.0000	1.0000	17.63
42.5	83,470	6,122	0.0733	0.9267	17.63
43.5	28,842		0.0000	1.0000	16.34
44.5	28,842		0.0000	1.0000	16.34
45.5	28,842	860	0.0298	0.9702	16.34
46.5	27,983		0.0000	1.0000	15.85
47.5	21,408		0.0000	1.0000	15.85
48.5	5,141		0.0000	1.0000	15.85
49.5	5,141	2,187	0.4255	0.5745	15.85
50.5	2,953	2,953	1.0000		9.11
51.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 380.00 TREATMENT EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	52,484,979		0.0000	1.0000	100.00
0.5	52,338,297		0.0000	1.0000	100.00
1.5	64,377,580	1,853	0.0000	1.0000	100.00
2.5	61,280,085	2,456	0.0000	1.0000	100.00
3.5	56,645,719	97,216	0.0017	0.9983	99.99
4.5	44,542,853	95,360	0.0021	0.9979	99.82
5.5	39,192,994	29,279	0.0007	0.9993	99.61
6.5	37,993,990	195,343	0.0051	0.9949	99.53
7.5	37,038,634	104,008	0.0028	0.9972	99.02
8.5	38,046,057	237,211	0.0062	0.9938	98.74
9.5	28,856,102	179,693	0.0062	0.9938	98.13
10.5	11,015,164	26,343	0.0024	0.9976	97.52
11.5	15,100,040	30,352	0.0020	0.9980	97.28
12.5	16,280,292	28,816	0.0018	0.9982	97.09
13.5	16,807,417	1,468,058	0.0873	0.9127	96.92
14.5	14,676,816	22,218	0.0015	0.9985	88.45
15.5	11,808,330	121,942	0.0103	0.9897	88.32
16.5	11,627,778	92,492	0.0080	0.9920	87.41
17.5	12,550,432	231,211	0.0184	0.9816	86.71
18.5	10,724,551	78,054	0.0073	0.9927	85.11
19.5	10,812,422	322,982	0.0299	0.9701	84.49
20.5	9,468,414	37,906	0.0040	0.9960	81.97
21.5	9,609,732	62,020	0.0065	0.9935	81.64
22.5	9,543,450	153,592	0.0161	0.9839	81.11
23.5	9,334,263	87,607	0.0094	0.9906	79.81
24.5	9,070,811	59,133	0.0065	0.9935	79.06
25.5	8,792,217	707,485	0.0805	0.9195	78.54
26.5	4,703,706	32,521	0.0069	0.9931	72.22
27.5	4,778,474	397,707	0.0832	0.9168	71.72
28.5	6,059,797	298,086	0.0492	0.9508	65.75
29.5	6,184,153	215,062	0.0348	0.9652	62.52
30.5	5,152,304	387,965	0.0753	0.9247	60.35
31.5	5,356,247	72,674	0.0136	0.9864	55.80
32.5	3,421,800	52,448	0.0153	0.9847	55.05
33.5	2,753,091		0.0000	1.0000	54.20
34.5	2,272,767	1,055,181	0.4643	0.5357	54.20
35.5	635,826		0.0000	1.0000	29.04
36.5	779,480		0.0000	1.0000	29.04
37.5	801,627		0.0000	1.0000	29.04
38.5	778,140		0.0000	1.0000	29.04

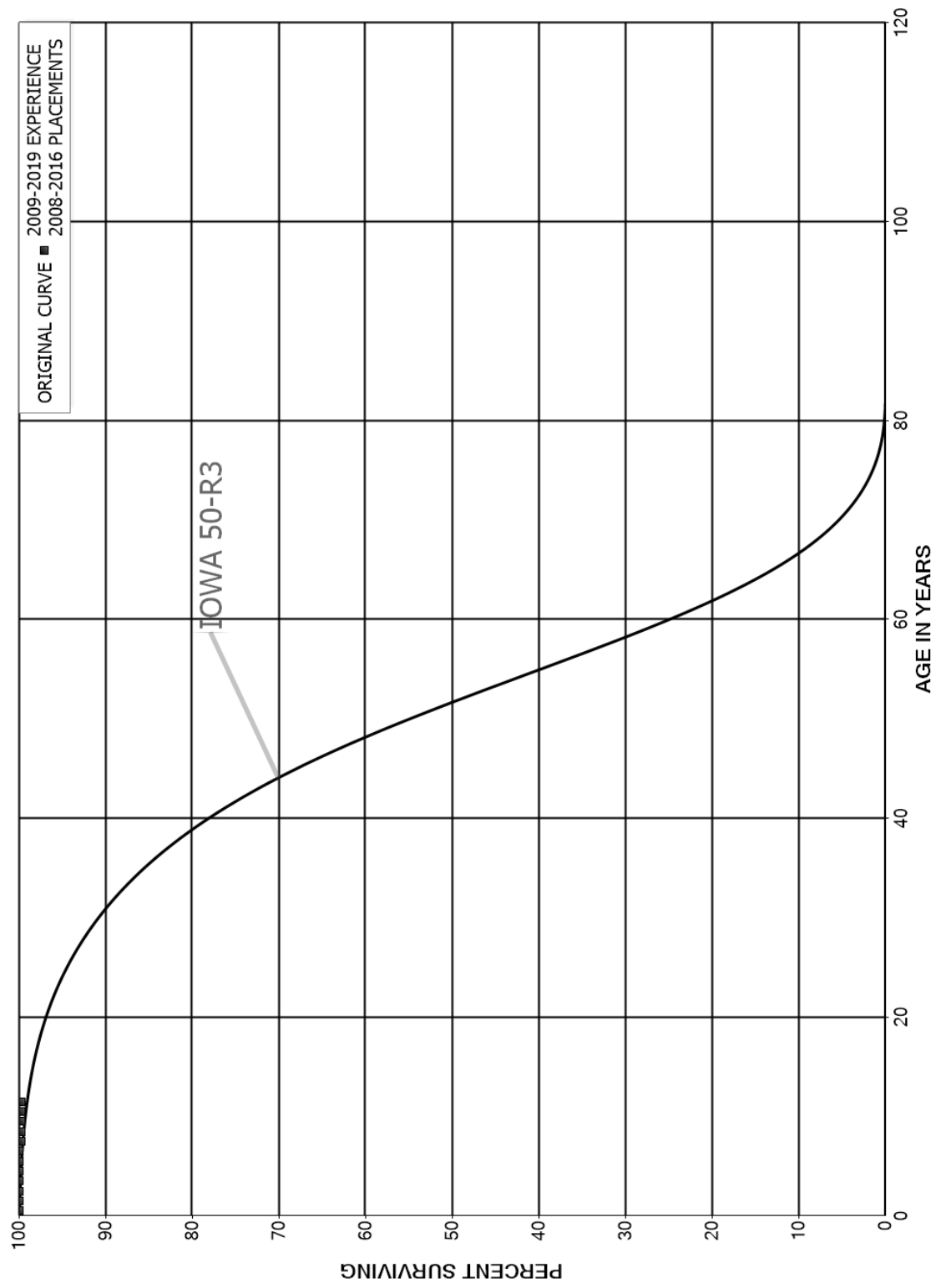
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	778,140	411	0.0005	0.9995	29.04	
40.5	777,730	285,407	0.3670	0.6330	29.02	
41.5	15,823,498		0.0000	1.0000	18.37	
42.5	15,823,498		0.0000	1.0000	18.37	
43.5	15,823,498	268,317	0.0170	0.9830	18.37	
44.5	515,644		0.0000	1.0000	18.06	
45.5	515,644		0.0000	1.0000	18.06	
46.5	371,038	60,316	0.1626	0.8374	18.06	
47.5	288,575		0.0000	1.0000	15.12	
48.5	288,575		0.0000	1.0000	15.12	
49.5	288,575		0.0000	1.0000	15.12	
50.5	288,575	6,818	0.0236	0.9764	15.12	
51.5	281,757	315	0.0011	0.9989	14.77	
52.5	107,182		0.0000	1.0000	14.75	
53.5	107,182	462	0.0043	0.9957	14.75	
54.5	23,321		0.0000	1.0000	14.69	
55.5	23,321		0.0000	1.0000	14.69	
56.5	298,010		0.0000	1.0000	14.69	
57.5	298,010		0.0000	1.0000	14.69	
58.5	298,010		0.0000	1.0000	14.69	
59.5	25,215		0.0000	1.0000	14.69	
60.5	25,215		0.0000	1.0000	14.69	
61.5	25,215	2,761	0.1095	0.8905	14.69	
62.5	1,894		0.0000	1.0000	13.08	
63.5	1,894		0.0000	1.0000	13.08	
64.5	1,894		0.0000	1.0000	13.08	
65.5	1,894		0.0000	1.0000	13.08	
66.5	1,894		0.0000	1.0000	13.08	
67.5	1,894		0.0000	1.0000	13.08	
68.5	1,894		0.0000	1.0000	13.08	
69.5	1,894		0.0000	1.0000	13.08	
70.5	1,894		0.0000	1.0000	13.08	
71.5	1,894		0.0000	1.0000	13.08	
72.5	1,894		0.0000	1.0000	13.08	
73.5	1,894		0.0000	1.0000	13.08	
74.5	1,894		0.0000	1.0000	13.08	
75.5	1,894		0.0000	1.0000	13.08	
76.5	1,894		0.0000	1.0000	13.08	
77.5	1,894	1,894	1.0000		13.08	
78.5						

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 381.00 PLANT SEWERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





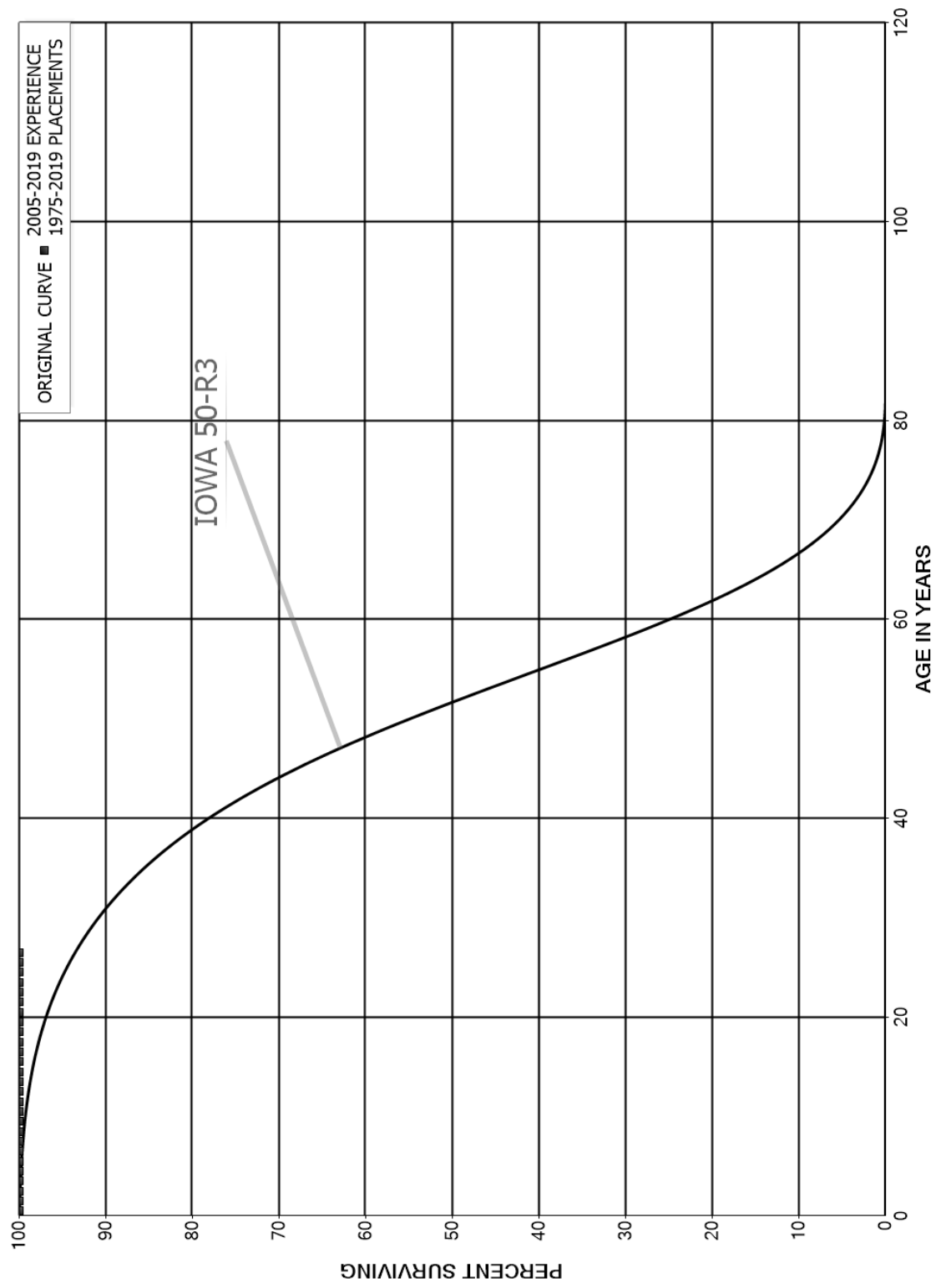
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2016			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,524,134		0.0000	1.0000	100.00
0.5	6,227,961		0.0000	1.0000	100.00
1.5	6,227,961		0.0000	1.0000	100.00
2.5	6,227,961		0.0000	1.0000	100.00
3.5	6,182,721		0.0000	1.0000	100.00
4.5	6,175,263		0.0000	1.0000	100.00
5.5	5,940,945		0.0000	1.0000	100.00
6.5	5,940,945	13,300	0.0022	0.9978	100.00
7.5	5,925,961	2,120	0.0004	0.9996	99.78
8.5	5,917,243		0.0000	1.0000	99.74
9.5	4,729,279		0.0000	1.0000	99.74
10.5	294,412		0.0000	1.0000	99.74
11.5					99.74

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 382.00 OUTFALL SEWER LINES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1975-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,700,716		0.0000	1.0000	100.00
0.5	1,605,061		0.0000	1.0000	100.00
1.5	360,675		0.0000	1.0000	100.00
2.5	355,425		0.0000	1.0000	100.00
3.5	355,425		0.0000	1.0000	100.00
4.5	355,425		0.0000	1.0000	100.00
5.5	255,003		0.0000	1.0000	100.00
6.5	264,243		0.0000	1.0000	100.00
7.5	265,939		0.0000	1.0000	100.00
8.5	265,939		0.0000	1.0000	100.00
9.5	238,111		0.0000	1.0000	100.00
10.5	212,060		0.0000	1.0000	100.00
11.5	244,789	6	0.0000	1.0000	100.00
12.5	244,783		0.0000	1.0000	100.00
13.5	43,666		0.0000	1.0000	100.00
14.5	34,425		0.0000	1.0000	100.00
15.5	32,729		0.0000	1.0000	100.00
16.5	32,729		0.0000	1.0000	100.00
17.5	32,729		0.0000	1.0000	100.00
18.5	32,729		0.0000	1.0000	100.00
19.5	32,729		0.0000	1.0000	100.00
20.5	32,729		0.0000	1.0000	100.00
21.5	202,476		0.0000	1.0000	100.00
22.5	202,476		0.0000	1.0000	100.00
23.5	202,476		0.0000	1.0000	100.00
24.5	202,476		0.0000	1.0000	100.00
25.5	202,476		0.0000	1.0000	100.00
26.5					100.00
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5	4,984		0.0000		
37.5	4,984		0.0000		
38.5	4,984		0.0000		

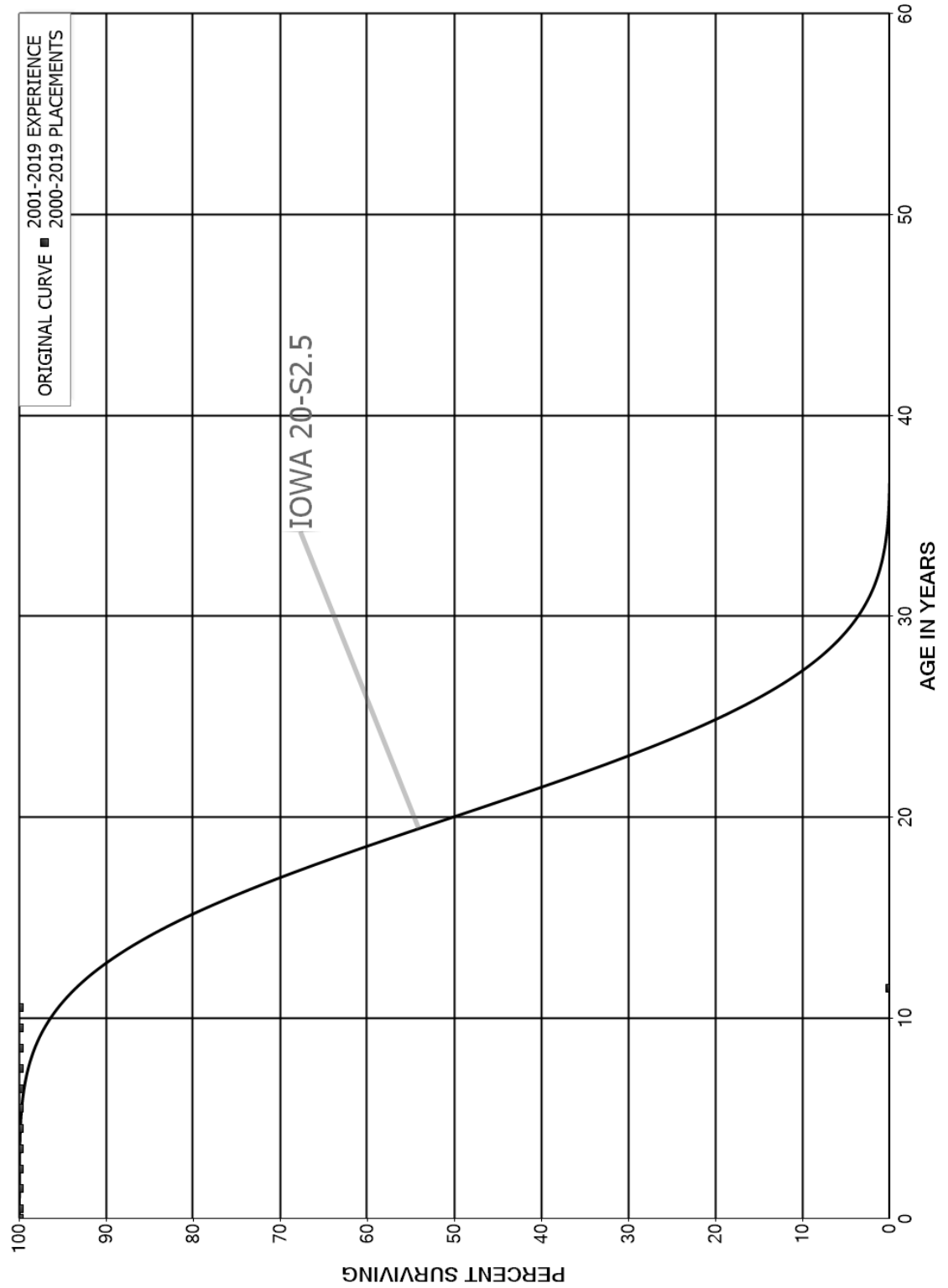
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1975-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,984		0.0000		
40.5	4,984		0.0000		
41.5	4,984		0.0000		
42.5	4,984		0.0000		
43.5	4,984		0.0000		
44.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



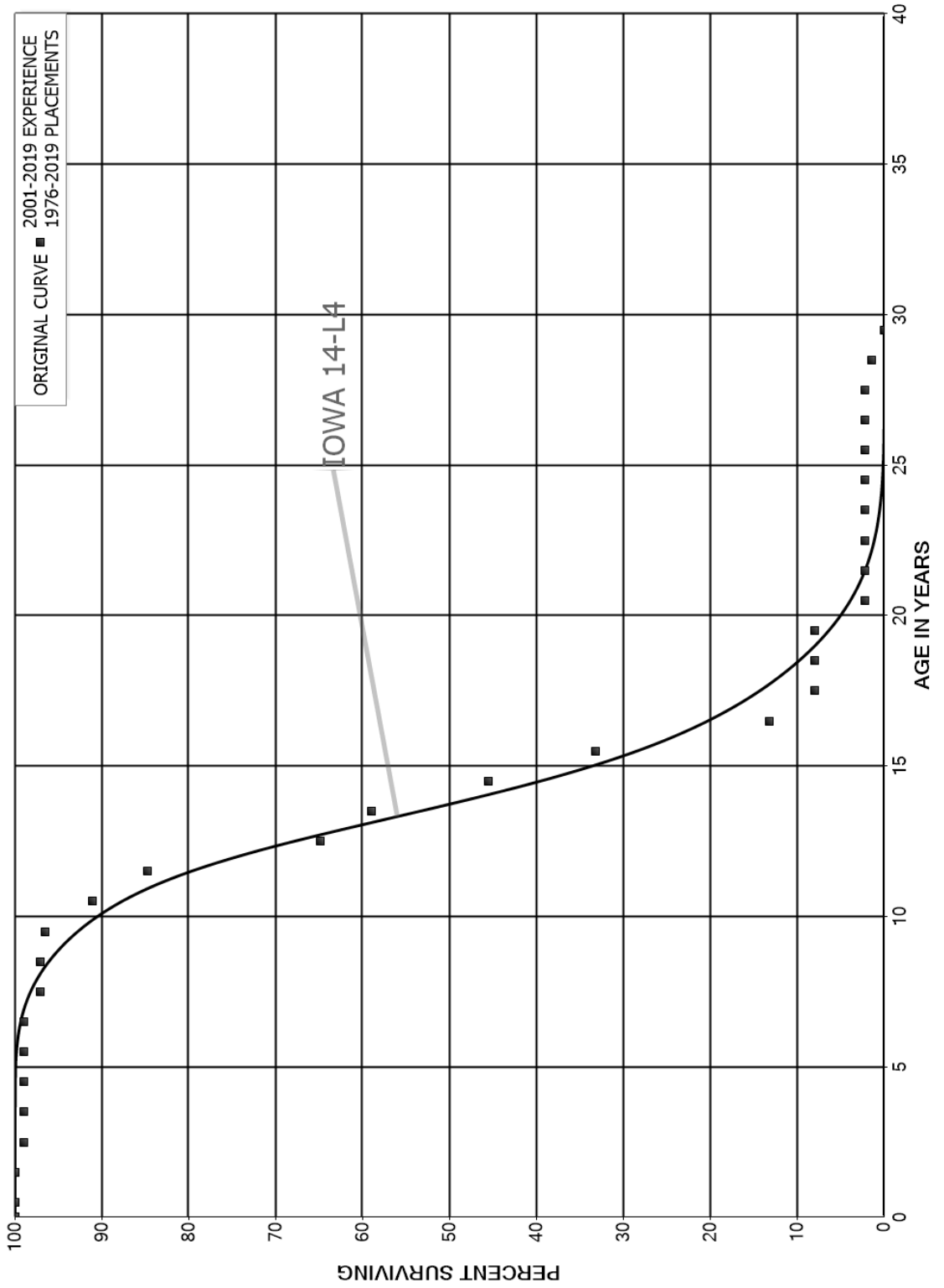
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2000-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	737,756		0.0000	1.0000	100.00
0.5	437,340		0.0000	1.0000	100.00
1.5	405,165		0.0000	1.0000	100.00
2.5	4,547,918		0.0000	1.0000	100.00
3.5	4,547,918		0.0000	1.0000	100.00
4.5	4,547,918	2,997	0.0007	0.9993	100.00
5.5	4,544,921		0.0000	1.0000	99.93
6.5	393,353		0.0000	1.0000	99.93
7.5	393,353		0.0000	1.0000	99.93
8.5	281,642		0.0000	1.0000	99.93
9.5	8,492		0.0000	1.0000	99.93
10.5	8,492	8,492	1.0000		99.93
11.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 391.00 TRANSPORTATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

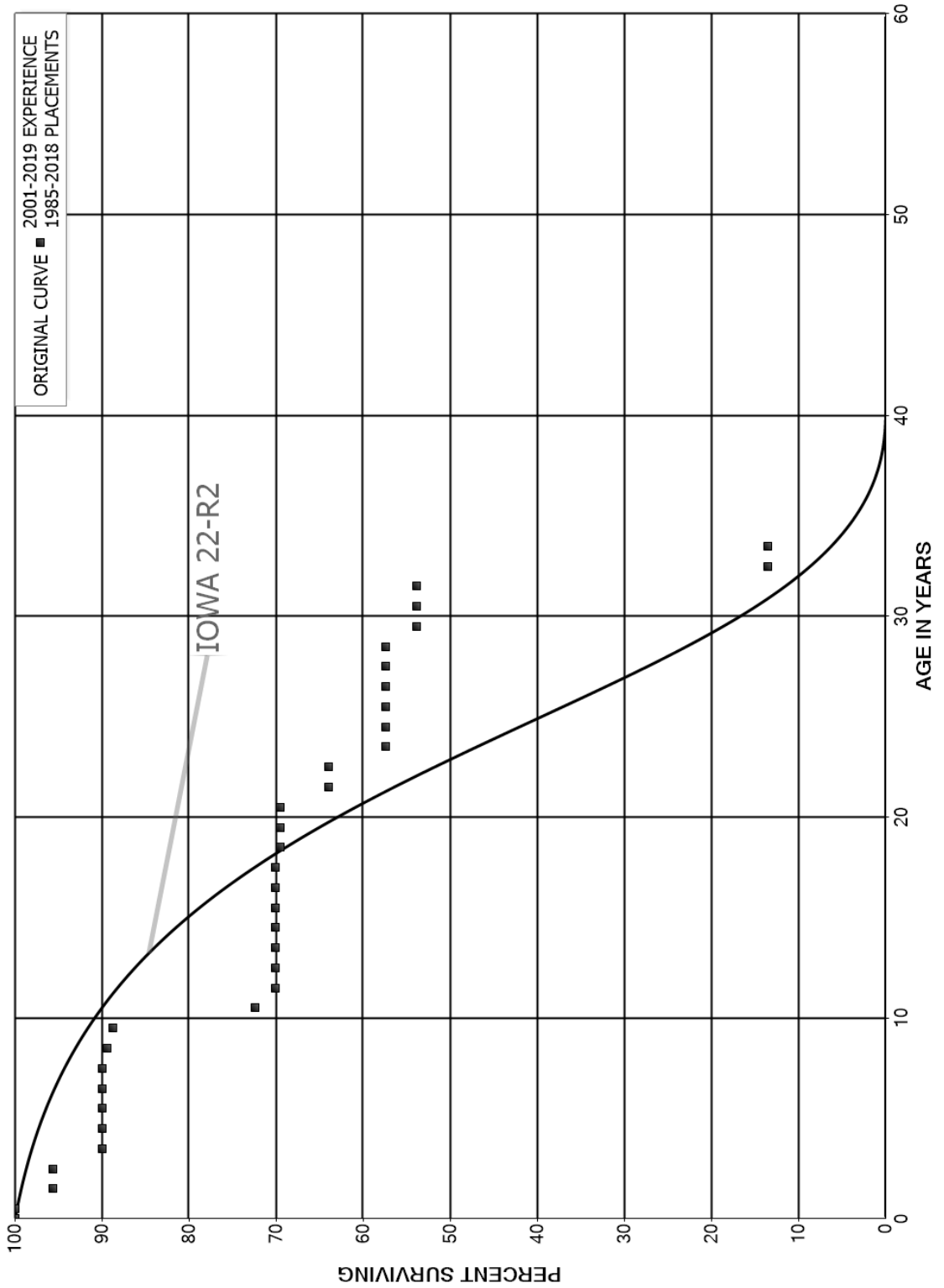
ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,168,919		0.0000	1.0000	100.00
0.5	3,692,372		0.0000	1.0000	100.00
1.5	1,458,511	14,523	0.0100	0.9900	100.00
2.5	2,332,879		0.0000	1.0000	99.00
3.5	2,514,168		0.0000	1.0000	99.00
4.5	1,930,107		0.0000	1.0000	99.00
5.5	1,664,209		0.0000	1.0000	99.00
6.5	1,677,203	32,676	0.0195	0.9805	99.00
7.5	1,535,566		0.0000	1.0000	97.08
8.5	1,373,777	8,793	0.0064	0.9936	97.08
9.5	1,545,830	87,008	0.0563	0.9437	96.45
10.5	879,899	61,030	0.0694	0.9306	91.03
11.5	743,329	174,600	0.2349	0.7651	84.71
12.5	440,822	40,215	0.0912	0.9088	64.81
13.5	348,542	79,500	0.2281	0.7719	58.90
14.5	276,542	75,000	0.2712	0.7288	45.47
15.5	195,354	117,872	0.6034	0.3966	33.14
16.5	51,900	20,700	0.3988	0.6012	13.14
17.5	31,200		0.0000	1.0000	7.90
18.5	32,855		0.0000	1.0000	7.90
19.5	32,855	23,700	0.7214	0.2786	7.90
20.5	9,155		0.0000	1.0000	2.20
21.5	9,155		0.0000	1.0000	2.20
22.5	9,155		0.0000	1.0000	2.20
23.5	9,155		0.0000	1.0000	2.20
24.5	14,155		0.0000	1.0000	2.20
25.5	14,155		0.0000	1.0000	2.20
26.5	14,155		0.0000	1.0000	2.20
27.5	14,155	5,000	0.3532	0.6468	2.20
28.5	9,155	9,155	1.0000		1.42
29.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 395.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2018			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	192,967		0.0000	1.0000	100.00
0.5	192,967	8,551	0.0443	0.9557	100.00
1.5	127,706		0.0000	1.0000	95.57
2.5	255,380	14,864	0.0582	0.9418	95.57
3.5	324,176		0.0000	1.0000	90.01
4.5	885,603		0.0000	1.0000	90.01
5.5	967,489		0.0000	1.0000	90.01
6.5	1,410,131		0.0000	1.0000	90.01
7.5	1,250,710	8,033	0.0064	0.9936	90.01
8.5	871,073	6,988	0.0080	0.9920	89.43
9.5	536,633	98,717	0.1840	0.8160	88.71
10.5	191,853	6,125	0.0319	0.9681	72.39
11.5	137,458		0.0000	1.0000	70.08
12.5	190,308		0.0000	1.0000	70.08
13.5	169,091		0.0000	1.0000	70.08
14.5	169,091		0.0000	1.0000	70.08
15.5	169,587		0.0000	1.0000	70.08
16.5	190,470		0.0000	1.0000	70.08
17.5	117,685	875	0.0074	0.9926	70.08
18.5	116,810		0.0000	1.0000	69.56
19.5	116,810		0.0000	1.0000	69.56
20.5	124,335	9,999	0.0804	0.9196	69.56
21.5	124,336		0.0000	1.0000	63.97
22.5	124,336	12,782	0.1028	0.8972	63.97
23.5	111,554		0.0000	1.0000	57.39
24.5	111,554		0.0000	1.0000	57.39
25.5	111,554		0.0000	1.0000	57.39
26.5	18,021		0.0000	1.0000	57.39
27.5	8,021		0.0000	1.0000	57.39
28.5	8,021	496	0.0618	0.9382	57.39
29.5	30,053		0.0000	1.0000	53.84
30.5	30,053		0.0000	1.0000	53.84
31.5	30,053	22,528	0.7496	0.2504	53.84
32.5	7,525		0.0000	1.0000	13.48
33.5					13.48

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**PART VII. DETAILED DEPRECIATION  
CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1912	24,763	23,569	1,194		1,194	0.0
1915	68,404	43,172	25,232		26,426	0.0
1916	187,287	123,502	63,785		90,211	0.0
1917	54,574	48,305	6,269		96,480	0.0
1919	9,463	7,808	1,655		98,135	0.0
1920	113,918	70,213	43,705		141,840	0.0
1921	4,934	4,688	246		142,086	0.0
1922	7,219	5,192	2,027		144,113	0.0
1924	14,292	13,582	710		144,823	0.0
1925	634,270	530,189	104,081		248,904	0.0
1926	492,712	395,637	97,075		345,979	0.1
1927	124,585	104,743	19,842		365,821	0.1
1928	64,398	49,829	14,569		380,390	0.1
1929	17,943	11,068	6,875		387,265	0.1
1930	523,227	377,870	145,357		532,622	0.1
1931	217,548	168,113	49,435		582,057	0.1
1932	80,655	65,842	14,813		596,870	0.1
1933	20,192	13,159	7,033		603,903	0.1
1934	24,638	19,133	5,505		609,408	0.1
1935	1,182,218	738,231	443,987		1,053,395	0.2
1936	617,399	424,825	192,574		1,245,969	0.2
1937	185,964	135,086	50,878		1,296,847	0.2
1938	187,856	137,783	50,073		1,346,920	0.2
1939	208,798	141,702	67,096		1,414,016	0.2
1940	68,072	46,703	21,369		1,435,385	0.2
1941	17,178	11,371	5,807		1,441,192	0.2
1942	140,753	98,411	42,342		1,483,534	0.2
1943	7,627,763	5,743,191	1,884,572		3,368,106	0.5
1944	31,418	24,008	7,410		3,375,516	0.5
1945	61,057	39,122	21,935		3,397,451	0.5
1946	243,028	144,394	98,634		3,496,085	0.5
1947	116,269	71,884	44,385		3,540,470	0.5
1948	18,629	10,831	7,798		3,548,268	0.5
1949	14,648	8,710	5,938		3,554,206	0.5
1950	122,296	68,363	53,933		3,608,139	0.5
1951	824,396	806,930	17,466		3,625,605	0.5
1952	19,448	11,193	8,255		3,633,860	0.5
1953	1,541,962	926,158	615,804		4,249,664	0.6
1954	4,555,596	2,464,336	2,091,260		6,340,924	0.9
1955	249,856	139,188	110,668		6,451,592	1.0
1956	127,529	71,124	56,405		6,507,997	1.0
1957	1,338,015	730,377	607,638		7,115,635	1.1
1958	196,948	131,560	65,388		7,181,023	1.1
1961	481,683	247,889	233,794		7,414,817	1.1
1962	110,113	58,504	51,609		7,466,426	1.1

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1963	1,730,645	874,622	856,023		8,322,449	1.2
1965	589,309	295,840	293,469		8,615,918	1.3
1966	35,411,356	18,767,261	16,644,095		25,260,013	3.8
1967	24,155,832	11,729,742	12,426,090		37,686,103	5.6
1968	445,830	216,407	229,423		37,915,526	5.7
1969	717,934	332,171	385,763		38,301,289	5.7
1970	1,329,837	699,314	630,523		38,931,812	5.8
1971	30,867	16,575	14,292		38,946,104	5.8
1972	7,881,227	3,554,590	4,326,637		43,272,741	6.5
1973	154,110	59,653	94,457		43,367,198	6.5
1974	1,490,620	535,512	955,108		44,322,306	6.6
1975	7,148,975	3,330,183	3,818,792		48,141,098	7.2
1976	1,231,337	464,582	766,755		48,907,853	7.3
1977	682,356	260,687	421,669		49,329,522	7.4
1978	20,875,291	9,024,807	11,850,484		61,180,006	9.2
1979	233,848	98,718	135,130		61,315,136	9.2
1980	5,443,057	2,348,406	3,094,651		64,409,787	9.6
1981	15,302,080	6,540,893	8,761,187		73,170,974	11.0
1982	138,197	66,831	71,366		73,242,340	11.0
1983	25,781,328	9,234,501	16,546,827		89,789,167	13.5
1984	4,460,376	1,730,334	2,730,042		92,519,209	13.9
1985	6,933,435	2,905,362	4,028,073		96,547,282	14.5
1986	2,832,343	1,172,571	1,659,772		98,207,054	14.7
1987	2,400,485	1,003,022	1,397,463		99,604,517	14.9
1988	20,180,495	7,556,950	12,623,545		112,228,062	16.8
1989	11,572,623	4,370,042	7,202,581		119,430,643	17.9
1990	20,427,359	7,899,134	12,528,225		131,958,868	19.8
1991	34,763,287	12,797,406	21,965,881		153,924,749	23.1
1992	59,858,159	20,856,109	39,002,050		192,926,799	28.9
1993	14,499,881	5,687,623	8,812,258		201,739,057	30.2
1994	1,516,721	507,053	1,009,668		202,748,725	30.4
1995	20,564,067	6,915,082	13,648,985		216,397,710	32.4
1996	1,659,320	528,838	1,130,482		217,528,192	32.6
1997	7,000,178	1,940,655	5,059,523		222,587,715	33.3
1998	8,480,491	2,850,359	5,630,132		228,217,847	34.2
1999	5,564,367	1,765,341	3,799,026		232,016,873	34.8
2000	11,670,954	3,384,507	8,286,447		240,303,320	36.0
2001	7,693,368	2,192,968	5,500,400		245,803,720	36.8
2002	3,890,068	979,675	2,910,393		248,714,113	37.3
2003	8,154,088	2,227,130	5,926,958		254,641,071	38.1
2004	7,354,190	1,958,249	5,395,941		260,037,012	39.0
2005	16,882,264	4,080,114	12,802,150		272,839,162	40.9
2006	8,142,225	2,064,727	6,077,498		278,916,660	41.8
2007	10,968,694	2,104,452	8,864,242		287,780,902	43.1
2008	25,441,561	5,927,958	19,513,603		307,294,505	46.0

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2009	59,167,369	15,152,088	44,015,281		351,309,786	52.6
2010	54,371,982	12,178,336	42,193,646		393,503,432	58.9
2011	28,906,394	5,815,588	23,090,806		416,594,238	62.4
2012	11,147,896	2,168,727	8,979,169		425,573,407	63.8
2013	10,257,736	1,805,293	8,452,443		434,025,850	65.0
2014	45,998,633	7,353,045	38,645,588		472,671,438	70.8
2015	18,889,436	2,716,311	16,173,125		488,844,563	73.2
2016	12,756,766	1,409,908	11,346,858		500,191,421	74.9
2017	24,654,389	2,107,567	22,546,822		522,738,243	78.3
2018	13,016,971	1,671,678	11,345,293		534,083,536	80.0
2019	26,561,016	2,082,512	24,478,504		558,562,040	83.7
2020	22,381,403	1,732,092	20,649,311		579,211,350	86.8
2021	25,567,425	1,328,585	24,238,840		603,450,189	90.4
2022	38,908,405	1,786,715	37,121,690		640,571,878	96.0
2023	13,153,995	338,297	12,815,698		653,387,575	97.9
2024	52,163,786	289,117	51,874,669		705,262,243	105.6
9999	50,045,724-	12,336,128-	37,709,596-		667,552,647	100.0
SUBTOTAL	904,516,828	236,964,175	667,552,652			
NONDEPRECIABLE	15,722,740		15,722,740			
TOTAL	920,239,568	236,964,175	683,275,392			

**NET UTILITY PLANT IN SERVICE**



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2007	5,346.24	2,136	603	4,743	25.55	186
2008	104,775.02	39,731	11,217	93,558	26.19	3,572
2009	150,278.10	53,649	15,147	135,131	27.02	5,001
2011	8,194.52	2,567	725	7,470	28.49	262
2013	97,229.19	25,989	7,338	89,891	30.15	2,981
2014	14,231.97	3,473	981	13,251	30.98	428
2015	40,506.87	8,968	2,532	37,975	31.65	1,200
2016	35,547.28	7,024	1,983	33,564	32.49	1,033
2017	192,249.97	33,375	9,423	182,827	33.32	5,487
2018	181,259.63	27,189	7,676	173,584	34.00	5,105
2019	265,281.00	33,293	9,400	255,881	34.84	7,344
2020	436,305.63	43,980	12,417	423,889	35.68	11,880
2021	1,215,821.90	92,646	26,157	1,189,665	36.37	32,710
2022	3,941,884.43	201,824	56,980	3,884,904	37.06	104,827
2023	1,671,969.88	43,304	12,226	1,659,744	37.61	44,130
2024	663,568.44	4,380	1,237	662,331	37.77	17,536
	9,024,450.07	623,528	176,042	8,848,408		243,682
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						36.3 2.70

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1935	16,444.43	15,221	16,444			
1958	63,683.83	51,278	61,647	2,037	15.97	128
1976	26,258.22	18,024	21,669	4,589	21.93	209
1978	11,146.44	7,486	9,000	2,146	22.49	95
1980	109,629.29	71,873	86,407	23,222	23.11	1,005
1982	12,204.98	7,792	9,368	2,837	23.79	119
1983	86,589.73	54,673	65,729	20,861	23.94	871
1984	29,556.43	18,325	22,031	7,525	24.52	307
1985	109,617.31	67,119	80,692	28,925	24.69	1,172
1986	110,140.47	66,547	80,004	30,136	24.89	1,211
1987	29,681.60	17,681	21,256	8,426	25.11	336
1988	230,555.18	134,460	161,651	68,904	25.73	2,678
1989	253,789.18	145,675	175,134	78,655	25.98	3,028
1990	195,083.34	110,105	132,371	62,712	26.24	2,390
1991	285,470.50	158,265	190,269	95,202	26.52	3,590
1992	76,688.69	41,719	50,155	26,534	26.82	989
1993	2,172,966.53	1,158,626	1,392,925	780,042	27.14	28,741
1994	41,573.85	21,702	26,091	15,483	27.47	564
1996	24,175.73	12,049	14,486	9,690	28.18	344
1997	208,448.09	101,869	122,469	85,979	28.25	3,044
1998	429,870.49	204,532	245,893	183,977	28.64	6,424
1999	305,065.23	141,093	169,625	135,440	29.05	4,662
2000	237,524.37	107,171	128,843	108,681	29.19	3,723
2001	179,000.00	78,635	94,537	84,463	29.36	2,877
2002	9,723.14	4,128	4,963	4,760	29.81	160
2003	271,071.10	111,573	134,135	136,936	30.02	4,561
2004	1,143,084.50	454,948	546,948	596,136	30.25	19,707
2005	428,604.11	164,498	197,763	230,841	30.50	7,569
2006	928,740.33	342,705	412,007	516,733	30.78	16,788
2007	516,608.48	182,673	219,613	296,995	31.08	9,556
2008	1,959,895.68	661,661	795,463	1,164,433	31.39	37,096
2009	2,933,040.76	945,906	1,137,188	1,795,853	31.51	56,993
2010	2,451,233.54	748,116	899,401	1,551,833	31.87	48,693
2011	298,754.41	86,221	103,657	195,097	32.05	6,087
2012	37,883.52	10,274	12,352	25,532	32.25	792
2013	181,693.78	45,969	55,265	126,429	32.48	3,893
2014	4,038,886.37	945,099	1,136,217	2,902,669	32.74	88,658
2015	1,545,002.12	330,939	397,861	1,147,141	33.02	34,741
2016	544,942.14	105,937	127,360	417,582	33.15	12,597
2017	463,399.48	80,446	96,714	366,685	33.32	11,005
2018	388,079.03	59,143	71,103	316,976	33.37	9,499

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2019	1,004,042.79	130,024	156,317	847,726	33.61	25,222
2020	87,458.80	9,306	11,188	76,271	33.59	2,271
2021	128,856.38	10,553	12,687	116,169	33.63	3,454
2022	265,508.36	14,868	17,875	247,633	33.71	7,346
2024	350,884.02	2,597	3,122	347,762	33.42	10,406
9999	3,077,062.72-	1,007,630-	1,211,168-	1,865,895-		59,242-
	22,145,494.03	7,251,874	8,716,727	13,428,767		426,359
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					31.5	1.93

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1916	175,472.68	174,350	112,469	63,004	0.70	63,004
1932	602.40	565	364	238	6.04	39
1935	564,423.15	522,430	337,006	227,417	7.15	31,807
1946	484.94	424	274	211	11.29	19
1954	3,945,835.14	3,286,881	2,120,279	1,825,556	14.03	130,118
1957	137,083.79	112,052	72,282	64,802	14.97	4,329
1961	346,385.67	274,961	177,370	169,016	16.37	10,325
1963	1,573,909.30	1,228,908	792,736	781,173	17.12	45,629
1965	53,759.86	41,234	26,599	27,161	17.92	1,516
1967	24,003,838.66	18,060,488	11,650,335	12,353,504	18.76	658,502
1968	361,924.73	269,562	173,887	188,038	19.19	9,799
1969	221,599.62	163,319	105,353	116,247	19.63	5,922
1973	38,481.00	27,279	17,597	20,884	20.94	997
1975	419,410.21	291,826	188,249	231,161	21.42	10,792
1976	17,438.45	11,970	7,722	9,716	21.93	443
1978	20,502,042.62	13,769,172	8,882,123	11,619,920	22.49	516,671
1981	12,789,541.84	8,304,250	5,356,848	7,432,694	23.23	319,961
1984	693,417.71	429,919	277,329	416,089	24.52	16,969
1985	133,860.33	81,963	52,872	80,988	24.69	3,280
1986	416,595.46	251,707	162,369	254,226	24.89	10,214
1988	15,069,660.19	8,788,626	5,669,307	9,400,353	25.73	365,346
1989	7,357,194.15	4,223,029	2,724,163	4,633,031	25.98	178,331
1990	6,479,888.32	3,657,249	2,359,193	4,120,695	26.24	157,039
1991	31,895,650.39	17,682,949	11,406,795	20,488,855	26.52	772,581
1992	52,490,038.28	28,554,581	18,419,793	34,070,245	26.82	1,270,330
1993	401,002.87	213,815	137,926	263,077	27.14	9,693
1994	16,680.06	8,707	5,617	11,063	27.47	403
1995	124,581.42	63,586	41,018	83,563	27.82	3,004
1996	647,409.73	322,669	208,145	439,265	28.18	15,588
1997	274,432.07	134,115	86,514	187,918	28.25	6,652
1998	599,628.40	285,303	184,041	415,587	28.64	14,511
1999	234,102.55	108,272	69,843	164,260	29.05	5,654
2000	6,483,934.82	2,925,551	1,887,194	4,596,741	29.19	157,477
2001	2,266,355.22	995,610	642,241	1,624,114	29.36	55,317
2002	879,550.45	373,457	240,907	638,643	29.81	21,424
2003	1,983,806.66	816,535	526,725	1,457,082	30.02	48,537
2004	203,091.82	80,831	52,142	150,950	30.25	4,990
2005	887,279.57	340,538	219,672	667,608	30.50	21,889
2006	1,012,988.84	373,793	241,124	771,865	30.78	25,077
2007	46,539.86	16,456	10,615	35,925	31.08	1,156
2008	2,853,651.92	963,393	621,459	2,232,193	31.39	71,112

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2009	17,731,630.97	5,718,451	3,688,819	14,042,812	31.51	445,662
2010	20,536,198.92	6,267,648	4,043,092	16,493,107	31.87	517,512
2011	16,125,548.83	4,653,833	3,002,063	13,123,486	32.05	409,469
2012	3,496,681.74	948,300	611,723	2,884,959	32.25	89,456
2013	231,088.74	58,465	37,714	193,375	32.48	5,954
2014	10,279,133.56	2,405,317	1,551,605	8,727,529	32.74	266,571
2015	149,213.17	31,961	20,617	128,596	33.02	3,894
2016	453,213.66	88,105	56,834	396,380	33.15	11,957
2017	990,597.57	171,968	110,932	879,666	33.32	26,401
2018	275,973.16	42,058	27,130	248,843	33.37	7,457
2019	206,079.04	26,687	17,215	188,864	33.61	5,619
2020	2,230,611.63	237,337	153,100	2,077,512	33.59	61,849
2021	2,299,804.80	188,354	121,502	2,178,303	33.63	64,773
2022	5,454,129.36	305,431	197,026	5,257,103	33.71	155,951
2023	813,770.69	23,599	15,223	798,548	33.48	23,851
2024	669,863.81	4,957	3,198	666,666	33.42	19,948
9999	2,375,147.51-	1,180,219-	761,328-	1,613,820-		60,641-
	278,171,967.29	138,224,577	89,164,962	189,007,005		7,102,130
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.6 2.55

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
1997	2,771.10	1,878	2,747	24	12.84	2
2003	3,126.14	1,818	2,660	466	15.10	31
2007	1,013.59	510	746	268	16.78	16
2008	318,975.84	153,108	223,995	94,981	17.33	5,481
2009	46,734.14	21,381	31,280	15,454	17.79	869
2010	35,672.63	15,482	22,650	13,023	18.26	713
2011	6,560.31	2,686	3,930	2,630	18.75	140
2012	26,468.33	10,164	14,870	11,598	19.25	602
2013	23,638.15	8,451	12,364	11,274	19.77	570
2014	389,479.98	128,528	188,035	201,445	20.30	9,923
2015	967,505.73	291,703	426,758	540,748	20.85	25,935
2016	8,737.44	2,370	3,467	5,270	21.50	245
2017	125,890.35	30,314	44,349	81,541	22.07	3,695
2018	358,365.82	74,827	109,471	248,895	22.74	10,945
2019	81,687.53	14,377	21,033	60,655	23.41	2,591
2020	170,015.01	24,210	35,419	134,596	24.09	5,587
2021	630,793.80	67,936	99,390	531,404	24.86	21,376
2022	1,041,114.18	75,168	109,970	931,144	25.70	36,231
2023	60,753.25	2,205	3,226	57,527	26.55	2,167
2024	1,499,098.97	13,642	19,958	1,479,141	27.22	54,340
	5,798,402.29	940,758	1,376,318	4,422,084		181,459
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.4 3.13

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1983	7,661.78	6,251	7,662			
1987	14,669.95	11,399	14,670			
1989	39,917.68	30,317	39,314	604	11.08	55
1990	22,032.71	16,480	21,371	662	11.45	58
1992	51,174.79	37,010	47,994	3,181	12.25	260
1993	231,768.68	165,251	214,293	17,476	12.48	1,400
1994	17,812.36	12,504	16,215	1,597	12.74	125
1997	27,435.07	18,148	23,534	3,901	13.82	282
1998	67,435.96	43,658	56,615	10,821	14.16	764
1999	49,494.79	31,305	40,595	8,900	14.53	613
2000	106,013.94	65,389	84,795	21,219	14.91	1,423
2001	35,603.68	21,455	27,822	7,782	15.17	513
2002	52,951.29	30,987	40,183	12,768	15.59	819
2005	64,454.53	34,290	44,466	19,989	16.71	1,196
2007	11,617.83	5,728	7,428	4,190	17.48	240
2008	1,207,046.93	571,657	741,310	465,737	17.78	26,194
2009	2,422,346.20	1,093,689	1,418,266	1,004,080	18.22	55,109
2010	19,898.22	8,552	11,090	8,808	18.57	474
2011	60,050.37	24,434	31,685	28,365	18.95	1,497
2012	78,858.46	30,187	39,146	39,712	19.35	2,052
2013	26,001.32	9,295	12,054	13,947	19.77	705
2014	593,857.00	197,161	255,673	338,184	20.12	16,808
2015	88,873.32	27,035	35,058	53,815	20.59	2,614
2016	10,289.16	2,840	3,683	6,606	20.99	315
2017	12,822.02	3,159	4,097	8,725	21.41	408
2018	4,244.75	917	1,189	3,056	21.78	140
2019	9,083.50	1,671	2,167	6,916	22.17	312
2020	159,429.52	23,978	31,094	128,336	22.60	5,679
2022	219,278.43	17,279	22,407	196,871	23.38	8,420
2024	1,685,273.08	17,358	22,509	1,662,764	23.96	69,397
9999	144,517.16-	50,001-	64,829-	79,688-		3,866-
	7,252,880.16	2,509,383	3,253,556	3,999,324		194,006

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.6 2.67

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1957	4,031.05	3,187	1,737	2,294	17.75	129
1958	21,951.85	17,241	9,397	12,555	18.03	696
1965	10,916.40	7,922	4,318	6,598	22.30	296
1972	72,688.36	48,381	26,369	46,319	26.12	1,773
1973	112,288.98	73,302	39,952	72,337	27.12	2,667
1974	1,355,096.52	874,037	476,380	878,717	27.52	31,930
1975	772,049.67	491,796	268,046	504,004	27.92	18,052
1976	889,469.04	555,029	302,510	586,959	28.92	20,296
1977	423,238.78	260,588	142,029	281,210	29.34	9,585
1978	251,094.10	151,309	82,469	168,625	30.34	5,558
1979	68,941.57	40,951	22,320	46,622	30.76	1,516
1980	144,357.98	84,478	46,043	98,315	31.19	3,152
1981	152,190.65	87,038	47,439	104,752	32.19	3,254
1982	47,523.46	26,746	14,577	32,946	32.63	1,010
1983	183,721.29	100,936	55,014	128,707	33.63	3,827
1985	298,405.27	157,110	85,630	212,775	35.07	6,067
1986	62,069.67	32,078	17,484	44,586	35.53	1,255
1987	219,027.51	111,025	60,512	158,516	35.99	4,404
1988	475,535.56	234,534	127,829	347,707	36.99	9,400
1989	89,784.05	43,366	23,636	66,148	37.46	1,766
1990	91,927.01	43,132	23,508	68,419	38.46	1,779
1991	73,884.40	33,891	18,472	55,412	38.94	1,423
1992	34,023.26	15,134	8,249	25,774	39.94	645
1993	575,593.94	249,808	136,154	439,440	40.43	10,869
1994	282,518.45	118,658	64,673	217,845	41.43	5,258
1995	920,244.55	376,288	205,090	715,155	41.92	17,060
1996	130,576.33	51,552	28,098	102,478	42.92	2,388
1997	1,658,281.17	635,785	346,524	1,311,757	43.42	30,211
1998	519,973.08	191,974	104,632	415,341	44.42	9,350
1999	398,520.30	142,471	77,651	320,869	44.93	7,142
2000	484,887.58	166,413	90,701	394,187	45.93	8,582
2001	867,160.55	287,204	156,536	710,625	46.44	15,302
2002	552,142.54	174,919	95,337	456,806	47.44	9,629
2003	407,883.56	124,201	67,694	340,190	47.97	7,092
2004	2,398,222.18	695,484	379,062	2,019,160	48.97	41,233
2005	652,219.95	180,926	98,611	553,609	49.49	11,186
2006	1,972,022.81	518,248	282,463	1,689,560	50.49	33,463
2007	1,271,138.62	317,658	173,134	1,098,005	51.03	21,517
2008	3,790,255.87	891,468	485,880	3,304,376	52.03	63,509
2009	534,126.37	117,775	64,191	469,935	53.03	8,862
2010	758,557.09	157,173	85,665	672,892	53.57	12,561



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2013	305,903.39	50,138	27,327	278,576	56.11	4,965
2014	4,398,177.35	659,727	359,573	4,038,604	56.67	71,265
2015	2,387,317.77	322,288	175,658	2,211,660	57.67	38,350
2016	3,132,230.15	378,373	206,226	2,926,004	58.23	50,249
2017	3,489,511.16	368,841	201,031	3,288,480	59.23	55,521
2018	1,047,261.82	95,510	52,056	995,206	59.79	16,645
2019	4,278,661.48	325,178	177,233	4,101,428	60.79	67,469
2020	2,932,877.58	179,492	97,829	2,835,049	61.36	46,204
2021	3,147,156.12	145,399	79,247	3,067,909	61.94	49,530
2022	2,004,598.14	62,143	33,870	1,970,728	62.52	31,522
2023	2,497,953.08	39,218	21,375	2,476,578	62.69	39,505
2024	6,235,490.81	24,942	13,594	6,221,897	62.64	99,328
9999	11,878,502.80-	2,289,482-	1,247,845-	10,630,658-		201,576-
	48,007,177.42	9,252,983	5,043,190	42,963,987		814,671
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						52.7 1.70

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1912	3,256.51	3,027	2,062	1,195	8.48	141
1915	68,404.41	63,377	43,172	25,232	8.65	2,917
1916	2,083.05	1,912	1,302	781	9.65	81
1917	16,797.94	15,457	10,529	6,269	9.28	676
1919	4,380.79	4,002	2,726	1,655	9.94	166
1920	113,918.31	103,073	70,213	43,705	10.94	3,995
1921	644.29	584	398	246	10.64	23
1922	5,312.52	4,823	3,285	2,028	10.36	196
1924	1,832.47	1,649	1,123	709	11.11	64
1925	129,789.97	116,928	79,651	50,139	10.89	4,604
1926	106,447.90	94,930	64,666	41,782	11.89	3,514
1927	20,387.47	18,194	12,394	7,993	11.70	683
1928	15,976.10	14,110	9,612	6,364	12.70	501
1929	17,267.15	15,256	10,392	6,875	12.53	549
1930	256,403.72	226,558	154,330	102,074	12.38	8,245
1931	51,376.32	44,913	30,594	20,782	13.38	1,553
1932	22,826.14	19,950	13,590	9,236	13.26	697
1933	13,552.12	11,839	8,065	5,487	13.17	417
1934	3,727.34	3,220	2,193	1,534	14.17	108
1935	461,143.79	398,105	271,187	189,957	14.09	13,482
1936	341,681.98	291,660	198,677	143,005	15.09	9,477
1937	53,052.17	45,232	30,812	22,240	15.04	1,479
1938	48,800.21	41,548	28,302	20,498	15.01	1,366
1939	59,577.84	50,135	34,152	25,426	16.01	1,588
1940	17,743.98	14,905	10,153	7,591	16.00	474
1941	7,804.79	6,543	4,457	3,348	16.01	209
1942	31,473.25	26,066	17,756	13,717	17.01	806
1943	2,111,221.06	1,744,291	1,188,200	923,021	17.04	54,168
1944	3,794.05	3,126	2,129	1,665	17.09	97
1945	37,990.82	30,913	21,058	16,933	18.09	936
1946	123,735.85	100,375	68,375	55,361	18.15	3,050
1947	22,623.72	18,117	12,341	10,283	19.15	537
1948	4,729.27	3,774	2,571	2,158	19.24	112
1949	2,837.59	2,256	1,537	1,301	19.34	67
1950	62,749.44	49,221	33,529	29,220	20.34	1,437
1951	9,147.87	7,145	4,867	4,281	20.46	209
1952	3,035.16	2,360	1,608	1,427	20.59	69
1953	411,320.63	315,401	214,849	196,472	21.59	9,100
1954	205,629.54	156,895	106,876	98,754	21.74	4,543
1955	84,344.18	63,435	43,212	41,132	22.74	1,809
1956	35,887.75	26,844	18,286	17,602	22.91	768

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1957	950,068.49	706,566	481,308	468,760	23.09	20,301
1958	40,925.03	29,982	20,424	20,501	24.09	851
1961	44,247.99	31,500	21,458	22,790	25.50	894
1962	45,028.93	31,826	21,680	23,349	25.72	908
1963	29,718.47	20,666	14,078	15,640	26.72	585
1965	316,088.01	214,466	146,093	169,995	27.96	6,080
1966	21,350,495.09	14,364,613	9,785,079	11,565,416	28.21	409,976
1968	34,067.67	22,321	15,205	18,863	29.47	640
1969	397,926.17	258,254	175,921	222,005	29.75	7,462
1970	774,037.50	493,217	335,976	438,062	30.75	14,246
1971	7,062.19	4,454	3,034	4,028	31.03	130
1972	6,175,242.13	3,853,351	2,624,877	3,550,365	31.33	113,322
1974	112,099.72	67,820	46,199	65,901	32.64	2,019
1975	3,686,188.01	2,185,541	1,488,776	2,197,412	33.64	65,321
1976	244,282.89	143,052	97,446	146,837	33.97	4,323
1977	160,055.07	91,776	62,517	97,538	34.97	2,789
1978	77,993.24	44,129	30,060	47,933	35.30	1,358
1979	85,688.55	47,814	32,571	53,118	35.65	1,490
1980	3,203,841.75	1,748,016	1,190,737	2,013,105	36.65	54,928
1982	19,184.41	10,072	6,861	12,323	38.00	324
1983	24,409,185.27	12,609,785	8,589,702	15,819,483	38.37	412,288
1984	2,789,739.07	1,417,187	965,378	1,824,361	38.74	47,092
1985	3,474,011.15	1,720,678	1,172,114	2,301,897	39.74	57,924
1986	1,037,282.08	504,534	343,685	693,597	40.12	17,288
1987	1,002,924.70	474,985	323,557	679,368	41.12	16,522
1988	2,967,042.71	1,377,895	938,613	2,028,430	41.52	48,854
1989	2,332,228.23	1,053,001	717,297	1,614,931	42.52	37,981
1990	6,004,444.42	2,653,964	1,807,863	4,196,581	42.92	97,777
1992	5,277,416.41	2,212,293	1,506,999	3,770,417	44.34	85,034
1993	6,517,201.33	2,666,839	1,816,633	4,700,568	44.76	105,017
1994	593,087.11	234,862	159,986	433,101	45.76	9,465
1995	10,216,282.82	3,940,420	2,684,188	7,532,095	46.19	163,068
1996	417,289.48	156,567	106,652	310,637	46.63	6,662
1997	3,295,145.66	1,192,184	812,108	2,483,038	47.63	52,132
1998	2,267,533.43	795,904	542,165	1,725,368	48.07	35,893
1999	2,092,584.96	711,479	484,655	1,607,930	48.53	33,133
2000	2,777,263.62	906,499	617,501	2,159,763	49.53	43,605
2001	1,792,537.71	564,829	384,758	1,407,780	49.99	28,161
2002	1,490,770.24	449,318	306,072	1,184,698	50.99	23,234
2003	2,132,449.17	617,984	420,967	1,711,482	51.46	33,258
2004	1,181,781.50	328,535	223,796	957,986	51.94	18,444

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2005	7,374,397.52	1,947,578	1,326,677	6,047,721	52.94	114,237
2006	1,917,865.82	483,302	329,222	1,588,644	53.43	29,733
2007	6,282,245.89	1,505,854	1,025,778	5,256,468	53.92	97,486
2008	8,343,628.54	1,895,672	1,291,319	7,052,310	54.42	129,590
2009	7,859,550.84	1,674,084	1,140,375	6,719,176	55.42	121,241
2010	5,163,496.19	1,033,732	704,172	4,459,324	55.93	79,730
2011	3,145,337.79	588,807	401,091	2,744,247	56.44	48,622
2012	2,046,647.82	356,117	242,585	1,804,063	56.97	31,667
2013	4,147,567.70	666,099	453,742	3,693,826	57.49	64,252
2014	12,122,409.98	1,781,994	1,213,883	10,908,527	58.03	187,981
2015	5,348,387.67	712,405	485,286	4,863,102	58.57	83,031
2016	5,943,177.39	708,427	482,576	5,460,601	59.11	92,380
2017	15,510,521.06	1,628,605	1,109,395	14,401,126	59.67	241,346
2018	3,117,046.72	282,404	192,372	2,924,675	60.23	48,558
2019	12,902,125.39	987,013	672,346	12,229,779	60.36	202,614
2020	3,379,574.97	208,182	141,812	3,237,763	60.94	53,130
2021	5,269,744.35	248,205	169,076	5,100,668	60.69	84,045
2022	4,451,430.64	142,446	97,033	4,354,398	60.50	71,974
2023	2,508,184.34	41,385	28,191	2,479,993	59.61	41,604
2024	9,289,345.27	39,944	27,210	9,262,135	57.55	160,941
9999	17,900,832.11-	5,807,023-	3,955,706-	13,945,126-		297,228-
	235,039,005.62	76,246,559	51,938,655	183,100,351		3,902,626
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						46.9 1.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1912	1,448.15	1,448	1,448			
1916	1,809.50	1,810	1,810			
1917	10,876.76	10,877	10,877			
1921	3,611.27	3,611	3,611			
1924	2,615.87	2,616	2,616			
1925	125,017.80	125,005	71,076	53,942	0.01	53,942
1926	128,099.24	128,048	72,806	55,293	0.04	55,293
1927	27,434.26	27,410	15,585	11,849	0.09	11,849
1928	18,976.11	18,946	10,772	8,204	0.15	8,204
1930	98,638.87	97,357	55,355	43,284	1.24	34,906
1931	65,195.24	64,269	36,542	28,653	1.34	21,383
1932	12,126.83	11,938	6,788	5,339	1.46	3,657
1933	3,502.94	3,443	1,958	1,545	1.59	972
1934	8,979.77	8,809	5,009	3,971	1.74	2,282
1935	60,025.43	58,765	33,413	26,612	1.91	13,933
1936	111,488.98	108,902	61,920	49,569	2.09	23,717
1937	64,214.46	62,571	35,577	28,637	2.29	12,505
1938	66,094.12	64,230	36,520	29,574	2.50	11,830
1939	92,795.51	89,919	51,126	41,670	2.72	15,320
1940	30,567.10	29,528	16,789	13,778	2.96	4,655
1941	5,433.14	5,231	2,974	2,459	3.21	766
1942	62,980.82	60,424	34,356	28,625	3.47	8,249
1943	2,127,585.77	2,050,780	1,166,035	961,551	3.03	317,344
1944	12,648.57	12,143	6,904	5,745	3.33	1,725
1945	10,958.62	10,475	5,956	5,003	3.64	1,374
1946	68,379.23	65,070	36,998	31,381	3.97	7,905
1947	53,304.60	50,485	28,705	24,600	4.30	5,721
1948	10,486.93	9,963	5,665	4,822	4.00	1,206
1949	8,127.68	7,681	4,367	3,761	4.37	861
1950	46,030.38	43,259	24,596	21,434	4.74	4,522
1951	24,235.78	22,646	12,876	11,360	5.12	2,219
1952	12,573.43	11,769	6,692	5,881	4.92	1,195
1953	614,665.54	571,700	325,058	289,608	5.34	54,234
1954	295,509.16	275,119	156,428	139,081	5.19	26,798
1955	124,331.75	114,957	65,362	58,970	5.63	10,474
1956	69,709.53	64,467	36,655	33,055	5.53	5,977
1957	35,296.31	32,398	18,421	16,875	5.99	2,817
1958	54,672.86	50,157	28,518	26,155	5.94	4,403
1961	79,524.73	71,644	40,735	38,790	6.93	5,597
1962	48,100.16	43,242	24,587	23,513	6.97	3,373
1963	46,292.44	41,228	23,441	22,851	7.49	3,051

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1965	72,365.33	64,043	36,414	35,951	7.67	4,687
1966	4,580,119.66	4,037,833	2,295,837	2,284,283	7.79	293,233
1968	35,097.77	30,465	17,322	17,776	8.52	2,086
1969	83,939.34	72,482	41,212	42,727	8.69	4,917
1970	146,294.94	125,609	71,419	74,876	8.89	8,422
1971	13,645.19	11,571	6,579	7,066	9.50	744
1972	1,032,153.40	869,486	494,374	537,779	9.73	55,270
1974	13,919.10	11,553	6,569	7,350	10.24	718
1975	596,782.75	491,272	279,328	317,455	10.52	30,176
1977	42,582.58	34,424	19,573	23,010	11.14	2,066
1979	34,294.18	27,007	15,356	18,938	12.14	1,560
1980	1,189,433.34	926,331	526,694	662,739	12.50	53,019
1983	807,234.02	605,668	344,372	462,862	13.64	33,934
1984	133,658.01	98,907	56,237	77,421	14.05	5,510
1985	766,671.56	559,134	317,913	448,759	14.48	30,992
1986	205,054.25	147,270	83,735	121,319	14.91	8,137
1987	236,066.03	166,828	94,855	141,211	15.36	9,193
1988	295,116.23	203,984	115,981	179,135	16.08	11,140
1989	21,395.21	14,527	8,260	13,135	16.55	794
1990	1,671,876.62	1,114,139	633,479	1,038,398	17.02	61,010
1992	572,125.34	364,329	207,151	364,974	18.25	19,999
1993	358,339.59	223,281	126,953	231,387	18.75	12,341
1994	240,035.05	146,181	83,116	156,919	19.26	8,147
1995	2,833,063.04	1,676,040	952,965	1,880,098	20.02	93,911
1996	176,722.47	101,934	57,958	118,764	20.54	5,782
1997	1,035,635.27	578,817	329,104	706,531	21.31	33,155
1998	436,554.47	236,089	134,236	302,318	22.08	13,692
1999	572,619.26	300,625	170,930	401,689	22.62	17,758
2000	533,974.48	270,405	153,747	380,227	23.39	16,256
2001	386,441.40	188,429	107,137	279,304	24.17	11,556
2002	417,264.18	195,530	111,175	306,089	24.95	12,268
2003	630,855.34	283,506	161,196	469,659	25.73	18,253
2004	603,862.74	259,661	147,638	456,225	26.51	17,210
2005	2,284,155.71	937,418	532,998	1,751,158	27.30	64,145
2006	171,007.46	66,488	37,804	133,203	28.30	4,707
2007	2,053,079.10	757,381	430,633	1,622,446	29.08	55,793
2008	2,371,851.59	827,302	470,388	1,901,464	29.87	63,658
2009	238,801.93	78,088	44,399	194,403	30.87	6,297
2010	783,382.82	240,185	136,565	646,818	31.66	20,430
2011	1,314,572.12	374,259	212,797	1,101,775	32.66	33,735
2012	96,978.72	25,602	14,557	82,422	33.45	2,464

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2013	1,061,762.46	256,947	146,095	915,667	34.45	26,580
2014	2,194,306.76	482,747	274,481	1,919,826	35.45	54,156
2015	5,519,090.10	1,092,780	621,334	4,897,756	36.45	134,369
2016	283,130.85	49,831	28,333	254,798	37.45	6,804
2017	406,385.86	62,868	35,746	370,640	38.25	9,690
2018	185,760.58	24,632	14,005	171,756	39.25	4,376
2019	153,156.79	16,924	9,623	143,534	40.25	3,566
2020	389,420.31	34,425	19,573	369,847	41.25	8,966
2021	198,658.38	13,171	7,489	191,169	42.25	4,525
2022	703,119.93	31,078	17,670	685,450	43.25	15,849
2023	6,252.07	138	78	6,174	44.25	140
2024	1,771,549.01	9,744	5,541	1,766,008	45.00	39,245
9999	4,553,264.84-	2,324,423-	1,322,462-	3,230,803-		210,139-
	43,152,715.49	22,029,285	12,533,389	30,619,326		1,991,551
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.4 4.62

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1912	20,058.78	20,059	20,059			
1916	7,921.46	7,921	7,921			
1917	26,899.05	26,899	26,899			
1919	5,082.16	5,082	5,082			
1921	678.73	679	679			
1922	1,906.95	1,907	1,907			
1924	9,843.22	9,843	9,843			
1925	379,461.75	379,462	379,462			
1926	258,164.88	258,165	258,165			
1927	76,763.70	76,764	76,764			
1928	29,445.44	29,445	29,445			
1929	676.15	676	676			
1930	168,184.63	168,185	168,185			
1931	100,976.94	100,977	100,977			
1932	45,099.94	45,100	45,100			
1933	3,136.48	3,136	3,136			
1934	11,931.32	11,931	11,931			
1935	80,181.12	80,181	80,181			
1936	164,228.44	164,228	164,228			
1937	68,697.39	68,697	68,697			
1938	72,961.30	72,961	72,961			
1939	56,424.18	56,424	56,424			
1940	19,760.71	19,761	19,761			
1941	3,939.62	3,940	3,940			
1942	46,298.60	46,299	46,299			
1943	3,388,955.78	3,388,956	3,388,956			
1944	14,974.94	14,975	14,975			
1945	12,108.05	12,108	12,108			
1946	50,428.14	50,347	38,747	11,681	0.12	11,681
1947	40,341.11	40,071	30,838	9,503	0.52	9,503
1948	3,412.83	3,372	2,595	818	0.92	818
1949	3,682.67	3,646	2,806	877	0.76	877
1950	13,516.60	13,303	10,238	3,279	1.19	2,755
1951	7,389.23	7,228	5,563	1,826	1.63	1,120
1952	3,839.21	3,759	2,893	946	1.53	618
1953	515,975.68	501,890	386,251	129,725	1.99	65,188
1954	108,622.26	104,929	80,753	27,869	2.46	11,329
1955	41,180.53	39,780	30,614	10,567	2.43	4,349
1956	21,931.95	21,028	16,183	5,749	2.92	1,969
1957	190,285.25	182,312	140,306	49,979	2.93	17,058
1958	15,714.87	15,039	11,574	4,141	2.97	1,394



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1961	11,525.10	10,819	8,326	3,199	4.11	778
1962	16,984.03	15,900	12,237	4,747	4.23	1,122
1963	7,568.89	7,064	5,436	2,133	4.36	489
1965	58,410.06	53,761	41,374	17,036	5.10	3,340
1966	9,480,740.79	8,688,151	6,686,345	2,794,396	5.29	528,241
1968	12,266.27	11,128	8,564	3,702	5.73	646
1969	12,447.37	11,228	8,641	3,806	5.98	636
1970	379,143.89	339,865	261,558	117,586	6.24	18,844
1971	10,159.44	9,046	6,962	3,197	6.52	490
1972	601,143.54	531,411	408,970	192,174	6.82	28,178
1973	2,440.36	2,141	1,648	792	7.14	111
1974	9,505.14	8,269	6,364	3,141	7.47	420
1975	1,670,367.15	1,432,340	1,102,320	568,047	8.14	69,785
1976	53,888.58	45,784	35,235	18,654	8.50	2,195
1977	56,479.57	47,516	36,568	19,912	8.87	2,245
1978	33,014.45	27,488	21,155	11,859	9.25	1,282
1979	44,923.65	36,995	28,471	16,453	9.64	1,707
1980	795,794.54	647,777	498,525	297,270	10.05	29,579
1981	72,051.21	57,936	44,587	27,464	10.48	2,621
1982	59,284.36	46,811	36,025	23,259	11.19	2,079
1983	286,935.97	223,523	172,022	114,914	11.63	9,881
1984	250,083.37	192,064	147,811	102,272	12.08	8,466
1985	1,687,504.43	1,276,766	982,591	704,913	12.55	56,168
1986	226,021.91	167,482	128,893	97,129	13.28	7,314
1987	757,407.04	552,074	424,873	332,534	13.76	24,167
1988	328,350.50	235,230	181,031	147,320	14.25	10,338
1989	310,755.21	217,529	167,409	143,346	15.00	9,556
1990	3,454,175.91	2,372,328	1,825,728	1,628,448	15.50	105,061
1991	78,933.67	52,878	40,695	38,239	16.26	2,352
1992	458,217.18	300,590	231,332	226,885	16.78	13,521
1993	752,935.72	480,825	370,040	382,896	17.54	21,830
1994	249,503.24	155,690	119,818	129,685	18.08	7,173
1995	6,462,674.70	3,935,769	3,028,942	3,433,733	18.62	184,411
1996	129,254.48	76,364	58,769	70,485	19.39	3,635
1997	436,935.87	250,102	192,477	244,459	20.17	12,120
1998	400,775.88	222,992	171,613	229,163	20.73	11,055
1999	276,916.30	148,843	114,549	162,367	21.51	7,548
2000	1,037,837.31	540,506	415,970	621,867	22.08	28,164
2001	362,705.56	181,861	139,959	222,747	22.87	9,740
2002	362,129.45	175,271	134,887	227,242	23.45	9,690
2003	583,647.70	270,871	208,461	375,187	24.25	15,472

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2004	951,466.54	422,451	325,115	626,352	25.05	25,004
2005	2,837,474.33	1,207,629	929,383	1,908,091	25.64	74,419
2006	1,023,167.98	414,383	318,906	704,262	26.44	26,636
2007	699,026.39	268,566	206,687	492,339	27.25	18,067
2008	2,449,123.81	889,522	684,570	1,764,554	28.05	62,907
2009	2,442,819.88	839,109	645,773	1,797,047	28.67	62,680
2010	962,093.16	309,794	238,415	723,678	29.48	24,548
2011	235,434.98	70,701	54,411	181,024	30.29	5,976
2012	244,491.60	68,066	52,383	192,109	31.10	6,177
2013	568,385.47	145,677	112,112	456,273	31.92	14,294
2014	646,487.22	151,924	116,920	529,567	32.55	16,269
2015	1,283,637.73	272,645	209,826	1,073,812	33.37	32,179
2016	681,234.20	129,162	99,402	581,832	34.19	17,018
2017	2,247,047.77	374,358	288,104	1,958,944	35.02	55,938
2018	784,550.21	112,505	86,583	697,967	35.84	19,475
2019	447,843.10	53,741	41,359	406,484	36.67	11,085
2020	655,888.52	63,490	48,862	607,027	37.32	16,265
2021	754,585.25	55,009	42,334	712,251	38.15	18,670
2022	1,265,651.78	62,017	47,728	1,217,924	38.82	31,374
2023	840,160.31	20,836	16,035	824,125	39.32	20,959
2024	3,005,581.24	18,935	14,572	2,991,009	39.43	75,856
9999	6,954,215.46-	3,956,828-	3,173,404-	3,780,811-		221,233-
	56,444,857.84	32,116,145	25,757,379	30,687,479		1,795,672

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.1 3.18

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1989	7,979.00	7,708	5,948	2,031	1.23	1,651
1990	3,478.54	3,335	2,574	905	1.46	620
1991	8,740.98	8,336	6,433	2,308	1.60	1,442
1992	6,784.52	6,448	4,976	1,809	1.67	1,083
1999	51,368.90	46,232	35,678	15,691	2.78	5,644
2001	7,764.93	6,840	5,279	2,486	3.11	799
2002	4,455.38	3,872	2,988	1,467	3.32	442
2004	2,628.68	2,219	1,712	917	3.70	248
2005	8,722.16	7,242	5,589	3,133	3.88	807
2006	15,631.29	12,774	9,858	5,773	4.03	1,433
2007	9,030.61	7,246	5,592	3,439	4.19	821
2008	29,418.95	23,206	17,908	11,511	4.28	2,689
2009	92,082.61	71,272	55,002	37,081	4.38	8,466
2010	29,477.55	22,326	17,229	12,249	4.48	2,734
2011	53,822.99	39,673	30,616	23,207	4.64	5,002
2013	26,874.75	18,388	14,190	12,685	5.08	2,497
2014	152,277.99	98,828	76,267	76,011	5.41	14,050
2015	112,570.79	68,387	52,776	59,795	5.81	10,292
2016	5,515.89	3,080	2,377	3,139	6.33	496
2018	1,269.20	561	433	836	7.57	110
2020	30,025.23	9,224	7,118	22,907	9.02	2,540
2021	13,780.49	3,225	2,489	11,291	9.82	1,150
9999	14,726.81-	10,283-	7,936-	6,791-		1,421-
	658,974.62	460,139	355,096	303,879		63,595

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.8 9.65

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
1970	30,360.76	30,361	30,361			
1991	227,265.28	205,493	193,837	33,428	3.50	9,551
2009	14,938.00	8,985	8,475	6,463	9.94	650
	272,564.04	244,839	232,673	39,891		10,201
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.9 3.74

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2007	6,261.10	2,278	1,437	4,824	29.73	162
2009	92,112.20	29,844	18,833	73,279	31.30	2,341
2013	33,467.05	8,099	5,111	28,356	34.45	823
2017	1,547.02	243	153	1,394	37.64	37
2019	544,001.01	61,472	38,791	505,210	39.25	12,872
	677,388.38	101,936	64,325	613,063		16,235
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.8 2.40

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1968	2,473.19	2,410	1,429	1,044	1.47	710
1985	457.59	391	232	226	6.66	34
1986	64,229.66	54,184	32,139	32,091	7.05	4,552
1989	4,375.25	3,568	2,116	2,259	7.92	285
1992	105,394.63	82,292	48,811	56,584	8.98	6,301
1993	187,305.40	144,000	85,413	101,892	9.32	10,933
1994	17,980.54	13,647	8,095	9,886	9.53	1,037
1996	53,624.25	39,339	23,334	30,290	10.17	2,978
1997	41,324.40	29,679	17,604	23,720	10.59	2,240
1998	65,302.38	46,012	27,292	38,010	10.90	3,487
1999	517,683.18	357,201	211,872	305,811	11.23	27,232
2001	14,390.90	9,466	5,615	8,776	11.97	733
2002	401.24	258	153	248	12.25	20
2003	116,385.74	72,834	43,201	73,185	12.56	5,827
2004	157,630.64	95,524	56,660	100,971	13.00	7,767
2005	96,781.66	56,821	33,703	63,079	13.36	4,721
2006	64,359.93	36,608	21,714	42,646	13.65	3,124
2007	5,864.69	3,210	1,904	3,961	14.06	282
2008	716,544.68	377,189	223,728	492,817	14.40	34,223
2009	584,840.86	294,760	174,836	410,005	14.76	27,778
2010	560,414.29	269,111	159,622	400,792	15.15	26,455
2011	64,086.62	29,159	17,296	46,791	15.57	3,005
2012	50,909.78	21,871	12,973	37,937	15.93	2,381
2013	59,251.87	23,855	14,149	45,103	16.32	2,764
2014	1,661,705.37	621,478	368,627	1,293,078	16.74	77,245
2015	228,756.80	78,852	46,771	181,986	17.11	10,636
2016	607,911.15	190,641	113,078	494,833	17.51	28,260
2017	397,715.97	111,639	66,218	331,498	17.94	18,478
2018	473,787.54	116,836	69,301	404,487	18.33	22,067
2019	3,957,756.01	833,108	494,154	3,463,602	18.75	184,725
2020	2,176,244.20	376,055	223,055	1,953,189	19.15	101,994
2021	642,483.58	85,386	50,646	591,838	19.57	30,242
2022	2,772,269.86	252,831	149,966	2,622,304	19.93	131,576
2023	509,167.79	23,931	14,194	494,974	20.28	24,407
2024	1,769,971.07	21,240	12,599	1,757,372	20.54	85,559
9999	315,245.20-	80,290-	47,624-	267,621-		15,032-
	18,434,537.51	4,695,096	2,784,876	15,649,662		879,026

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.8 4.77

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1951	783,623.58	783,624	783,624			
1957	9,110.88	9,034	4,988	4,123	0.57	4,123
1963	73,156.24	70,508	38,931	34,225	2.29	14,945
1965	77,769.44	74,332	41,042	36,727	2.73	13,453
1967	151,993.43	143,816	79,407	72,586	3.24	22,403
1969	2,021.43	1,890	1,044	977	3.82	256
1973	899.70	826	456	444	4.56	97
1981	2,288,296.08	1,977,774	1,092,019	1,196,277	6.75	177,226
1984	563,920.94	473,694	261,548	302,373	7.62	39,681
1985	462,907.84	386,343	213,318	249,590	7.73	32,288
1986	709,908.07	585,390	323,221	386,687	8.08	47,857
1987	140,602.01	114,450	63,193	77,409	8.45	9,161
1988	814,235.06	656,599	362,538	451,697	8.64	52,280
1989	1,155,205.34	917,811	506,765	648,440	9.05	71,651
1990	2,492,131.73	1,957,320	1,080,726	1,411,406	9.29	151,927
1991	2,183,340.59	1,685,976	930,904	1,252,437	9.74	128,587
1992	786,296.34	598,843	330,649	455,647	10.02	45,474
1993	3,100,291.21	2,325,838	1,284,201	1,816,090	10.32	175,978
1994	57,530.30	42,457	23,442	34,088	10.65	3,201
1995	7,220.11	5,214	2,879	4,341	11.16	389
1996	80,267.86	56,862	31,396	48,872	11.53	4,239
1997	19,769.54	13,718	7,574	12,196	11.91	1,024
1998	3,693,416.61	2,506,353	1,383,872	2,309,545	12.31	187,615
1999	1,066,011.18	706,232	389,943	676,068	12.74	53,067
2000	5,132.72	3,314	1,830	3,303	13.17	251
2001	1,764,324.66	1,111,877	613,918	1,150,407	13.50	85,215
2002	116,515.57	71,261	39,346	77,170	13.97	5,524
2003	2,024,862.42	1,199,124	662,091	1,362,771	14.46	94,244
2004	710,725.91	406,535	224,467	486,259	14.97	32,482
2005	2,229,191.16	1,228,284	678,192	1,550,999	15.48	100,194
2006	690,423.97	365,372	201,739	488,685	16.01	30,524
2007	55,860.97	28,299	15,625	40,236	16.56	2,430
2008	995,674.82	481,110	265,643	730,032	17.11	42,667
2009	18,918,516.36	8,683,599	4,794,612	14,123,904	17.68	798,863
2010	21,333,854.26	9,258,893	5,112,258	16,221,596	18.26	888,368
2011	7,062,567.99	2,882,940	1,591,803	5,470,765	18.85	290,226
2012	4,817,373.50	1,832,529	1,011,823	3,805,550	19.55	194,657
2013	3,057,964.62	1,079,767	596,189	2,461,776	20.15	122,173
2014	8,883,017.64	2,878,098	1,589,129	7,293,889	20.86	349,659
2015	1,058,463.98	311,506	171,997	886,467	21.58	41,078
2016	568,338.47	150,041	82,844	485,494	22.30	21,771

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
2017	661,517.16	154,200	85,141	576,376	23.03	25,027
2018	4,972,136.42	1,002,383	553,462	4,418,674	23.76	185,971
2019	1,907,143.85	322,307	177,960	1,729,184	24.59	70,321
2020	8,602,120.26	1,169,888	645,949	7,956,171	25.41	313,112
2021	10,551,774.97	1,082,612	597,760	9,954,015	26.24	379,345
2022	12,425,261.33	852,373	470,634	11,954,627	27.15	440,318
2023	972,220.86	33,444	18,466	953,755	28.07	33,978
2024	22,086,338.08	189,943	104,876	21,981,462	28.82	762,716
9999	2,720,254.13-	915,015-	511,295-	2,208,959-		113,316-
	154,470,993.33	51,959,588	29,034,139	125,436,854		6,434,720
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.5 4.17



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2008	294,411.86	101,278	90,600	203,812	30.51	6,680
2009	4,434,866.70	1,436,897	1,285,404	3,149,463	31.30	100,622
2010	1,187,964.50	360,904	322,854	865,110	32.08	26,967
2011	6,597.06	1,870	1,673	4,924	32.87	150
2012	1,684.33	443	396	1,288	33.66	38
2014	234,044.45	51,724	46,271	187,773	35.25	5,327
2015	6,136.63	1,226	1,097	5,040	36.05	140
2016	45,239.43	8,071	7,220	38,019	36.84	1,032
2021	1,641.43	113	101	1,540	40.67	38
2022	396,015.22	18,296	16,367	379,648	41.29	9,195
9999	30,192.33-	9,050-	8,096-	22,096-		686-
	6,578,409.28	1,971,772	1,763,887	4,814,522		149,503
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						32.2 2.27

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1957	12,139.53	11,387	11,335	805	4.43	182
1975	4,177.28	3,480	3,464	713	9.82	73
1993	202,475.94	123,652	123,085	79,391	19.76	4,018
2004	1,695.94	712	709	987	27.62	36
2005	9,240.93	3,722	3,705	5,536	28.17	197
2006	201,117.58	77,108	76,754	124,364	28.95	4,296
2009	26,051.26	8,441	8,402	17,649	31.30	564
2010	27,827.93	8,454	8,415	19,413	32.08	605
2014	100,305.10	22,167	22,066	78,239	35.25	2,220
2017	18,433.32	2,890	2,877	15,556	37.64	413
	603,464.81	262,013	260,812	342,653		12,604
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.2 2.09

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2010	273,149.74	185,851	201,083	72,067	6.58	10,952
2013	8,814.50	5,003	5,413	3,402	8.38	406
2018	39,036.86	12,788	13,836	25,201	12.32	2,046
2019	268,065.51	73,450	79,470	188,596	13.25	14,234
2022	91,911.93	10,147	10,979	80,933	16.12	5,021
2023	1,796,471.34	99,165	107,292	1,689,179	17.12	98,667
2024	153,183.00	2,114	2,287	150,896	17.87	8,444
	2,630,632.88	388,518	420,360	2,210,273		139,770
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.8						5.31

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,529.23	2,823	2,073	1,456	4.00	364
2009	52,251.63	39,189	28,777	23,475	5.00	4,695
2010	7,240.80	5,069	3,722	3,519	6.00	586
2011	2,249.52	1,462	1,074	1,176	7.00	168
2012	30,582.71	18,350	13,475	17,108	8.00	2,138
2013	52,070.05	28,639	21,030	31,040	9.00	3,449
2014	34,888.89	17,444	12,809	22,080	10.00	2,208
2015	27,346.34	12,306	9,036	18,310	11.00	1,665
2016	33,090.02	13,236	9,719	23,371	12.00	1,948
2017	28,119.56	9,842	7,227	20,893	13.00	1,607
2018	10,405.16	3,122	2,293	8,112	14.00	579
2019	20,626.43	5,157	3,787	16,839	15.00	1,123
2020	74,563.91	14,913	10,951	63,613	16.00	3,976
2021	360,930.38	54,140	39,756	321,174	17.00	18,893
2022	431,088.92	43,109	31,655	399,434	18.00	22,191
2023	97,559.16	4,878	3,582	93,977	19.00	4,946
2024	25,050.00	313	230	24,820	19.75	1,257
	1,291,592.71	273,992	201,196	1,090,397		71,793

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.2 5.56

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	45,090.00	2,254	4,509	40,581	4.75	8,543
	45,090.00	2,254	4,509	40,581		8,543
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.8 18.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
1986	1,041.07	1,041	1,041			
1987	105.99	106	106			
1990	12,320.62	12,321	12,321			
1991	10,001.22	10,001	10,001			
2000	4,385.16	4,241	3,926	459	0.81	459
2001	17,083.74	16,385	15,166	1,918	0.98	1,918
2002	4,164.33	3,958	3,664	500	1.15	435
2005	2,609.91	2,400	2,222	388	1.66	234
2006	59,181.62	53,583	49,598	9,584	1.88	5,098
2011	143,535.04	119,421	110,539	32,996	2.62	12,594
2012	71,860.04	57,603	53,319	18,541	2.97	6,243
2013	61,534.02	46,840	43,356	18,178	3.45	5,269
2014	3,036.59	2,156	1,996	1,041	4.08	255
2016	2,414.49	1,426	1,320	1,094	5.55	197
2017	8,513.22	4,452	4,121	4,392	6.39	687
2018	927,519.47	419,053	387,887	539,632	7.28	74,125
2019	299,068.81	113,198	104,779	194,290	8.21	23,665
2020	26,190.17	7,941	7,350	18,840	9.19	2,050
2022	1,422,366.36	215,631	199,594	1,222,772	11.19	109,274
2023	602,400.82	45,662	42,266	560,135	12.19	45,950
2024	416,014.24	7,904	7,316	408,698	12.94	31,584
	4,095,346.93	1,145,323	1,061,888	3,033,459		320,037

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.5 7.81

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2012	58,391.33	28,028	27,953	30,438	13.00	2,341
2017	2,199.71	616	614	1,586	18.00	88
2018	46,760.40	11,222	11,193	35,567	19.00	1,872
	107,351.44	39,866	39,760	67,591		4,301
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.7 4.01

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	7,132.96	6,776	7,133			
2006	85,717.68	77,146	83,538	2,180	2.00	1,090
2007	5,060.13	4,301	4,657	403	3.00	134
2008	2,776.47	2,221	2,405	371	4.00	93
2009	378.54	284	308	71	5.00	14
2010	61,467.53	43,027	46,592	14,876	6.00	2,479
2012	58,472.38	35,083	37,990	20,482	8.00	2,560
2013	28,453.57	15,649	16,946	11,508	9.00	1,279
2014	40,133.99	20,067	21,730	18,404	10.00	1,840
2015	62,657.78	28,196	30,532	32,126	11.00	2,921
2016	105,803.20	42,321	45,827	59,976	12.00	4,998
2017	7,458.66	2,611	2,827	4,632	13.00	356
2018	94,551.82	28,366	30,716	63,836	14.00	4,560
2019	14,014.13	3,504	3,794	10,220	15.00	681
2020	193,729.12	38,746	41,956	151,773	16.00	9,486
2021	102,950.07	15,443	16,723	86,227	17.00	5,072
2022	284,959.55	28,496	30,857	254,103	18.00	14,117
2023	44,808.61	2,240	2,426	42,383	19.00	2,231
2024	233,771.16	2,922	3,164	230,607	19.75	11,676
9999	600.00-	166-	180-	420-		27-
	1,433,697.35	397,233	429,941	1,003,756		65,560

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.3 4.57



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2009	63,768.04	63,768	63,768			
2010	31,269.93	29,185	17,664	13,606	1.00	13,606
2011	16,841.59	14,596	8,834	8,008	2.00	4,004
2012	13,442.75	10,754	6,509	6,934	3.00	2,311
2013	5,917.50	4,339	2,626	3,292	4.00	823
2014	112,033.68	74,689	45,205	66,829	5.00	13,366
2015	43,434.75	26,061	15,773	27,662	6.00	4,610
2016	123,948.53	66,105	40,009	83,940	7.00	11,991
2017	48,566.17	22,664	13,717	34,849	8.00	4,356
2018	43,803.48	17,521	10,604	33,199	9.00	3,689
2019	57,097.59	19,032	11,519	45,579	10.00	4,558
2020	32,405.64	8,642	5,231	27,175	11.00	2,470
2021	17,137.92	3,428	2,075	15,063	12.00	1,255
2022	37,565.86	5,009	3,031	34,535	13.00	2,657
2023	31,474.35	2,098	1,270	30,204	14.00	2,157
2024	49,446.26	824	498	48,948	14.75	3,319
9999	42,162.45-	21,350-	14,379-	27,783-		4,353-
	685,991.59	347,365	233,954	452,038		70,819

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.4 10.32

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
2011	339,384.06	192,804	221,156	118,228	9.88	11,966
2015	3,220.04	1,374	1,576	1,644	12.10	136
2018	19,477.25	5,913	6,783	12,694	13.76	923
2022	64,365.65	7,376	8,461	55,905	15.45	3,618
2023	137,610.04	8,380	9,612	127,998	15.42	8,301
2024	41,320.15	682	782	40,538	14.88	2,724
9999	10,000.00-	3,577-	4,103-	5,897-		457-
	595,377.19	212,952	244,267	351,110		27,211
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.9 4.57

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2009	521,963.46	521,963	521,963			
2010	144,621.29	134,979	143,685	936	1.00	936
2011	7,975.30	6,912	7,358	617	2.00	308
2012	3,344.78	2,676	2,849	496	3.00	165
2013	263,689.84	193,372	205,844	57,846	4.00	14,462
2014	98,016.16	65,344	69,558	28,458	5.00	5,692
2015	13,210.61	7,926	8,437	4,774	6.00	796
2016	172,002.57	91,734	97,650	74,353	7.00	10,622
2017	13,811.63	6,445	6,861	6,951	8.00	869
2018	12,412.19	4,965	5,285	7,127	9.00	792
2019	7,055.35	2,352	2,504	4,551	10.00	455
2020	674,118.03	179,767	191,361	482,757	11.00	43,887
2021	39,621.14	7,924	8,435	31,186	12.00	2,599
2022	852,798.77	113,704	121,038	731,761	13.00	56,289
2023	425,045.19	28,338	30,166	394,879	14.00	28,206
2024	1,524,807.54	25,419	27,058	1,497,750	14.75	101,542
	4,774,493.85	1,393,820	1,450,052	3,324,442		267,620
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.4 5.61

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2009	6,270.00	6,270	6,270			
2010	4,161.94	3,884	4,162			
2011	14,880.36	12,896	14,880			
2012	13,823.71	11,059	13,824			
2013	16,427.62	12,047	16,428			
2014	2,202.56	1,468	2,019	184	5.00	37
2015	4,104.14	2,462	3,386	718	6.00	120
2017	28,080.87	13,104	18,020	10,061	8.00	1,258
2018	33,269.93	13,308	18,300	14,970	9.00	1,663
2019	123,994.70	41,331	56,835	67,160	10.00	6,716
2020	130,423.87	34,780	47,827	82,597	11.00	7,509
2021	191,683.21	38,337	52,718	138,965	12.00	11,580
2022	783,085.43	104,409	143,574	639,511	13.00	49,193
2023	138,192.53	9,213	12,669	125,524	14.00	8,966
2024	648,139.11	10,804	14,857	633,282	14.75	42,934
9999	29,000.00-	4,276-	5,773-	23,227-		1,762-
	2,109,739.98	311,096	419,996	1,689,744		128,214
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 6.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 398.00 OTHER TANGIBLE PLANT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	14,231.50	2,846	2,226	12,006	20.00	600
	14,231.50	2,846	2,226	12,006		600
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.0 4.22						

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**PART VIII. EXPERIENCED AND ESTIMATED  
NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
354.20	3,076.09	27,531.06		27,531.06-
354.30		61,135.00		61,135.00-
354.40	913,340.30	1,985.51		1,985.51-
354.70	3,125.06	18,075.18		18,075.18-
355.00		9,730.05		9,730.05-
360.10	55,943.69	245,202.29		245,202.29-
361.10	352,132.81	1,038,558.77		1,038,558.77-
361.20	1,170.55	109,567.01		109,567.01-
363.00	5,384.61	150,830.30		150,830.30-
364.00	3,202.68	239.58		239.58-
370.00	1,108.89			
371.00	5,188.39	141,438.05		141,438.05-
380.00	36,603.24	214,843.19		214,843.19-
381.00	2,120.40			
389.10		5,681.56		5,681.56-
390.00	67,403.59			
391.00		6,028.96		6,028.96-
393.00	60,983.28	1,931.40		1,931.40-
394.00	26,823.05	5,593.49		5,593.49-
395.00		2,048.24		2,048.24-
396.00	48,155.78	1,897.96		1,897.96-
397.00	141,002.08	5,512.61		5,512.61-
398.00		1,251.49		1,251.49-
	1,726,764.49	2,049,081.70		2,049,081.70-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
354.20	3,007.76	122,315.77		122,315.77-
354.30	39,414.10			
354.40	120,604.23			
354.70	6,910.37	246.65		246.65-
355.00		23,920.78		23,920.78-
360.10	40,213.82	186,669.20		186,669.20-
361.10	361,924.39	323,715.46		323,715.46-
361.20	22,020.95	34,151.69		34,151.69-
363.00	128,735.68	76,222.67		76,222.67-
371.00	144,361.10	273,771.37		273,771.37-
380.00	92,274.49	652,150.29		652,150.29-
391.00	31,332.59	10.19		10.19-
393.00		5,643.88		5,643.88-
394.00	10,122.79	1,075.22		1,075.22-
395.00	7,833.15			
396.00	234,211.01	52,578.21		52,578.21-
397.00		9,909.72	1,369.21	8,540.51-
	1,242,966.43	1,762,381.10	1,369.21	1,761,011.89-
2021 TRANSACTION YEAR				
354.30	7,989.66	20,176.30		20,176.30-
354.40	11,481.83	28,995.08		28,995.08-
354.70	2,875.51	11,677.96		11,677.96-
355.00		1,253.37		1,253.37-
360.10	11,013.00	147,595.80		147,595.80-
361.10	796,849.84	245,041.20		245,041.20-
361.20	83,125.55	20,315.71		20,315.71-
363.00	414,022.10	105,836.92	159.00	105,677.92-
364.00	6,151.40			
371.00	16,177.71	206,559.57		206,559.57-
380.00	231,513.16	269,030.45		269,030.45-
381.00		90.22		90.22-
390.00		3,619.09		3,619.09-
394.00	1,401.00	1,113.04		1,113.04-
396.00		4,528.34		4,528.34-
397.00	20,048.36	4,676.57	87.00	4,589.57-
	1,602,649.12	1,070,509.62	246.00	1,070,263.62-



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
354.20	15,702.45			
354.30	26,680.07	65,248.65		65,248.65-
354.40	199,172.52	5,052.37		5,052.37-
354.70	28,082.13	34,027.64		34,027.64-
355.00	96,801.74	333.24		333.24-
360.10	325,168.00	169,252.01		169,252.01-
361.10	599,713.73	251,743.85		251,743.85-
361.20	26,444.42	58,813.67		58,813.67-
363.00	61,602.50	91,479.25		91,479.25-
364.00	9,014.72			
371.00	187,895.88	53,057.74		53,057.74-
380.00	631,925.26	336,246.38		336,246.38-
390.00		3,738.83		3,738.83-
391.00			27,472.80	27,472.80
393.00	16,369.00	855.08		855.08-
394.00	54,586.97	2,855.31		2,855.31-
395.00		645.90		645.90-
396.00	239,917.65	2,348.88		2,348.88-
397.00	86,974.00	5,312.99		5,312.99-
	2,606,051.04	1,081,011.79	27,472.80	1,053,538.99-
2023 TRANSACTION YEAR				
354.20	119,051.43	95,322.37		95,322.37-
354.30		14,994.65		14,994.65-
354.40		15,159.82		15,159.82-
354.70	269,127.42	163,536.33		163,536.33-
355.00	302,147.14	12,086.00		12,086.00-
360.10	684,257.99	271,225.09		271,225.09-
361.10	1,046,813.01	691,307.65	6,350.46	684,957.19-
361.20	193,411.84	85,486.72	737.54	84,749.18-
363.00	390,176.93	213,986.21		213,986.21-
371.00	268,893.70	125,823.03		125,823.03-
380.00	847,634.18	203,471.67		203,471.67-
390.00		242.71		242.71-
391.00	67,942.38	4,756.00	8,493.00	3,737.00
393.00		1,237.81		1,237.81-
394.00	26,821.81	4,325.75-		4,325.75
395.00	7,418.83	1,261.00		1,261.00-
396.00	7,651.73			
	4,231,348.39	1,895,571.31	15,581.00	1,879,990.31-
TOTAL	11,409,779.47	7,858,555.52	44,669.01	7,813,886.51-

**EXHIBIT NO. 11-F - DEPRECIATION STUDY**

**WASTEWATER SSS GENERAL OPERATIONS**

**AS OF JUNE 30, 2025**

Exhibit No. 11-F  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS GENERAL OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2025

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-F  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS GENERAL OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
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October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of June 30, 2025. The results of our study as of June 30, 2024 are presented in our report titled "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2024". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, reading "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink, reading "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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**PART I. RESULTS OF STUDY**

**PENNSYLVANIA-AMERICAN WATER COMPANY**  
**WASTEWATER SSS GENERAL OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of June 30, 2025. Table 1 sets forth the development of the net original cost by account as of June 30, 2025. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of June 30, 2025, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to June 30, 2025. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended June 30, 2025. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2020 through 2024.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-6. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2020 through 2024, beginning on pages III-2 through III-4.



**PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS**

**TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2025**

DEPRECIABLE GROUP (1)	ORIGINAL COST	CUSTOMER	CONTRIBUTIONS	EXCLUDED	NET ORIGINAL COST
	AS OF JUNE 30, 2025 (2)	ADVANCES (3)	IN AID OF CONSTRUCTION (4)	PROPERTY (5)	AS OF JUNE 30, 2025 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	9,638,072.04				9,638,072.04
354.30 STRUCTURES AND IMPROVEMENTS - SPP	25,222,556.75		3,077,062.72		22,145,494.03
354.40 STRUCTURES AND IMPROVEMENTS - TDP	280,547,114.80		2,375,147.51		278,171,967.29
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	9,518,398.04				9,518,398.04
355.00 POWER GENERATING EQUIPMENT	7,397,397.32		144,517.16		7,252,880.16
360.10 COLLECTION SEWERS - FORCE MAINS	61,667,644.47	627,376.41	11,251,126.61		49,789,141.45
361.10 COLLECTION SEWERS - GRAVITY MAINS	259,958,966.10	133,423.53	18,519,549.78		241,305,992.79
361.20 MANHOLES	48,680,735.54		4,553,264.84		44,127,470.70
363.00 SERVICES	64,815,060.52	72,789.60	6,881,426.36		57,860,844.56
364.00 FLOW MEASURING DEVICES	673,701.43		14,726.81		658,974.62
365.00 FLOW MEASURING INSTALLATIONS	272,564.04				272,564.04
370.00 RECEIVING WELLS	677,388.38				677,388.38
371.00 PUMPING EQUIPMENT	23,206,705.57		315,245.20		22,891,460.37
380.00 TREATMENT EQUIPMENT	173,784,473.28		2,720,254.13		171,064,219.15
381.00 PLANT SEWERS	6,608,601.61		30,192.33		6,578,409.28
382.00 OUTFALL SEWER LINES	2,522,078.78				2,522,078.78
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	3,770,083.44				3,770,083.44
390.00 OFFICE FURNITURE AND EQUIPMENT	1,291,592.71				1,291,592.71
390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL	45,090.00				45,090.00
391.00 TRANSPORTATION EQUIPMENT	4,109,746.59				4,109,746.59
392.00 STORES EQUIPMENT	107,351.44				107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,560,163.77		600.00		1,559,563.77
394.00 LABORATORY EQUIPMENT	626,283.77		42,162.45		584,121.32
395.00 POWER OPERATED EQUIPMENT	1,616,793.05		10,000.00		1,606,793.05
396.00 COMMUNICATION EQUIPMENT	4,330,583.93				4,330,583.93
397.00 MISCELLANEOUS EQUIPMENT	2,863,406.51		29,000.00		2,834,406.51
398.00 OTHER TANGIBLE PLANT	14,231.50				14,231.50
<b>TOTAL DEPRECIABLE PLANT</b>	<b>995,526,785.38</b>	<b>833,589.54</b>	<b>49,964,275.90</b>	<b>0.00</b>	<b>944,728,919.94</b>
<b>NONDEPRECIABLE PLANT</b>					
352.00 FRANCHISES	221,139.78				221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	3,611,014.00				3,611,014.00
353.30 LAND AND LAND RIGHTS - SPP	953,050.62				953,050.62
353.40 LAND AND LAND RIGHTS - TDP	11,062,535.99		125,000.00		10,937,535.99
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>15,847,740.39</b>	<b>0.00</b>	<b>125,000.00</b>	<b>0.00</b>	<b>15,722,740.39</b>
<b>TOTAL UTILITY PLANT</b>	<b>1,011,374,525.77</b>	<b>833,589.54</b>	<b>50,089,275.90</b>	<b>0.00</b>	<b>960,451,660.33</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2025 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	9,638,072.04	380,112	9,257,960	258,264	2.68	35.8
354.30	STRUCTURES AND IMPROVEMENTS - SPP	22,145,494.03	9,170,329	12,975,165	415,073	1.87	31.3
354.40	STRUCTURES AND IMPROVEMENTS - TDP	278,171,967.29	96,268,382	181,903,585	6,843,074	2.46	26.6
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	9,518,398.04	673,908	8,844,490	353,457	3.71	25.0
355.00	POWER GENERATING EQUIPMENT	7,252,880.16	3,456,913	3,795,967	187,100	2.58	20.3
360.10	COLLECTION SEWERS - FORCE MAINS	49,789,141.45	5,734,022	44,055,119	838,439	1.68	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	241,305,992.79	54,970,487	186,335,506	3,964,341	1.64	47.0
361.20	MANHOLES	44,127,470.70	14,433,486	29,693,985	1,789,417	4.06	16.6
363.00	SERVICES	57,860,844.56	27,497,792	30,363,053	1,734,139	3.00	17.5
364.00	FLOW MEASURING DEVICES	658,974.62	418,708	240,267	51,836	7.87	4.6
365.00	FLOW MEASURING INSTALLATIONS	272,564.04	242,861	29,703	8,174	3.00	3.6
370.00	RECEIVING WELLS	677,388.38	80,585	596,803	16,143	2.38	37.0
371.00	PUMPING EQUIPMENT	22,891,460.37	2,894,563	19,996,897	1,099,655	4.80	18.2
380.00	TREATMENT EQUIPMENT	171,064,219.15	33,395,194	137,669,025	6,876,677	4.02	20.0
381.00	PLANT SEWERS	6,578,409.28	1,913,233	4,665,176	148,448	2.26	31.4
382.00	OUTFALL SEWER LINES	2,522,078.78	98,934	2,423,145	61,464	2.44	39.4
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	3,770,083.44	498,651	3,271,432	204,555	5.43	16.0
390.00	OFFICE FURNITURE AND EQUIPMENT	1,291,592.71	274,524	1,017,069	71,406	5.53	14.2
390.20	OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL	45,090.00	13,053	32,037	8,009	17.76	4.0
391.00	TRANSPORTATION EQUIPMENT	4,109,746.59	1,374,586	2,735,161	311,781	7.59	8.8
392.00	STORES EQUIPMENT	107,351.44	44,068	63,283	4,301	4.01	14.7
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	1,559,563.77	499,803	1,059,761	70,326	4.51	15.1
394.00	LABORATORY EQUIPMENT	584,121.32	193,788	390,333	57,988	9.93	6.7
395.00	POWER OPERATED EQUIPMENT	1,606,793.05	101,924	1,504,869	106,761	6.64	14.1
396.00	COMMUNICATION EQUIPMENT	4,330,583.93	1,194,139	3,136,445	288,380	6.20	11.7
397.00	MISCELLANEOUS EQUIPMENT	2,834,406.51	567,764	2,266,643	175,185	6.18	12.9
398.00	MISCELLANEOUS EQUIPMENT	14,231.50	2,951	11,280	594	4.17	19.0
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>944,728,919.94</b>	<b>256,394,760</b>	<b>688,334,159</b>	<b>25,924,987</b>	<b>2.74</b>	
<b>NONDEPRECIABLE PLANT</b>							
352.00	FRANCHISES	221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION	3,611,014.00					
353.30	LAND AND LAND RIGHTS - SPP	953,050.62					
353.40	LAND AND LAND RIGHTS - TDP	10,937,535.99					
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>15,722,740.39</b>					
	<b>AMORTIZATION OF NET SALVAGE</b>				<b>1,584,386</b>		
	<b>TOTAL UTILITY PLANT</b>	<b>960,451,660.33</b>	<b>256,394,760</b>	<b>688,334,159</b>	<b>27,509,373</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2024 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2025 (8)
354.20	176,042		300,575		78,459		18,046						380,112
354.30	8,716,727		453,602										9,170,329
354.40	89,164,962		7,103,420										96,268,382
354.70	1,376,318		353,519		475,644		580,285						673,908
355.00	3,253,556		203,357										3,456,913
360.10	5,043,190		1,033,571		215,559		127,180						5,734,022
361.10	51,938,655		4,359,250		884,945		442,473						54,970,487
361.20	12,533,389		2,076,679		100,331		76,251						14,433,486
363.00	25,757,379		1,946,875		120,738		85,724						27,497,792
364.00	355,096		63,612										418,708
365.00	232,673		10,188										242,861
370.00	64,325		16,260										80,585
371.00	2,784,876		1,078,464		569,869		398,908						2,894,563
380.00	29,034,139		6,989,875		1,961,807		667,013						33,395,194
381.00	1,763,887		149,346										1,913,233
382.00	260,812		19,508		181,386								98,934
389.10	420,360		168,984		90,693								498,651
390.00	201,196		73,328										274,524
390.20	4,509		8,544										13,053
391.00	1,061,888		314,337		1,841		258		460				1,374,586
392.00	39,760		4,308										44,068
393.00	429,941		69,862										499,803
394.00	233,954		65,764		105,930								193,788
395.00	244,267		30,947		129,321		43,969						101,924
396.00	1,450,052		266,050		521,963								1,194,139
397.00	419,996		154,038		6,270								567,764
398.00	2,226		725										2,951
TOTAL	236,964,175		27,314,988		5,444,755		2,440,107		460		0		256,394,760

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

ACCOUNT (1)	NET ORIGINALCOST AS OF 6/30/2024 (2)	NET ORIGINALCOST AS OF 6/30/2025 (3)	ACCURAL RATE (4)	AVERAGE ACCRUALS (5)=((2)+(3))/2*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	9,024,450.07	9,638,072.04	2.70	251,849	48,726	300,575
354.30	22,145,494.03	22,145,494.03	1.93	427,404	26,198	453,602
354.40	278,171,967.29	278,171,967.29	2.55	7,093,380	10,040	7,103,420
354.70	5,798,402.29	9,518,398.04	3.13	243,355	110,164	353,519
355.00	7,252,880.16	7,252,880.16	2.67	193,656	9,701	203,357
360.10	48,007,177.42	49,789,141.45	1.70	828,654	204,917	1,033,571
361.10	235,039,005.62	241,305,992.79	1.66	3,921,012	438,238	4,359,250
361.20	43,152,715.49	44,127,470.70	4.62	2,014,766	61,913	2,076,679
363.00	56,444,857.84	57,860,844.56	3.18	1,816,160	130,715	1,946,875
364.00	658,974.62	658,974.62	9.65	63,588	24	63,612
365.00	272,564.04	272,564.04	3.74	10,188	10,188	10,188
370.00	677,388.38	677,388.38	2.40	16,260	16,260	16,260
371.00	18,434,537.51	22,891,460.37	4.77	915,069	163,395	1,078,464
380.00	154,470,993.33	171,064,219.15	4.17	6,636,131	353,744	6,989,875
381.00	6,578,409.28	6,578,409.28	2.27	149,328	18	149,346
382.00	603,464.81	2,522,078.78	2.09	19,508	18	19,508
389.10	2,630,632.88	3,770,083.44	5.31	168,416	568	168,984
390.00	1,291,592.71	1,291,592.71	5.56	71,808	1,520	73,328
390.20	45,090.00	45,090.00	18.95	8,544	8,544	8,544
391.00	4,095,346.93	4,109,746.59	7.81	320,356	(6,019)	314,337
392.00	107,351.44	107,351.44	4.01	4,308	4,308	4,308
393.00	1,433,697.35	1,559,563.77	4.57	68,121	1,741	69,862
394.00	685,991.59	584,121.32	10.32	65,061	703	65,764
395.00	595,377.19	1,606,793.05	4.57	30,112	835	30,947
396.00	4,774,493.85	4,330,583.93	5.61	253,969	12,081	266,050
397.00	2,109,739.98	2,834,406.51	6.08	149,798	4,240	154,038
398.00	14,231.50	14,231.50	4.22	600	125	725
<b>TOTAL</b>	<b>904,516,827.60</b>	<b>944,728,919.94</b>		<b>25,741,401</b>	<b>1,573,587</b>	<b>27,314,988</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2020		2021		2022		PROJECTED 2023		PROJECTED 2024		NET SALVAGE (12)*	SALVAGE ACCURUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
354.20		122,315.77								24,447.00	(242,085.14)	(48,417)
354.30			20,176.30		65,248.65		14,994.65		100,419.60		(100,419.60)	(20,084)
354.40			28,985.08		5,052.37		15,159.82		(49,207.27)		(49,207.27)	(9,841)
354.70		246.65	11,677.96		34,027.64		163,536.33		664,581.00		(874,069.58)	(174,814)
355.00		23,920.78	1,253.37		333.24		12,086.00		12,086.00		(49,679.39)	(9,936)
360.10		186,669.20	147,595.80		169,252.01		271,225.09		254,476.00		(1,029,218.10)	(205,844)
361.10		323,715.46	245,041.20		251,743.85		691,307.65		332,904.00		(1,838,361.70)	(367,672)
361.20		34,151.69	20,315.71		58,813.67		85,486.72		113,499.00		(311,529.25)	(62,306)
363.00		76,222.67	105,836.92		91,479.25		213,986.21		181,583.00		(688,949.05)	(133,790)
371.00		273,771.37	206,559.57		53,057.74		125,823.03		174,084.00		(833,295.71)	(166,659)
380.00		652,150.29	269,030.45		336,246.38		203,471.67		400,801.00		(1,861,698.79)	(372,340)
381.00			90.22								(90.22)	(18)
390.00			3,619.09		3,738.83		242.71		8,712.00		(7,600.63)	(1,520)
391.00		10.19			27,472.80		8,493.00		4,756.00		35,017.61	7,004
393.00		5,643.88							855.08		(7,736.77)	(1,547)
394.00		1,075.22		1,113.04					(4,325.75)		(717.82)	(144)
395.00				4,528.34					645.90		(4,390.90)	(878)
396.00		52,578.21		4,676.57					2,348.88		(59,455.43)	(11,891)
397.00		9,909.72							5,312.99		(18,443.07)	(3,689)
<b>TOTAL</b>	<b>1,369.21</b>	<b>1,762,381.10</b>	<b>246.00</b>	<b>1,070,509.62</b>	<b>27,472.80</b>	<b>1,081,011.79</b>	<b>15,581.00</b>	<b>1,895,571.31</b>	<b>8,712.00</b>	<b>2,165,839.00</b>	<b>(7,921,931.81)</b>	<b>(1,584,386)</b>

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1912	23,905	22,859	1,046		1,046	0.0
1915	63,945	41,413	22,532		23,578	0.0
1916	186,930	186,246	684		24,262	0.0
1917	52,663	47,044	5,619		29,881	0.0
1919	9,109	7,619	1,490		31,371	0.0
1920	107,440	68,792	38,648		70,019	0.0
1921	4,793	4,570	223		70,242	0.0
1922	6,902	5,068	1,834		72,076	0.0
1924	13,979	13,335	644		72,720	0.0
1925	619,168	573,596	45,572		118,292	0.0
1926	480,944	397,940	83,004		201,296	0.0
1927	121,952	104,875	17,077		218,373	0.0
1928	62,880	50,384	12,496		230,869	0.0
1929	17,196	10,900	6,296		237,165	0.0
1930	508,508	378,962	129,546		366,711	0.1
1931	212,989	170,391	42,598		409,309	0.1
1932	79,018	65,858	13,160		422,469	0.1
1933	19,590	13,247	6,343		428,812	0.1
1934	24,215	19,511	4,704		433,516	0.1
1935	1,164,522	757,721	406,801		840,317	0.1
1936	602,599	430,711	171,888		1,012,205	0.1
1937	182,569	137,983	44,586		1,056,791	0.2
1938	184,645	140,842	43,803		1,100,594	0.2
1939	205,132	146,873	58,259		1,158,853	0.2
1940	66,953	48,311	18,642		1,177,495	0.2
1941	16,857	11,668	5,189		1,182,684	0.2
1942	138,704	101,955	36,749		1,219,433	0.2
1943	7,521,080	5,838,144	1,682,936		2,902,369	0.4
1944	31,054	24,658	6,396		2,908,765	0.4
1945	59,971	40,067	19,904		2,928,669	0.4
1946	239,175	160,454	78,721		3,007,390	0.4
1947	114,921	76,845	38,076		3,045,466	0.4
1948	18,398	11,570	6,828		3,052,294	0.4
1949	14,485	9,339	5,146		3,057,440	0.4
1950	120,599	72,456	48,143		3,105,583	0.5
1951	378,936	363,730	15,206		3,120,789	0.5
1952	19,259	12,055	7,204		3,127,993	0.5
1953	1,527,113	989,692	537,421		3,665,414	0.5
1954	4,549,345	2,613,027	1,936,318		5,601,732	0.8
1955	247,392	149,447	97,945		5,699,677	0.8
1956	126,374	76,362	50,012		5,749,689	0.8
1957	1,309,028	741,258	567,770		6,317,459	0.9
1958	194,079	136,778	57,301		6,374,760	0.9
1961	480,646	263,190	217,456		6,592,216	1.0
1962	109,277	62,458	46,819		6,639,035	1.0



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1963	1,717,472	924,176	793,296		7,432,331	1.1
1965	573,184	306,962	266,222		7,698,553	1.1
1966	35,162,310	19,663,166	15,499,144		23,197,697	3.4
1967	24,134,919	12,466,615	11,668,304		34,866,001	5.1
1968	442,883	229,194	213,689		35,079,690	5.1
1969	714,077	349,638	364,439		35,444,129	5.1
1970	1,322,191	735,701	586,490		36,030,619	5.2
1971	30,739	17,902	12,837		36,043,456	5.2
1972	7,829,571	3,724,224	4,105,347		40,148,803	5.8
1973	150,497	62,888	87,609		40,236,412	5.8
1974	1,450,397	559,329	891,068		41,127,480	6.0
1975	7,095,134	3,522,095	3,573,039		44,700,519	6.5
1976	1,207,432	488,409	719,023		45,419,542	6.6
1977	671,371	275,508	395,863		45,815,405	6.7
1978	20,869,367	9,642,907	11,226,460		57,041,865	8.3
1979	231,848	105,001	126,847		57,168,712	8.3
1980	5,420,147	2,506,918	2,913,229		60,081,941	8.7
1981	15,140,972	6,922,847	8,218,125		68,300,066	9.9
1982	137,244	70,746	66,498		68,366,564	9.9
1983	25,666,331	9,647,173	16,019,158		84,385,722	12.3
1984	4,414,092	1,820,420	2,593,672		86,979,394	12.6
1985	6,885,002	3,092,690	3,792,312		90,771,706	13.2
1986	2,747,680	1,218,170	1,529,510		92,301,216	13.4
1987	2,385,773	1,069,960	1,315,813		93,617,029	13.6
1988	20,124,684	8,093,261	12,031,423		105,648,452	15.3
1989	11,508,993	4,652,817	6,856,176		112,504,628	16.3
1990	20,292,701	8,444,621	11,848,080		124,352,708	18.1
1991	34,673,132	13,708,452	20,964,680		145,317,388	21.1
1992	59,787,713	22,356,869	37,430,844		182,748,232	26.5
1993	14,186,402	5,862,255	8,324,147		191,072,379	27.8
1994	1,507,669	544,951	962,718		192,035,097	27.9
1995	20,523,443	7,454,548	13,068,895		205,103,992	29.8
1996	1,647,037	566,250	1,080,787		206,184,779	30.0
1997	6,973,632	2,095,044	4,878,588		211,063,367	30.7
1998	8,368,809	3,080,240	5,288,569		216,351,936	31.4
1999	5,472,527	1,865,270	3,607,257		219,959,193	32.0
2000	11,661,943	3,652,029	8,009,914		227,969,107	33.1
2001	7,648,428	2,383,716	5,264,712		233,233,819	33.9
2002	3,882,643	1,070,309	2,812,334		236,046,153	34.3
2003	8,100,623	2,430,435	5,670,188		241,716,341	35.1
2004	7,320,602	2,120,542	5,200,060		246,916,401	35.9
2005	16,826,556	4,491,207	12,335,349		259,251,750	37.7
2006	8,102,404	2,201,080	5,901,324		265,153,074	38.5
2007	10,953,737	2,320,003	8,633,734		273,786,808	39.8
2008	25,260,896	6,279,671	18,981,225		292,768,033	42.5

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2009	58,341,423	16,062,607	42,278,816		335,046,849	48.7
2010	54,044,989	13,547,246	40,497,743		375,544,592	54.6
2011	28,719,833	6,371,487	22,348,346		397,892,938	57.8
2012	11,109,930	2,462,707	8,647,223		406,540,161	59.1
2013	10,227,421	2,056,013	8,171,408		414,711,569	60.2
2014	45,833,494	8,204,402	37,629,092		452,340,661	65.7
2015	18,757,913	2,862,665	15,895,248		468,235,909	68.0
2016	12,728,549	1,620,625	11,107,924		479,343,833	69.6
2017	24,610,982	2,450,091	22,160,891		501,504,724	72.9
2018	12,961,095	1,956,470	11,004,625		512,509,349	74.5
2019	26,462,039	2,489,226	23,972,813		536,482,162	77.9
2020	22,322,930	2,220,320	20,102,610		556,584,772	80.9
2021	25,504,692	1,802,731	23,701,961		580,286,733	84.3
2022	38,802,008	2,701,056	36,100,951		616,387,685	89.5
2023	13,133,513	675,790	12,457,723		628,845,409	91.4
2024	52,118,390	1,148,265	50,970,125		679,815,535	98.8
2025	46,383,138	252,829	46,130,309		725,945,845	105.5
9999	50,797,865-	13,186,183-	37,611,682-		688,334,163	100.0
SUBTOTAL	944,728,920	256,394,760	688,334,159			
NONDEPRECIABLE	15,722,740		15,722,740			
TOTAL	960,451,660	256,394,760	704,056,899			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2007	5,169.65	2,177	988	4,182	24.74	169
2008	101,791.81	40,666	18,448	83,344	25.55	3,262
2009	146,224.27	55,448	25,153	121,071	26.19	4,623
2011	7,997.20	2,676	1,214	6,783	27.84	244
2013	95,162.30	27,635	12,536	82,626	29.32	2,818
2014	13,949.47	3,729	1,692	12,257	30.15	407
2015	39,759.29	9,701	4,401	35,358	30.98	1,141
2016	34,942.26	7,736	3,509	31,433	31.65	993
2017	189,251.01	37,396	16,964	172,287	32.49	5,303
2018	178,699.71	31,022	14,073	164,627	33.32	4,941
2019	261,934.02	39,290	17,823	244,111	34.00	7,180
2020	431,482.74	54,151	24,565	406,918	34.84	11,680
2021	1,204,411.76	121,405	55,073	1,149,339	35.68	32,212
2022	3,911,788.24	298,078	135,218	3,776,570	36.37	103,838
2023	1,662,523.52	85,121	38,614	1,623,910	37.06	43,818
2024	661,321.93	17,128	7,770	653,552	37.61	17,377
2025	691,662.86	4,565	2,071	689,592	37.77	18,258

9,638,072.04      837,924      380,112      9,257,960      258,264

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 35.8    2.68

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1935	16,444.43	15,244	16,444			
1958	63,683.83	52,055	62,729	955	14.97	64
1976	26,258.22	18,270	22,016	4,242	21.42	198
1978	11,146.44	7,596	9,154	1,992	21.97	91
1980	109,629.29	73,013	87,985	21,644	22.57	959
1982	12,204.98	7,925	9,550	2,655	23.23	114
1983	86,589.73	55,279	66,614	19,976	23.79	840
1984	29,556.43	18,662	22,489	7,067	23.94	295
1985	109,617.31	67,963	81,899	27,718	24.52	1,130
1986	110,140.47	67,439	81,268	28,872	24.69	1,169
1987	29,681.60	17,934	21,611	8,071	24.89	324
1988	230,555.18	137,342	165,505	65,050	25.11	2,591
1989	253,789.18	148,010	178,360	75,429	25.73	2,932
1990	195,083.34	111,978	134,940	60,143	25.98	2,315
1991	285,470.50	161,120	194,158	91,312	26.24	3,480
1992	76,688.69	42,516	51,234	25,455	26.52	960
1993	2,172,966.53	1,182,094	1,424,488	748,479	26.82	27,907
1994	41,573.85	22,167	26,712	14,862	27.14	548
1996	24,175.73	12,339	14,869	9,307	27.82	335
1997	208,448.09	103,891	125,194	83,254	28.18	2,954
1998	429,870.49	210,078	253,155	176,715	28.25	6,255
1999	305,065.23	145,150	174,914	130,151	28.64	4,544
2000	237,524.37	109,855	132,381	105,143	29.05	3,619
2001	179,000.00	80,765	97,326	81,674	29.19	2,798
2002	9,723.14	4,271	5,147	4,576	29.36	156
2003	271,071.10	115,097	138,698	132,373	29.81	4,441
2004	1,143,084.50	470,494	566,971	576,114	30.02	19,191
2005	428,604.11	170,584	205,563	223,041	30.25	7,373
2006	928,740.33	356,451	429,543	499,197	30.50	16,367
2007	516,608.48	190,629	229,718	286,890	30.78	9,321
2008	1,959,895.68	693,019	835,126	1,124,770	31.08	36,190
2009	2,933,040.76	990,195	1,193,239	1,739,802	31.39	55,425
2010	2,451,233.54	790,523	952,624	1,498,610	31.51	47,560
2011	298,754.41	91,180	109,877	188,877	31.87	5,926
2012	37,883.52	10,933	13,175	24,709	32.05	771
2013	181,693.78	49,275	59,379	122,315	32.25	3,793
2014	4,038,886.37	1,021,838	1,231,371	2,807,515	32.48	86,438
2015	1,545,002.12	361,530	435,663	1,109,339	32.74	33,883
2016	544,942.14	116,727	140,662	404,280	33.02	12,243
2017	463,399.48	90,085	108,557	354,842	33.15	10,704
2018	388,079.03	67,371	81,186	306,893	33.32	9,210

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2019	1,004,042.79	153,016	184,393	819,650	33.37	24,562
2020	87,458.80	11,326	13,649	73,810	33.61	2,196
2021	128,856.38	13,710	16,521	112,335	33.59	3,344
2022	265,508.36	21,745	26,204	239,304	33.63	7,116
2024	350,884.02	10,176	12,263	338,621	33.48	10,114
9999	3,077,062.72-	1,057,570-	1,274,195-	1,802,868-		57,673-
	22,145,494.03	7,611,290	9,170,329	12,975,165		415,073
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					31.3	1.87

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1916	175,472.68	175,473	175,473			
1932	602.40	566	385	217	6.01	36
1935	564,423.15	523,220	355,471	208,952	7.09	29,471
1946	484.94	425	289	196	11.09	18
1954	3,945,835.14	3,305,821	2,245,944	1,699,891	13.75	123,628
1957	137,083.79	112,793	76,631	60,453	14.64	4,129
1961	346,385.67	274,892	186,759	159,627	16.65	9,587
1963	1,573,909.30	1,239,296	841,966	731,943	16.74	43,724
1965	53,759.86	41,610	28,269	25,491	17.52	1,455
1967	24,003,838.66	18,238,117	12,390,807	11,613,032	18.34	633,208
1968	361,924.73	272,312	185,006	176,919	18.76	9,431
1969	221,599.62	165,047	112,131	109,469	19.19	5,704
1973	38,481.00	27,614	18,761	19,720	20.46	964
1975	419,410.21	295,684	200,885	218,525	20.92	10,446
1976	17,438.45	12,134	8,244	9,194	21.42	429
1978	20,502,042.62	13,972,142	9,492,543	11,009,500	21.97	501,115
1981	12,789,541.84	8,384,824	5,696,571	7,092,971	23.11	306,922
1984	693,417.71	437,824	297,454	395,964	23.94	16,540
1985	133,860.33	82,993	56,385	77,475	24.52	3,160
1986	416,595.46	255,081	173,300	243,295	24.69	9,854
1988	15,069,660.19	8,976,997	6,098,888	8,970,772	25.11	357,259
1989	7,357,194.15	4,290,716	2,915,072	4,442,122	25.73	172,644
1990	6,479,888.32	3,719,456	2,526,964	3,952,924	25.98	152,153
1991	31,895,650.39	18,001,905	12,230,326	19,665,324	26.24	749,441
1992	52,490,038.28	29,100,477	19,770,593	32,719,445	26.52	1,233,765
1993	401,002.87	218,146	148,206	252,797	26.82	9,426
1994	16,680.06	8,894	6,043	10,637	27.14	392
1995	124,581.42	65,032	44,182	80,399	27.47	2,927
1996	647,409.73	330,438	224,496	422,914	27.82	15,202
1997	274,432.07	136,777	92,925	181,507	28.18	6,441
1998	599,628.40	293,038	199,087	400,541	28.25	14,178
1999	234,102.55	111,386	75,675	158,428	28.64	5,532
2000	6,483,934.82	2,998,820	2,037,370	4,446,565	29.05	153,066
2001	2,266,355.22	1,022,579	694,731	1,571,624	29.19	53,841
2002	879,550.45	386,387	262,508	617,042	29.36	21,016
2003	1,983,806.66	842,324	572,267	1,411,540	29.81	47,351
2004	203,091.82	83,593	56,792	146,300	30.02	4,873
2005	887,279.57	353,137	239,918	647,362	30.25	21,400
2006	1,012,988.84	388,785	264,137	748,852	30.50	24,553
2007	46,539.86	17,173	11,667	34,873	30.78	1,133
2008	2,853,651.92	1,009,051	685,540	2,168,112	31.08	69,759

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2009	17,731,630.97	5,986,199	4,066,968	13,664,663	31.39	435,319
2010	20,536,198.92	6,622,924	4,499,553	16,036,646	31.51	508,938
2011	16,125,548.83	4,921,518	3,343,634	12,781,915	31.87	401,064
2012	3,496,681.74	1,009,142	685,602	2,811,080	32.05	87,709
2013	231,088.74	62,671	42,578	188,511	32.25	5,845
2014	10,279,133.56	2,600,621	1,766,837	8,512,297	32.48	262,078
2015	149,213.17	34,916	23,722	125,491	32.74	3,833
2016	453,213.66	97,078	65,954	387,260	33.02	11,728
2017	990,597.57	192,572	130,832	859,766	33.15	25,936
2018	275,973.16	47,909	32,549	243,424	33.32	7,306
2019	206,079.04	31,406	21,337	184,742	33.37	5,536
2020	2,230,611.63	288,864	196,251	2,034,361	33.61	60,528
2021	2,299,804.80	244,699	166,246	2,133,559	33.59	63,518
2022	5,454,129.36	446,693	303,479	5,150,650	33.63	153,156
2023	813,770.69	45,571	30,960	782,811	33.71	23,222
2024	669,863.81	19,426	13,198	656,666	33.48	19,614
9999	2,375,147.51-	1,209,176-	821,979-	1,553,169-		58,429-
	278,171,967.29	141,616,012	96,268,382	181,903,585		6,843,074
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						26.6 2.46



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
2007	333.76	175	117	217	16.36	13
2008	214,143.86	107,757	72,240	141,904	16.78	8,457
2009	34,126.07	16,381	10,982	23,144	17.33	1,335
2010	27,574.99	12,616	8,458	19,117	17.79	1,075
2011	5,284.68	2,294	1,538	3,747	18.26	205
2012	22,003.27	9,010	6,040	15,963	18.75	851
2013	20,146.98	7,736	5,186	14,961	19.25	777
2014	338,806.02	121,123	81,201	257,605	19.77	13,030
2015	856,211.28	282,550	189,422	666,789	20.30	32,847
2016	7,847.74	2,366	1,586	6,262	20.85	300
2017	114,557.62	31,068	20,828	93,730	21.50	4,360
2018	329,974.54	79,458	53,269	276,706	22.07	12,538
2019	76,037.97	15,877	10,644	65,394	22.74	2,876
2020	159,897.83	28,142	18,866	141,032	23.41	6,024
2021	599,233.09	85,331	57,206	542,027	24.09	22,500
2022	999,098.32	107,603	72,137	926,961	24.86	37,287
2023	58,927.95	4,255	2,853	56,075	25.70	2,182
2024	1,471,967.81	53,432	35,821	1,436,147	26.55	54,092
2025	4,182,224.26	38,058	25,514	4,156,710	27.22	152,708
	9,518,398.04	1,005,232	673,908	8,844,490		353,457
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.0						3.71

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1983	7,661.78	6,307	7,662			
1987	14,669.95	11,539	14,670			
1989	39,917.68	30,609	39,479	439	10.95	40
1990	22,032.71	16,734	21,583	450	11.08	41
1992	51,174.79	37,660	48,573	2,602	11.84	220
1993	231,768.68	167,615	216,184	15,585	12.25	1,272
1994	17,812.36	12,700	16,380	1,432	12.48	115
1997	27,435.07	18,513	23,877	3,558	13.49	264
1998	67,435.96	44,609	57,535	9,901	13.82	716
1999	49,494.79	32,043	41,328	8,167	14.16	577
2000	106,013.94	67,054	86,484	19,530	14.53	1,344
2001	35,603.68	21,960	28,323	7,281	14.91	488
2002	52,951.29	31,908	41,154	11,797	15.17	778
2005	64,454.53	35,450	45,722	18,733	16.36	1,145
2007	11,617.83	5,960	7,687	3,931	17.09	230
2008	1,207,046.93	595,074	767,508	439,539	17.48	25,145
2009	2,422,346.20	1,147,223	1,479,652	942,694	17.78	53,020
2010	19,898.22	8,984	11,587	8,311	18.22	456
2011	60,050.37	25,810	33,289	26,761	18.57	1,441
2012	78,858.46	32,088	41,386	37,472	18.95	1,977
2013	26,001.32	9,953	12,837	13,164	19.35	680
2014	593,857.00	212,304	273,823	320,034	19.77	16,188
2015	88,873.32	29,506	38,056	50,817	20.12	2,526
2016	10,289.16	3,130	4,037	6,252	20.59	304
2017	12,822.02	3,539	4,565	8,257	20.99	393
2018	4,244.75	1,046	1,349	2,896	21.41	135
2019	9,083.50	1,962	2,531	6,552	21.78	301
2020	159,429.52	29,335	37,835	121,595	22.17	5,485
2022	219,278.43	25,327	32,666	186,612	22.97	8,124
2024	1,685,273.08	68,254	88,032	1,597,241	23.69	67,423
9999	144,517.16-	53,416-	68,881-	75,636-		3,728-
	7,252,880.16	2,680,780	3,456,913	3,795,967		187,100

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.3 2.58

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1957	3,579.42	2,848	1,650	1,929	17.47	110
1958	20,071.44	15,868	9,191	10,880	17.75	613
1965	10,311.27	7,610	4,408	5,903	21.30	277
1972	70,235.62	47,276	27,382	42,854	25.74	1,665
1973	108,773.77	72,400	41,933	66,841	26.12	2,559
1974	1,315,676.88	858,874	497,450	818,227	27.12	30,171
1975	751,182.96	484,513	280,624	470,559	27.52	17,099
1976	867,165.36	552,384	319,934	547,231	27.92	19,600
1977	413,403.84	257,964	149,410	263,994	28.92	9,128
1978	245,672.20	151,260	87,608	158,064	29.34	5,387
1979	67,557.97	40,710	23,579	43,979	30.34	1,450
1980	141,668.03	84,151	48,739	92,929	30.76	3,021
1981	149,561.65	87,523	50,692	98,870	31.19	3,170
1982	46,759.72	26,742	15,489	31,271	32.19	971
1983	180,973.76	101,852	58,991	121,983	32.63	3,738
1985	294,555.66	159,060	92,126	202,430	34.07	5,942
1986	61,323.91	32,287	18,700	42,624	35.07	1,215
1987	216,576.51	111,927	64,827	151,750	35.53	4,271
1988	470,582.92	238,538	138,158	332,425	35.99	9,237
1989	88,916.86	43,854	25,400	63,517	36.99	1,717
1990	91,100.20	44,001	25,485	65,615	37.46	1,752
1991	73,265.81	34,376	19,910	53,356	38.46	1,387
1992	33,758.34	15,485	8,969	24,789	38.94	637
1993	571,446.67	254,179	147,217	424,230	39.94	10,622
1994	280,626.69	121,792	70,541	210,086	40.43	5,196
1995	914,523.03	384,100	222,466	692,057	41.43	16,704
1996	129,823.31	53,085	30,746	99,077	41.92	2,363
1997	1,649,470.38	651,211	377,174	1,272,296	42.92	29,643
1998	517,415.89	198,377	114,898	402,518	43.42	9,270
1999	396,708.64	146,465	84,831	311,878	44.42	7,021
2000	482,853.01	172,620	99,979	382,874	44.93	8,522
2001	863,826.65	296,465	171,709	692,118	45.93	15,069
2002	550,189.91	182,223	105,541	444,649	46.44	9,575
2003	406,558.38	128,798	74,598	331,960	47.44	6,997
2004	2,391,077.86	728,083	421,697	1,969,381	47.97	41,054
2005	650,452.12	188,631	109,253	541,199	48.97	11,052
2006	1,967,144.52	545,686	316,055	1,651,090	49.49	33,362
2007	1,268,271.82	333,302	193,045	1,075,227	50.49	21,296
2008	3,782,480.31	945,242	547,473	3,235,007	51.03	63,394
2009	533,137.79	125,394	72,627	460,511	52.03	8,851
2010	757,287.54	166,982	96,714	660,574	53.03	12,457

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2013	305,530.95	54,629	31,640	273,891	55.11	4,970
2014	4,393,387.15	720,076	417,060	3,976,327	56.11	70,867
2015	2,384,992.75	357,749	207,204	2,177,789	56.67	38,429
2016	3,129,510.60	422,484	244,698	2,884,813	57.67	50,023
2017	3,486,834.27	421,210	243,960	3,242,874	58.23	55,691
2018	1,046,552.06	110,621	64,070	982,482	59.23	16,588
2019	4,276,098.90	389,980	225,872	4,050,227	59.79	67,741
2020	2,931,330.99	222,781	129,032	2,802,299	60.79	46,098
2021	3,145,708.63	192,517	111,504	3,034,205	61.36	49,449
2022	2,003,795.17	92,575	53,618	1,950,177	61.94	31,485
2023	2,497,081.06	77,410	44,835	2,452,246	62.52	39,223
2024	6,233,601.64	97,868	56,684	6,176,918	62.69	98,531
2025	1,997,251.46	7,989	4,627	1,992,624	62.64	31,811
9999	11,878,502.80-	2,361,928-	1,368,001-	10,510,502-		200,032-
	49,789,141.45	9,900,099	5,734,022	44,055,119		838,439
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						52.5 1.68

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1912	2,984.98	2,766	1,939	1,046	8.95	117
1915	63,944.53	59,085	41,413	22,532	9.05	2,490
1916	1,950.89	1,807	1,267	684	8.65	79
1917	15,761.61	14,469	10,142	5,620	9.65	582
1919	4,125.10	3,760	2,635	1,490	10.28	145
1920	107,439.98	98,146	68,792	38,648	9.94	3,888
1921	608.72	551	386	223	10.94	20
1922	5,027.96	4,557	3,194	1,834	10.64	172
1924	1,740.18	1,564	1,096	644	11.36	57
1925	123,444.42	111,100	77,872	45,572	11.11	4,102
1926	101,411.50	91,362	64,037	37,374	10.89	3,432
1927	19,454.49	17,350	12,161	7,293	11.89	613
1928	15,269.36	13,626	9,551	5,718	11.70	489
1929	16,529.15	14,599	10,233	6,296	12.70	496
1930	245,815.52	217,178	152,223	93,593	12.53	7,470
1931	49,329.70	43,588	30,551	18,779	12.38	1,517
1932	21,949.51	19,188	13,449	8,501	13.38	635
1933	13,050.61	11,406	7,995	5,056	13.26	381
1934	3,594.50	3,140	2,201	1,394	13.17	106
1935	445,331.01	384,766	269,688	175,643	14.17	12,395
1936	330,414.57	285,247	199,933	130,482	14.09	9,261
1937	51,370.27	43,850	30,735	20,635	15.09	1,367
1938	47,313.45	40,339	28,274	19,039	15.04	1,266
1939	57,834.20	49,240	34,513	23,321	15.01	1,554
1940	17,245.85	14,512	10,172	7,074	16.01	442
1941	7,594.66	6,380	4,472	3,123	16.00	195
1942	30,660.27	25,703	18,016	12,644	16.01	790
1943	2,058,912.82	1,705,192	1,195,192	863,721	17.01	50,777
1944	3,703.90	3,060	2,145	1,559	17.04	91
1945	37,126.45	30,592	21,442	15,684	17.09	918
1946	121,041.65	98,492	69,034	52,008	18.09	2,875
1947	22,151.64	17,969	12,595	9,557	18.15	527
1948	4,634.71	3,711	2,601	2,034	19.15	106
1949	2,783.23	2,221	1,557	1,226	19.24	64
1950	61,598.70	48,971	34,324	27,275	19.34	1,410
1951	8,987.54	7,050	4,941	4,047	20.34	199
1952	2,984.20	2,331	1,634	1,350	20.46	66
1953	404,703.53	314,697	220,575	184,129	20.59	8,943
1954	202,459.92	155,246	108,814	93,646	21.59	4,337
1955	83,098.99	63,405	44,441	38,658	21.74	1,778
1956	35,381.76	26,611	18,652	16,730	22.74	736

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1957	937,230.11	701,048	491,374	445,856	22.91	19,461
1958	40,394.93	30,042	21,057	19,338	23.09	838
1961	43,744.87	31,356	21,978	21,767	25.29	861
1962	44,537.92	31,707	22,224	22,314	25.50	875
1963	29,407.62	20,785	14,568	14,840	25.72	577
1965	313,044.52	216,001	151,398	161,647	26.96	5,996
1966	21,153,926.18	14,352,939	10,060,170	11,093,756	27.96	396,772
1968	33,778.95	22,527	15,789	17,990	28.47	632
1969	394,688.84	258,600	181,256	213,433	29.47	7,242
1970	767,992.08	498,427	349,354	418,638	29.75	14,072
1971	7,009.39	4,466	3,130	3,879	30.75	126
1972	6,130,985.81	3,866,813	2,710,302	3,420,684	31.03	110,238
1974	111,359.00	68,152	47,769	63,590	32.33	1,967
1975	3,662,800.71	2,215,994	1,553,220	2,109,581	32.64	64,632
1976	242,798.30	143,955	100,900	141,898	33.64	4,218
1977	159,123.39	93,183	65,313	93,810	33.97	2,762
1978	77,557.35	44,471	31,170	46,387	34.97	1,326
1979	85,228.79	48,222	33,799	51,430	35.30	1,457
1980	3,187,340.53	1,778,536	1,246,600	1,940,741	35.65	54,439
1982	19,093.85	10,263	7,193	11,901	37.00	322
1983	24,298,609.69	12,756,770	8,941,394	15,357,216	38.00	404,137
1984	2,777,613.60	1,434,915	1,005,752	1,771,862	38.37	46,178
1985	3,459,525.77	1,757,439	1,231,813	2,227,713	38.74	57,504
1986	1,033,137.57	511,713	358,667	674,471	39.74	16,972
1987	999,098.45	485,961	340,617	658,481	40.12	16,413
1988	2,956,188.74	1,400,051	981,315	1,974,874	41.12	48,027
1989	2,324,049.34	1,079,289	756,488	1,567,561	41.52	37,754
1990	5,984,262.59	2,701,895	1,893,795	4,090,468	42.52	96,201
1992	5,261,222.17	2,274,426	1,594,176	3,667,046	43.34	84,611
1993	6,498,044.00	2,723,980	1,909,275	4,588,769	44.34	103,491
1994	591,417.56	242,008	169,627	421,791	44.76	9,423
1995	10,188,747.35	4,034,744	2,828,007	7,360,740	45.76	160,855
1996	416,212.91	160,533	112,520	303,693	46.19	6,575
1997	3,287,050.10	1,233,301	864,437	2,422,613	46.63	51,954
1998	2,262,207.05	818,467	573,675	1,688,532	47.63	35,451
1999	2,087,882.80	732,847	513,662	1,574,221	48.07	32,749
2000	2,771,294.87	942,240	660,429	2,110,866	48.53	43,496
2001	1,788,854.10	583,882	409,251	1,379,603	49.53	27,854
2002	1,487,853.94	468,823	328,604	1,159,250	49.99	23,190
2003	2,128,468.85	641,521	449,651	1,678,818	50.99	32,924
2004	1,179,673.40	341,869	239,621	940,052	51.46	18,268

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2005	7,361,829.35	2,046,589	1,434,482	5,927,347	51.94	114,119
2006	1,914,743.70	505,684	354,441	1,560,303	52.94	29,473
2007	6,272,511.82	1,580,673	1,107,915	5,164,597	53.43	96,661
2008	8,331,317.99	1,997,017	1,399,736	6,931,582	53.92	128,553
2009	7,848,479.16	1,783,174	1,249,851	6,598,628	54.42	121,254
2010	5,156,552.92	1,098,346	769,846	4,386,707	55.42	79,154
2011	3,141,301.43	628,889	440,797	2,700,504	55.93	48,284
2012	2,044,148.07	382,665	268,215	1,775,933	56.44	31,466
2013	4,142,752.99	720,839	505,246	3,637,507	56.97	63,850
2014	12,108,985.68	1,944,703	1,363,069	10,745,917	57.49	186,918
2015	5,342,738.51	785,383	550,486	4,792,253	58.03	82,582
2016	5,937,191.33	790,834	554,306	5,382,885	58.57	91,905
2017	15,495,647.19	1,847,081	1,294,644	14,201,003	59.11	240,247
2018	3,114,211.10	326,992	229,193	2,885,018	59.67	48,350
2019	12,890,936.75	1,167,919	818,610	12,072,327	60.23	200,437
2020	3,376,781.52	258,324	181,063	3,195,719	60.36	52,944
2021	5,265,592.52	324,360	227,348	5,038,245	60.94	82,676
2022	4,448,090.65	209,505	146,845	4,301,246	60.69	70,872
2023	2,506,402.09	80,205	56,217	2,450,185	60.50	40,499
2024	9,283,056.36	153,170	107,359	9,175,697	59.61	153,929
2025	7,901,471.43	33,976	23,815	7,877,656	57.55	136,884
9999	18,652,973.79-	6,062,407-	4,249,224-	14,403,750-		306,444-
	241,305,992.79	78,426,909	54,970,487	186,335,506		3,964,341
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						47.0 1.64

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1912	1,387.12	1,387	1,387			
1916	1,756.12	1,756	1,756			
1917	10,563.77	10,564	10,564			
1921	3,517.44	3,517	3,517			
1924	2,553.12	2,553	2,553			
1925	122,099.64	122,100	122,100			
1926	125,190.79	125,178	79,562	45,629	0.01	45,629
1927	26,828.60	26,818	17,045	9,784	0.04	9,784
1928	18,568.92	18,552	11,792	6,777	0.09	6,777
1930	96,641.72	95,482	60,688	35,954	1.15	31,264
1931	63,913.80	63,083	40,095	23,819	1.24	19,209
1932	11,895.54	11,727	7,454	4,442	1.34	3,315
1933	3,438.14	3,385	2,151	1,287	1.46	882
1934	8,818.73	8,667	5,509	3,310	1.59	2,082
1935	58,982.28	57,862	36,777	22,205	1.74	12,761
1936	109,612.43	107,311	68,206	41,406	1.91	21,679
1937	63,168.56	61,703	39,218	23,951	2.09	11,460
1938	65,052.93	63,388	40,289	24,764	2.29	10,814
1939	91,381.97	88,805	56,444	34,938	2.50	13,975
1940	30,117.10	29,183	18,549	11,568	2.72	4,253
1941	5,355.88	5,174	3,289	2,067	2.96	698
1942	62,116.26	59,806	38,012	24,104	3.21	7,509
1943	2,099,408.14	2,014,172	1,280,193	819,215	3.47	236,085
1944	12,487.05	12,036	7,650	4,837	3.03	1,596
1945	10,823.77	10,391	6,604	4,220	3.33	1,267
1946	67,568.97	64,589	41,052	26,517	3.64	7,285
1947	52,696.75	50,146	31,872	20,825	3.97	5,246
1948	10,371.93	9,823	6,243	4,129	4.30	960
1949	8,042.02	7,640	4,856	3,186	4.00	796
1950	45,564.52	43,058	27,367	18,198	4.37	4,164
1951	24,000.40	22,556	14,336	9,664	4.74	2,039
1952	12,456.34	11,639	7,398	5,058	5.12	988
1953	609,180.96	570,193	362,411	246,770	4.92	50,157
1954	292,984.75	272,505	173,202	119,783	5.34	22,431
1955	123,315.75	114,807	72,971	50,345	5.19	9,700
1956	69,165.08	63,950	40,646	28,519	5.63	5,066
1957	35,033.05	32,399	20,593	14,440	5.53	2,611
1958	54,283.80	49,827	31,670	22,614	5.99	3,775
1961	79,035.97	71,828	45,653	33,383	6.42	5,200
1962	47,819.40	43,080	27,381	20,438	6.93	2,949
1963	46,036.19	41,387	26,305	19,731	6.97	2,831



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1965	72,005.35	63,941	40,640	31,365	7.57	4,143
1966	4,558,556.40	4,034,322	2,564,186	1,994,370	7.67	260,022
1968	34,950.27	30,480	19,373	15,577	8.36	1,863
1969	83,606.64	72,571	46,126	37,481	8.52	4,399
1970	145,748.72	125,854	79,992	65,757	8.69	7,567
1971	13,597.26	11,675	7,421	6,176	8.89	695
1972	1,028,747.21	872,378	554,477	474,270	9.50	49,923
1974	13,878.72	11,608	7,378	6,501	9.98	651
1975	595,162.81	493,985	313,973	281,190	10.24	27,460
1977	42,481.85	34,665	22,033	20,449	10.82	1,890
1979	34,223.93	27,393	17,411	16,813	11.47	1,466
1980	1,187,171.73	934,898	594,214	592,958	12.14	48,843
1983	806,019.83	612,736	389,451	416,569	13.25	31,439
1984	133,472.78	100,145	63,651	69,822	13.64	5,119
1985	765,694.71	566,614	360,136	405,559	14.05	28,865
1986	204,814.59	149,371	94,939	109,876	14.48	7,588
1987	235,813.73	169,361	107,645	128,169	14.91	8,596
1988	294,829.02	208,356	132,430	162,399	15.36	10,573
1989	21,376.24	14,775	9,391	11,985	16.08	745
1990	1,670,529.84	1,134,290	720,946	949,584	16.55	57,377
1992	571,748.09	373,580	237,445	334,303	17.51	19,092
1993	358,126.79	228,055	144,950	213,177	18.25	11,681
1994	239,907.10	149,486	95,012	144,895	18.75	7,728
1995	2,831,712.23	1,724,513	1,096,088	1,735,624	19.26	90,115
1996	176,647.38	104,505	66,423	110,224	20.02	5,506
1997	1,035,244.73	597,129	379,531	655,714	20.54	31,924
1998	436,408.69	243,909	155,027	281,382	21.31	13,204
1999	572,451.45	309,582	196,768	375,683	22.08	17,015
2000	533,837.84	280,265	178,134	355,704	22.62	15,725
2001	386,355.17	195,650	124,354	262,001	23.39	11,201
2002	417,183.62	203,419	129,292	287,892	24.17	11,911
2003	630,750.62	295,570	187,862	442,889	24.95	17,751
2004	603,777.24	271,337	172,460	431,317	25.73	16,763
2005	2,283,882.05	982,069	624,196	1,659,686	26.51	62,606
2006	170,990.27	70,174	44,602	126,388	27.30	4,630
2007	2,052,907.66	798,170	507,311	1,545,597	28.30	54,615
2008	2,371,688.80	874,916	556,090	1,815,599	29.08	62,435
2009	238,788.65	83,289	52,938	185,851	29.87	6,222
2010	783,347.93	256,155	162,810	620,538	30.87	20,102
2011	1,314,526.08	403,034	256,165	1,058,361	31.66	33,429
2012	96,976.09	27,609	17,548	79,428	32.66	2,432

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2013	1,061,740.92	280,300	178,157	883,584	33.45	26,415
2014	2,194,273.98	531,014	337,509	1,856,765	34.45	53,897
2015	5,519,030.82	1,214,187	771,728	4,747,303	35.45	133,915
2016	283,128.74	56,059	35,631	247,498	36.45	6,790
2017	406,383.89	71,524	45,460	360,924	37.45	9,637
2018	185,760.01	28,737	18,265	167,495	38.25	4,379
2019	153,156.51	20,309	12,908	140,249	39.25	3,573
2020	389,419.95	43,031	27,350	362,070	40.25	8,996
2021	198,658.28	17,561	11,162	187,496	41.25	4,545
2022	703,119.83	46,617	29,629	673,491	42.25	15,941
2023	6,252.07	276	175	6,077	43.25	141
2024	1,771,549.01	39,151	24,884	1,746,665	44.25	39,473
2025	1,075,085.72	5,913	3,759	1,071,327	45.00	23,807
9999	4,553,264.84-	2,335,574-	1,489,310-	3,063,955-		184,640-
	44,127,470.70	22,634,966	14,433,486	29,693,985		1,789,417
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.6 4.06

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1912	19,533.14	19,533	19,533			
1916	7,749.99	7,750	7,750			
1917	26,337.97	26,338	26,338			
1919	4,983.78	4,984	4,984			
1921	666.57	667	667			
1922	1,874.06	1,874	1,874			
1924	9,685.90	9,686	9,686			
1925	373,623.52	373,624	373,624			
1926	254,341.48	254,341	254,341			
1927	75,669.41	75,669	75,669			
1928	29,041.41	29,041	29,041			
1929	667.22	667	667			
1930	166,051.08	166,051	166,051			
1931	99,745.25	99,745	99,745			
1932	44,570.39	44,570	44,570			
1933	3,101.03	3,101	3,101			
1934	11,801.49	11,801	11,801			
1935	79,341.08	79,341	79,341			
1936	162,571.78	162,572	162,572			
1937	68,030.11	68,030	68,030			
1938	72,278.83	72,279	72,279			
1939	55,915.89	55,916	55,916			
1940	19,589.65	19,590	19,590			
1941	3,906.81	3,907	3,907			
1942	45,927.14	45,927	45,927			
1943	3,362,758.89	3,362,759	3,362,759			
1944	14,863.40	14,863	14,863			
1945	12,021.15	12,021	12,021			
1946	50,079.36	50,079	50,079			
1947	40,072.22	40,008	32,378	7,694	0.12	7,694
1948	3,390.91	3,368	2,726	665	0.52	665
1949	3,659.87	3,616	2,926	734	0.92	734
1950	13,436.14	13,302	10,765	2,671	0.76	2,671
1951	7,346.89	7,231	5,852	1,495	1.19	1,256
1952	3,818.01	3,735	3,023	795	1.63	488
1953	513,228.64	502,553	406,706	106,523	1.53	69,623
1954	108,064.85	105,115	85,067	22,998	1.99	11,557
1955	40,976.85	39,584	32,035	8,942	2.46	3,635
1956	21,827.40	21,085	17,064	4,763	2.43	1,960
1957	189,411.13	181,607	146,971	42,440	2.92	14,534
1958	15,645.31	14,990	12,131	3,514	2.93	1,199

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1961	11,479.67	10,874	8,800	2,680	3.57	751
1962	16,919.55	15,882	12,853	4,067	4.11	990
1963	7,541.22	7,060	5,714	1,827	4.23	432
1965	58,212.16	54,137	43,812	14,400	4.52	3,186
1966	9,449,827.83	8,697,622	7,038,810	2,411,018	5.10	472,749
1968	12,229.26	11,153	9,026	3,203	5.50	582
1969	12,411.25	11,259	9,112	3,299	5.73	576
1970	378,089.26	341,037	275,994	102,095	5.98	17,073
1971	10,132.33	9,083	7,351	2,781	6.24	446
1972	599,602.42	533,886	432,063	167,539	6.52	25,696
1973	2,434.35	2,152	1,742	692	6.82	101
1974	9,482.67	8,318	6,732	2,751	7.14	385
1975	1,666,577.45	1,449,922	1,173,393	493,184	7.47	66,022
1976	53,771.29	46,109	37,315	16,456	8.14	2,022
1977	56,361.68	47,885	38,752	17,610	8.50	2,072
1978	32,948.40	27,719	22,432	10,516	8.87	1,186
1979	44,837.53	37,332	30,212	14,626	9.25	1,581
1980	794,337.80	654,137	529,380	264,958	9.64	27,485
1981	71,925.21	58,547	47,381	24,544	10.05	2,442
1982	59,185.15	47,591	38,514	20,671	10.48	1,972
1983	286,476.69	226,202	183,061	103,416	11.19	9,242
1984	249,700.69	194,517	157,419	92,282	11.63	7,935
1985	1,685,037.00	1,294,108	1,047,295	637,742	12.08	52,793
1986	225,706.28	170,769	138,200	87,506	12.55	6,973
1987	756,397.42	560,490	453,593	302,804	13.28	22,802
1988	327,932.96	239,030	193,442	134,491	13.76	9,774
1989	310,378.42	222,355	179,947	130,431	14.25	9,153
1990	3,450,197.84	2,415,138	1,954,523	1,495,675	15.00	99,712
1991	78,847.31	54,152	43,824	35,023	15.50	2,260
1992	457,739.92	306,640	248,158	209,582	16.26	12,889
1993	752,189.59	493,436	399,328	352,862	16.78	21,029
1994	249,268.16	159,183	128,824	120,444	17.54	6,867
1995	6,456,888.46	4,029,098	3,260,668	3,196,220	18.08	176,782
1996	129,144.58	78,649	63,649	65,496	18.62	3,518
1997	436,583.33	257,933	208,740	227,843	19.39	11,751
1998	400,469.22	229,229	185,510	214,959	20.17	10,657
1999	276,715.50	153,965	124,601	152,114	20.73	7,338
2000	1,037,127.10	557,456	451,138	585,989	21.51	27,243
2001	362,471.34	188,775	152,772	209,699	22.08	9,497
2002	361,908.24	181,461	146,853	215,055	22.87	9,403
2003	583,310.68	282,322	228,477	354,834	23.45	15,132

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2004	950,947.58	441,335	357,163	593,785	24.25	24,486
2005	2,836,013.66	1,259,190	1,019,037	1,816,977	25.05	72,534
2006	1,022,671.22	435,249	352,238	670,433	25.64	26,148
2007	698,706.56	282,976	229,007	469,700	26.44	17,765
2008	2,448,068.77	940,548	761,166	1,686,903	27.25	61,905
2009	2,441,829.65	886,873	717,729	1,724,101	28.05	61,465
2010	961,728.09	330,354	267,349	694,379	28.67	24,220
2011	235,351.34	75,783	61,330	174,021	29.48	5,903
2012	244,410.05	73,396	59,398	185,012	30.29	6,108
2013	568,207.65	158,189	128,019	440,189	31.10	14,154
2014	646,297.70	165,646	134,054	512,244	31.92	16,048
2015	1,283,285.42	301,572	244,056	1,039,229	32.55	31,927
2016	681,059.30	144,657	117,068	563,991	33.37	16,901
2017	2,246,508.70	425,938	344,703	1,901,806	34.19	55,625
2018	784,374.53	130,677	105,754	678,621	35.02	19,378
2019	447,749.55	64,207	51,961	395,789	35.84	11,043
2020	655,761.38	78,691	63,683	592,078	36.67	16,146
2021	754,449.70	73,031	59,103	695,347	37.32	18,632
2022	1,265,440.35	92,251	74,657	1,190,783	38.15	31,213
2023	840,029.87	41,161	33,311	806,719	38.82	20,781
2024	3,005,148.08	74,528	60,313	2,944,835	39.32	74,894
2025	1,536,617.66	9,681	7,835	1,528,783	39.43	38,772
9999	6,954,215.46-	3,955,414-	3,304,922-	3,649,293-		208,424-
	57,860,844.56	32,910,052	27,497,792	30,363,053		1,734,139

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.5 3.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1989	7,979.00	7,756	6,785	1,194	1.04	1,148
1990	3,478.54	3,360	2,939	540	1.23	439
1991	8,740.98	8,381	7,332	1,409	1.46	965
1992	6,784.52	6,470	5,660	1,125	1.60	703
1999	51,368.90	46,746	40,895	10,474	2.57	4,075
2001	7,764.93	6,914	6,049	1,716	2.95	582
2002	4,455.38	3,925	3,434	1,021	3.11	328
2004	2,628.68	2,252	1,970	659	3.51	188
2005	8,722.16	7,362	6,441	2,281	3.70	616
2006	15,631.29	12,979	11,354	4,277	3.88	1,102
2007	9,030.61	7,380	6,456	2,575	4.03	639
2008	29,418.95	23,606	20,651	8,768	4.19	2,093
2009	92,082.61	72,635	63,544	28,539	4.28	6,668
2010	29,477.55	22,816	19,960	9,518	4.38	2,173
2011	53,822.99	40,766	35,663	18,160	4.48	4,054
2013	26,874.75	19,189	16,787	10,088	4.81	2,097
2014	152,277.99	104,189	91,148	61,130	5.08	12,033
2015	112,570.79	73,058	63,914	48,657	5.41	8,994
2016	5,515.89	3,351	2,932	2,584	5.81	445
2018	1,269.20	639	559	710	6.91	103
2020	30,025.23	11,304	9,889	20,136	8.28	2,432
2021	13,780.49	4,233	3,703	10,077	9.02	1,117
9999	14,726.81-	10,696-	9,357-	5,370-		1,158-
	658,974.62	478,615	418,708	240,267		51,836

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.6 7.87

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
1970	30,360.76	30,361	30,361			
1991	227,265.28	207,857	203,290	23,975	3.17	7,563
2009	14,938.00	9,417	9,210	5,728	9.38	611
	272,564.04	247,635	242,861	29,703		8,174
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.6 3.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2007	6,261.10	2,401	1,659	4,602	28.95	159
2009	92,112.20	31,687	21,900	70,212	30.51	2,301
2013	33,467.05	8,795	6,079	27,388	33.66	814
2017	1,547.02	276	191	1,356	36.84	37
2019	544,001.01	73,440	50,756	493,245	38.44	12,832
	677,388.38	116,599	80,585	596,803		16,143
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.0 2.38



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1986	23,248.20	19,856	11,273	11,975	6.66	1,798
1989	2,955.38	2,436	1,383	1,572	7.67	205
1992	82,459.97	65,308	37,076	45,384	8.67	5,235
1993	150,731.21	117,691	66,815	83,916	8.98	9,345
1994	14,804.52	11,382	6,462	8,343	9.32	895
1996	45,741.24	34,091	19,354	26,387	9.91	2,663
1997	35,746.89	26,224	14,888	20,859	10.17	2,051
1998	57,184.51	41,070	23,316	33,869	10.59	3,198
1999	458,262.22	322,892	183,310	274,952	10.90	25,225
2001	12,975.25	8,751	4,968	8,007	11.59	691
2002	364.64	240	136	229	11.97	19
2003	106,536.72	68,439	38,854	67,683	12.25	5,525
2004	145,255.21	90,901	51,606	93,649	12.56	7,456
2005	89,734.94	54,379	30,872	58,863	13.00	4,528
2006	60,017.32	35,236	20,004	40,013	13.36	2,995
2007	5,498.42	3,128	1,776	3,722	13.65	273
2008	675,193.22	369,601	209,827	465,366	14.06	33,099
2009	553,721.79	291,479	165,476	388,246	14.40	26,962
2010	532,996.01	268,630	152,505	380,491	14.76	25,779
2011	61,213.49	29,395	16,688	44,525	15.15	2,939
2012	48,827.52	22,217	12,613	36,215	15.57	2,326
2013	57,051.85	24,509	13,914	43,138	15.93	2,708
2014	1,606,038.22	646,591	367,078	1,238,960	16.32	75,917
2015	221,894.55	82,989	47,114	174,781	16.74	10,441
2016	591,731.90	203,970	115,796	475,936	17.11	27,816
2017	388,432.32	121,812	69,154	319,278	17.51	18,234
2018	464,227.87	130,309	73,978	390,250	17.94	21,753
2019	3,890,015.67	959,278	544,595	3,345,421	18.33	182,511
2020	2,145,433.63	451,614	256,387	1,889,047	18.75	100,749
2021	635,229.73	109,768	62,317	572,913	19.15	29,917
2022	2,748,609.32	365,290	207,380	2,541,229	19.57	129,853
2023	506,181.12	46,164	26,208	479,973	19.93	24,083
2024	1,764,279.12	82,921	47,075	1,717,204	20.28	84,675
2025	5,024,111.60	60,289	34,227	4,989,885	20.54	242,935
9999	315,245.20-	70,215-	39,862-	275,383-		15,144-
	22,891,460.37	5,098,635	2,894,563	19,996,897		1,099,655

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.2 4.80

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1951	338,601.17	338,601	338,601			
1957	6,690.96	6,643	4,039	2,652	0.49	2,652
1963	60,577.37	58,590	35,623	24,954	2.10	11,883
1965	65,850.38	63,216	38,435	27,415	2.50	10,966
1967	131,080.44	124,684	75,808	55,272	2.98	18,548
1969	1,770.51	1,666	1,013	758	3.52	215
1973	808.18	744	452	356	4.50	79
1981	2,129,942.82	1,855,606	1,128,203	1,001,740	6.51	153,877
1984	530,330.69	450,092	273,655	256,676	7.31	35,113
1985	436,711.49	366,838	223,036	213,675	7.62	28,041
1986	671,769.88	560,659	340,879	330,891	7.73	42,806
1987	133,438.08	110,033	66,900	66,538	8.08	8,235
1988	774,935.16	630,797	383,523	391,412	8.45	46,321
1989	1,102,436.70	889,005	540,512	561,925	8.64	65,038
1990	2,384,544.52	1,894,521	1,151,863	1,232,682	9.05	136,208
1991	2,094,397.91	1,644,940	1,000,119	1,094,279	9.29	117,791
1992	756,098.03	583,859	354,985	401,113	9.74	41,182
1993	2,988,367.45	2,275,941	1,383,765	1,604,602	10.02	160,140
1994	55,578.72	41,695	25,350	30,229	10.32	2,929
1995	6,990.68	5,159	3,137	3,854	10.65	362
1996	77,882.53	56,239	34,193	43,690	11.16	3,915
1997	19,221.20	13,616	8,278	10,943	11.53	949
1998	3,598,188.73	2,496,783	1,518,037	2,080,152	11.91	174,656
1999	1,040,474.71	706,066	429,286	611,189	12.31	49,650
2000	5,019.13	3,325	2,022	2,997	12.74	235
2001	1,728,292.61	1,115,786	678,395	1,049,898	13.17	79,719
2002	114,329.31	72,050	43,806	70,523	13.50	5,224
2003	1,990,120.05	1,217,157	740,028	1,250,092	13.97	89,484
2004	699,591.75	414,298	251,892	447,700	14.46	30,961
2005	2,197,612.35	1,257,034	764,273	1,433,339	14.97	95,747
2006	681,578.71	375,550	228,333	453,246	15.48	29,279
2007	55,219.50	29,222	17,767	37,452	16.01	2,339
2008	985,479.73	499,244	303,539	681,941	16.56	41,180
2009	18,746,686.68	9,058,399	5,507,480	13,239,207	17.11	773,770
2010	21,164,100.69	9,714,322	5,906,279	15,257,822	17.68	862,999
2011	7,013,443.52	3,043,834	1,850,642	5,162,802	18.26	282,738
2012	4,788,551.86	1,954,687	1,188,444	3,600,108	18.85	190,987
2013	3,042,327.54	1,157,301	703,636	2,338,692	19.55	119,626
2014	8,844,730.26	3,123,074	1,898,819	6,945,911	20.15	344,710
2015	1,054,687.41	341,719	207,764	846,923	20.86	40,600
2016	566,677.92	166,773	101,397	465,281	21.58	21,561

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
2017	659,986.90	174,237	105,936	554,051	22.30	24,845
2018	4,963,163.56	1,156,913	703,400	4,259,764	23.03	184,966
2019	1,904,573.57	383,962	233,448	1,671,126	23.76	70,334
2020	8,593,865.68	1,452,363	883,032	7,710,834	24.59	313,576
2021	10,545,002.03	1,434,120	871,941	9,673,061	25.41	380,679
2022	12,420,598.98	1,274,353	774,802	11,645,797	26.24	443,818
2023	972,040.80	66,682	40,542	931,499	27.15	34,309
2024	22,085,135.03	759,729	461,913	21,623,222	28.07	770,332
2025	18,554,969.40	159,573	97,020	18,457,949	28.82	640,456
9999	2,720,254.13-	870,022-	531,048-	2,189,206-		109,353-
	171,064,219.15	54,711,678	33,395,194	137,669,025		6,876,677
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.0 4.02

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2008	294,411.86	107,107	97,358	197,054	29.73	6,628
2009	4,434,866.70	1,525,594	1,386,735	3,048,132	30.51	99,906
2010	1,187,964.50	384,900	349,867	838,098	31.30	26,776
2011	6,597.06	2,004	1,822	4,775	32.08	149
2012	1,684.33	477	434	1,250	32.87	38
2014	234,044.45	56,639	51,483	182,561	34.45	5,299
2015	6,136.63	1,356	1,233	4,904	35.25	139
2016	45,239.43	9,039	8,216	37,023	36.05	1,027
2021	1,641.43	150	136	1,505	39.86	38
2022	396,015.22	27,206	24,730	371,285	40.67	9,129
9999	30,192.33-	9,660-	8,781-	21,411-		681-
	6,578,409.28	2,104,812	1,913,233	4,665,176		148,448
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.4 2.26

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1993	61,758.21	38,537	22,027	39,731	19.28	2,061
2004	1,473.76	647	370	1,104	26.85	41
2005	8,238.06	3,460	1,978	6,260	27.62	227
2006	183,176.25	73,783	42,171	141,005	28.17	5,006
2009	24,781.51	8,525	4,873	19,909	30.51	653
2010	26,717.70	8,657	4,948	21,770	31.30	696
2014	98,514.27	23,840	13,626	84,888	34.45	2,464
2017	18,264.54	3,258	1,862	16,403	36.84	445
2025	2,099,154.48	12,385	7,079	2,092,075	41.95	49,871
	2,522,078.78	173,092	98,934	2,423,145		61,464
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					39.4	2.44

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2010	192,418.71	136,810	142,057	50,362	6.10	8,256
2013	7,285.98	4,424	4,594	2,692	7.76	347
2018	37,630.79	14,277	14,825	22,806	11.45	1,992
2019	262,241.29	85,910	89,205	173,036	12.32	14,045
2022	91,716.32	15,161	15,742	75,974	15.15	5,015
2023	1,795,473.75	198,220	205,822	1,589,652	16.12	98,614
2024	153,173.50	8,455	8,779	144,394	17.12	8,434
2025	1,230,143.10	16,976	17,627	1,212,516	17.87	67,852
	3,770,083.44	480,233	498,651	3,271,432		204,555
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					16.0	5.43

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,529.23	3,000	2,435	1,094	3.00	365
2009	52,251.63	41,801	33,925	18,327	4.00	4,582
2010	7,240.80	5,431	4,408	2,833	5.00	567
2011	2,249.52	1,575	1,278	972	6.00	162
2012	30,582.71	19,879	16,133	14,450	7.00	2,064
2013	52,070.05	31,242	25,356	26,714	8.00	3,339
2014	34,888.89	19,189	15,573	19,316	9.00	2,146
2015	27,346.34	13,673	11,097	16,249	10.00	1,625
2016	33,090.02	14,891	12,085	21,005	11.00	1,910
2017	28,119.56	11,248	9,129	18,991	12.00	1,583
2018	10,405.16	3,642	2,956	7,449	13.00	573
2019	20,626.43	6,188	5,022	15,604	14.00	1,115
2020	74,563.91	18,641	15,129	59,435	15.00	3,962
2021	360,930.38	72,186	58,585	302,345	16.00	18,897
2022	431,088.92	64,663	52,479	378,610	17.00	22,271
2023	97,559.16	9,756	7,918	89,641	18.00	4,980
2024	25,050.00	1,252	1,016	24,034	19.00	1,265
	1,291,592.71	338,257	274,524	1,017,069		71,406

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.2 5.53

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 390.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS AND PERIPHERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	45,090.00	9,018	13,053	32,037	4.00	8,009
	45,090.00	9,018	13,053	32,037		8,009
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.0 17.76



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
1986	943.57	944	944			
1987	96.87	97	97			
1990	11,582.84	11,583	11,583			
1991	9,493.37	9,493	9,493			
2000	4,338.17	4,230	4,092	246	0.64	246
2001	16,929.51	16,374	15,838	1,092	0.81	1,092
2002	4,132.74	3,964	3,834	299	0.98	299
2005	2,599.71	2,418	2,339	261	1.51	173
2006	59,003.61	54,260	52,484	6,520	1.66	3,928
2011	143,484.17	122,335	118,331	25,153	2.42	10,394
2012	71,847.31	59,777	57,820	14,027	2.62	5,354
2013	61,529.80	49,322	47,708	13,822	2.97	4,654
2014	3,036.53	2,311	2,235	802	3.45	232
2016	2,414.49	1,575	1,523	891	4.79	186
2017	8,513.22	5,026	4,861	3,652	5.55	658
2018	927,519.47	485,000	469,125	458,394	6.39	71,736
2019	299,068.81	135,119	130,696	168,373	7.28	23,128
2020	26,190.17	9,913	9,589	16,601	8.21	2,022
2022	1,422,366.36	323,446	312,859	1,109,507	10.19	108,882
2023	602,400.82	91,324	88,334	514,067	11.19	45,940
2024	416,014.24	31,534	30,502	385,512	12.19	31,625
2025	16,240.81	309	299	15,942	12.94	1,232
	4,109,746.59	1,420,354	1,374,586	2,735,161		311,781

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.8 7.59

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2012	58,391.33	30,363	30,300	28,091	12.00	2,341
2017	2,199.71	704	703	1,497	17.00	88
2018	46,760.40	13,093	13,065	33,695	18.00	1,872
	107,351.44	44,160	44,068	63,283		4,301
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.7 4.01

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	7,132.96	7,133	7,133			
2006	85,717.68	81,432	85,718			
2007	5,060.13	4,554	4,890	170	2.00	85
2008	2,776.47	2,360	2,534	242	3.00	81
2009	378.54	303	325	54	4.00	14
2010	61,467.53	46,101	49,498	11,970	5.00	2,394
2012	58,472.38	38,007	40,808	17,664	7.00	2,523
2013	28,453.57	17,072	18,330	10,124	8.00	1,266
2014	40,133.99	22,074	23,701	16,433	9.00	1,826
2015	62,657.78	31,329	33,638	29,020	10.00	2,902
2016	105,803.20	47,611	51,119	54,684	11.00	4,971
2017	7,458.66	2,983	3,203	4,256	12.00	355
2018	94,551.82	33,093	35,532	59,020	13.00	4,540
2019	14,014.13	4,204	4,514	9,500	14.00	679
2020	193,729.12	48,432	52,001	141,728	15.00	9,449
2021	102,950.07	20,590	22,107	80,843	16.00	5,053
2022	284,959.55	42,744	45,894	239,066	17.00	14,063
2023	44,808.61	4,481	4,811	39,998	18.00	2,222
2024	233,771.16	11,689	12,550	221,221	19.00	11,643
2025	125,866.42	1,573	1,689	124,177	19.75	6,287
9999	600.00-	180-	192-	408-		27-
	1,559,563.77	467,585	499,803	1,059,761		70,326

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.1 4.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	5,949.07	5,552	3,757	2,192	1.00	2,192
2012	13,442.75	11,650	7,883	5,560	2.00	2,780
2013	5,917.50	4,734	3,203	2,714	3.00	905
2014	112,033.68	82,158	55,595	56,439	4.00	14,110
2015	43,434.75	28,957	19,595	23,840	5.00	4,768
2016	123,948.53	74,369	50,325	73,624	6.00	12,271
2017	48,566.17	25,902	17,528	31,038	7.00	4,434
2018	43,803.48	20,442	13,833	29,970	8.00	3,746
2019	57,097.59	22,839	15,455	41,643	9.00	4,627
2020	32,405.64	10,802	7,309	25,097	10.00	2,510
2021	17,137.92	4,570	3,092	14,046	11.00	1,277
2022	37,565.86	7,513	5,084	32,482	12.00	2,707
2023	31,474.35	4,196	2,840	28,634	13.00	2,203
2024	49,446.26	3,297	2,231	47,215	14.00	3,372
2025	4,060.22	68	46	4,014	14.75	272
9999	42,162.45-	20,671-	13,988-	28,174-		4,186-
	584,121.32	286,378	193,788	390,333		57,988

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.7 9.93

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
2011	221,403.26	132,975	72,663	148,740	9.31	15,976
2015	2,763.34	1,282	701	2,062	11.55	179
2018	18,212.48	6,311	3,449	14,763	13.20	1,118
2022	62,954.27	10,387	5,676	57,278	15.18	3,773
2023	135,350.83	15,511	8,476	126,875	15.45	8,212
2024	40,819.47	2,486	1,358	39,461	15.42	2,559
2025	1,135,289.40	18,732	10,235	1,125,054	14.88	75,608
9999	10,000.00-	1,161-	634-	9,366-		664-
	1,606,793.05	186,523	101,924	1,504,869		106,761
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.1 6.64

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	144,621.29	144,621	144,621			
2011	7,975.30	7,444	7,919	56	1.00	56
2012	3,344.78	2,899	3,084	261	2.00	130
2013	263,689.84	210,952	224,400	39,290	3.00	13,097
2014	98,016.16	71,878	76,460	21,556	4.00	5,389
2015	13,210.61	8,807	9,368	3,843	5.00	769
2016	172,002.57	103,202	109,781	62,222	6.00	10,370
2017	13,811.63	7,366	7,836	5,976	7.00	854
2018	12,412.19	5,792	6,161	6,251	8.00	781
2019	7,055.35	2,822	3,002	4,053	9.00	450
2020	674,118.03	224,704	239,028	435,090	10.00	43,509
2021	39,621.14	10,566	11,240	28,381	11.00	2,580
2022	852,798.77	170,560	181,432	671,367	12.00	55,947
2023	425,045.19	56,671	60,284	364,761	13.00	28,059
2024	1,524,807.54	101,659	108,139	1,416,669	14.00	101,191
2025	78,053.54	1,301	1,384	76,670	14.75	5,198
	4,330,583.93	1,131,244	1,194,139	3,136,445		268,380
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.7 6.20

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	4,161.94	4,162	4,162			
2011	14,880.36	13,888	14,880			
2012	13,823.71	11,981	13,824			
2013	16,427.62	13,142	16,428			
2014	2,202.56	1,615	2,068	135	4.00	34
2015	4,104.14	2,736	3,503	601	5.00	120
2017	28,080.87	14,976	19,175	8,906	7.00	1,272
2018	33,269.93	15,526	19,879	13,391	8.00	1,674
2019	123,994.70	49,598	63,503	60,492	9.00	6,721
2020	130,423.87	43,474	55,662	74,762	10.00	7,476
2021	191,683.21	51,116	65,447	126,236	11.00	11,476
2022	783,085.43	156,617	200,525	582,560	12.00	48,547
2023	138,192.53	18,425	23,590	114,603	13.00	8,816
2024	648,139.11	43,211	55,325	592,814	14.00	42,344
2025	730,936.53	12,185	15,602	715,335	14.75	48,497
9999	29,000.00-	4,584-	5,809-	23,191-		1,792-
	2,834,406.51	448,068	567,764	2,266,643		175,185
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.9 6.18

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

ACCOUNT 398.00 OTHER TANGIBLE PLANT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	14,231.50	3,416	2,951	11,280	19.00	594
	14,231.50	3,416	2,951	11,280		594
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.0 4.17



---

**PART III. EXPERIENCED AND ESTIMATED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
354.20	3,007.76	122,315.77		122,315.77-
354.30	39,414.10			
354.40	120,604.23			
354.70	6,910.37	246.65		246.65-
355.00		23,920.78		23,920.78-
360.10	40,213.82	186,669.20		186,669.20-
361.10	361,924.39	323,715.46		323,715.46-
361.20	22,020.95	34,151.69		34,151.69-
363.00	128,735.68	76,222.67		76,222.67-
371.00	144,361.10	273,771.37		273,771.37-
380.00	92,274.49	652,150.29		652,150.29-
391.00	31,332.59	10.19		10.19-
393.00		5,643.88		5,643.88-
394.00	10,122.79	1,075.22		1,075.22-
395.00	7,833.15			
396.00	234,211.01	52,578.21		52,578.21-
397.00		9,909.72	1,369.21	8,540.51-
	1,242,966.43	1,762,381.10	1,369.21	1,761,011.89-
2021 TRANSACTION YEAR				
354.30	7,989.66	20,176.30		20,176.30-
354.40	11,481.83	28,995.08		28,995.08-
354.70	2,875.51	11,677.96		11,677.96-
355.00		1,253.37		1,253.37-
360.10	11,013.00	147,595.80		147,595.80-
361.10	796,849.84	245,041.20		245,041.20-
361.20	83,125.55	20,315.71		20,315.71-
363.00	414,022.10	105,836.92	159.00	105,677.92-
364.00	6,151.40			
371.00	16,177.71	206,559.57		206,559.57-
380.00	231,513.16	269,030.45		269,030.45-
381.00		90.22		90.22-
390.00		3,619.09		3,619.09-
394.00	1,401.00	1,113.04		1,113.04-
396.00		4,528.34		4,528.34-
397.00	20,048.36	4,676.57	87.00	4,589.57-
	1,602,649.12	1,070,509.62	246.00	1,070,263.62-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
354.20	15,702.45			
354.30	26,680.07	65,248.65		65,248.65-
354.40	199,172.52	5,052.37		5,052.37-
354.70	28,082.13	34,027.64		34,027.64-
355.00	96,801.74	333.24		333.24-
360.10	325,168.00	169,252.01		169,252.01-
361.10	599,713.73	251,743.85		251,743.85-
361.20	26,444.42	58,813.67		58,813.67-
363.00	61,602.50	91,479.25		91,479.25-
364.00	9,014.72			
371.00	187,895.88	53,057.74		53,057.74-
380.00	631,925.26	336,246.38		336,246.38-
390.00		3,738.83		3,738.83-
391.00			27,472.80	27,472.80
393.00	16,369.00	855.08		855.08-
394.00	54,586.97	2,855.31		2,855.31-
395.00		645.90		645.90-
396.00	239,917.65	2,348.88		2,348.88-
397.00	86,974.00	5,312.99		5,312.99-
	2,606,051.04	1,081,011.79	27,472.80	1,053,538.99-
2023 TRANSACTION YEAR				
354.20	119,051.43	95,322.37		95,322.37-
354.30		14,994.65		14,994.65-
354.40		15,159.82		15,159.82-
354.70	269,127.42	163,536.33		163,536.33-
355.00	302,147.14	12,086.00		12,086.00-
360.10	684,257.99	271,225.09		271,225.09-
361.10	1,046,813.01	691,307.65	6,350.46	684,957.19-
361.20	193,411.84	85,486.72	737.54	84,749.18-
363.00	390,176.93	213,986.21		213,986.21-
371.00	268,893.70	125,823.03		125,823.03-
380.00	847,634.18	203,471.67		203,471.67-
390.00		242.71		242.71-
391.00	67,942.38	4,756.00	8,493.00	3,737.00
393.00		1,237.81		1,237.81-
394.00	26,821.81	4,325.75-		4,325.75
395.00	7,418.83	1,261.00		1,261.00-
396.00	7,651.73			
	4,231,348.39	1,895,571.31	15,581.00	1,879,990.31-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER SSS GENERAL OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2024 TRANSACTION YEAR				
354.20	78,458.60	24,447.00		24,447.00-
354.70	475,644.03	664,581.00		664,581.00-
355.00		12,086.00		12,086.00-
360.10	215,558.67	254,476.00		254,476.00-
361.10	884,944.68	332,904.00		332,904.00-
361.20	100,330.51	113,499.00		113,499.00-
363.00	120,738.00	181,583.00		181,583.00-
371.00	569,868.62	174,084.00		174,084.00-
380.00	1,961,807.04	400,801.00		400,801.00-
382.00	181,386.03			
389.10	90,693.02			
391.00	1,841.15	4,894.00	8,712.00	3,818.00
394.00	105,930.49			
395.00	129,321.10	2,484.00		2,484.00-
396.00	521,963.46			
397.00	6,270.00			
	5,444,755.40	2,165,839.00	8,712.00	2,157,127.00-
TOTAL	15,127,770.38	7,975,312.82	53,381.01	7,921,931.81-

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**EXHIBITS NO. 11-G, 11-H, 11-I, 11-J  
DEPRECIATION STUDY**

**BASA WASTEWATER OPERATIONS  
BRENTWOOD WASTEWATER OPERATIONS  
AS OF JUNE 30, 2024, 2025**

**EXHIBIT NO. 11-G - DEPRECIATION STUDY**

**BASA WASTEWATER OPERATIONS**

**AS OF JUNE 30, 2024**

Exhibit No. 11-G  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
MECHANICSBURG, PENNSYLVANIA

BASA WASTEWATER OPERATIONS

2024 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-G  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

BASA WASTEWATER OPERATIONS

2024 DEPRECIATION STUDY  
CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania





**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
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[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant. The results of our study as of June 30, 2024 are presented in the attached report. The results of our study as of June 30, 2025 are presented in our report, "2025 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2025." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of June 30, 2024.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. INTRODUCTION**

# **PENNSYLVANIA-AMERICAN WATER COMPANY**

## **BASA WASTEWATER OPERATIONS**

### **DEPRECIATION STUDY**

#### **PART I. INTRODUCTION**

##### **SCOPE**

This report sets forth the results of the depreciation study for Pennsylvania-American Water Company to determine the annual depreciation accrual rates and amounts applicable to the original cost of wastewater plant as of June 30, 2024. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to wastewater plant in service as of June 30, 2024.

Part I, Introduction, contains statements with respect to the basis of the study and the development of net original cost. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VI, Service Life Statistics, presents the statistical analysis of service life estimates and Part VII, Detailed Depreciation Calculations, presents the detailed tabulations of annual depreciation.

## **BASIS OF THE STUDY**

The purpose of the depreciation study was to determine the annual depreciation accruals applicable to the original cost of wastewater plant in service as of June 30, 2024. For most accounts, the straight line remaining life method using attained ages, the book depreciation reserve and estimated survivor curves, was the basis for the calculation of annual depreciation. For certain accounts, the annual and accrued amortization amounts were based on the age of the property and the selected amortization period.

The survivor curve estimates were based on judgment which incorporated (1) analyses of historical data related to wastewater property for all Pennsylvania-American Water Company Wastewater Operations; (2) consideration of the character, use and location of the property; (3) probable future events and management plans; and (4) a general knowledge of wastewater property lives. The use of lowa type survivor curves is a generally-accepted method of estimating average service life when the actual lives of individual property units are dispersed.

## **DEVELOPMENT OF NET ORIGINAL COST**

The original cost data used in this study were obtained from the Company's continuing property records and work order system which show in detail the original cost of the property including descriptions, locations and years of installation of property units. The net original cost was developed from the original cost data by deducting contributions in aid of construction. The development of net original cost by plant account is set forth in Table 1 on page V-4.

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## **PART II. ESTIMATION OF SURVIVOR CURVES**

## **PART II. ESTIMATION OF SURVIVOR CURVES**

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

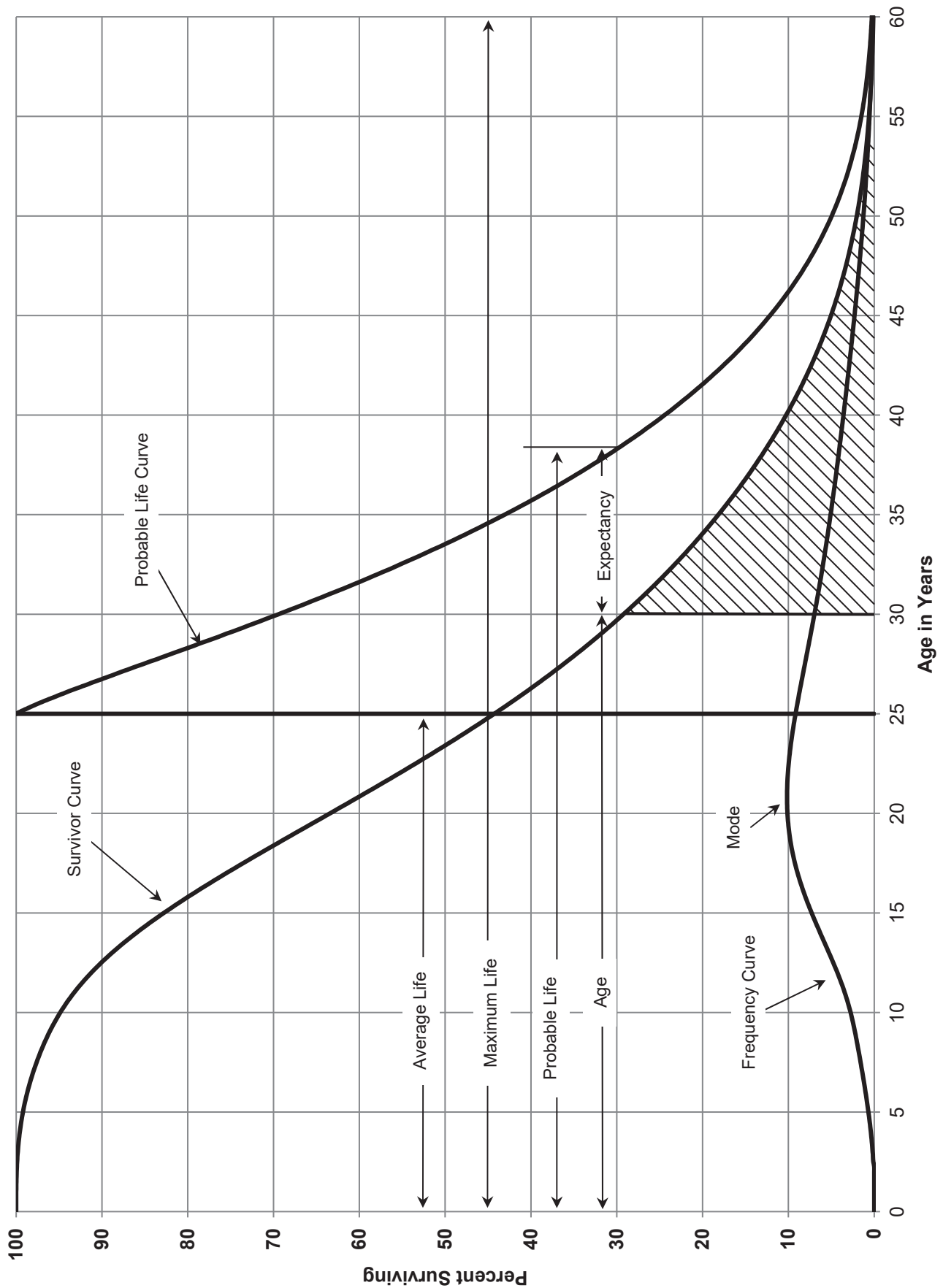


This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

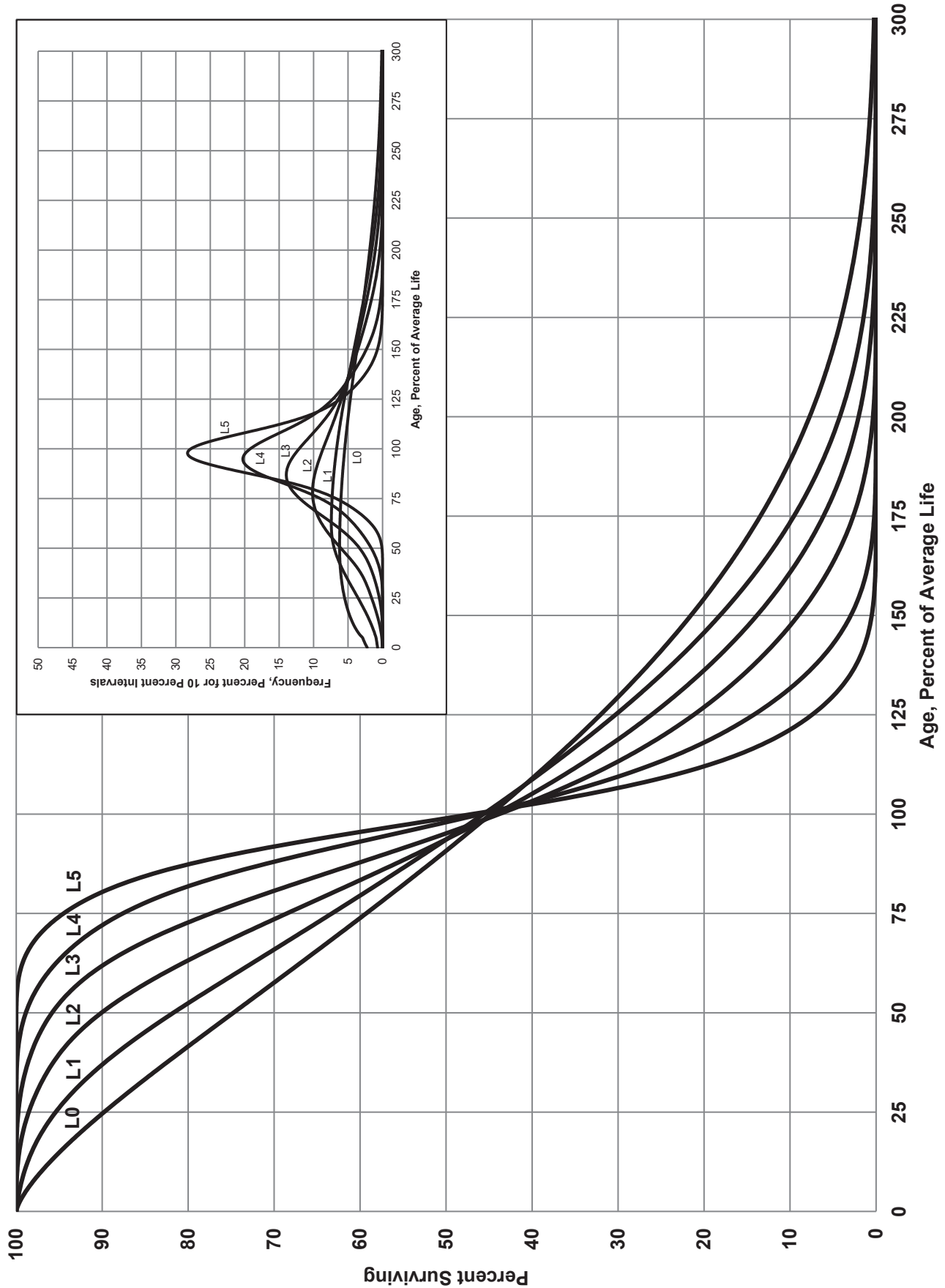
### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

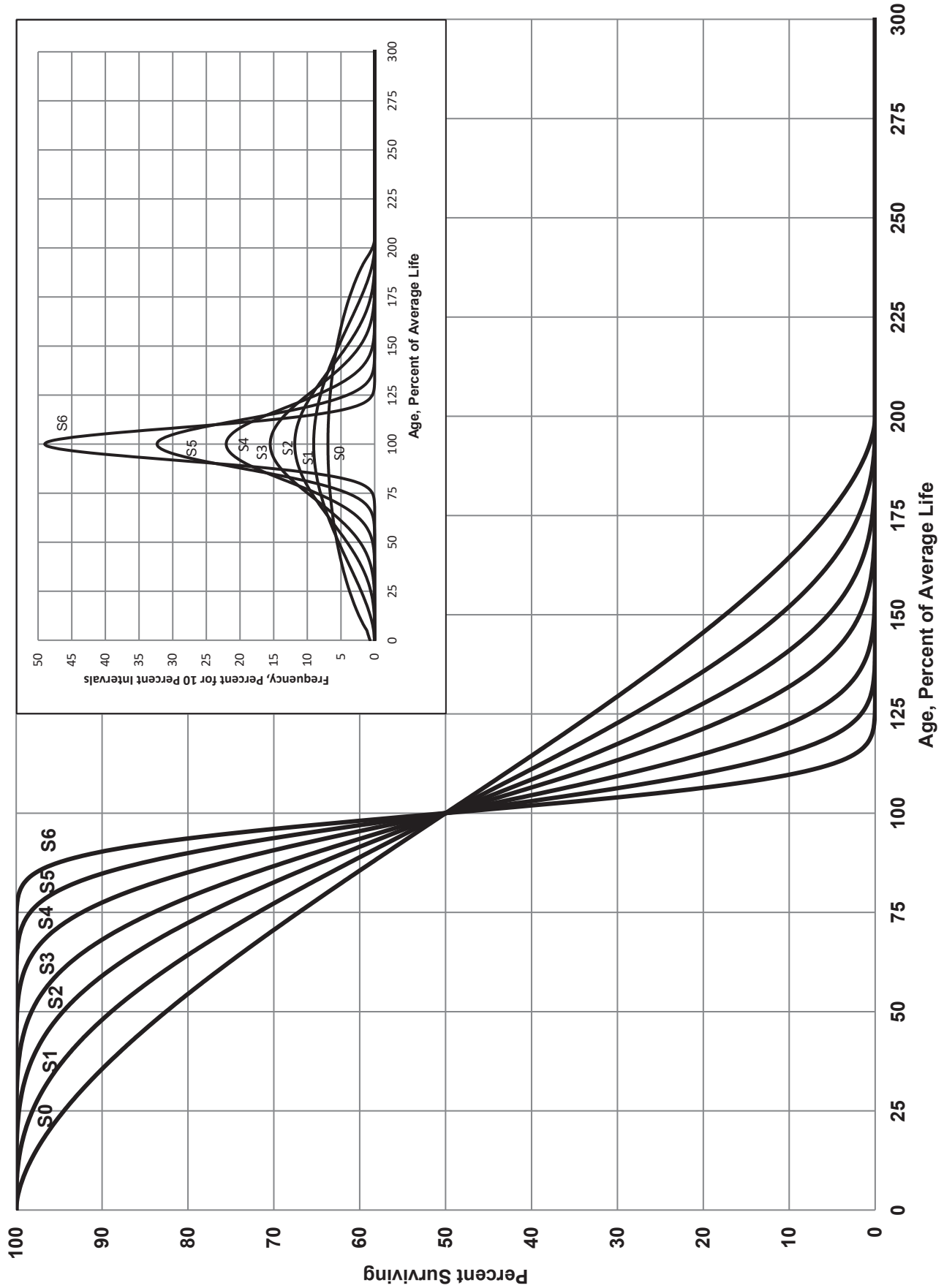
The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.



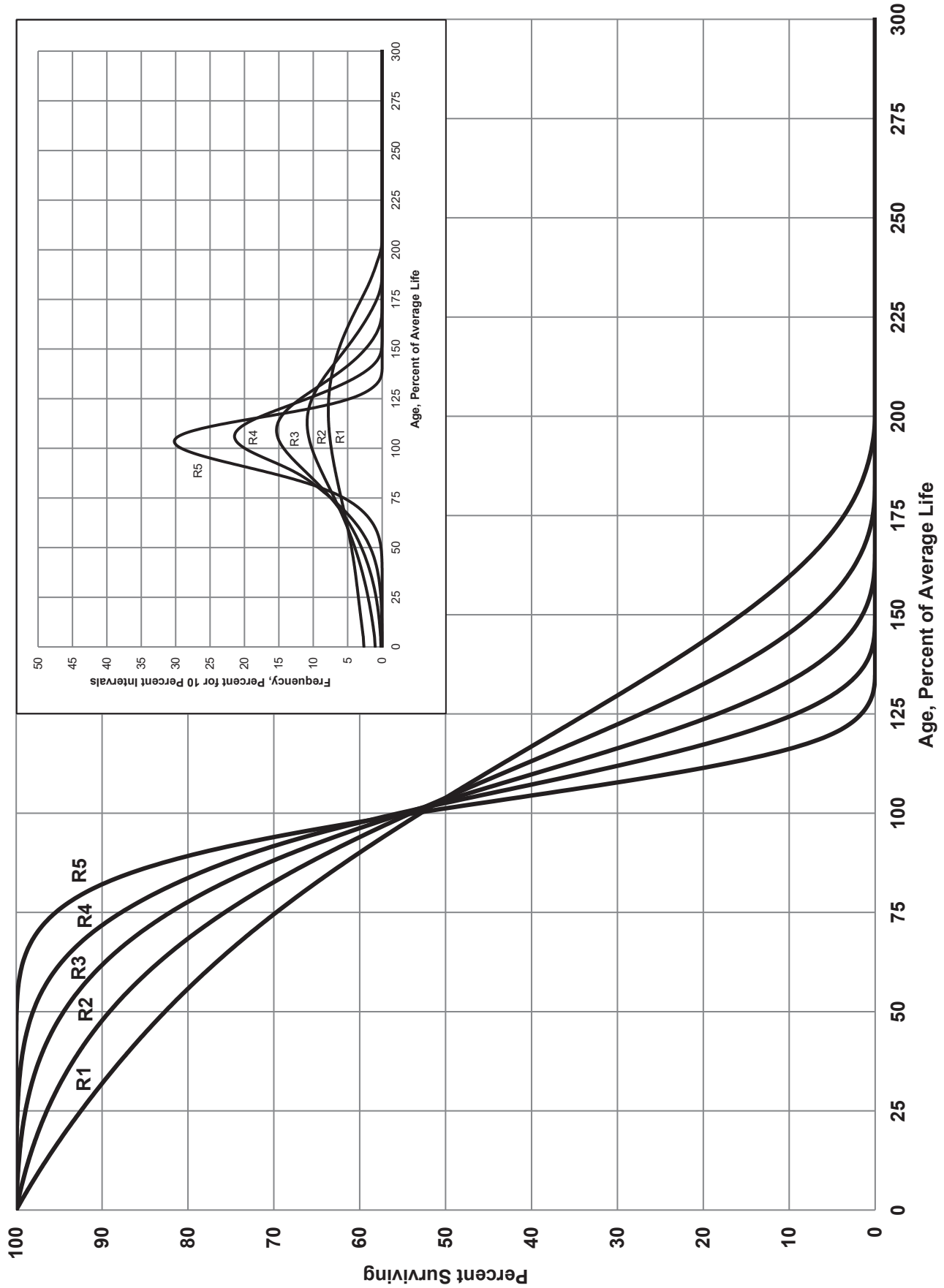
**FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES**



**FIGURE 2.. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES**



**FIGURE 3.. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES**



**FIGURE 4.. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES**

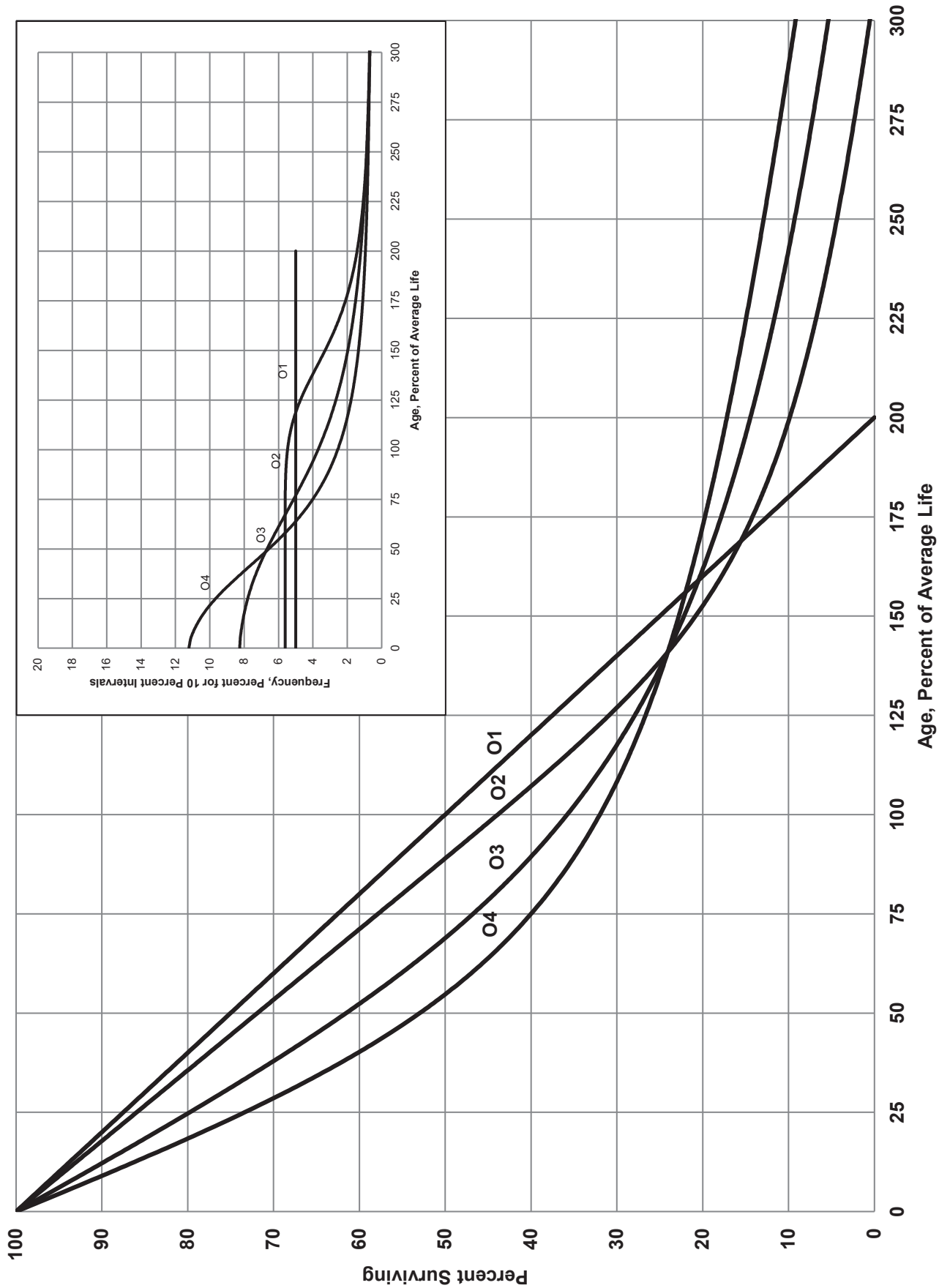


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

---

<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

## **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2015-2024 for which there were placements during the years 2010-2024. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2010 were retired in 2015. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2015 retirements of 2010 installations and ending with the 2024 retirements of the 2019 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$



SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL

Experience Band 2015-2024 Placement Band 2010-2024

Year	Retirements, Thousands of Dollars													Total During		Age Interval
	During Year													Age Interval	Interval	
Placed	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(11)	(12)	(13)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
2010	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½			
2011	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½			
2012	11	12	13	14	16	17	19	21	22	18	64	64	11½-12½			
2013	8	9	10	11	11	13	14	15	16	17	83	83	10½-11½			
2014	9	10	11	12	13	14	16	17	19	20	93	93	9½-10½			
2015	4	9	10	11	12	13	14	15	16	20	105	105	8½-9½			
2016		5	11	12	13	14	15	16	18	20	113	113	7½-8½			
2017			6	12	13	15	16	17	19	19	124	124	6½-7½			
2018				6	13	15	16	17	19	19	131	131	5½-6½			
2019					7	14	16	17	19	20	143	143	4½-5½			
2020						8	18	20	22	23	146	146	3½-4½			
2021							9	20	22	25	150	150	2½-3½			
2022								11	23	25	151	151	1½-2½			
2023									11	24	153	153	½-1½			
2024										13	80	80	0-½			
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>	<b>1,606</b>				

**SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2015-2024  
 SUMMARIZED BY AGE INTERVAL**

Experience Band 2015-2024		Placement Band 2010-2024														
		Acquisitions, Transfers and Sales, Thousands of Dollars														
Year Placed	During Year											Total During Age Interval	Age Interval			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)			(12)	(13)	
2010	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	-	-	-	-	13½-14½
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2013	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	-	-	-	60	-	10½-11½
2014	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	-	-	-	-	9½-10½
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	(5)	-	8½-9½
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	7½-8½
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2018	-	-	-	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	-	5½-6½
2019	-	-	-	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	-	4½-5½
2020	-	-	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	-	10	-	3½-4½
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2022	-	-	-	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	-	1½-2½
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)	-	-	-	-	-

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

**Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2015 through 2024 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2020 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

**SCHEDULE 3. PLANT EXPOSED TO RETIREMENT**  
**JANUARY 1 OF EACH YEAR 2015-2024**  
**SUMMARIZED BY AGE INTERVAL**

Year Placed	Exposures, Thousands of Dollars												Total at		Age Interval
	Annual Survivors at the Beginning of the Year												Beginning of		
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2024	Age Interval	Age Interval		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)			
2010	255	245	234	222	209	195	239	216	192	167	167	167	13½-14½	167	
2011	279	268	256	243	228	212	194	174	153	131	131	131	12½-13½	323	
2012	307	296	284	271	257	241	224	205	184	162	162	162	11½-12½	531	
2013	338	330	321	311	300	289	276	262	242	226	226	226	10½-11½	823	
2014	376	367	357	346	334	321	307	297	280	261	261	261	9½-10½	1,097	
2015	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	316	316	8½-9½	1,503	
2016		460 <sup>a</sup>	455	444	432	419	405	390	374	356	356	356	7½-8½	1,952	
2017			510 <sup>a</sup>	504	492	479	464	448	431	412	412	412	6½-7½	2,463	
2018				580 <sup>a</sup>	574	561	546	530	501	482	482	482	5½-6½	3,057	
2019					660 <sup>a</sup>	653	639	623	628	609	609	609	4½-5½	3,789	
2020						750 <sup>a</sup>	742	724	685	663	663	663	3½-4½	4,332	
2021							850 <sup>a</sup>	841	821	799	799	799	2½-3½	4,955	
2022								960 <sup>a</sup>	949	926	926	926	1½-2½	5,719	
2023									1,080 <sup>a</sup>	1,069	1,069	1,069	½-1½	6,579	
2024										1,220 <sup>a</sup>	1,220 <sup>a</sup>	1,220 <sup>a</sup>	0-½	7,490	
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>7,799</b>	<b>7,799</b>		<b>44,780</b>	

<sup>a</sup>Additions during the year

Experience Band 2015-2024

Placement Band 2010-2024

For the entire experience band 2015-2024, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

**Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2015-2024

Placement Band 2010-2024

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

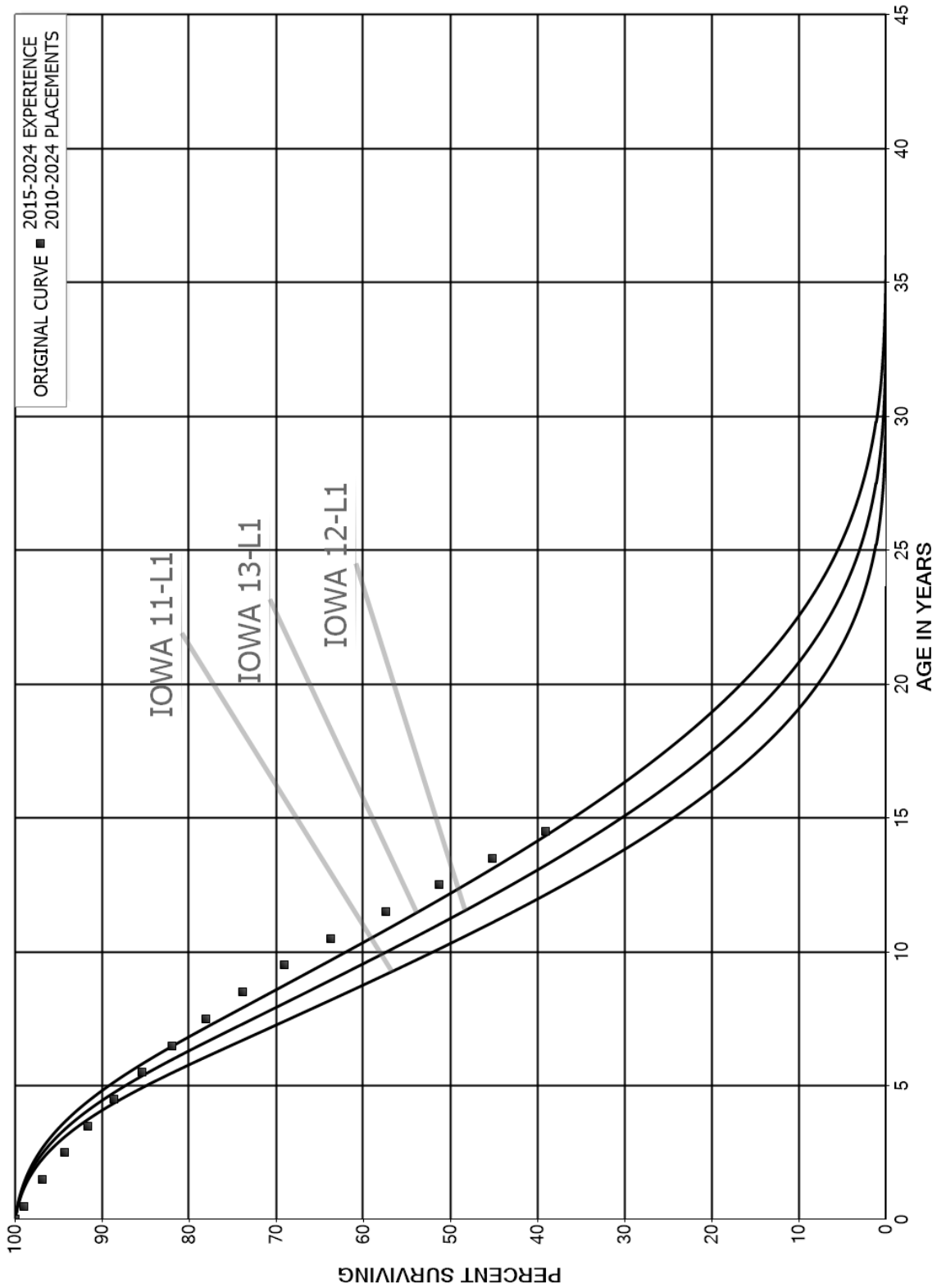




FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

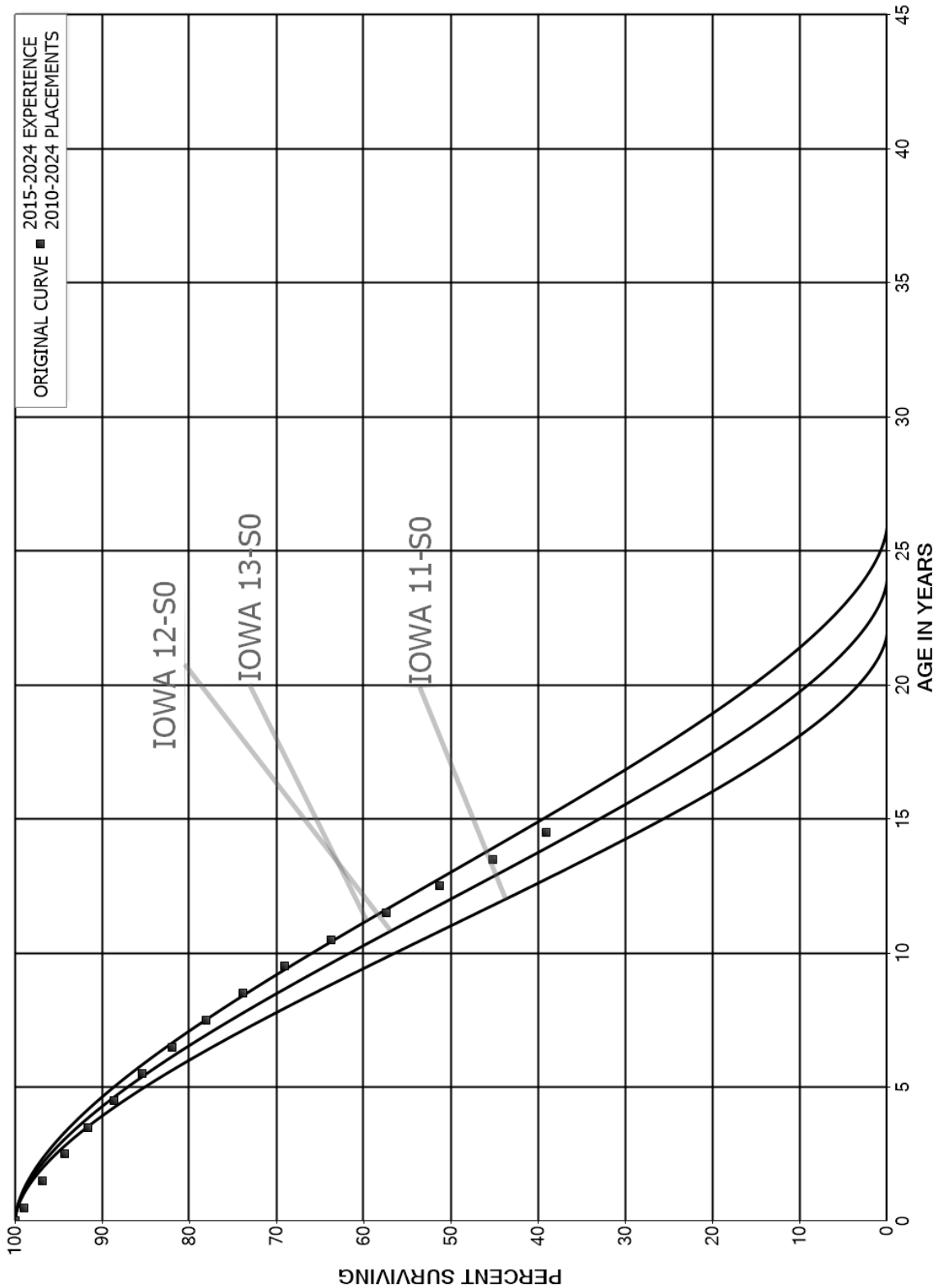


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

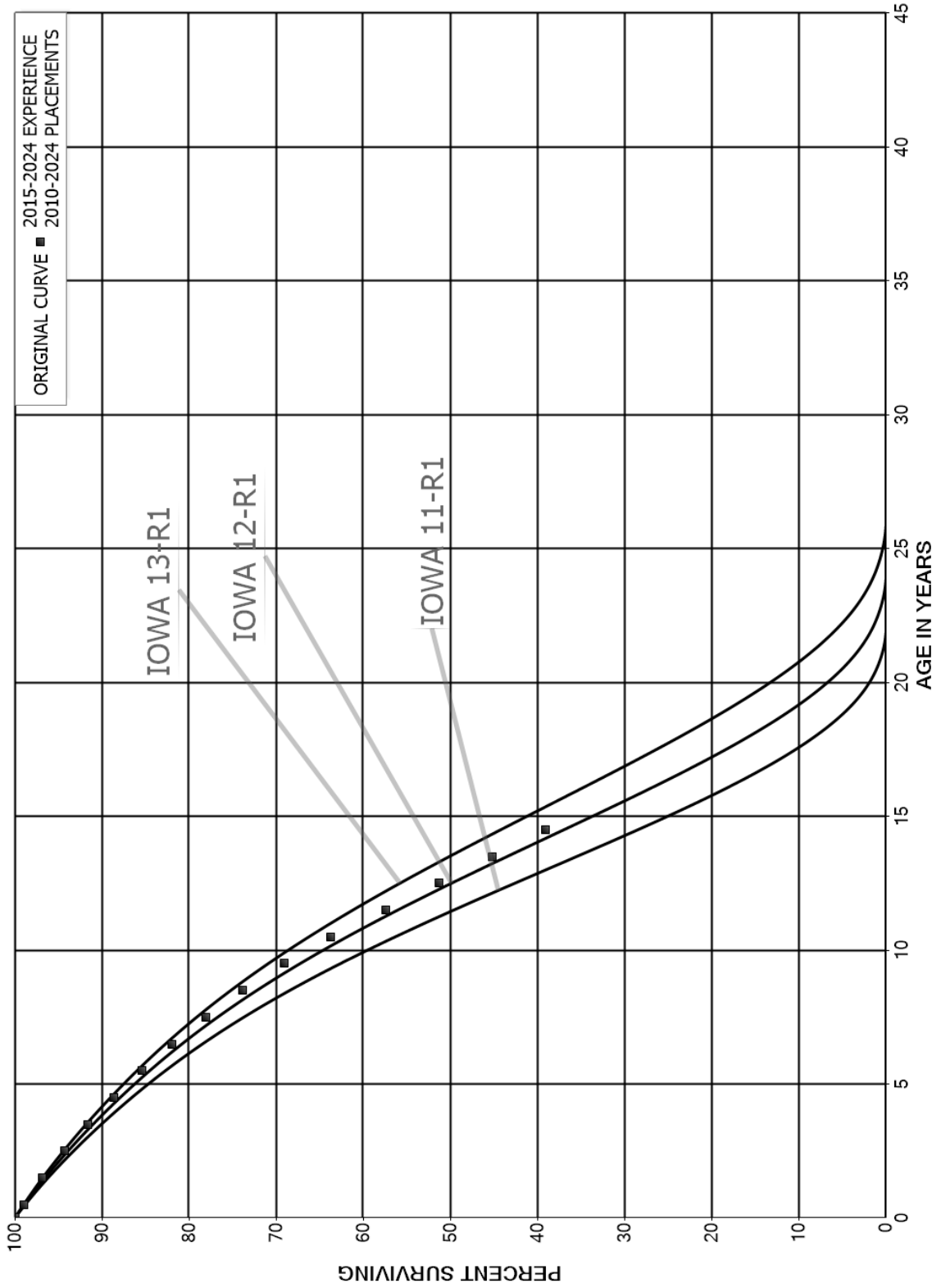
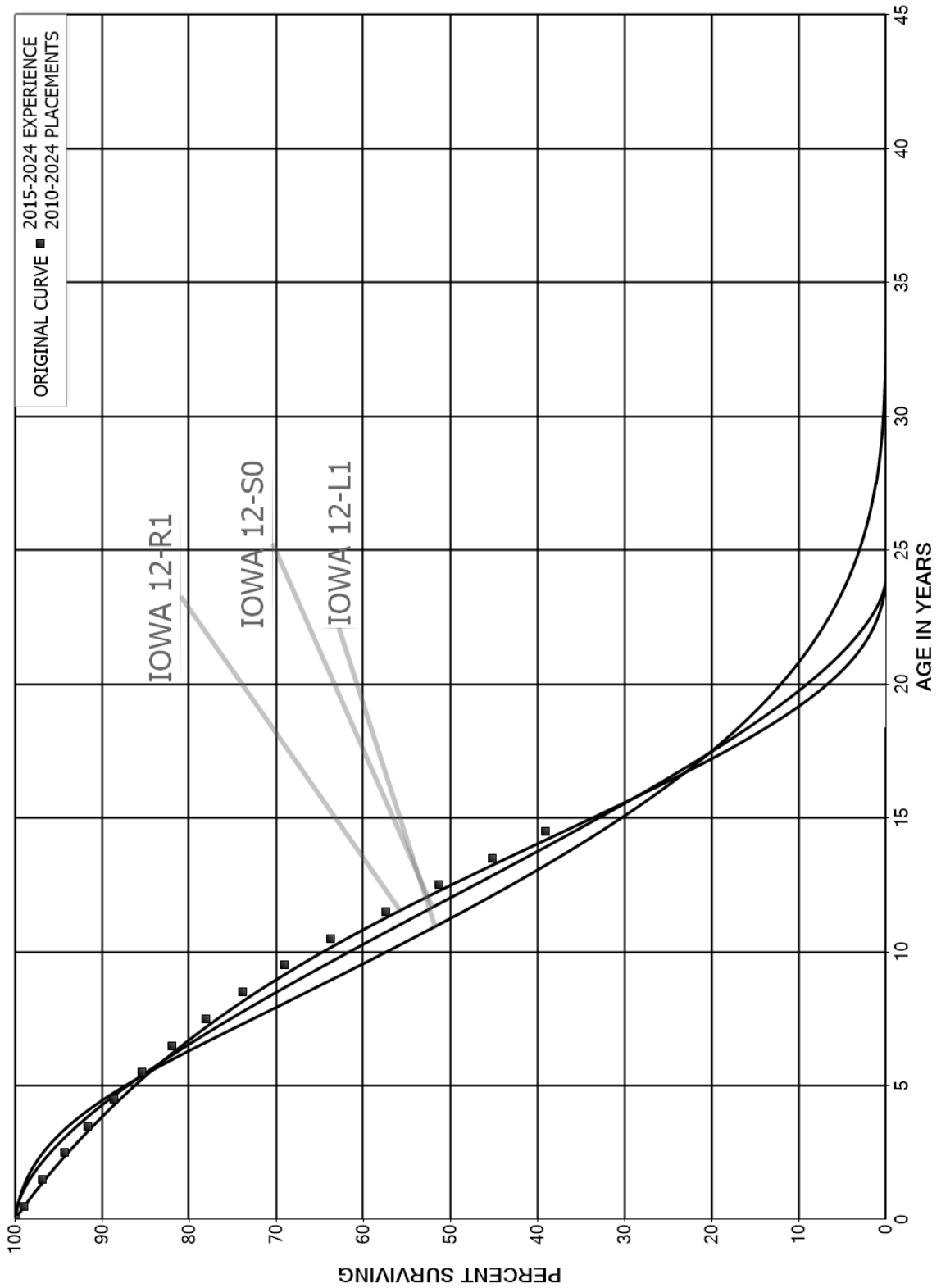


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



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## **PART III. SERVICE LIFE CONSIDERATIONS**

## **PART III. SERVICE LIFE CONSIDERATIONS**

### **JUDGMENTS**

The survivor curve estimates were based on judgment which considered factors including statistical analyses of retirements, Company policies and outlook as determined during discussions with management, and survivor curve estimates from previous studies of other Pennsylvania-American wastewater systems. For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group.

The amortization periods selected for general plant amortization accounts are discussed in the section, "Amortization of General Plant Accounts."

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**PART IV. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**

## **PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION**

### **BOOK RESERVE**

The book reserve as of June 30, 2023, is the result of a bringforward of the book reserves established by the Commission for the BASA wastewater operation at the time of acquisition during the fourth quarter of 2023. The projected book reserve as of June 30, 2024, is a bringforward of the June 30, 2023 book reserve based on projected accruals, retirements, cost of removal, salvage and other credits.

### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

### **Single Unit of Property**

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10}\right) = \$400.$$

### **Remaining Life Annual Accruals**

For the purpose of calculating remaining life accruals as of June 30, 2024, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of June 30, 2024, are set forth in the Results of Study section of the report.

### **Average Service Life Procedure**

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics



are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \frac{\text{Average Remaining Life}}{\text{Average Service Life}}$$

## **AMORTIZATION OF GENERAL PLANT ACCOUNTS**

In order to use a more efficient and cost effective accounting process for equipment recorded in general plant Accounts 390, 393, 396 and 397; amounts capitalized in these accounts are amortized rather than depreciated. Amortization as defined in the Uniform System of Accounts is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

The primary reasons for the amortization of certain general plant accounts is that the effort required to unitize additions, periodically inventory equipment and determine amounts to be retired for equipment recorded in these accounts is disproportionate to the original cost of the equipment when compared to other wastewater plant accounts.

Accounting for such equipment using an amortization concept consists of capitalization of amounts to these accounts based on the same criteria as used previously under depreciation accounting, amortization of the asset over a fixed period, retirement of the equipment at the end of the amortization period and recognition of any net salvage related to disposition of equipment in these accounts as a gain or loss. For equipment in

these accounts that was placed in service prior to implementation of amortization accounting, the net book value by vintage amortized over the remaining amortization period specified for each account and the original cost will be retired at the end of this period.

The amortization periods selected for each account or subaccount are based on a review of the existing depreciation rates for the accounts, typical service lives used for each type of equipment and a consideration of the period during which it is anticipated that most of the benefit of the equipment will be realized. The amortization periods are as follows:

<u>Account Number</u>	<u>Description</u>	<u>Amortization Period, Years</u>
390.00	Office Furniture and Equipment	20
390.20	Computer and Peripheral Equipment	5
393.00	Tools, Shop and Garage Equipment	20
396.00	Communication Equipment	15
397.00	Miscellaneous Equipment	15

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## PART V. RESULTS OF STUDY

## **PART V. RESULTS OF STUDY**

### **DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of the net original cost used in the study. The results of the depreciation study are summarized in Table 2 which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 3 presents the bringforward to June 30, 2024 of the book reserve as of June 30, 2023. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months ended June 30, 2024. The total amortization amount is incorporated in the total annual accrual in Table 2.

### **DESCRIPTION OF DETAILED TABULATIONS**

Supporting statistical data for the estimates of average service lives and survivor curves, the annual depreciation calculations, and gross salvage and cost of removal for the years 2019-2023 are presented in three sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life

derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to net original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

Detailed tabulations setting forth the cost of removal, gross salvage and net salvage amounts, by account and year, are presented in the third section.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2024 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2024 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	10,500.00				10,500.00
354.30 STRUCTURES AND IMPROVEMENTS - SPP	34,072,469.32				34,072,469.32
354.40 STRUCTURES AND IMPROVEMENTS - TDP	11,154,235.89				11,154,235.89
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	7,355,375.51				7,355,375.51
355.00 POWER GENERATION EQUIPMENT	1,741,655.08				1,741,655.08
360.10 COLLECTION SEWERS - FORCE MAINS	4,583,561.31				4,583,561.31
361.10 COLLECTION SEWERS - GRAVITY MAINS	51,159,715.70				51,159,715.70
361.20 MANHOLES	6,300.00				6,300.00
363.00 SERVICES	8,621,985.33				8,621,985.33
364.00 FLOW MEASURING DEVICES	300,000.00				300,000.00
371.00 PUMPING EQUIPMENT	4,507,503.80				4,507,503.80
380.00 TREATMENT EQUIPMENT	18,864,065.79				18,864,065.79
382.00 OUTFALL SEWER LINES	25,662.14				25,662.14
390.00 OFFICE FURNITURE AND EQUIPMENT	55,805.80				55,805.80
390.20 COMPUTER AND PERIPHERAL EQUIPMENT	73,363.00				73,363.00
391.00 TRANSPORTATION EQUIPMENT	793,535.36				793,535.36
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	21,000.00				21,000.00
395.00 POWER OPERATED EQUIPMENT	1,134,169.60				1,134,169.60
396.00 COMMUNICATION EQUIPMENT	947,927.35				947,927.35
397.00 MISCELLANEOUS EQUIPMENT	3,059.83				3,059.83
<b>TOTAL DEPRECIABLE PLANT</b>	<b>145,431,890.81</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>145,431,890.81</b>
<b>NONDEPRECIABLE PLANT</b>					
353.40 LAND AND LAND RIGHTS - TDP	592,540.92				592,540.92
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>592,540.92</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>592,540.92</b>
<b>TOTAL PLANT</b>	<b>146,024,431.73</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>146,024,431.73</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2024 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)	FMV PLANT (9)	FMV RESERVE (10)	CALCULATED EXPENSE (11)=(9)-(10))(7)
<b>DEPRECIABLE PLANT</b>										
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	10,500.00	135	10,365	274	2.61	37.8	10,500.00	135	271
354.30	STRUCTURES AND IMPROVEMENTS - SPP	34,072,469.32	8,986,667	25,085,802	785,262	2.30	31.9	70,070,584.51	31,906,045	877,784
354.40	STRUCTURES AND IMPROVEMENTS - TDP	11,154,235.89	7,044,159	4,110,077	158,754	1.42	25.9	43,619,182.20	29,258,359	203,924
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	7,355,375.51	2,637,296	4,718,080	386,701	5.26	12.2	29,449,971.24	19,467,018	525,103
355.00	POWER GENERATION EQUIPMENT	1,741,655.08	652,135	1,089,520	58,777	3.37	18.5	2,240,593.15	906,176	44,970
360.10	COLLECTION SEWERS - FORCE MAINS	4,583,561.31	1,412,550	3,171,011	69,880	1.52	45.4	14,570,539.52	6,371,975	124,618
361.10	COLLECTION SEWERS - GRAVITY MAINS	51,159,715.70	19,662,798	31,496,918	723,318	1.41	43.5	207,550,574.55	109,625,887	1,380,738
361.20	MANHOLES	6,300.00	78	6,222	138	2.19	45.1	6,300.00	78	136
363.00	SERVICES	8,621,985.33	4,683,777	3,938,208	229,445	2.66	17.2	44,413,477.48	32,945,368	305,052
364.00	FLOW MEASURING DEVICES	300,000.00	201,522	98,478	32,023	10.67	3.1	655,213.52	441,134	22,842
371.00	PUMPING EQUIPMENT	4,507,503.80	1,988,559	2,518,945	190,817	4.23	13.2	15,351,718.40	9,051,764	266,488
380.00	TREATMENT EQUIPMENT	18,864,065.79	7,240,178	11,623,888	740,213	3.92	15.7	53,050,122.74	28,813,666	950,069
382.00	OUTFALL SEWER LINES	25,862.14	22,054	3,608	567	2.21	6.4	482,082.57	418,519	1,626
390.00	OFFICE FURNITURE AND EQUIPMENT	55,805.80	6,749	49,057	2,914	5.22	16.8	55,021.72	6,401	2,538
390.20	COMPUTER AND PERIPHERAL EQUIPMENT	73,363.00	51,503	21,860	16,926	23.07	1.3	57,287.98	42,264	3,466
391.00	TRANSPORTATION EQUIPMENT	793,535.36	386,529	407,006	85,371	10.76	4.8	847,086.83	428,177	45,075
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	21,000.00	539	20,461	1,036	4.93	19.8	21,000.00	539	1,009
395.00	POWER OPERATED EQUIPMENT	1,134,169.60	526,945	607,225	53,959	4.76	11.3	1,383,392.33	708,174	32,140
396.00	COMMUNICATION EQUIPMENT	947,827.35	431,670	516,257	42,778	4.51	12.1	916,682.03	415,789	22,590
397.00	MISCELLANEOUS EQUIPMENT	3,059.83	3,060	0	0	-	-	4,888.94	4,245	0
<b>TOTAL DEPRECIABLE PLANT</b>		<b>145,431,890.81</b>	<b>55,938,903</b>	<b>89,492,988</b>	<b>3,579,153</b>	<b>2.46</b>		<b>484,766,209.71</b>	<b>270,811,713</b>	<b>4,810,439</b>
<b>NONDEPRECIABLE PLANT</b>										
353.40	LAND AND LAND RIGHTS - TDP	592,540.92						13,335,927.13		
<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>592,540.92</b>			<b>0</b>			<b>13,335,927.13</b>		
<b>AMORTIZATION OF NET SALVAGE</b>				<b>89,492,988</b>	<b>3,579,153</b>			<b>498,102,136.84</b>		
<b>TOTAL UTILITY PLANT</b>		<b>146,024,431.73</b>	<b>55,938,903</b>	<b>89,492,988</b>	<b>3,579,153</b>			<b>498,102,136.84</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2023 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2024 (8)
354.20	0		135								8,634,017		135
354.30	0		352,650								6,938,751		8,986,667
354.40	0		105,408								2,546,457		7,044,159
354.70	0		90,839								628,297		2,637,296
355.00	0		29,521		5,683						1,376,569		652,135
360.10	0		35,981								19,437,457		1,412,550
361.10	0		347,886		75,181		47,364						19,662,798
361.20	0		78										78
363.00	0		104,326		1,137		1,807				4,582,395		4,683,777
364.00	0		13,050								188,472		201,522
371.00	0		90,601								1,897,958		1,988,559
380.00	0		335,780								6,904,398		7,240,178
382.00	0		241								21,813		22,054
390.00	0		1,588								5,161		6,749
390.20	0		7,336								44,167		51,503
391.00	0		27,456		1,137		193				360,403		386,529
393.00	0		539										539
395.00	0		22,286								504,659		526,945
396.00	0		32,514								399,156		431,670
397.00	0		106								2,954		3,060
<b>TOTAL</b>	<b>0</b>		<b>1,598,321</b>		<b>83,138</b>		<b>49,365</b>		<b>0</b>		<b>54,473,084</b>		<b>55,938,903</b>



PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

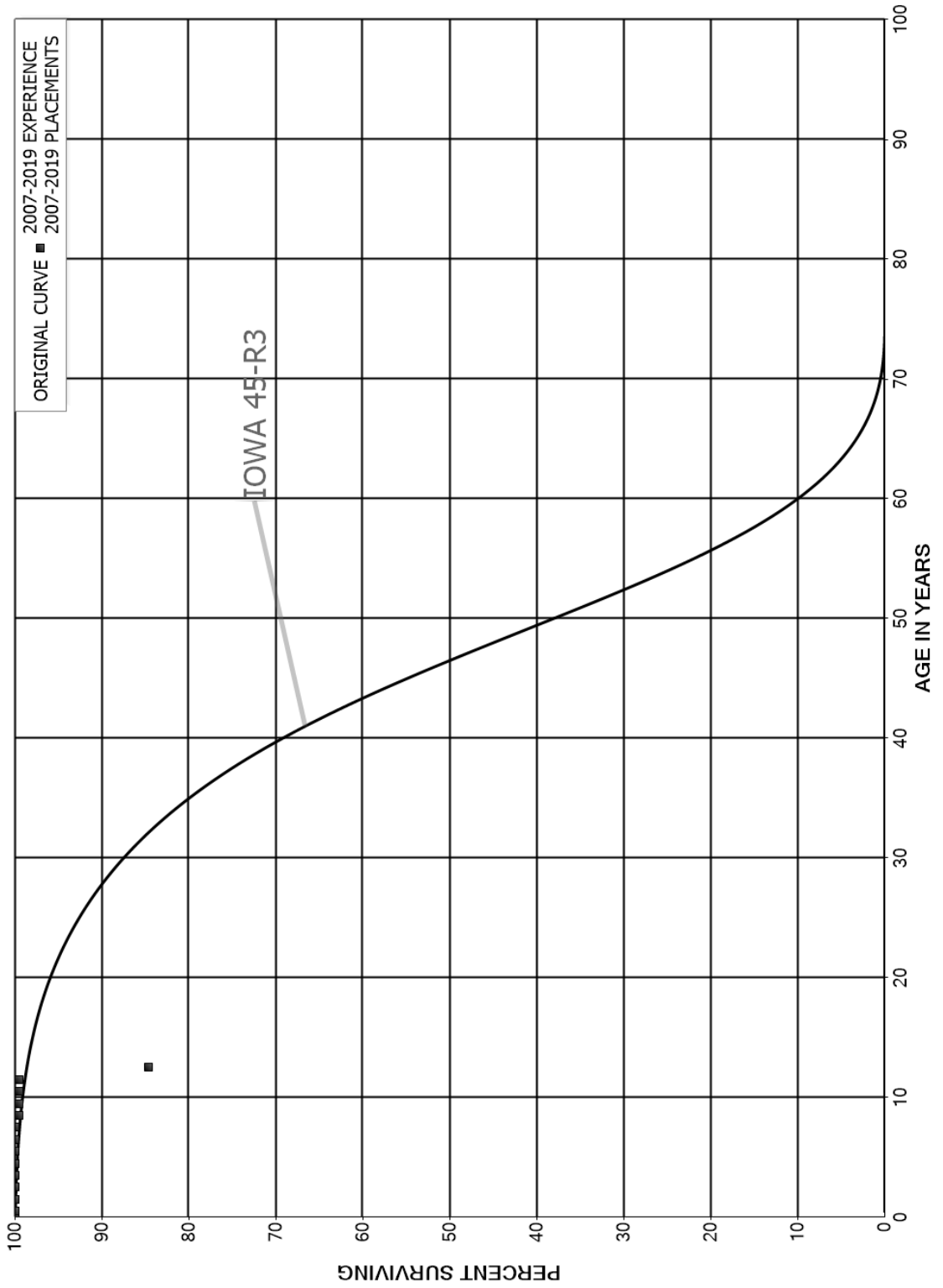
TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2023 (2)	NET ORIGINAL COST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)=[(2)+(3)]/2*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	0.00	10,500.00	2.57	135		135
354.30	0.00	34,072,469.32	2.07	352,650		352,650
354.40	0.00	11,154,235.89	1.89	105,408		105,408
354.70	0.00	7,355,375.51	2.47	90,839		90,839
355.00	0.00	1,741,655.08	3.39	29,521		29,521
360.10	0.00	4,583,561.31	1.57	35,981		35,981
361.10	0.00	51,159,715.70	1.36	347,886		347,886
361.20	0.00	6,300.00	2.47	78		78
363.00	0.00	8,621,985.33	2.42	104,326		104,326
364.00	0.00	300,000.00	8.70	13,050		13,050
371.00	0.00	4,507,503.80	4.02	90,601		90,601
380.00	0.00	18,864,065.79	3.56	335,780		335,780
382.00	0.00	25,662.14	1.88	241		241
390.00	0.00	55,805.80	5.69	1,588		1,588
390.20	0.00	73,363.00	20.00	7,336		7,336
391.00	0.00	793,535.36	6.92	27,456		27,456
393.00	0.00	21,000.00	5.13	539		539
395.00	0.00	1,134,169.60	3.93	22,286		22,286
396.00	0.00	947,927.35	6.86	32,514		32,514
397.00	0.00	3,059.83	6.90	106		106
TOTAL	<b>0.00</b>	<b>145,431,890.81</b>		<b>1,598,321</b>	<b>0</b>	<b>1,598,321</b>

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## **PART VI. SERVICE LIFE STATISTICS**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



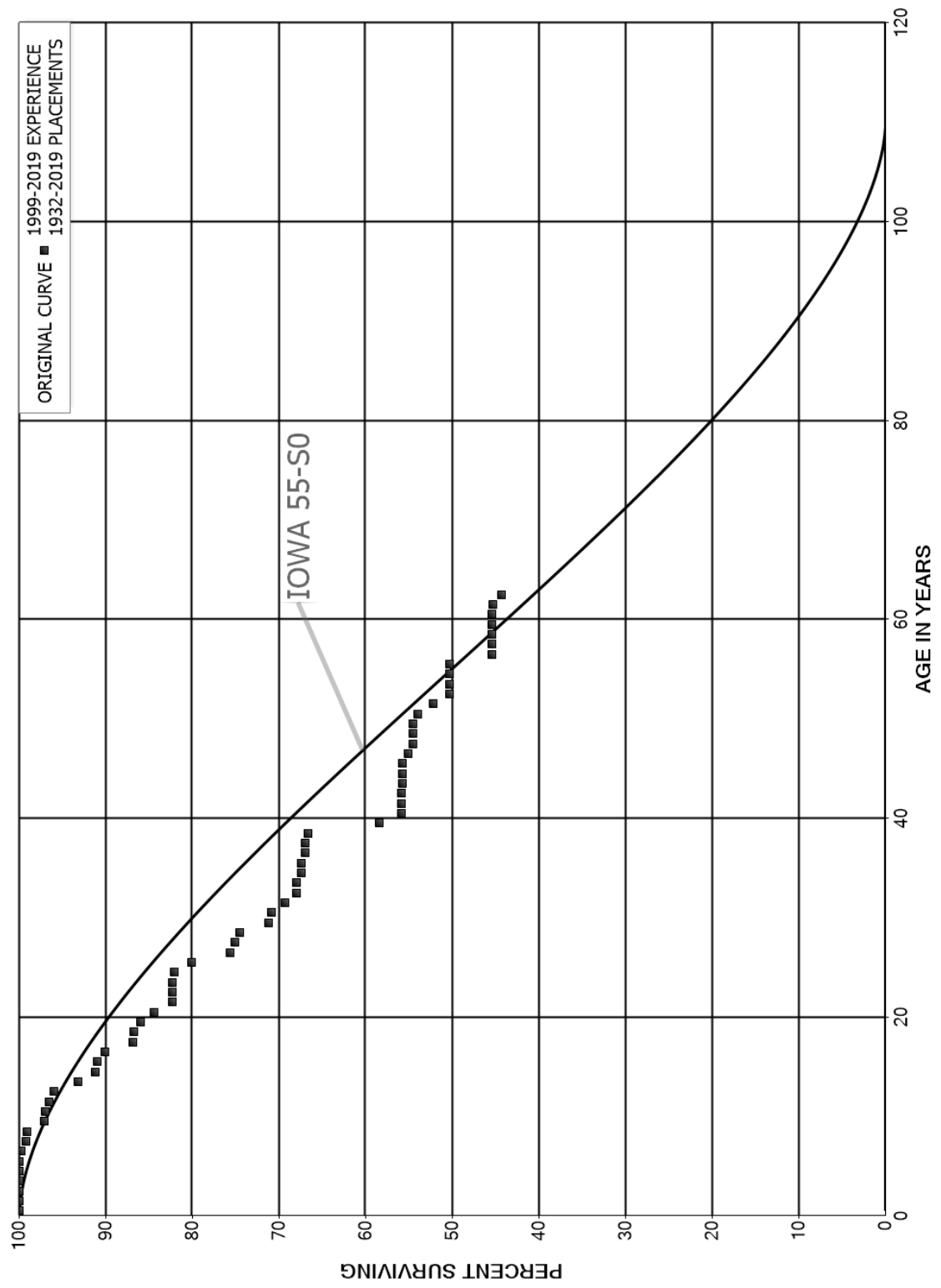
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,844,636		0.0000	1.0000	100.00
0.5	3,478,774		0.0000	1.0000	100.00
1.5	1,864,154		0.0000	1.0000	100.00
2.5	516,452	0	0.0000	1.0000	100.00
3.5	479,797		0.0000	1.0000	100.00
4.5	437,900	416	0.0010	0.9990	100.00
5.5	422,717		0.0000	1.0000	99.90
6.5	321,516		0.0000	1.0000	99.90
7.5	321,516	1,408	0.0044	0.9956	99.90
8.5	311,522		0.0000	1.0000	99.47
9.5	311,522		0.0000	1.0000	99.47
10.5	134,415		0.0000	1.0000	99.47
11.5	20,659	3,076	0.1489	0.8511	99.47
12.5					84.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE

PLACEMENT BAND 1932-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	70,500,767		0.0000	1.0000	100.00
0.5	76,131,665		0.0000	1.0000	100.00
1.5	80,233,751	6,642	0.0001	0.9999	100.00
2.5	105,447,960		0.0000	1.0000	99.99
3.5	85,605,007	28,836	0.0003	0.9997	99.99
4.5	79,002,174	4,425	0.0001	0.9999	99.96
5.5	46,624,214	105,422	0.0023	0.9977	99.95
6.5	51,444,895	277,564	0.0054	0.9946	99.73
7.5	50,906,335	75,090	0.0015	0.9985	99.19
8.5	50,793,050	1,027,715	0.0202	0.9798	99.04
9.5	34,780,266	28,544	0.0008	0.9992	97.04
10.5	15,695,508	65,025	0.0041	0.9959	96.96
11.5	15,618,899	88,716	0.0057	0.9943	96.56
12.5	20,002,643	601,564	0.0301	0.9699	96.01
13.5	17,169,269	353,428	0.0206	0.9794	93.12
14.5	16,203,968	41,247	0.0025	0.9975	91.20
15.5	16,204,082	163,309	0.0101	0.9899	90.97
16.5	13,585,539	481,677	0.0355	0.9645	90.06
17.5	12,995,837	17,548	0.0014	0.9986	86.86
18.5	12,210,208	114,143	0.0093	0.9907	86.74
19.5	7,393,964	134,551	0.0182	0.9818	85.93
20.5	6,513,761	157,405	0.0242	0.9758	84.37
21.5	6,711,244	2,801	0.0004	0.9996	82.33
22.5	7,374,817	1,543	0.0002	0.9998	82.30
23.5	6,783,698	15,823	0.0023	0.9977	82.28
24.5	6,921,413	166,617	0.0241	0.9759	82.09
25.5	6,763,696	380,532	0.0563	0.9437	80.11
26.5	5,899,041	38,147	0.0065	0.9935	75.60
27.5	4,281,769	34,820	0.0081	0.9919	75.12
28.5	3,967,252	175,318	0.0442	0.9558	74.50
29.5	4,051,668	21,732	0.0054	0.9946	71.21
30.5	5,300,696	114,682	0.0216	0.9784	70.83
31.5	4,027,463	76,382	0.0190	0.9810	69.30
32.5	2,813,504	2,190	0.0008	0.9992	67.98
33.5	2,649,698	20,846	0.0079	0.9921	67.93
34.5	1,122,954		0.0000	1.0000	67.40
35.5	398,615	2,457	0.0062	0.9938	67.40
36.5	369,394		0.0000	1.0000	66.98
37.5	339,885	1,942	0.0057	0.9943	66.98
38.5	249,055	30,753	0.1235	0.8765	66.60

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	877,505	37,754	0.0430	0.9570	58.37
40.5	1,351,121		0.0000	1.0000	55.86
41.5	19,298,436	4,893	0.0003	0.9997	55.86
42.5	19,293,543	30,808	0.0016	0.9984	55.85
43.5	32,745,779		0.0000	1.0000	55.76
44.5	14,343,608	10,968	0.0008	0.9992	55.76
45.5	14,332,640	153,806	0.0107	0.9893	55.72
46.5	14,199,715	156,087	0.0110	0.9890	55.12
47.5	552,598		0.0000	1.0000	54.51
48.5	1,223,925		0.0000	1.0000	54.51
49.5	1,265,936	12,500	0.0099	0.9901	54.51
50.5	1,284,936	43,517	0.0339	0.9661	53.98
51.5	570,093	20,853	0.0366	0.9634	52.15
52.5	524,823		0.0000	1.0000	50.24
53.5	524,823		0.0000	1.0000	50.24
54.5	447,474		0.0000	1.0000	50.24
55.5	447,474	42,843	0.0957	0.9043	50.24
56.5	13,313,486	1,903	0.0001	0.9999	45.43
57.5	13,311,583		0.0000	1.0000	45.42
58.5	13,049,341	13	0.0000	1.0000	45.42
59.5	140,486		0.0000	1.0000	45.42
60.5	140,486	363	0.0026	0.9974	45.42
61.5	140,123	3,040	0.0217	0.9783	45.31
62.5					44.32
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	39,928		0.0000		
69.5	39,928		0.0000		
70.5	39,928		0.0000		
71.5	39,928		0.0000		
72.5	40,428		0.0000		
73.5	39,928		0.0000		
74.5	39,928		0.0000		
75.5	39,928		0.0000		
76.5	602		0.0000		
77.5	602		0.0000		
78.5	602		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

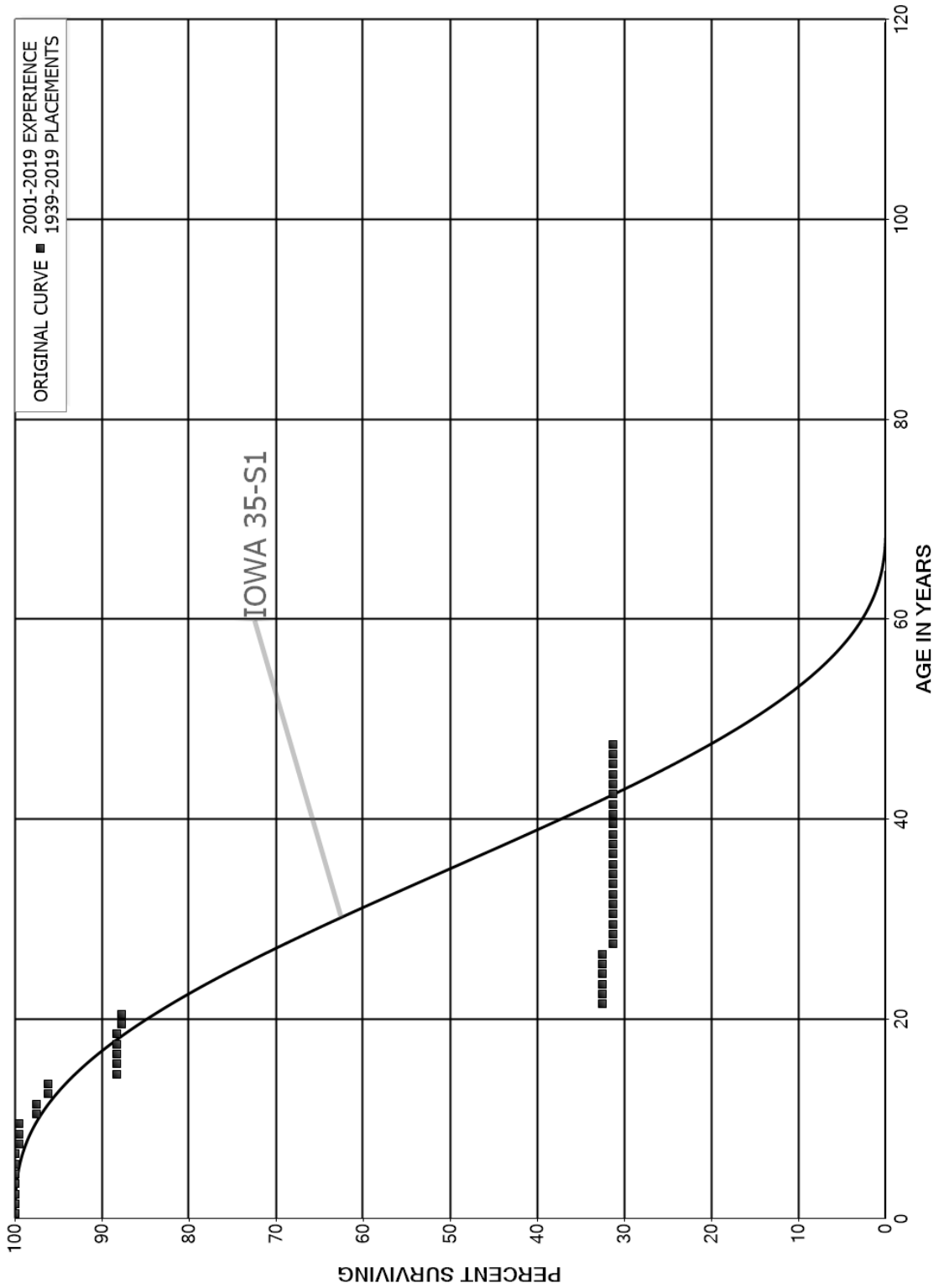
ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	602		0.0000		
80.5	602		0.0000		
81.5	602		0.0000		
82.5	602		0.0000		
83.5	602		0.0000		
84.5	602		0.0000		
85.5	602		0.0000		
86.5	602		0.0000		
87.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,331,347		0.0000	1.0000	100.00
0.5	2,248,872	400	0.0002	0.9998	100.00
1.5	2,139,519		0.0000	1.0000	99.98
2.5	2,007,976		0.0000	1.0000	99.98
3.5	1,998,798		0.0000	1.0000	99.98
4.5	978,189		0.0000	1.0000	99.98
5.5	566,034		0.0000	1.0000	99.98
6.5	540,776	2,524	0.0047	0.9953	99.98
7.5	668,631		0.0000	1.0000	99.52
8.5	661,526		0.0000	1.0000	99.52
9.5	622,592	12,303	0.0198	0.9802	99.52
10.5	529,371	373	0.0007	0.9993	97.55
11.5	209,362	2,752	0.0131	0.9869	97.48
12.5	204,311		0.0000	1.0000	96.20
13.5	220,425	18,073	0.0820	0.9180	96.20
14.5	208,207		0.0000	1.0000	88.31
15.5	208,207		0.0000	1.0000	88.31
16.5	165,317		0.0000	1.0000	88.31
17.5	193,471		0.0000	1.0000	88.31
18.5	210,457	1,510	0.0072	0.9928	88.31
19.5	223,914		0.0000	1.0000	87.68
20.5	223,914	140,772	0.6287	0.3713	87.68
21.5	67,028		0.0000	1.0000	32.56
22.5	73,481		0.0000	1.0000	32.56
23.5	73,481		0.0000	1.0000	32.56
24.5	73,481		0.0000	1.0000	32.56
25.5	44,261		0.0000	1.0000	32.56
26.5	27,275	1,047	0.0384	0.9616	32.56
27.5	11,260		0.0000	1.0000	31.31
28.5	11,260		0.0000	1.0000	31.31
29.5	11,260		0.0000	1.0000	31.31
30.5	11,260		0.0000	1.0000	31.31
31.5	11,260		0.0000	1.0000	31.31
32.5	11,260		0.0000	1.0000	31.31
33.5	11,260		0.0000	1.0000	31.31
34.5	11,260		0.0000	1.0000	31.31
35.5	450		0.0000	1.0000	31.31
36.5	450		0.0000	1.0000	31.31
37.5	450		0.0000	1.0000	31.31
38.5	450		0.0000	1.0000	31.31

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	450		0.0000	1.0000	31.31
40.5	450		0.0000	1.0000	31.31
41.5	450		0.0000	1.0000	31.31
42.5	450		0.0000	1.0000	31.31
43.5	450		0.0000	1.0000	31.31
44.5	450		0.0000	1.0000	31.31
45.5	450		0.0000	1.0000	31.31
46.5	450		0.0000	1.0000	31.31
47.5					31.31
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	3,802		0.0000		
69.5	3,802		0.0000		
70.5	3,802	283	0.0744		
71.5	3,519		0.0000		
72.5	3,519		0.0000		
73.5	3,519		0.0000		
74.5	3,519		0.0000		
75.5	3,519		0.0000		
76.5	3,519		0.0000		
77.5	3,519		0.0000		
78.5	3,519		0.0000		

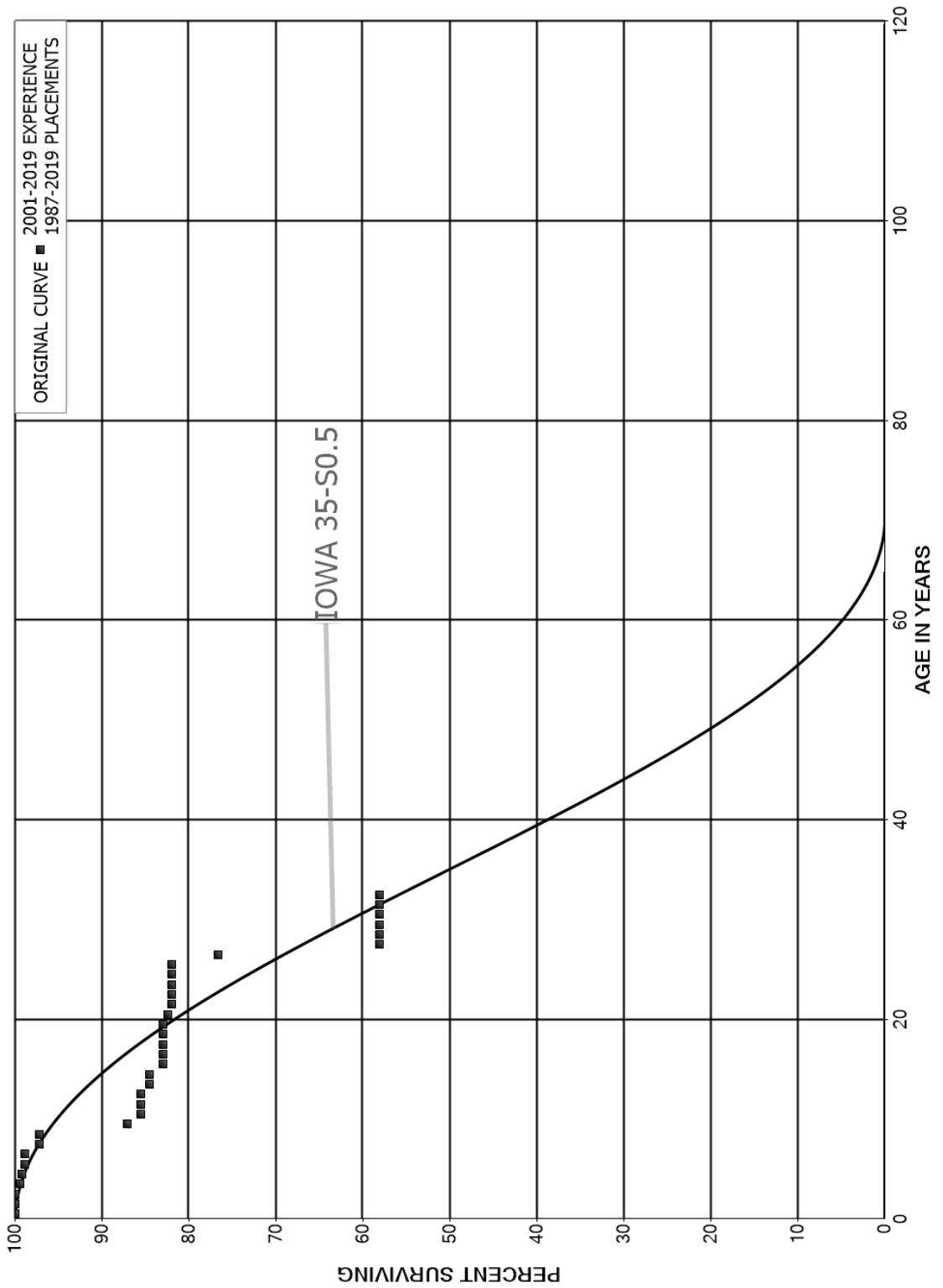
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5	3,519		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 355.00 POWER GENERATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



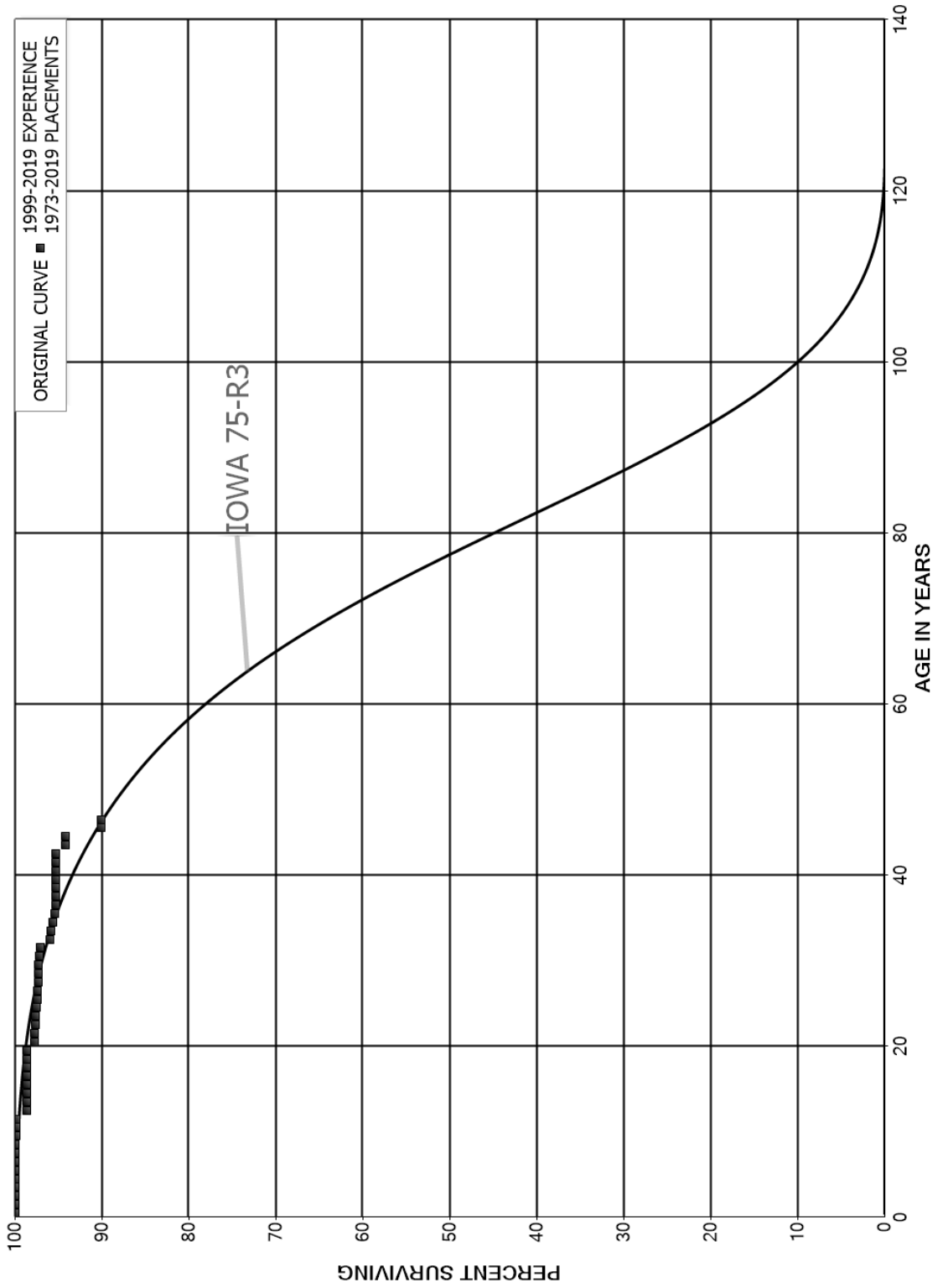
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1987-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,656,122		0.0000	1.0000	100.00
0.5	3,685,338		0.0000	1.0000	100.00
1.5	4,385,880		0.0000	1.0000	100.00
2.5	4,494,639	26,926	0.0060	0.9940	100.00
3.5	4,479,665	10,161	0.0023	0.9977	99.40
4.5	4,398,000	14,523	0.0033	0.9967	99.18
5.5	3,773,674	1,387	0.0004	0.9996	98.85
6.5	3,828,658	61,470	0.0161	0.9839	98.81
7.5	3,336,361		0.0000	1.0000	97.23
8.5	3,321,984	347,576	0.1046	0.8954	97.23
9.5	2,953,727	51,388	0.0174	0.9826	87.05
10.5	328,249		0.0000	1.0000	85.54
11.5	144,528		0.0000	1.0000	85.54
12.5	267,555	3,097	0.0116	0.9884	85.54
13.5	327,093		0.0000	1.0000	84.55
14.5	278,538	5,336	0.0192	0.9808	84.55
15.5	281,064		0.0000	1.0000	82.93
16.5	293,645		0.0000	1.0000	82.93
17.5	241,944		0.0000	1.0000	82.93
18.5	203,466		0.0000	1.0000	82.93
19.5	203,466	1,204	0.0059	0.9941	82.93
20.5	202,262	1,103	0.0055	0.9945	82.44
21.5	432,455		0.0000	1.0000	81.99
22.5	402,008		0.0000	1.0000	81.99
23.5	402,008		0.0000	1.0000	81.99
24.5	402,008		0.0000	1.0000	81.99
25.5	402,978	26,388	0.0655	0.9345	81.99
26.5	174,978	42,310	0.2418	0.7582	76.62
27.5	89,880		0.0000	1.0000	58.09
28.5	68,585		0.0000	1.0000	58.09
29.5	68,585		0.0000	1.0000	58.09
30.5	19,246		0.0000	1.0000	58.09
31.5	19,246		0.0000	1.0000	58.09
32.5					58.09

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	31,766,704	19	0.0000	1.0000	100.00
0.5	28,215,316	26	0.0000	1.0000	100.00
1.5	35,558,986	33	0.0000	1.0000	100.00
2.5	23,783,577	70	0.0000	1.0000	100.00
3.5	21,373,939	350	0.0000	1.0000	100.00
4.5	18,774,036	315	0.0000	1.0000	100.00
5.5	14,425,014	397	0.0000	1.0000	100.00
6.5	14,188,090	1,611	0.0001	0.9999	99.99
7.5	14,122,868	1,747	0.0001	0.9999	99.98
8.5	13,850,582	16,747	0.0012	0.9988	99.97
9.5	13,465,099	64	0.0000	1.0000	99.85
10.5	13,318,392	82	0.0000	1.0000	99.85
11.5	10,748,868	127,626	0.0119	0.9881	99.85
12.5	9,661,386		0.0000	1.0000	98.66
13.5	7,868,737	3,291	0.0004	0.9996	98.66
14.5	7,779,655	99	0.0000	1.0000	98.62
15.5	5,905,707	9	0.0000	1.0000	98.62
16.5	5,774,986	949	0.0002	0.9998	98.62
17.5	5,344,267	1,253	0.0002	0.9998	98.60
18.5	4,614,847	826	0.0002	0.9998	98.58
19.5	4,197,905	37,017	0.0088	0.9912	98.56
20.5	3,986,776	70	0.0000	1.0000	97.69
21.5	4,475,797	1,897	0.0004	0.9996	97.69
22.5	3,907,599	569	0.0001	0.9999	97.65
23.5	4,900,347	3,932	0.0008	0.9992	97.64
24.5	6,419,851	13,411	0.0021	0.9979	97.56
25.5	6,580,720	788	0.0001	0.9999	97.35
26.5	6,033,834	1,095	0.0002	0.9998	97.34
27.5	6,011,515	2,049	0.0003	0.9997	97.32
28.5	5,991,855	3,135	0.0005	0.9995	97.29
29.5	6,011,945	3,365	0.0006	0.9994	97.24
30.5	5,911,879	4,784	0.0008	0.9992	97.19
31.5	5,517,306	65,876	0.0119	0.9881	97.11
32.5	5,225,480	4,106	0.0008	0.9992	95.95
33.5	5,192,765	13,636	0.0026	0.9974	95.87
34.5	4,869,190	12,733	0.0026	0.9974	95.62
35.5	4,856,457	2,869	0.0006	0.9994	95.37
36.5	4,661,206	15	0.0000	1.0000	95.31
37.5	4,607,713		0.0000	1.0000	95.31
38.5	4,446,768	1,883	0.0004	0.9996	95.31



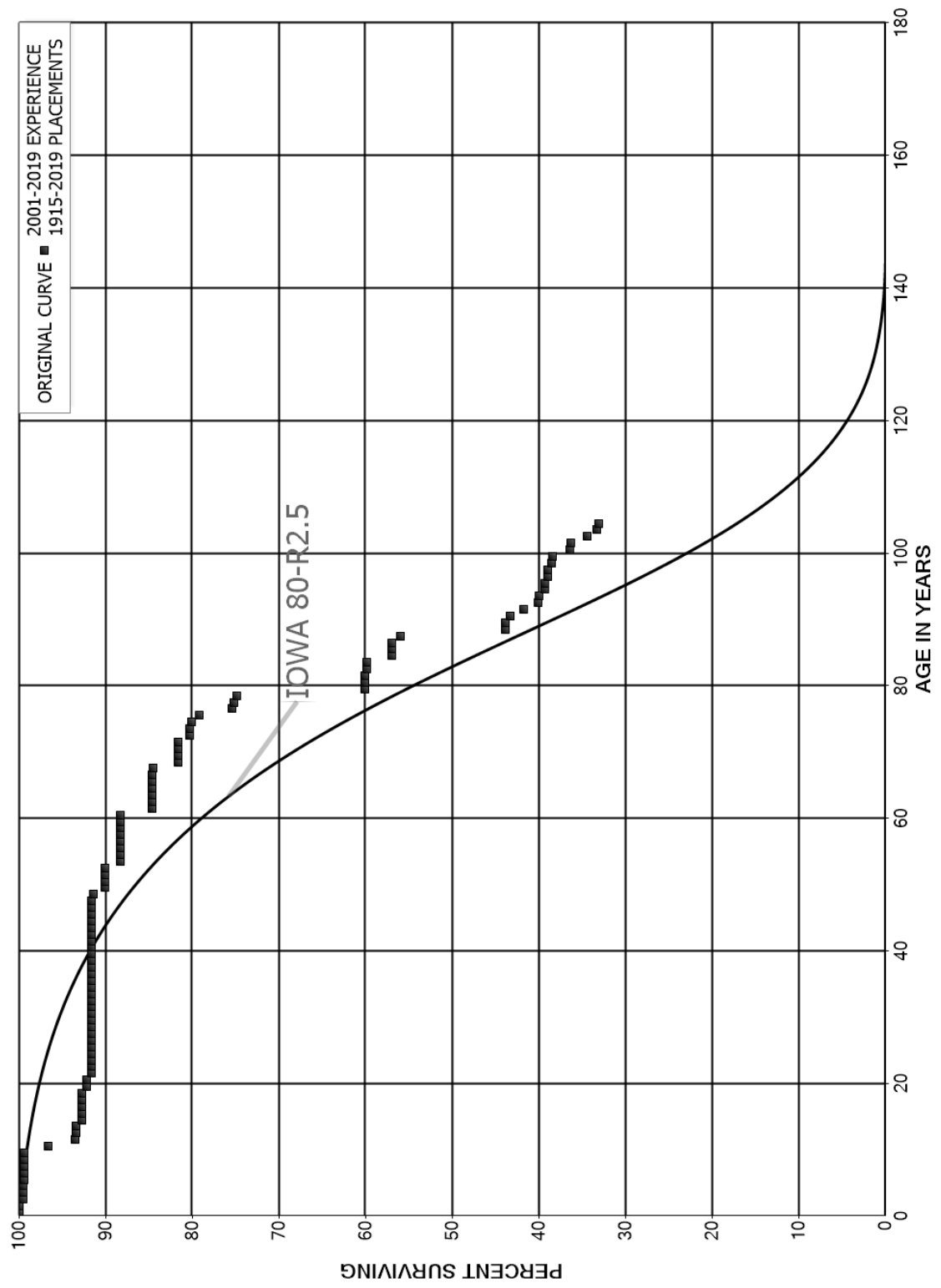
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	4,369,779	82	0.0000	1.0000	95.27	
40.5	4,295,948	6	0.0000	1.0000	95.27	
41.5	4,025,587	0	0.0000	1.0000	95.27	
42.5	3,566,737	42,283	0.0119	0.9881	95.27	
43.5	2,553,034		0.0000	1.0000	94.14	
44.5	1,703,254	73,783	0.0433	0.9567	94.14	
45.5	125,695		0.0000	1.0000	90.06	
46.5					90.06	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	123,698,865	1,489	0.0000	1.0000	100.00
0.5	80,968,134	1,744	0.0000	1.0000	100.00
1.5	71,427,735	349,743	0.0049	0.9951	100.00
2.5	61,491,291		0.0000	1.0000	99.51
3.5	47,985,505		0.0000	1.0000	99.51
4.5	43,496,282	26,093	0.0006	0.9994	99.51
5.5	34,622,702	11,064	0.0003	0.9997	99.45
6.5	36,236,717	10,556	0.0003	0.9997	99.42
7.5	44,473,440	0	0.0000	1.0000	99.39
8.5	44,403,805	13,334	0.0003	0.9997	99.39
9.5	42,579,956	1,180,167	0.0277	0.9723	99.36
10.5	27,257,562	886,763	0.0325	0.9675	96.60
11.5	23,041,413	10,064	0.0004	0.9996	93.46
12.5	15,696,984	13,300	0.0008	0.9992	93.42
13.5	13,197,516	82,522	0.0063	0.9937	93.34
14.5	9,898,866	187	0.0000	1.0000	92.76
15.5	8,175,329	367	0.0000	1.0000	92.75
16.5	11,005,722	1,374	0.0001	0.9999	92.75
17.5	22,668,123		0.0000	1.0000	92.74
18.5	22,367,436	144,378	0.0065	0.9935	92.74
19.5	21,841,271		0.0000	1.0000	92.14
20.5	10,429,000	56,430	0.0054	0.9946	92.14
21.5	13,494,984		0.0000	1.0000	91.64
22.5	12,095,717		0.0000	1.0000	91.64
23.5	13,846,891		0.0000	1.0000	91.64
24.5	14,182,481		0.0000	1.0000	91.64
25.5	19,071,002		0.0000	1.0000	91.64
26.5	16,170,692		0.0000	1.0000	91.64
27.5	36,060,280		0.0000	1.0000	91.64
28.5	35,923,542		0.0000	1.0000	91.64
29.5	33,683,971		0.0000	1.0000	91.64
30.5	8,391,683	866	0.0001	0.9999	91.64
31.5	8,167,272	21	0.0000	1.0000	91.63
32.5	8,027,418		0.0000	1.0000	91.63
33.5	7,266,714		0.0000	1.0000	91.63
34.5	5,540,059		0.0000	1.0000	91.63
35.5	3,406,034		0.0000	1.0000	91.63
36.5	3,951,146		0.0000	1.0000	91.63
37.5	4,287,296		0.0000	1.0000	91.63
38.5	4,273,219		0.0000	1.0000	91.63

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,243,666		0.0000	1.0000	91.63
40.5	41,503,891	5,447	0.0001	0.9999	91.63
41.5	41,043,016	49	0.0000	1.0000	91.62
42.5	41,341,828		0.0000	1.0000	91.62
43.5	20,516,395		0.0000	1.0000	91.62
44.5	17,262,745	4,573	0.0003	0.9997	91.62
45.5	17,447,879		0.0000	1.0000	91.60
46.5	16,922,111	1,617	0.0001	0.9999	91.60
47.5	1,493,981	2,878	0.0019	0.9981	91.59
48.5	1,491,103	21,283	0.0143	0.9857	91.41
49.5	995,707	187	0.0002	0.9998	90.11
50.5	1,249,631		0.0000	1.0000	90.09
51.5	1,214,773		0.0000	1.0000	90.09
52.5	1,253,366	24,618	0.0196	0.9804	90.09
53.5	28,374,663		0.0000	1.0000	88.32
54.5	38,998,170		0.0000	1.0000	88.32
55.5	39,986,553		0.0000	1.0000	88.32
56.5	13,005,874		0.0000	1.0000	88.32
57.5	59,432,346		0.0000	1.0000	88.32
58.5	60,820,282	557	0.0000	1.0000	88.32
59.5	59,761,303	747	0.0000	1.0000	88.32
60.5	2,094,297	87,761	0.0419	0.9581	88.32
61.5	22,663,762	8	0.0000	1.0000	84.62
62.5	21,213,491	61	0.0000	1.0000	84.62
63.5	21,215,934	289	0.0000	1.0000	84.62
64.5	46,353		0.0000	1.0000	84.62
65.5	1,102,303		0.0000	1.0000	84.62
66.5	1,102,303	1,673	0.0015	0.9985	84.62
67.5	1,100,630	37,140	0.0337	0.9663	84.49
68.5	1,259,440		0.0000	1.0000	81.64
69.5	290,689		0.0000	1.0000	81.64
70.5	962,463	168	0.0002	0.9998	81.64
71.5	962,295	15,230	0.0158	0.9842	81.62
72.5	1,042,298	993	0.0010	0.9990	80.33
73.5	946,072	2,053	0.0022	0.9978	80.25
74.5	683,176	7,508	0.0110	0.9890	80.08
75.5	675,668	32,767	0.0485	0.9515	79.20
76.5	642,901	1,310	0.0020	0.9980	75.36
77.5	1,531,686	8,017	0.0052	0.9948	75.20
78.5	1,523,669	299,242	0.1964	0.8036	74.81

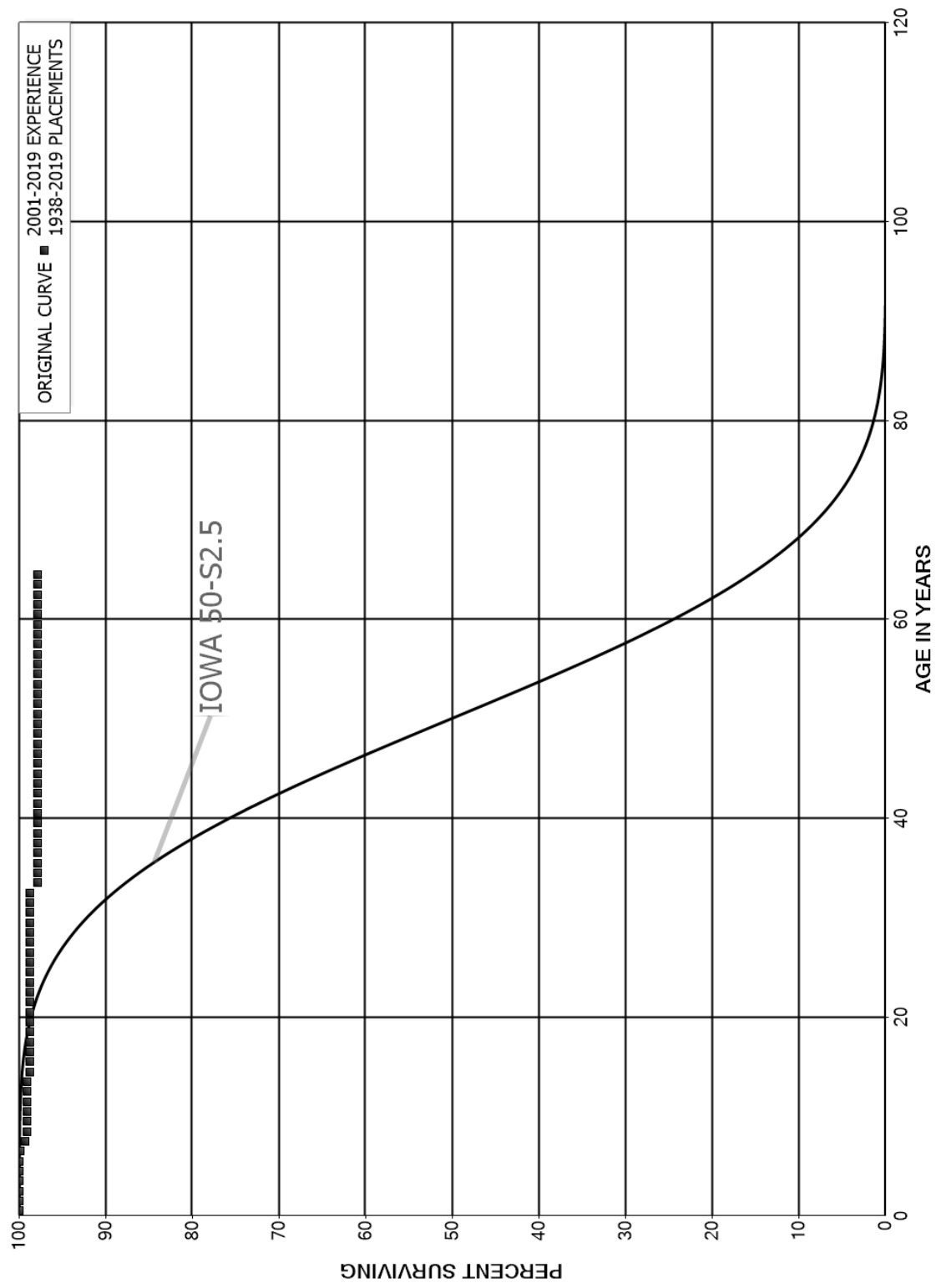
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,224,427	291	0.0002	0.9998	60.12	
80.5	1,522,508		0.0000	1.0000	60.10	
81.5	632,413	2,303	0.0036	0.9964	60.10	
82.5	648,868		0.0000	1.0000	59.89	
83.5	648,868	31,252	0.0482	0.9518	59.89	
84.5	601,981	10	0.0000	1.0000	57.00	
85.5	722,814		0.0000	1.0000	57.00	
86.5	722,814	13,485	0.0187	0.9813	57.00	
87.5	709,329	153,014	0.2157	0.7843	55.94	
88.5	556,315	264	0.0005	0.9995	43.87	
89.5	329,027	4,352	0.0132	0.9868	43.85	
90.5	306,175	11,276	0.0368	0.9632	43.27	
91.5	294,898	11,132	0.0377	0.9623	41.68	
92.5	283,767	1,273	0.0045	0.9955	40.10	
93.5	282,494	4,366	0.0155	0.9845	39.92	
94.5	278,128	221	0.0008	0.9992	39.31	
95.5	277,906	1,967	0.0071	0.9929	39.27	
96.5	275,939	42	0.0002	0.9998	39.00	
97.5	3,804,626	42,906	0.0113	0.9887	38.99	
98.5	3,761,720	15,091	0.0040	0.9960	38.55	
99.5	3,616,599	191,754	0.0530	0.9470	38.40	
100.5	3,424,846	6,012	0.0018	0.9982	36.36	
101.5	96,405	5,167	0.0536	0.9464	36.30	
102.5	91,238	2,967	0.0325	0.9675	34.35	
103.5	88,271	309	0.0035	0.9965	33.23	
104.5					33.12	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.20 MANHOLES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-2019

EXPERIENCE BAND 2001-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,379,651		0.0000	1.0000	100.00
0.5	10,176,887		0.0000	1.0000	100.00
1.5	10,661,285	0	0.0000	1.0000	100.00
2.5	11,952,425		0.0000	1.0000	100.00
3.5	12,083,028	911	0.0001	0.9999	100.00
4.5	7,585,455		0.0000	1.0000	99.99
5.5	5,573,639	6,667	0.0012	0.9988	99.99
6.5	4,589,383	27,566	0.0060	0.9940	99.87
7.5	4,569,090	10,961	0.0024	0.9976	99.27
8.5	5,066,097		0.0000	1.0000	99.03
9.5	5,304,644		0.0000	1.0000	99.03
10.5	5,838,060		0.0000	1.0000	99.03
11.5	5,353,439		0.0000	1.0000	99.03
12.5	4,555,554		0.0000	1.0000	99.03
13.5	4,114,028	12,188	0.0030	0.9970	99.03
14.5	2,635,311		0.0000	1.0000	98.74
15.5	2,105,291	0	0.0000	1.0000	98.74
16.5	2,247,105	472	0.0002	0.9998	98.74
17.5	2,934,821		0.0000	1.0000	98.72
18.5	2,849,242		0.0000	1.0000	98.72
19.5	2,782,656		0.0000	1.0000	98.72
20.5	2,425,509	0	0.0000	1.0000	98.72
21.5	1,772,096		0.0000	1.0000	98.72
22.5	970,343		0.0000	1.0000	98.72
23.5	1,299,611		0.0000	1.0000	98.72
24.5	1,741,110		0.0000	1.0000	98.72
25.5	2,636,710		0.0000	1.0000	98.72
26.5	3,361,749		0.0000	1.0000	98.72
27.5	3,450,899		0.0000	1.0000	98.72
28.5	3,240,536		0.0000	1.0000	98.72
29.5	2,574,979		0.0000	1.0000	98.72
30.5	1,538,799		0.0000	1.0000	98.72
31.5	1,635,548		0.0000	1.0000	98.72
32.5	1,551,747	13,277	0.0086	0.9914	98.72
33.5	1,328,056		0.0000	1.0000	97.88
34.5	1,038,030		0.0000	1.0000	97.88
35.5	1,093,592		0.0000	1.0000	97.88
36.5	1,326,879		0.0000	1.0000	97.88
37.5	1,450,927		0.0000	1.0000	97.88
38.5	1,304,196		0.0000	1.0000	97.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	994,944		0.0000	1.0000	97.88
40.5	2,263,935		0.0000	1.0000	97.88
41.5	2,043,826		0.0000	1.0000	97.88
42.5	2,216,232		0.0000	1.0000	97.88
43.5	2,406,018		0.0000	1.0000	97.88
44.5	2,040,304		0.0000	1.0000	97.88
45.5	2,008,665		0.0000	1.0000	97.88
46.5	1,708,150		0.0000	1.0000	97.88
47.5	301,817		0.0000	1.0000	97.88
48.5	301,817		0.0000	1.0000	97.88
49.5	170,327		0.0000	1.0000	97.88
50.5	201,568		0.0000	1.0000	97.88
51.5	166,180		0.0000	1.0000	97.88
52.5	172,781		0.0000	1.0000	97.88
53.5	1,995,623		0.0000	1.0000	97.88
54.5	1,827,036		0.0000	1.0000	97.88
55.5	1,951,871		0.0000	1.0000	97.88
56.5	131,436		0.0000	1.0000	97.88
57.5	10,950,272		0.0000	1.0000	97.88
58.5	10,950,272		0.0000	1.0000	97.88
59.5	10,825,437		0.0000	1.0000	97.88
60.5	89,564		0.0000	1.0000	97.88
61.5	89,564		0.0000	1.0000	97.88
62.5	89,564		0.0000	1.0000	97.88
63.5	89,564		0.0000	1.0000	97.88
64.5					97.88
65.5	100,437		0.0000		
66.5	100,437		0.0000		
67.5	123,426		0.0000		
68.5	167,059	22,989	0.1376		
69.5	43,633		0.0000		
70.5	84,331		0.0000		
71.5	84,331		0.0000		
72.5	90,699		0.0000		
73.5	84,331		0.0000		
74.5	43,633		0.0000		
75.5	43,633		0.0000		
76.5	43,633		0.0000		
77.5	306,691		0.0000		
78.5	306,691		0.0000		



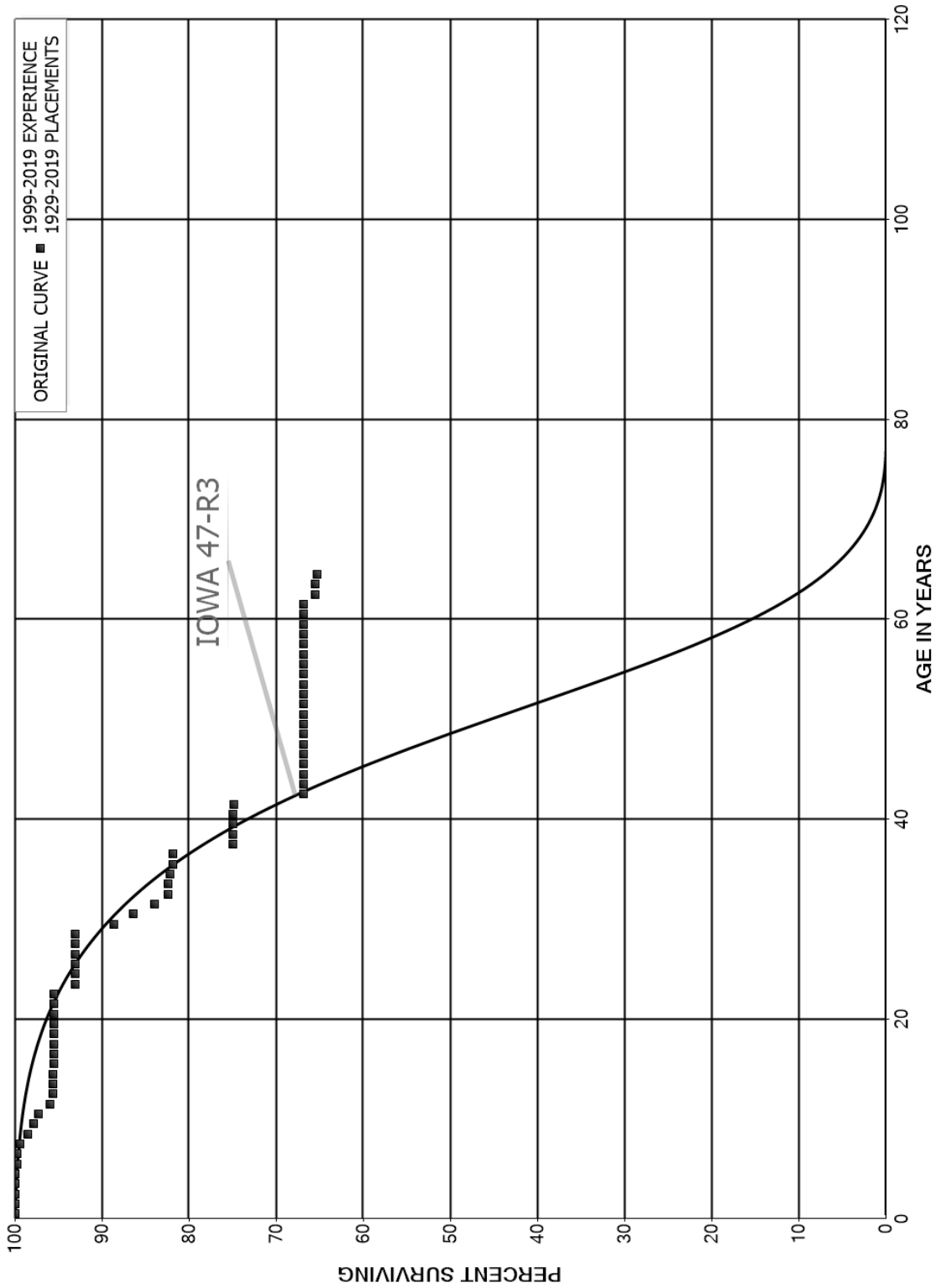
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	306,691	1,171	0.0038		
80.5	263,058		0.0000		
81.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 363.00 SERVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	10,615,796	0	0.0000	1.0000	100.00	
0.5	10,038,138	0	0.0000	1.0000	100.00	
1.5	9,510,472	60	0.0000	1.0000	100.00	
2.5	8,790,677	5,668	0.0006	0.9994	100.00	
3.5	8,679,530	421	0.0000	1.0000	99.93	
4.5	7,932,683	12,635	0.0016	0.9984	99.93	
5.5	6,966,530	2,890	0.0004	0.9996	99.77	
6.5	8,411,000	31,963	0.0038	0.9962	99.73	
7.5	8,278,555	65,894	0.0080	0.9920	99.35	
8.5	8,313,922	64,649	0.0078	0.9922	98.56	
9.5	8,351,147	42,617	0.0051	0.9949	97.79	
10.5	6,470,010	87,729	0.0136	0.9864	97.29	
11.5	6,246,021	19,892	0.0032	0.9968	95.98	
12.5	5,858,877	0	0.0000	1.0000	95.67	
13.5	4,698,450	4,942	0.0011	0.9989	95.67	
14.5	4,095,435	871	0.0002	0.9998	95.57	
15.5	3,284,377		0.0000	1.0000	95.55	
16.5	3,511,888	0	0.0000	1.0000	95.55	
17.5	3,953,464	0	0.0000	1.0000	95.55	
18.5	3,909,166	55	0.0000	1.0000	95.55	
19.5	3,630,733		0.0000	1.0000	95.55	
20.5	3,925,137		0.0000	1.0000	95.55	
21.5	3,646,749		0.0000	1.0000	95.55	
22.5	3,395,484	87,997	0.0259	0.9741	95.55	
23.5	3,780,922		0.0000	1.0000	93.07	
24.5	4,115,954	497	0.0001	0.9999	93.07	
25.5	5,003,579		0.0000	1.0000	93.06	
26.5	5,176,777		0.0000	1.0000	93.06	
27.5	4,635,070		0.0000	1.0000	93.06	
28.5	4,421,930	209,578	0.0474	0.9526	93.06	
29.5	3,596,999	92,585	0.0257	0.9743	88.65	
30.5	2,947,708	80,733	0.0274	0.9726	86.37	
31.5	2,783,645	51,927	0.0187	0.9813	84.00	
32.5	2,491,265	1,241	0.0005	0.9995	82.43	
33.5	2,228,511	4,871	0.0022	0.9978	82.39	
34.5	1,965,612	8,461	0.0043	0.9957	82.21	
35.5	1,925,423	503	0.0003	0.9997	81.86	
36.5	1,973,278	167,021	0.0846	0.9154	81.84	
37.5	1,839,375	192	0.0001	0.9999	74.91	
38.5	1,657,395		0.0000	1.0000	74.90	

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,207,182		0.0000	1.0000	74.90
40.5	1,197,802	385	0.0003	0.9997	74.90
41.5	1,022,673	110,064	0.1076	0.8924	74.88
42.5	886,687		0.0000	1.0000	66.82
43.5	1,408,938		0.0000	1.0000	66.82
44.5	900,914		0.0000	1.0000	66.82
45.5	855,938		0.0000	1.0000	66.82
46.5	736,586		0.0000	1.0000	66.82
47.5	156,414		0.0000	1.0000	66.82
48.5	155,860		0.0000	1.0000	66.82
49.5	82,277		0.0000	1.0000	66.82
50.5	145,022		0.0000	1.0000	66.82
51.5	132,653		0.0000	1.0000	66.82
52.5	134,754	0	0.0000	1.0000	66.82
53.5	137,757		0.0000	1.0000	66.82
54.5	20,119		0.0000	1.0000	66.82
55.5	100,869		0.0000	1.0000	66.82
56.5	100,869		0.0000	1.0000	66.82
57.5	97,866		0.0000	1.0000	66.82
58.5	256,316		0.0000	1.0000	66.82
59.5	180,162	20	0.0001	0.9999	66.82
60.5	228,822		0.0000	1.0000	66.81
61.5	228,822	4,595	0.0201	0.9799	66.81
62.5	50,781		0.0000	1.0000	65.47
63.5	50,781	162	0.0032	0.9968	65.47
64.5					65.26
65.5	60,144		0.0000		
66.5	60,144		0.0000		
67.5	60,144		0.0000		
68.5	70,211		0.0000		
69.5	13,932	819	0.0588		
70.5	36,101		0.0000		
71.5	36,101	4,521	0.1252		
72.5	31,580	1,251	0.0396		
73.5	30,329	442	0.0146		
74.5	6,899	644	0.0933		
75.5	6,255		0.0000		
76.5	6,255		0.0000		
77.5	151,010		0.0000		
78.5	151,010		0.0000		

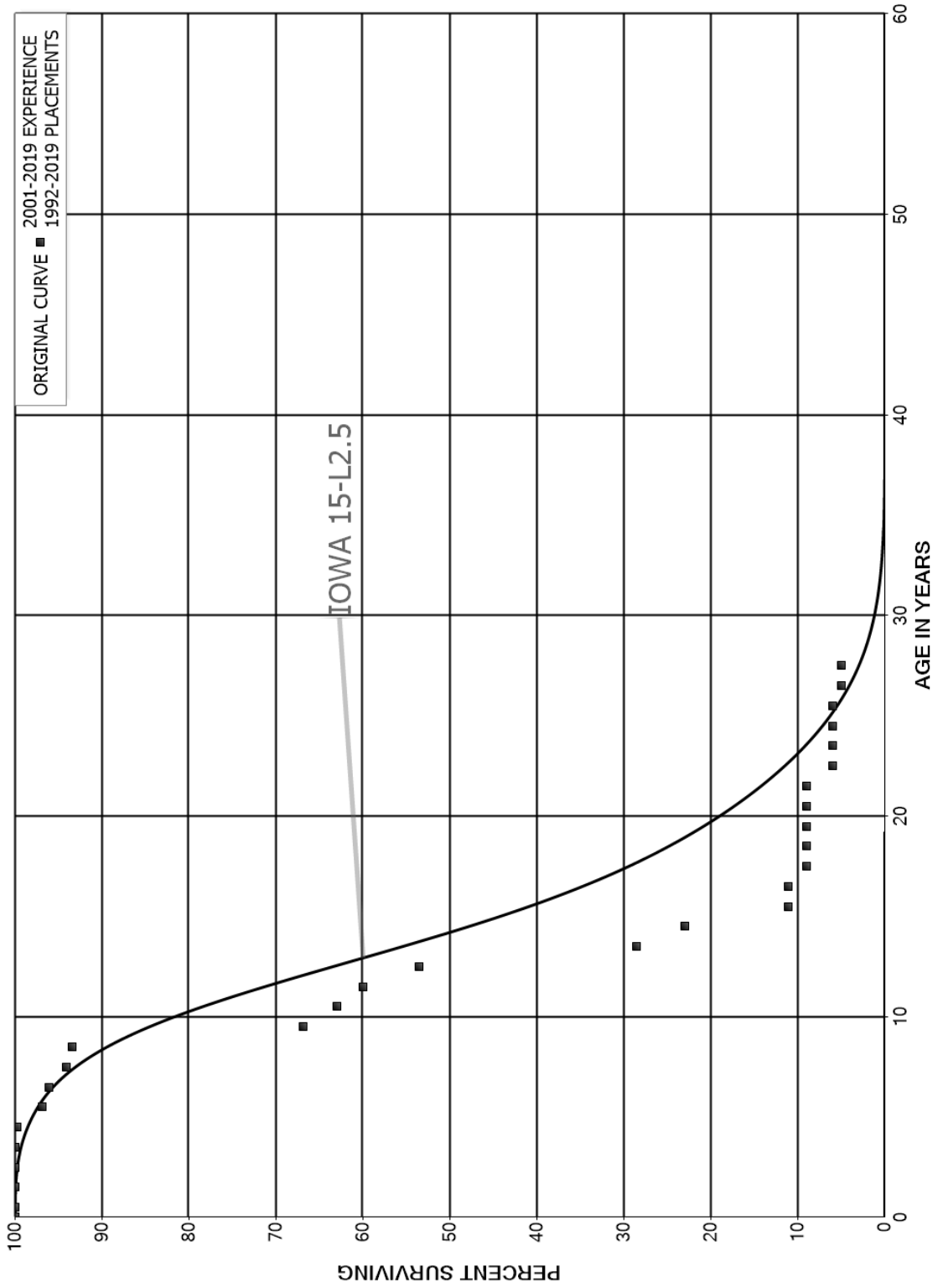
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	151,010		0.0000		
80.5	144,755	1,628	0.0112		
81.5					
82.5	717		0.0000		
83.5	717		0.0000		
84.5	717		0.0000		
85.5	717		0.0000		
86.5	717		0.0000		
87.5	717		0.0000		
88.5	717		0.0000		
89.5	717		0.0000		
90.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 364.00 FLOW MEASURING DEVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



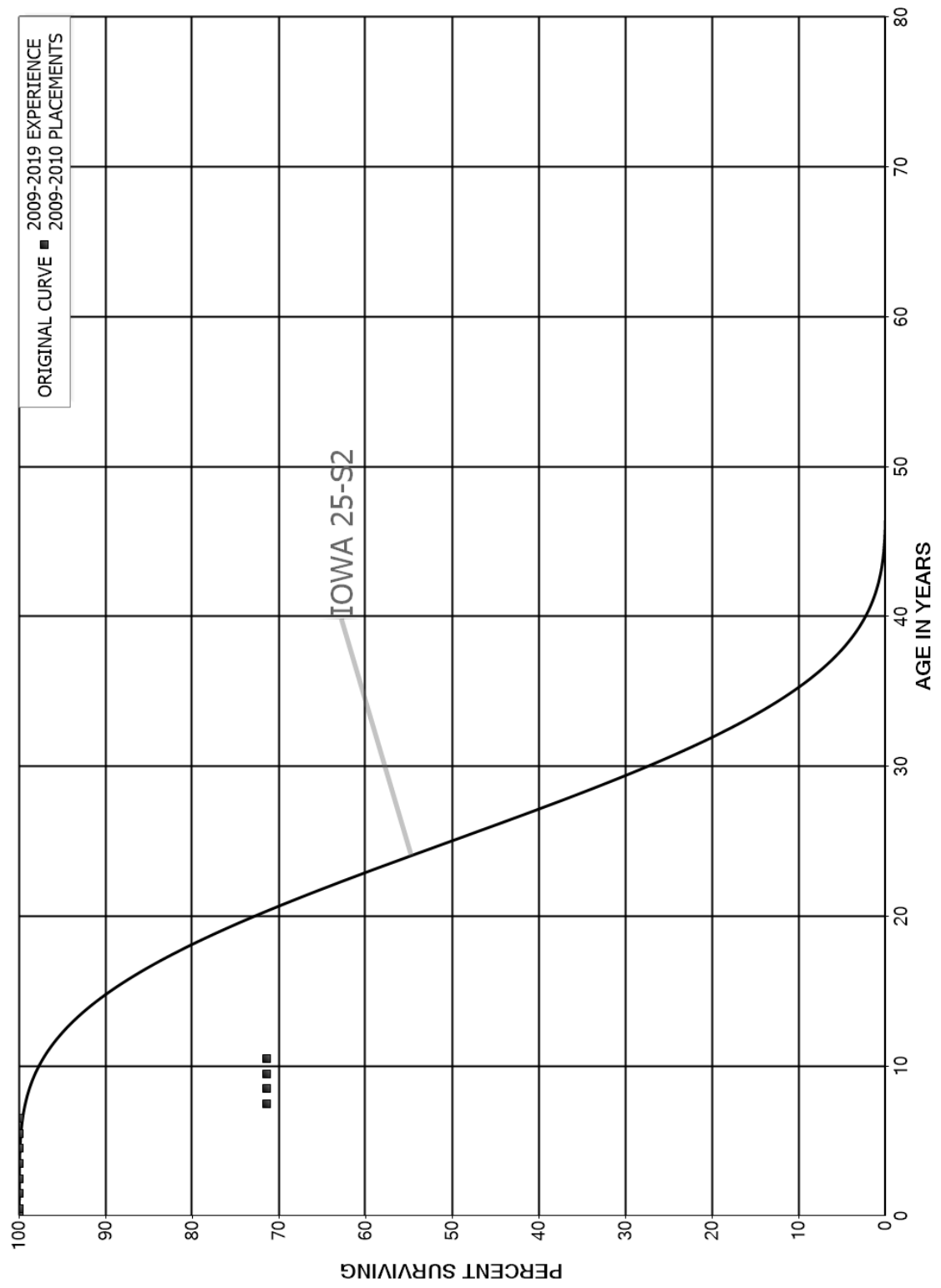
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,359,184		0.0000	1.0000	100.00
0.5	993,961		0.0000	1.0000	100.00
1.5	1,007,023		0.0000	1.0000	100.00
2.5	1,088,761		0.0000	1.0000	100.00
3.5	829,368	2,564	0.0031	0.9969	100.00
4.5	790,917	22,463	0.0284	0.9716	99.69
5.5	745,466	5,882	0.0079	0.9921	96.86
6.5	575,156	12,254	0.0213	0.9787	96.10
7.5	576,785	4,337	0.0075	0.9925	94.05
8.5	639,652	181,670	0.2840	0.7160	93.34
9.5	332,968	19,182	0.0576	0.9424	66.83
10.5	221,704	10,816	0.0488	0.9512	62.98
11.5	90,287	9,617	0.1065	0.8935	59.91
12.5	71,639	33,466	0.4671	0.5329	53.53
13.5	31,704	6,133	0.1934	0.8066	28.52
14.5	16,849	8,739	0.5187	0.4813	23.00
15.5	16,281		0.0000	1.0000	11.07
16.5	16,281	3,203	0.1967	0.8033	11.07
17.5	13,078		0.0000	1.0000	8.90
18.5	13,078		0.0000	1.0000	8.90
19.5	13,078		0.0000	1.0000	8.90
20.5	13,078		0.0000	1.0000	8.90
21.5	13,078	4,272	0.3266	0.6734	8.90
22.5	8,806		0.0000	1.0000	5.99
23.5	8,806		0.0000	1.0000	5.99
24.5	8,806		0.0000	1.0000	5.99
25.5	8,806	1,522	0.1728	0.8272	5.99
26.5	7,285		0.0000	1.0000	4.95
27.5					4.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





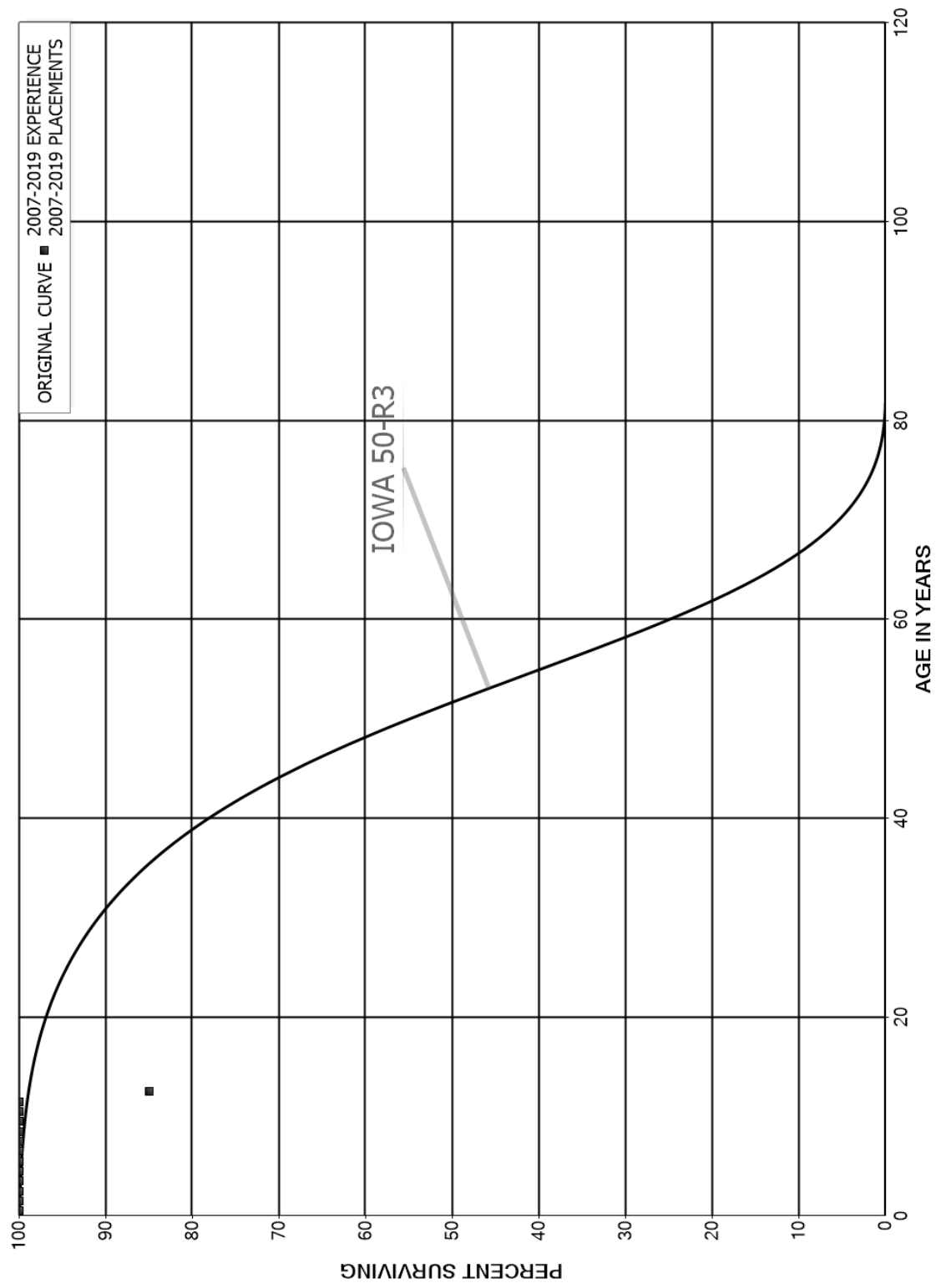
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2009-2010			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,918		0.0000	1.0000	100.00
0.5	20,918		0.0000	1.0000	100.00
1.5	20,918		0.0000	1.0000	100.00
2.5	20,918		0.0000	1.0000	100.00
3.5	20,918		0.0000	1.0000	100.00
4.5	20,918		0.0000	1.0000	100.00
5.5	20,918		0.0000	1.0000	100.00
6.5	20,918	5,980	0.2859	0.7141	100.00
7.5	14,938		0.0000	1.0000	71.41
8.5	14,938		0.0000	1.0000	71.41
9.5	14,938		0.0000	1.0000	71.41
10.5					71.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 370.00 RECEIVING WELLS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



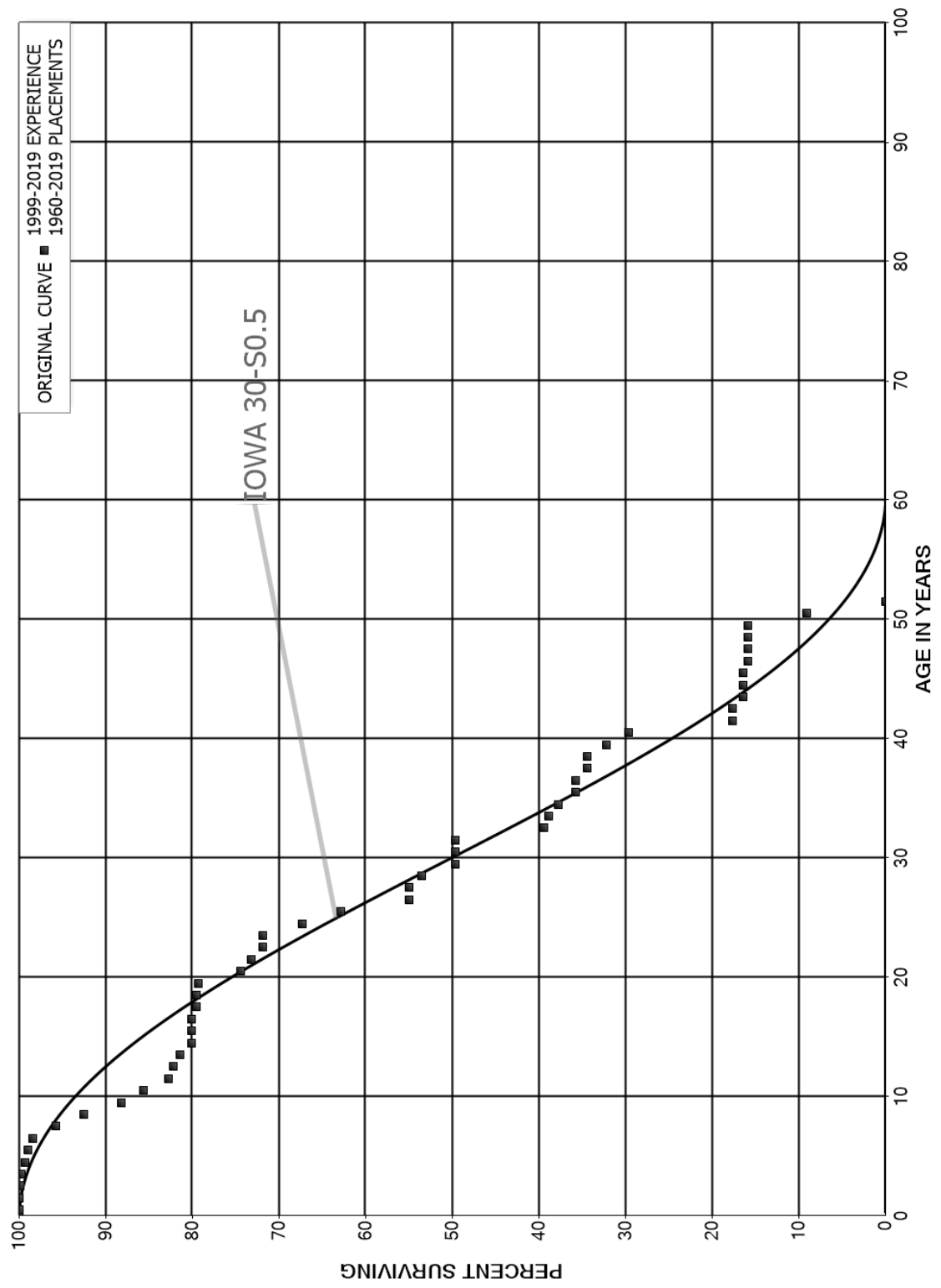
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	121,180		0.0000	1.0000	100.00
0.5	111,148		0.0000	1.0000	100.00
1.5	111,148		0.0000	1.0000	100.00
2.5	132,949		0.0000	1.0000	100.00
3.5	132,949		0.0000	1.0000	100.00
4.5	132,949		0.0000	1.0000	100.00
5.5	132,949		0.0000	1.0000	100.00
6.5	99,482		0.0000	1.0000	100.00
7.5	99,482		0.0000	1.0000	100.00
8.5	99,482		0.0000	1.0000	100.00
9.5	99,482		0.0000	1.0000	100.00
10.5	7,370		0.0000	1.0000	100.00
11.5	7,370	1,109	0.1505	0.8495	100.00
12.5					84.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 371.00 PUMPING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,928,914		0.0000	1.0000	100.00
0.5	8,653,630	5,419	0.0006	0.9994	100.00
1.5	11,021,964	12,306	0.0011	0.9989	99.94
2.5	10,781,219	12,096	0.0011	0.9989	99.83
3.5	9,453,412	44,345	0.0047	0.9953	99.71
4.5	6,817,321	23,246	0.0034	0.9966	99.25
5.5	5,785,361	27,560	0.0048	0.9952	98.91
6.5	5,413,591	148,677	0.0275	0.9725	98.44
7.5	3,768,518	126,794	0.0336	0.9664	95.73
8.5	3,446,810	160,001	0.0464	0.9536	92.51
9.5	2,549,487	73,710	0.0289	0.9711	88.22
10.5	1,455,129	50,056	0.0344	0.9656	85.67
11.5	1,043,502	7,445	0.0071	0.9929	82.72
12.5	1,137,255	10,025	0.0088	0.9912	82.13
13.5	837,345	14,096	0.0168	0.9832	81.41
14.5	784,395		0.0000	1.0000	80.04
15.5	677,887		0.0000	1.0000	80.04
16.5	534,434	3,610	0.0068	0.9932	80.04
17.5	610,401	101	0.0002	0.9998	79.50
18.5	664,971	1,413	0.0021	0.9979	79.48
19.5	663,558	41,426	0.0624	0.9376	79.31
20.5	588,736	9,514	0.0162	0.9838	74.36
21.5	638,927	11,409	0.0179	0.9821	73.16
22.5	599,786		0.0000	1.0000	71.85
23.5	517,501	33,177	0.0641	0.9359	71.85
24.5	484,324	31,555	0.0652	0.9348	67.25
25.5	497,723	62,415	0.1254	0.8746	62.87
26.5	428,133		0.0000	1.0000	54.98
27.5	312,603	8,673	0.0277	0.9723	54.98
28.5	241,647	17,595	0.0728	0.9272	53.46
29.5	235,281		0.0000	1.0000	49.56
30.5	280,168		0.0000	1.0000	49.56
31.5	280,168	57,666	0.2058	0.7942	49.56
32.5	222,502	2,887	0.0130	0.9870	39.36
33.5	140,599	3,932	0.0280	0.9720	38.85
34.5	136,159	7,170	0.0527	0.9473	37.77
35.5	183,946		0.0000	1.0000	35.78
36.5	183,946	7,008	0.0381	0.9619	35.78
37.5	176,938		0.0000	1.0000	34.41
38.5	127,299	8,408	0.0660	0.9340	34.41

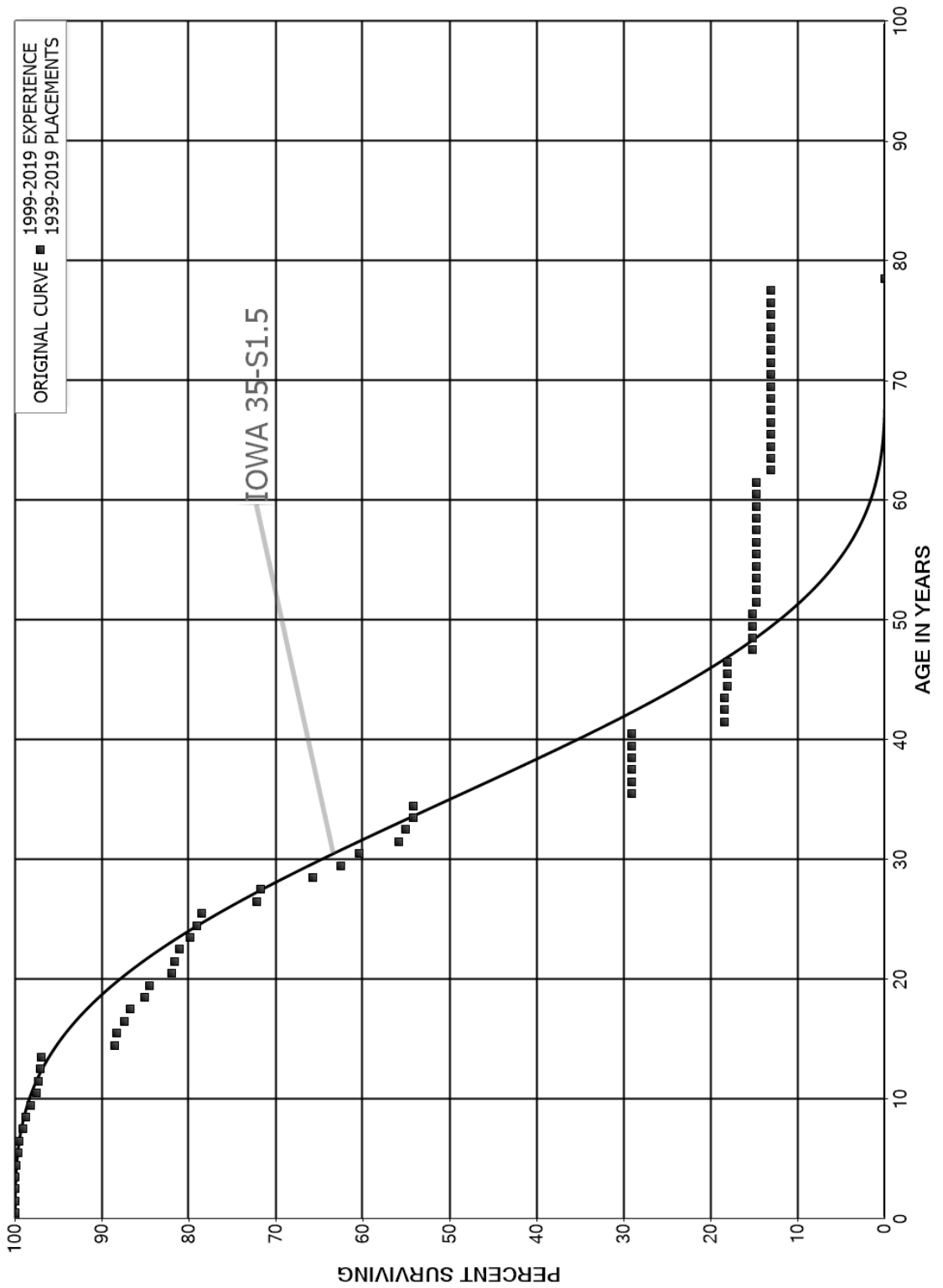
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	128,004	9,910	0.0774	0.9226	32.14
40.5	140,361	56,891	0.4053	0.5947	29.65
41.5	83,470		0.0000	1.0000	17.63
42.5	83,470	6,122	0.0733	0.9267	17.63
43.5	28,842		0.0000	1.0000	16.34
44.5	28,842		0.0000	1.0000	16.34
45.5	28,842	860	0.0298	0.9702	16.34
46.5	27,983		0.0000	1.0000	15.85
47.5	21,408		0.0000	1.0000	15.85
48.5	5,141		0.0000	1.0000	15.85
49.5	5,141	2,187	0.4255	0.5745	15.85
50.5	2,953	2,953	1.0000		9.11
51.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 380.00 TREATMENT EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	52,484,979		0.0000	1.0000	100.00
0.5	52,338,297		0.0000	1.0000	100.00
1.5	64,377,580	1,853	0.0000	1.0000	100.00
2.5	61,280,085	2,456	0.0000	1.0000	100.00
3.5	56,645,719	97,216	0.0017	0.9983	99.99
4.5	44,542,853	95,360	0.0021	0.9979	99.82
5.5	39,192,994	29,279	0.0007	0.9993	99.61
6.5	37,993,990	195,343	0.0051	0.9949	99.53
7.5	37,038,634	104,008	0.0028	0.9972	99.02
8.5	38,046,057	237,211	0.0062	0.9938	98.74
9.5	28,856,102	179,693	0.0062	0.9938	98.13
10.5	11,015,164	26,343	0.0024	0.9976	97.52
11.5	15,100,040	30,352	0.0020	0.9980	97.28
12.5	16,280,292	28,816	0.0018	0.9982	97.09
13.5	16,807,417	1,468,058	0.0873	0.9127	96.92
14.5	14,676,816	22,218	0.0015	0.9985	88.45
15.5	11,808,330	121,942	0.0103	0.9897	88.32
16.5	11,627,778	92,492	0.0080	0.9920	87.41
17.5	12,550,432	231,211	0.0184	0.9816	86.71
18.5	10,724,551	78,054	0.0073	0.9927	85.11
19.5	10,812,422	322,982	0.0299	0.9701	84.49
20.5	9,468,414	37,906	0.0040	0.9960	81.97
21.5	9,609,732	62,020	0.0065	0.9935	81.64
22.5	9,543,450	153,592	0.0161	0.9839	81.11
23.5	9,334,263	87,607	0.0094	0.9906	79.81
24.5	9,070,811	59,133	0.0065	0.9935	79.06
25.5	8,792,217	707,485	0.0805	0.9195	78.54
26.5	4,703,706	32,521	0.0069	0.9931	72.22
27.5	4,778,474	397,707	0.0832	0.9168	71.72
28.5	6,059,797	298,086	0.0492	0.9508	65.75
29.5	6,184,153	215,062	0.0348	0.9652	62.52
30.5	5,152,304	387,965	0.0753	0.9247	60.35
31.5	5,356,247	72,674	0.0136	0.9864	55.80
32.5	3,421,800	52,448	0.0153	0.9847	55.05
33.5	2,753,091		0.0000	1.0000	54.20
34.5	2,272,767	1,055,181	0.4643	0.5357	54.20
35.5	635,826		0.0000	1.0000	29.04
36.5	779,480		0.0000	1.0000	29.04
37.5	801,627		0.0000	1.0000	29.04
38.5	778,140		0.0000	1.0000	29.04



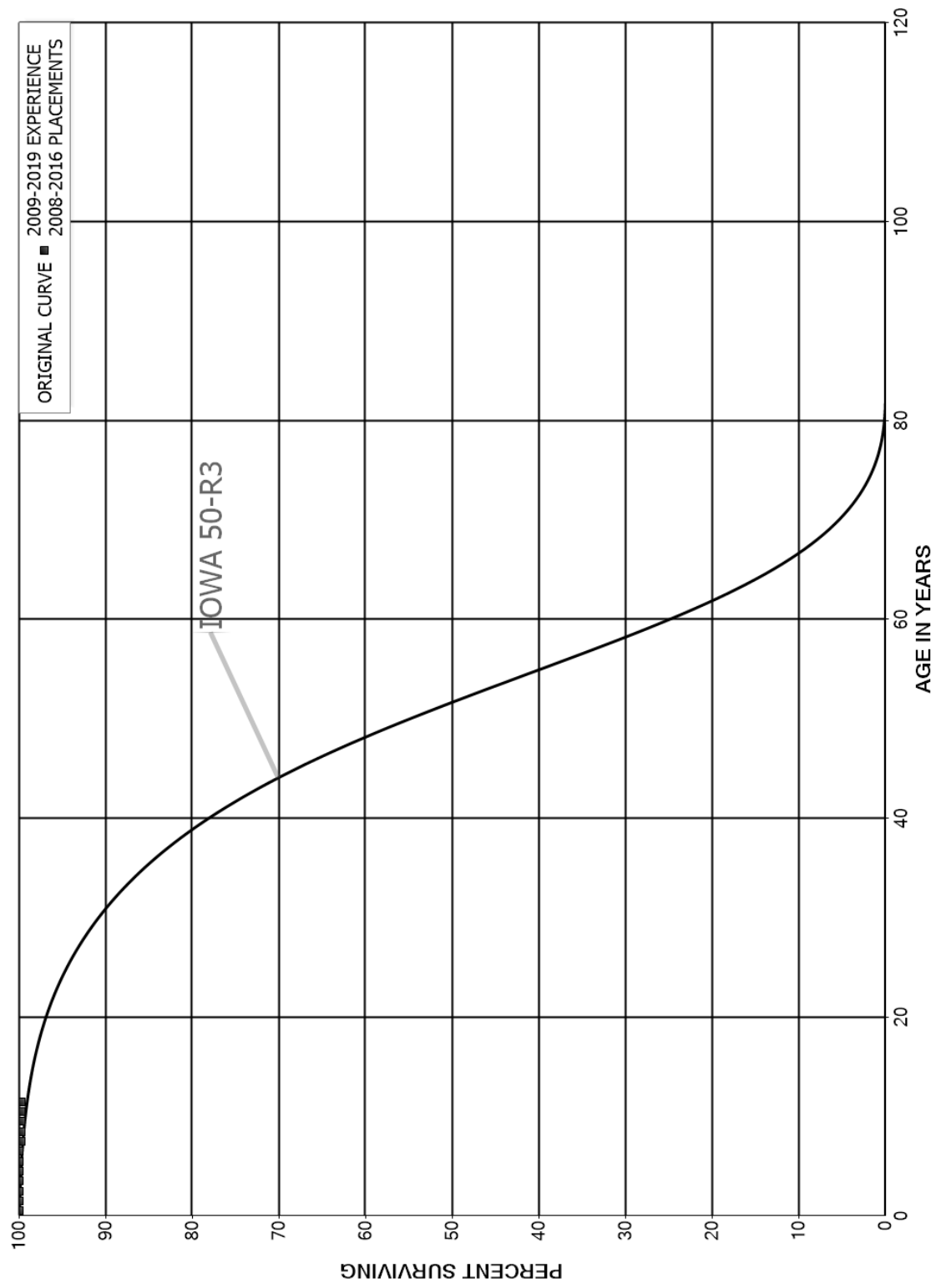
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	778,140	411	0.0005	0.9995	29.04	
40.5	777,730	285,407	0.3670	0.6330	29.02	
41.5	15,823,498		0.0000	1.0000	18.37	
42.5	15,823,498		0.0000	1.0000	18.37	
43.5	15,823,498	268,317	0.0170	0.9830	18.37	
44.5	515,644		0.0000	1.0000	18.06	
45.5	515,644		0.0000	1.0000	18.06	
46.5	371,038	60,316	0.1626	0.8374	18.06	
47.5	288,575		0.0000	1.0000	15.12	
48.5	288,575		0.0000	1.0000	15.12	
49.5	288,575		0.0000	1.0000	15.12	
50.5	288,575	6,818	0.0236	0.9764	15.12	
51.5	281,757	315	0.0011	0.9989	14.77	
52.5	107,182		0.0000	1.0000	14.75	
53.5	107,182	462	0.0043	0.9957	14.75	
54.5	23,321		0.0000	1.0000	14.69	
55.5	23,321		0.0000	1.0000	14.69	
56.5	298,010		0.0000	1.0000	14.69	
57.5	298,010		0.0000	1.0000	14.69	
58.5	298,010		0.0000	1.0000	14.69	
59.5	25,215		0.0000	1.0000	14.69	
60.5	25,215		0.0000	1.0000	14.69	
61.5	25,215	2,761	0.1095	0.8905	14.69	
62.5	1,894		0.0000	1.0000	13.08	
63.5	1,894		0.0000	1.0000	13.08	
64.5	1,894		0.0000	1.0000	13.08	
65.5	1,894		0.0000	1.0000	13.08	
66.5	1,894		0.0000	1.0000	13.08	
67.5	1,894		0.0000	1.0000	13.08	
68.5	1,894		0.0000	1.0000	13.08	
69.5	1,894		0.0000	1.0000	13.08	
70.5	1,894		0.0000	1.0000	13.08	
71.5	1,894		0.0000	1.0000	13.08	
72.5	1,894		0.0000	1.0000	13.08	
73.5	1,894		0.0000	1.0000	13.08	
74.5	1,894		0.0000	1.0000	13.08	
75.5	1,894		0.0000	1.0000	13.08	
76.5	1,894		0.0000	1.0000	13.08	
77.5	1,894	1,894	1.0000		13.08	
78.5						

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 381.00 PLANT SEWERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



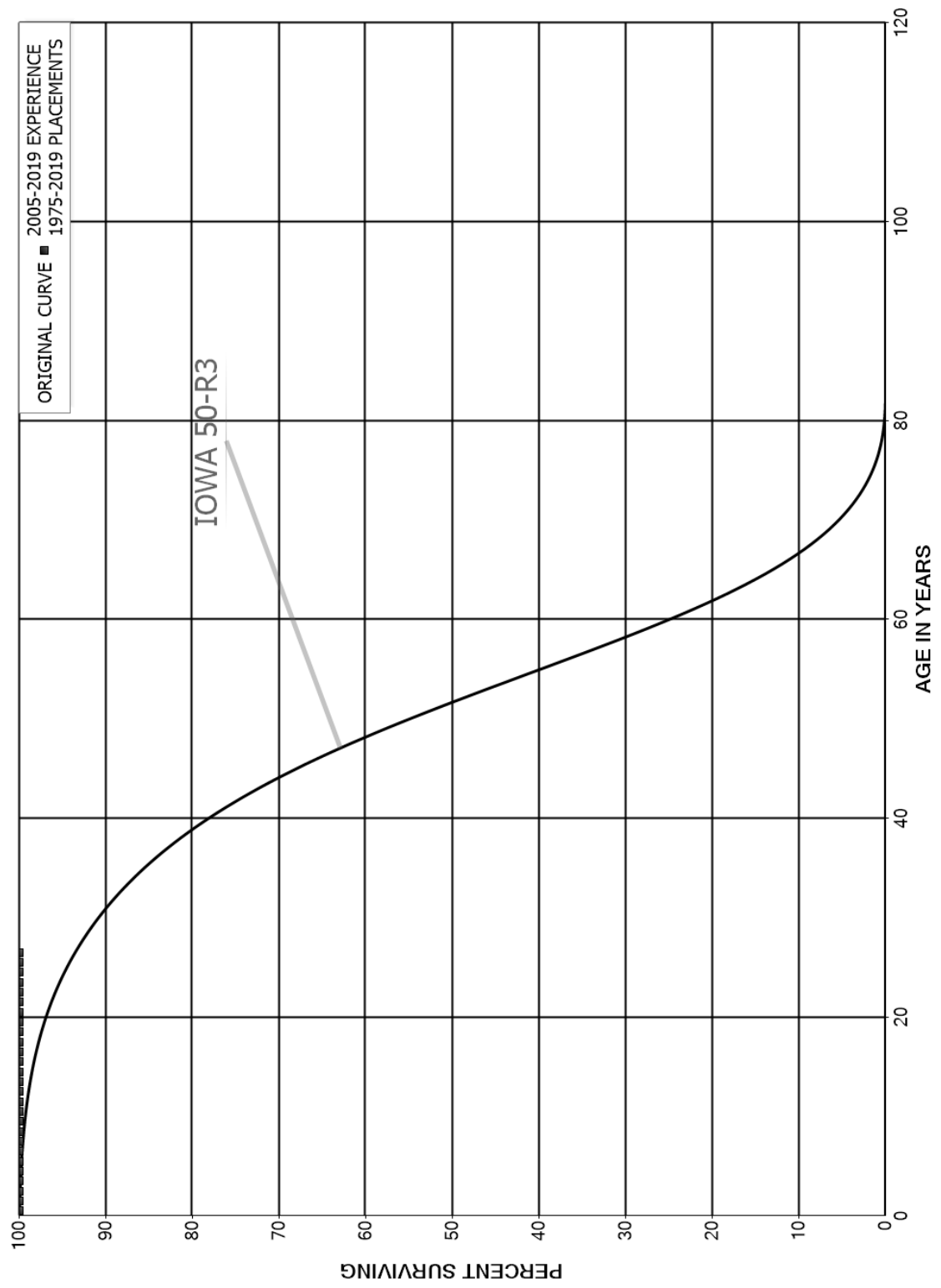
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2016			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,524,134		0.0000	1.0000	100.00
0.5	6,227,961		0.0000	1.0000	100.00
1.5	6,227,961		0.0000	1.0000	100.00
2.5	6,227,961		0.0000	1.0000	100.00
3.5	6,182,721		0.0000	1.0000	100.00
4.5	6,175,263		0.0000	1.0000	100.00
5.5	5,940,945		0.0000	1.0000	100.00
6.5	5,940,945	13,300	0.0022	0.9978	100.00
7.5	5,925,961	2,120	0.0004	0.9996	99.78
8.5	5,917,243		0.0000	1.0000	99.74
9.5	4,729,279		0.0000	1.0000	99.74
10.5	294,412		0.0000	1.0000	99.74
11.5					99.74

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 382.00 OUTFALL SEWER LINES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1975-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,700,716		0.0000	1.0000	100.00
0.5	1,605,061		0.0000	1.0000	100.00
1.5	360,675		0.0000	1.0000	100.00
2.5	355,425		0.0000	1.0000	100.00
3.5	355,425		0.0000	1.0000	100.00
4.5	355,425		0.0000	1.0000	100.00
5.5	255,003		0.0000	1.0000	100.00
6.5	264,243		0.0000	1.0000	100.00
7.5	265,939		0.0000	1.0000	100.00
8.5	265,939		0.0000	1.0000	100.00
9.5	238,111		0.0000	1.0000	100.00
10.5	212,060		0.0000	1.0000	100.00
11.5	244,789	6	0.0000	1.0000	100.00
12.5	244,783		0.0000	1.0000	100.00
13.5	43,666		0.0000	1.0000	100.00
14.5	34,425		0.0000	1.0000	100.00
15.5	32,729		0.0000	1.0000	100.00
16.5	32,729		0.0000	1.0000	100.00
17.5	32,729		0.0000	1.0000	100.00
18.5	32,729		0.0000	1.0000	100.00
19.5	32,729		0.0000	1.0000	100.00
20.5	32,729		0.0000	1.0000	100.00
21.5	202,476		0.0000	1.0000	100.00
22.5	202,476		0.0000	1.0000	100.00
23.5	202,476		0.0000	1.0000	100.00
24.5	202,476		0.0000	1.0000	100.00
25.5	202,476		0.0000	1.0000	100.00
26.5					100.00
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5	4,984		0.0000		
37.5	4,984		0.0000		
38.5	4,984		0.0000		

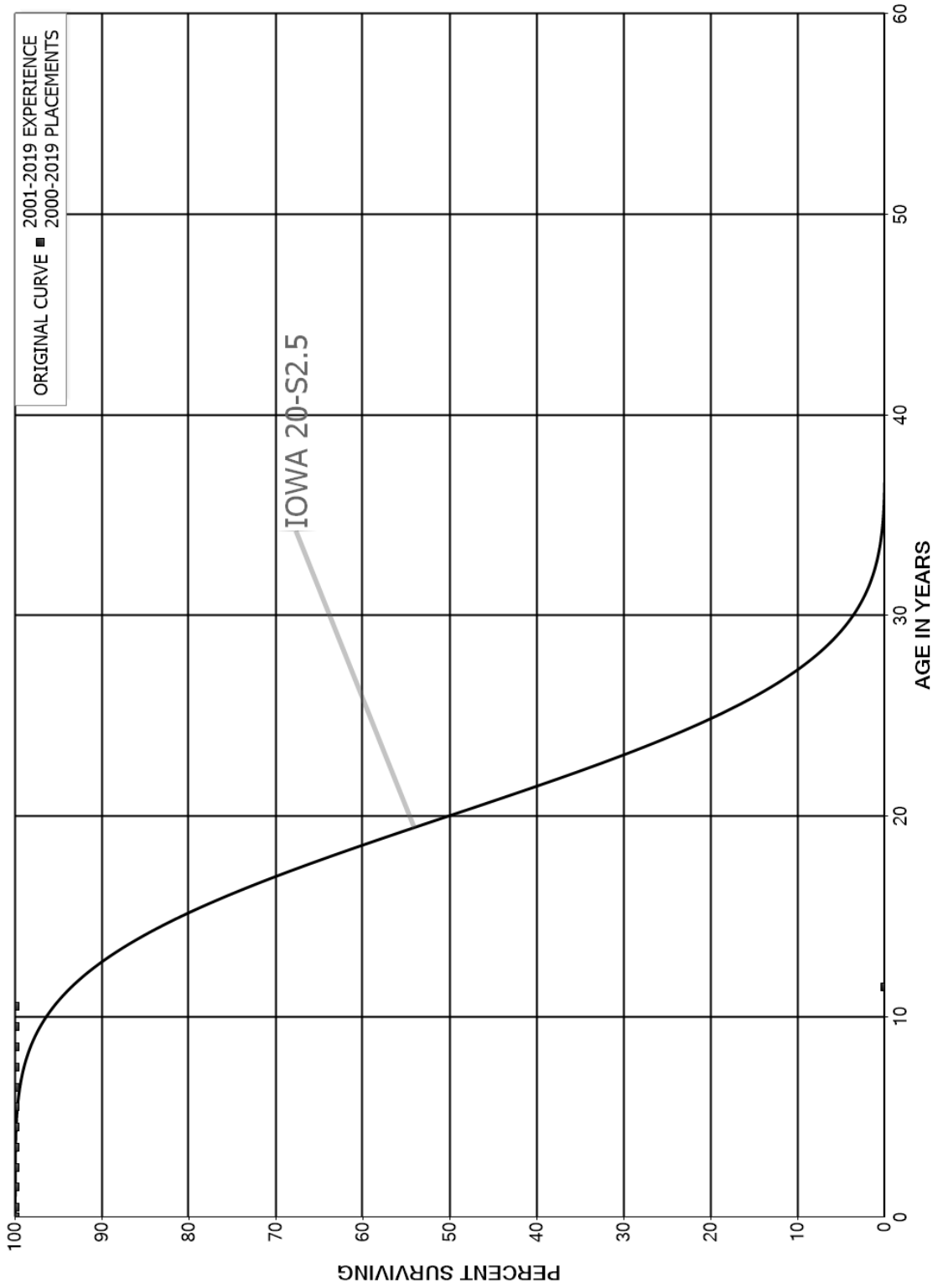
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1975-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,984		0.0000		
40.5	4,984		0.0000		
41.5	4,984		0.0000		
42.5	4,984		0.0000		
43.5	4,984		0.0000		
44.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

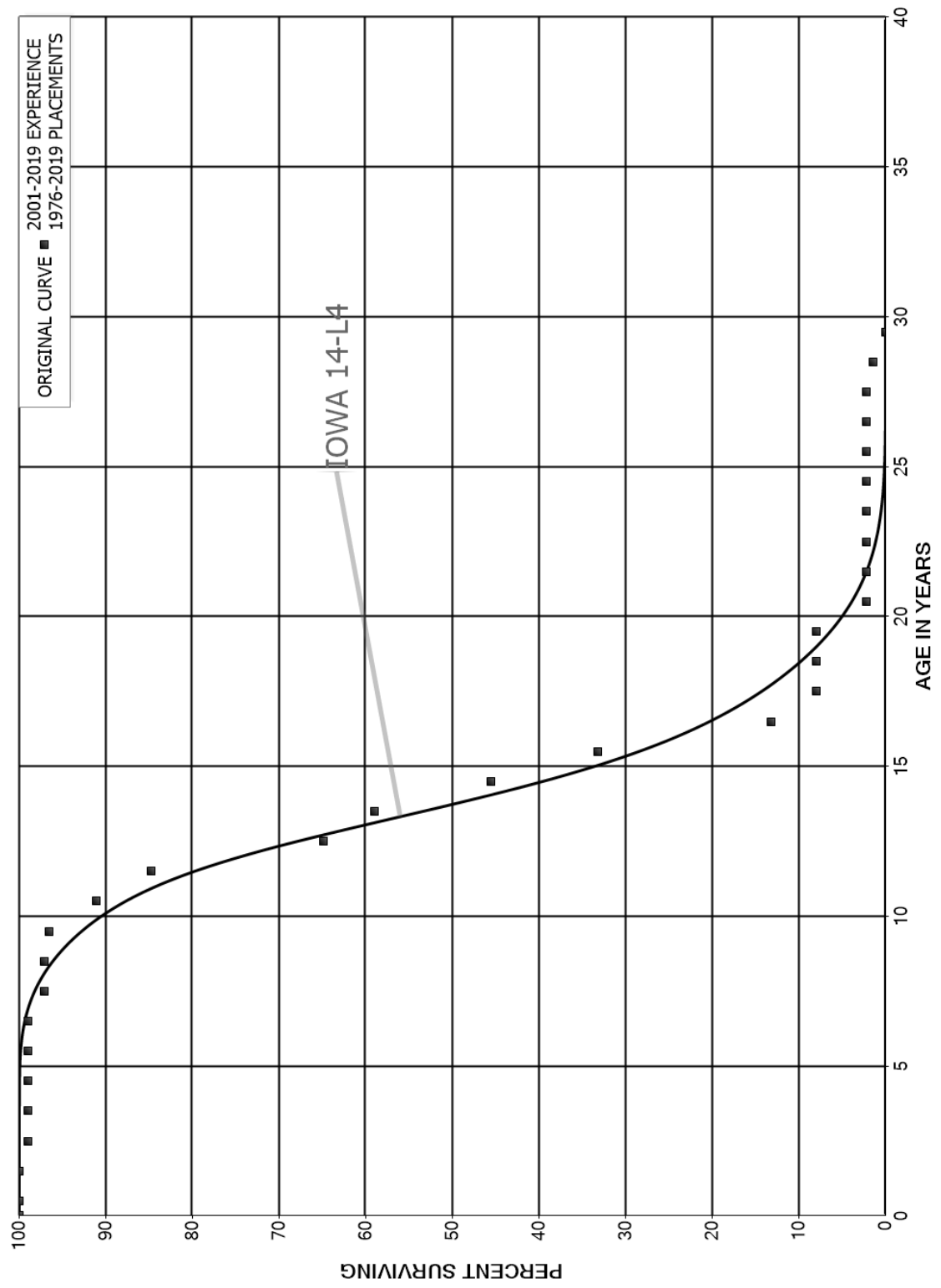
ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2000-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	737,756		0.0000	1.0000	100.00
0.5	437,340		0.0000	1.0000	100.00
1.5	405,165		0.0000	1.0000	100.00
2.5	4,547,918		0.0000	1.0000	100.00
3.5	4,547,918		0.0000	1.0000	100.00
4.5	4,547,918	2,997	0.0007	0.9993	100.00
5.5	4,544,921		0.0000	1.0000	99.93
6.5	393,353		0.0000	1.0000	99.93
7.5	393,353		0.0000	1.0000	99.93
8.5	281,642		0.0000	1.0000	99.93
9.5	8,492		0.0000	1.0000	99.93
10.5	8,492	8,492	1.0000		99.93
11.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 391.00 TRANSPORTATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



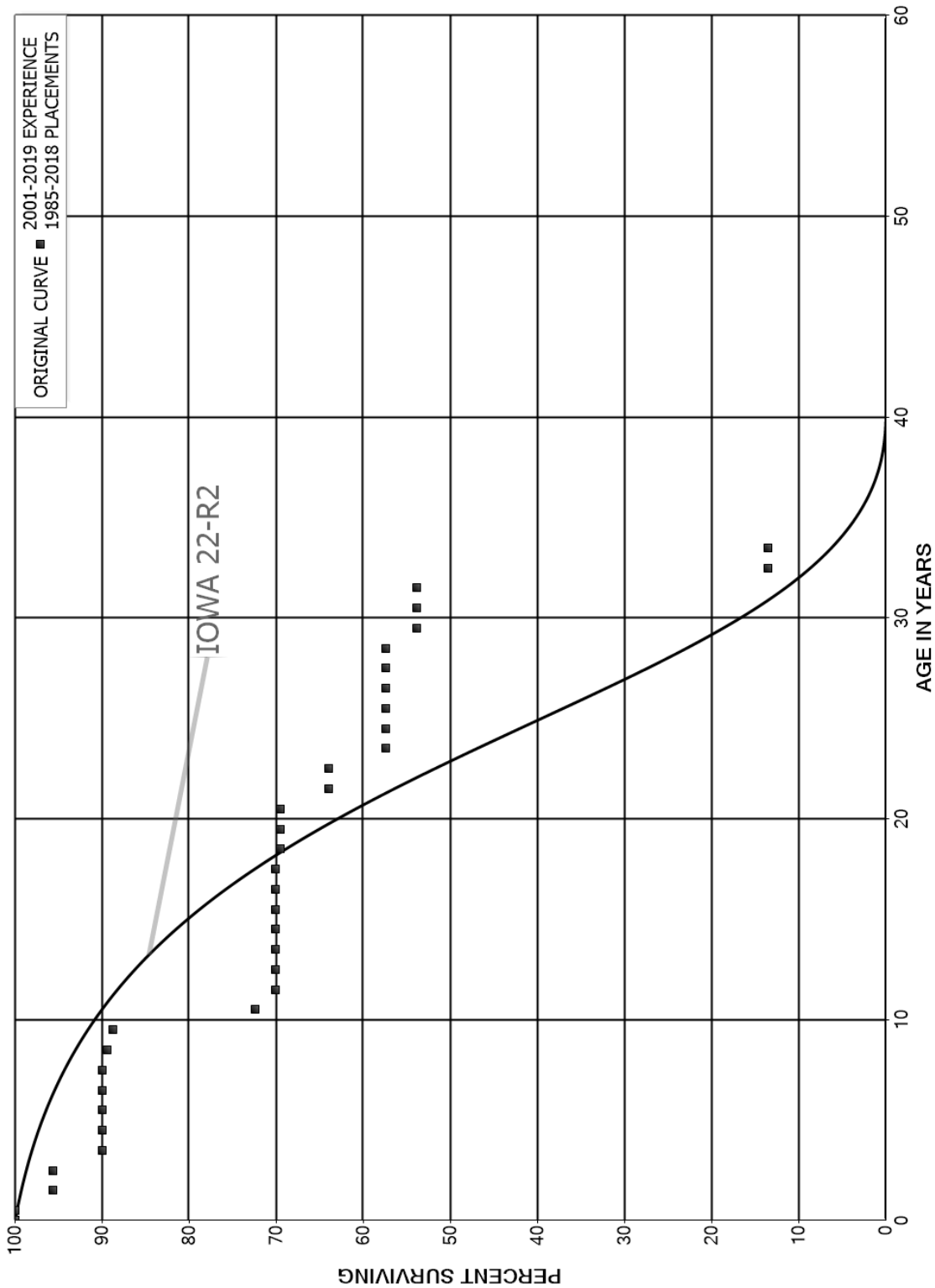
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,168,919		0.0000	1.0000	100.00
0.5	3,692,372		0.0000	1.0000	100.00
1.5	1,458,511	14,523	0.0100	0.9900	100.00
2.5	2,332,879		0.0000	1.0000	99.00
3.5	2,514,168		0.0000	1.0000	99.00
4.5	1,930,107		0.0000	1.0000	99.00
5.5	1,664,209		0.0000	1.0000	99.00
6.5	1,677,203	32,676	0.0195	0.9805	99.00
7.5	1,535,566		0.0000	1.0000	97.08
8.5	1,373,777	8,793	0.0064	0.9936	97.08
9.5	1,545,830	87,008	0.0563	0.9437	96.45
10.5	879,899	61,030	0.0694	0.9306	91.03
11.5	743,329	174,600	0.2349	0.7651	84.71
12.5	440,822	40,215	0.0912	0.9088	64.81
13.5	348,542	79,500	0.2281	0.7719	58.90
14.5	276,542	75,000	0.2712	0.7288	45.47
15.5	195,354	117,872	0.6034	0.3966	33.14
16.5	51,900	20,700	0.3988	0.6012	13.14
17.5	31,200		0.0000	1.0000	7.90
18.5	32,855		0.0000	1.0000	7.90
19.5	32,855	23,700	0.7214	0.2786	7.90
20.5	9,155		0.0000	1.0000	2.20
21.5	9,155		0.0000	1.0000	2.20
22.5	9,155		0.0000	1.0000	2.20
23.5	9,155		0.0000	1.0000	2.20
24.5	14,155		0.0000	1.0000	2.20
25.5	14,155		0.0000	1.0000	2.20
26.5	14,155		0.0000	1.0000	2.20
27.5	14,155	5,000	0.3532	0.6468	2.20
28.5	9,155	9,155	1.0000		1.42
29.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 395.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2018			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	192,967		0.0000	1.0000	100.00
0.5	192,967	8,551	0.0443	0.9557	100.00
1.5	127,706		0.0000	1.0000	95.57
2.5	255,380	14,864	0.0582	0.9418	95.57
3.5	324,176		0.0000	1.0000	90.01
4.5	885,603		0.0000	1.0000	90.01
5.5	967,489		0.0000	1.0000	90.01
6.5	1,410,131		0.0000	1.0000	90.01
7.5	1,250,710	8,033	0.0064	0.9936	90.01
8.5	871,073	6,988	0.0080	0.9920	89.43
9.5	536,633	98,717	0.1840	0.8160	88.71
10.5	191,853	6,125	0.0319	0.9681	72.39
11.5	137,458		0.0000	1.0000	70.08
12.5	190,308		0.0000	1.0000	70.08
13.5	169,091		0.0000	1.0000	70.08
14.5	169,091		0.0000	1.0000	70.08
15.5	169,587		0.0000	1.0000	70.08
16.5	190,470		0.0000	1.0000	70.08
17.5	117,685	875	0.0074	0.9926	70.08
18.5	116,810		0.0000	1.0000	69.56
19.5	116,810		0.0000	1.0000	69.56
20.5	124,335	9,999	0.0804	0.9196	69.56
21.5	124,336		0.0000	1.0000	63.97
22.5	124,336	12,782	0.1028	0.8972	63.97
23.5	111,554		0.0000	1.0000	57.39
24.5	111,554		0.0000	1.0000	57.39
25.5	111,554		0.0000	1.0000	57.39
26.5	18,021		0.0000	1.0000	57.39
27.5	8,021		0.0000	1.0000	57.39
28.5	8,021	496	0.0618	0.9382	57.39
29.5	30,053		0.0000	1.0000	53.84
30.5	30,053		0.0000	1.0000	53.84
31.5	30,053	22,528	0.7496	0.2504	53.84
32.5	7,525		0.0000	1.0000	13.48
33.5					13.48

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**PART VII. DETAILED DEPRECIATION  
CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1928	319,718	259,241	60,477		60,477	0.1
1930	60,321	60,321			60,477	0.1
1935	382,687	315,892	66,795		127,272	0.1
1945	436,981	343,950	93,031		220,303	0.2
1954	396,552	282,731	113,821		334,124	0.4
1955	1,307,360	938,980	368,380		702,504	0.8
1960	2,135,413	1,469,726	665,687		1,368,191	1.5
1963	341,724	218,167	123,557		1,491,748	1.7
1964	1,186,323	795,000	391,323		1,883,071	2.1
1965	952,764	646,365	306,399		2,189,470	2.4
1966	147,882	105,516	42,366		2,231,836	2.5
1967	137,035	84,342	52,693		2,284,529	2.6
1969	80,339	61,419	18,920		2,303,449	2.6
1970	702,659	429,362	273,297		2,576,746	2.9
1972	153,924	94,409	59,515		2,636,261	2.9
1973	34,398	20,106	14,292		2,650,553	3.0
1974	1,245	691	554		2,651,107	3.0
1979	8,804,379	4,553,003	4,251,376		6,902,483	7.7
1980	21,607,943	11,959,391	9,648,552		16,551,035	18.5
1981	1,802,743	1,201,658	601,085		17,152,120	19.2
1982	15,981,876	10,934,649	5,047,227		22,199,347	24.8
1985	54,785	25,051	29,734		22,229,081	24.8
1986	57,609	26,451	31,158		22,260,239	24.9
1991	251,326	137,993	113,333		22,373,572	25.0
1992	400,364	220,031	180,333		22,553,905	25.2
1993	2,607,339	1,439,952	1,167,387		23,721,292	26.5
1994	545,296	236,293	309,003		24,030,295	26.9
1995	66,114	36,839	29,275		24,059,570	26.9
1997	336,814	210,270	126,544		24,186,114	27.0
1998	358,366	192,468	165,898		24,352,012	27.2
1999	1,082,479	618,019	464,460		24,816,472	27.7
2000	799,766	382,909	416,857		25,233,329	28.2
2001	618,758	315,624	303,134		25,536,463	28.5
2002	894,001	296,678	597,323		26,133,786	29.2
2003	992,715	337,661	655,054		26,788,840	29.9
2004	910,655	241,662	668,993		27,457,833	30.7
2005	753,331	524,567	228,764		27,686,597	30.9
2006	304,882	74,996	229,886		27,916,483	31.2
2007	5,946,528	1,340,994	4,605,534		32,522,017	36.3
2008	218,122	49,562	168,560		32,690,577	36.5
2009	389,143	113,127	276,016		32,966,593	36.8
2010	861,432	229,793	631,639		33,598,232	37.5
2011	3,468,945	1,193,045	2,275,900		35,874,132	40.1
2012	6,907,806	1,429,446	5,478,360		41,352,492	46.2
2013	27,099,410	6,508,874	20,590,536		61,943,028	69.2

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2014	14,237,324	2,929,774	11,307,550		73,250,578	81.9
2015	261,230	69,975	191,255		73,441,833	82.1
2016	1,878,260	321,893	1,556,367		74,998,200	83.8
2017	178,822	45,348	133,474		75,131,674	84.0
2018	1,755,047	259,331	1,495,716		76,627,390	85.6
2019	7,059,054	943,395	6,115,659		82,743,049	92.5
2020	477,536	35,565	441,971		83,185,020	93.0
2021	3,027,441	233,991	2,793,450		85,978,470	96.1
2022	2,736,099	133,114	2,602,985		88,581,455	99.0
2023	81,582	4,967	76,615		88,658,070	99.1
2024	839,243	4,326	834,917		89,492,987	100.0
SUBTOTAL	145,431,891	55,938,903	89,492,988			
NONDEPRECIABLE	592,541		592,541			
TOTAL	146,024,432	55,938,903	90,085,529			



**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2024	10,500.00	69	135	10,365	37.77	274
	10,500.00	69	135	10,365		274
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.8 2.61

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1964	201,601.33	156,039	147,636	53,965	17.52	3,080
1969	14,751.42	10,872	10,286	4,465	19.63	227
1972	3,829.13	2,748	2,600	1,229	20.46	60
1979	248,506.95	165,506	156,593	91,914	22.57	4,072
1980	1,658,239.95	1,087,142	1,028,595	629,645	23.11	27,246
1981	956,225.00	620,877	587,440	368,785	23.23	15,875
1992	339,486.90	184,681	174,735	164,752	26.82	6,143
1999	82,172.10	38,005	35,958	46,214	29.05	1,591
2005	46,874.02	17,990	17,021	29,853	30.50	979
2010	413,427.90	126,178	119,383	294,045	31.87	9,226
2012	85,918.80	23,301	22,046	63,873	32.25	1,981
2013	19,981,305.32	5,055,270	4,783,021	15,198,284	32.48	467,927
2014	7,334,929.35	1,716,373	1,623,938	5,710,991	32.74	174,435
2016	527,211.50	102,490	96,971	430,240	33.15	12,979
2018	713,150.65	108,684	102,831	610,320	33.37	18,289
2022	1,464,839.00	82,031	77,613	1,387,226	33.71	41,152
	34,072,469.32	9,498,187	8,986,667	25,085,802		785,262
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.9 2.30

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1982	9,241,348.09	5,899,677	6,440,853	2,800,495	23.79	117,717
1993	318,021.19	169,569	185,123	132,898	27.14	4,897
1995	66,113.50	33,744	36,839	29,274	27.82	1,052
2007	103,418.50	36,569	39,924	63,494	31.08	2,043
2011	713,354.63	205,874	224,759	488,596	32.05	15,245
2016	194,345.00	37,781	41,247	153,098	33.15	4,618
2017	142,304.45	24,704	26,970	115,334	33.32	3,461
2019	317,761.10	41,150	44,924	272,837	33.61	8,118
2022	57,569.43	3,224	3,520	54,049	33.71	1,603
	11,154,235.89	6,452,292	7,044,159	4,110,077		158,754
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.9 1.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
1964	231,540.50	222,279	157,140	74,400	2.50	29,760
1965	856,105.48	818,266	578,471	277,634	2.73	101,697
1966	68,822.22	65,065	45,998	22,824	3.35	6,813
1982	947,151.33	799,585	565,264	381,887	7.75	49,276
1994	158,949.55	114,444	80,906	78,044	11.67	6,688
2003	445,625.00	259,220	183,255	262,370	15.10	17,375
2007	20,981.75	10,558	7,464	13,518	16.78	806
2011	875,562.85	358,543	253,471	622,092	18.75	33,178
2012	624,318.68	239,738	169,482	454,837	19.25	23,628
2013	1,864,142.52	666,431	471,132	1,393,011	19.77	70,461
2015	106,662.50	32,159	22,735	83,928	20.85	4,025
2016	119,387.28	32,378	22,889	96,498	21.50	4,488
2020	8,152.35	1,161	821	7,331	24.09	304
2021	1,027,973.50	110,713	78,268	949,706	24.86	38,202
	7,355,375.51	3,730,540	2,637,296	4,718,080		386,701
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.2 5.26

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1999	25,590.73	16,186	14,220	11,371	14.53	783
2000	81,172.37	50,067	43,985	37,187	14.91	2,494
2001	520,598.71	313,713	275,602	244,997	15.17	16,150
2005	54,284.00	28,879	25,371	28,913	16.71	1,730
2010	19,490.68	8,377	7,359	12,132	18.57	653
2013	759,121.58	271,386	238,417	520,705	19.77	26,338
2014	48,194.28	16,001	14,057	34,137	20.12	1,697
2016	82,088.08	22,656	19,904	62,184	20.99	2,963
2018	31,007.43	6,698	5,884	25,123	21.78	1,153
2021	67,610.97	7,809	6,861	60,750	22.97	2,645
2024	52,496.25	541	475	52,021	23.96	2,171
	1,741,655.08	742,313	652,135	1,089,520		58,777
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.5 3.37

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1964	4,600.00	3,395	3,037	1,563	21.30	73
1969	9,998.04	6,929	6,199	3,799	24.37	156
1972	35,042.92	23,325	20,867	14,176	26.12	543
1979	467,472.84	277,679	248,422	219,051	30.76	7,121
1980	1,451,956.04	849,685	760,160	691,796	31.19	22,180
2005	68,212.54	18,922	16,928	51,285	49.49	1,036
2010	35,546.50	7,365	6,589	28,958	53.57	541
2013	2,234,372.95	366,214	327,630	1,906,743	56.11	33,982
2016	71,505.28	8,638	7,728	63,777	58.23	1,095
2018	172,854.20	15,764	14,103	158,751	59.79	2,655
2022	32,000.00	992	887	31,113	62.52	498
	4,583,561.31	1,578,908	1,412,550	3,171,011		69,880
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.4 1.52

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1928	319,718.15	282,375	259,241	60,477	12.70	4,762
1935	322,015.91	277,996	255,221	66,795	14.09	4,741
1945	367,766.35	299,251	274,735	93,031	18.09	5,143
1954	366,619.85	279,731	256,814	109,806	21.74	5,051
1955	1,100,545.47	827,720	759,908	340,637	22.74	14,980
1960	1,797,785.22	1,288,652	1,183,078	614,707	25.29	24,306
1963	341,724.17	237,635	218,167	123,557	26.72	4,624
1964	713,161.17	492,081	451,767	261,394	26.96	9,696
1965	63,004.82	42,749	39,247	23,758	27.96	850
1967	134,888.41	89,957	82,587	52,301	28.47	1,837
1970	618,854.55	394,334	362,028	256,827	30.75	8,352
1972	90,767.82	56,639	51,999	38,769	31.33	1,237
1973	30,927.55	18,928	17,377	13,551	32.33	419
1974	1,245.16	753	691	554	32.64	17
1979	8,068,833.06	4,502,409	4,133,546	3,935,287	35.65	110,387
1980	14,540,449.62	7,933,269	7,283,331	7,257,119	36.65	198,011
1985	54,161.27	26,826	24,628	29,533	39.74	743
1986	54,274.49	26,399	24,236	30,038	40.12	749
1991	78,110.87	33,767	31,001	47,110	43.34	1,087
1993	585,837.70	239,725	220,085	365,753	44.76	8,171
1994	310,084.40	122,793	112,733	197,351	45.76	4,313
1997	143,715.52	51,996	47,736	95,980	47.63	2,015
1999	57,482.76	19,544	17,943	39,540	48.53	815
2000	224,506.01	73,279	67,276	157,230	49.53	3,174
2001	50,435.30	15,892	14,590	35,845	49.99	717
2002	580,213.90	174,876	160,549	419,665	50.99	8,230
2003	488,065.06	141,441	129,853	358,212	51.46	6,961
2004	853,912.17	237,388	217,940	635,972	51.94	12,244
2005	114,141.33	30,145	27,675	86,466	52.94	1,633
2006	270,996.73	68,291	62,696	208,301	53.43	3,899
2007	5,722,585.90	1,371,704	1,259,327	4,463,259	53.92	82,776
2008	183,372.59	41,662	38,249	145,124	54.42	2,667
2009	219,952.56	46,850	43,012	176,941	55.42	3,193
2010	264,012.09	52,855	48,525	215,487	55.93	3,853
2011	358,357.74	67,085	61,589	296,769	56.44	5,258
2012	4,285,360.01	745,653	684,565	3,600,795	56.97	63,205
2013	355,041.41	57,020	52,349	302,692	57.49	5,265
2014	3,806,649.90	559,578	513,734	3,292,916	58.03	56,745
2015	54,757.22	7,294	6,696	48,061	58.57	821
2016	601,304.10	71,675	65,803	535,501	59.11	9,059
2018	467,571.11	42,362	38,891	428,680	60.23	7,117



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2019	155,589.62	11,903	10,928	144,662	60.36	2,397
2020	194,673.17	11,992	11,010	183,663	60.94	3,014
2021	437,568.74	20,609	18,920	418,649	60.69	6,898
2022	603,827.35	19,322	17,739	586,088	60.50	9,687
2024	704,847.40	3,031	2,783	702,064	57.55	12,199
	51,159,715.70	21,417,436	19,662,798	31,496,918		723,318
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					43.5	1.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2024	6,300.00	35	78	6,222	45.00	138
	6,300.00	35	78	6,222		138
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.1 2.19

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1930	60,320.59	60,321	60,321			
1935	60,671.26	60,671	60,671			
1945	69,214.80	69,215	69,215			
1954	29,932.47	28,915	25,917	4,015	2.46	1,632
1955	206,814.79	199,783	179,072	27,743	2.43	11,417
1960	337,627.30	319,801	286,648	50,979	3.57	14,280
1965	7,991.41	7,355	6,593	1,398	5.10	274
1967	2,146.45	1,958	1,755	391	5.50	71
1969	54,989.02	49,600	44,458	10,531	5.98	1,761
1970	83,804.37	75,122	67,334	16,470	6.24	2,639
1972	1,039.81	919	824	216	6.82	32
1973	3,470.78	3,045	2,729	742	7.14	104
1979	19,565.85	16,112	14,442	5,124	9.64	532
1980	3,957,296.96	3,221,240	2,887,305	1,069,992	10.05	106,467
1985	623.71	472	423	201	12.55	16
1986	3,334.56	2,471	2,215	1,120	13.28	84
1991	5,411.33	3,625	3,249	2,162	16.26	133
1993	59,414.33	37,942	34,009	25,405	17.54	1,448
1994	76,261.89	47,587	42,654	33,608	18.08	1,859
1997	9,433.38	5,400	4,840	4,593	20.17	228
1999	13,746.64	7,389	6,623	7,124	21.51	331
2000	57,536.76	29,965	26,859	30,678	22.08	1,389
2001	36,327.06	18,214	16,326	20,001	22.87	875
2002	313,787.45	151,873	136,129	177,658	23.45	7,576
2003	59,024.85	27,393	24,553	34,472	24.25	1,422
2004	45,158.00	20,050	17,971	27,187	25.05	1,085
2005	30,023.69	12,778	11,453	18,571	25.64	724
2006	33,884.97	13,723	12,300	21,585	26.44	816
2007	99,542.16	38,244	34,279	65,263	27.25	2,395
2008	34,749.26	12,621	11,313	23,436	28.05	836
2009	56,488.15	19,404	17,392	39,096	28.67	1,364
2010	26,605.16	8,567	7,679	18,926	29.48	642
2011	69,550.94	20,886	18,721	50,830	30.29	1,678
2012	1,678,761.80	467,367	418,917	1,259,845	31.10	40,509
2014	361,593.72	84,975	76,166	285,428	32.55	8,769
2016	53,544.40	10,152	9,100	44,444	34.19	1,300
2018	19,716.32	2,827	2,534	17,182	35.84	479
2019	129,753.11	15,570	13,956	115,797	36.67	3,158
2020	43,759.51	4,236	3,797	39,963	37.32	1,071

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2021	264,791.96	19,303	17,301	247,491	38.15	6,487
2022	128,524.77	6,298	5,645	122,880	38.82	3,165
2024	15,749.59	99	89	15,661	39.43	397
	8,621,985.33	5,203,488	4,683,777	3,938,208		229,445
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.2 2.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1999	250,000.00	225,000	173,926	76,074	2.78	27,365
2012	50,000.00	35,700	27,596	22,404	4.81	4,658
	300,000.00	260,700	201,522	98,478		32,023
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.1 10.67

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1964	35,420.00	35,420	35,420			
1969	600.49	581	476	124	1.82	68
1972	23,244.69	22,120	18,119	5,126	2.64	1,942
1981	846,517.53	749,845	614,218	232,300	5.54	41,931
1999	653,486.35	450,906	369,349	284,137	11.23	25,302
2004	11,585.10	7,021	5,751	5,834	13.00	449
2005	26,346.02	15,468	12,670	13,676	13.36	1,024
2009	91,043.85	45,886	37,586	53,458	14.76	3,622
2010	102,350.00	49,148	40,258	62,092	15.15	4,098
2011	299,133.39	136,106	111,488	187,645	15.57	12,052
2013	1,893,561.53	762,348	624,460	1,269,102	16.32	77,764
2015	36,474.55	12,573	10,299	26,176	17.11	1,530
2016	203,895.00	63,941	52,376	151,519	17.51	8,653
2018	241,716.20	59,607	48,825	192,891	18.33	10,523
2019	42,129.10	8,868	7,264	34,865	18.75	1,859
	4,507,503.80	2,419,838	1,988,559	2,518,945		190,817
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 4.23

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1966	79,060.20	75,202	59,518	19,542	2.98	6,558
1982	5,793,376.21	4,963,765	3,928,532	1,864,844	7.02	265,647
1991	164,744.00	127,215	100,683	64,061	9.74	6,577
1992	32,985.00	25,121	19,882	13,103	10.02	1,308
1993	1,564,790.95	1,173,906	929,079	635,712	10.32	61,600
1998	358,366.45	243,187	192,468	165,898	12.31	13,477
2000	365,592.13	236,026	186,801	178,791	13.17	13,576
2011	721,737.70	294,613	233,169	488,569	18.85	25,919
2014	2,635,000.00	853,740	675,686	1,959,314	20.86	93,927
2016	24,150.00	6,376	5,046	19,104	22.30	857
2018	16,100.00	3,246	2,569	13,531	23.76	569
2019	6,360,680.00	1,074,955	850,765	5,509,915	24.59	224,071
2020	192,835.45	26,226	20,756	172,079	25.41	6,772
2021	189,913.00	19,485	15,421	174,492	26.24	6,650
2022	364,734.70	25,021	19,803	344,932	27.15	12,705
	18,864,065.79	9,148,084	7,240,178	11,623,888		740,213
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.7 3.92

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1965	25,662.14	23,165	22,054	3,608	6.36	567
	25,662.14	23,165	22,054	3,608		567
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.4 2.21



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	8,298.00	2,074	1,592	6,706	15.00	447
2021	43,027.80	6,454	4,954	38,074	17.00	2,240
2022	2,380.00	238	183	2,197	18.00	122
2024	2,100.00	26	20	2,080	19.75	105
	55,805.80	8,792	6,749	49,057		2,914
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.8 5.22

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 390.20 COMPUTER AND PERIPHERAL EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	21,241.00	21,241	21,241			
2013	11,865.00	11,865	11,865			
2015	6,536.00	6,536	6,536			
2016	829.00	829	829			
2017	5,160.00	5,160	5,160			
2018	18,779.00	18,779	18,779			
2019	1,054.00	1,054	1,054			
2020	4,235.00	3,388	9,100-	13,335	1.00	13,335
2021	1,721.00	1,033	2,774-	4,495	2.00	2,248
2022	1,943.00	777	2,087-	4,030	3.00	1,343
	73,363.00	70,662	51,503	21,860		16,926
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						1.3 23.07

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
2009	21,658.55	18,778	15,137	6,522	2.30	2,836
2011	354,414.38	294,873	237,705	116,709	2.62	44,545
2012	87,935.02	70,489	56,823	31,112	2.97	10,475
2014	25,842.43	18,348	14,791	11,051	4.08	2,709
2017	31,357.98	16,397	13,218	18,140	6.39	2,839
2018	43,015.00	19,434	15,666	27,349	7.28	3,757
2019	35,000.00	13,248	10,680	24,320	8.21	2,962
2020	33,881.00	10,273	8,281	25,600	9.19	2,786
2022	80,281.00	12,171	9,811	70,470	11.19	6,298
2023	69,650.00	5,279	4,256	65,394	12.19	5,365
2024	10,500.00	200	161	10,339	12.94	799
	793,535.36	479,490	386,529	407,006		85,371
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.8						10.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	21,000.00	262	539	20,461	19.75	1,036
	21,000.00	262	539	20,461		1,036
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.8 4.93

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
1992	27,892.00	25,973	25,414	2,478	2.36	1,050
1993	79,275.00	73,234	71,656	7,619	2.56	2,976
1997	183,665.00	161,166	157,694	25,971	3.77	6,889
2000	70,959.00	59,265	57,988	12,971	4.74	2,736
2001	11,397.00	9,306	9,106	2,291	5.17	443
2011	55,592.00	31,582	30,902	24,690	9.88	2,499
2012	95,512.00	51,118	50,017	45,495	10.42	4,366
2014	25,114.00	11,653	11,402	13,712	11.55	1,187
2015	56,800.00	24,231	23,709	33,091	12.10	2,735
2018	31,137.00	9,453	9,249	21,888	13.76	1,591
2019	8,789.00	2,281	2,232	6,557	14.27	459
2021	476,106.00	78,557	76,865	399,241	15.18	26,300
2023	11,931.60	727	711	11,221	15.42	728
	1,134,169.60	538,546	526,945	607,225		53,959

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.3 4.76

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	413,449.15	413,449	413,449			
2021	518,728.20	103,746	18,175	500,553	12.00	41,713
2024	15,750.00	263	46	15,704	14.75	1,065
	947,927.35	517,458	431,670	516,257		42,778
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.1 4.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1991	3,059.83	3,060	3,060			
	3,059.83	3,060	3,060			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

**EXHIBIT NO. 11-H - DEPRECIATION STUDY**

**BASA WASTEWATER OPERATIONS**

**AS OF JUNE 30, 2025**



Exhibit No. 11-H  
Witness: J. J. Spanos

# PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

## BASA WASTEWATER OPERATIONS

### 2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2025

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-H  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

BASA WASTEWATER OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

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Camp Hill, PA 17011  
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October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention: Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of June 30, 2025. The results of our study as of June 30, 2024 are presented in our report titled "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2024". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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**PART I. RESULTS OF STUDY**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**BASA WASTEWATER OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of June 30, 2025. Table 1 sets forth the development of the net original cost by account as of June 30, 2025. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of June 30, 2025, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to June 30, 2025. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended June 30, 2025. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2020 through 2024.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-6. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2020 through 2024 on page III-2.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	ORIGINAL COST	CUSTOMER	CONTRIBUTIONS	EXCLUDED	NET ORIGINAL COST
	AS OF JUNE 30, 2025 (2)	ADVANCES (3)	IN AID OF CONSTRUCTION (4)	PROPERTY (5)	AS OF JUNE 30, 2025 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	8,325,000.00				8,325,000.00
354.30 STRUCTURES AND IMPROVEMENTS - SPP	34,206,010.97				34,206,010.97
354.40 STRUCTURES AND IMPROVEMENTS - TDP	11,154,235.89				11,154,235.89
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	7,705,375.51				7,705,375.51
355.00 POWER GENERATION EQUIPMENT	1,950,870.32				1,950,870.32
360.10 COLLECTION SEWERS - FORCE MAINS	4,583,561.31				4,583,561.31
361.10 COLLECTION SEWERS - GRAVITY MAINS	53,769,146.70				53,769,146.70
361.20 MANHOLES	330,000.00				330,000.00
363.00 SERVICES	8,778,429.06				8,778,429.06
364.00 FLOW MEASURING DEVICES	300,000.00				300,000.00
371.00 PUMPING EQUIPMENT	6,844,482.75				6,844,482.75
380.00 TREATMENT EQUIPMENT	18,864,065.79				18,864,065.79
382.00 OUTFALL SEWER LINES	25,662.14				25,662.14
390.00 OFFICE FURNITURE AND EQUIPMENT	88,705.80				88,705.80
390.20 COMPUTER AND PERIPHERAL EQUIPMENT	7,899.00				7,899.00
391.00 TRANSPORTATION EQUIPMENT	830,927.00				830,927.00
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	150,000.00				150,000.00
395.00 POWER OPERATED EQUIPMENT	1,134,169.60				1,134,169.60
396.00 COMMUNICATION EQUIPMENT	646,228.20				646,228.20
<b>TOTAL DEPRECIABLE PLANT</b>	<b>159,694,770.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>159,694,770.04</b>
<b>NONDEPRECIABLE PLANT</b>					
353.40 LAND AND LAND RIGHTS - TDP	592,540.92				592,540.92
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>592,540.92</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>592,540.92</b>
<b>TOTAL PLANT</b>	<b>160,287,310.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>160,287,310.96</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2025 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)	FMV PLANT (9)	FMV RESERVE (10)	CALCULATED EXPENSE (11)=(9)-(10)/(7)
<b>DEPRECIABLE PLANT</b>										
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	8,325,000.00	10,466	8,314,534	220,137	2.64	37.8	8,325,000.00	10,466	219,504
354.30	STRUCTURES AND IMPROVEMENTS - SPP	34,206,010.97	9,752,034	24,453,977	770,595	2.25	31.7	70,204,126.16	32,671,412	844,486
354.40	STRUCTURES AND IMPROVEMENTS - TDP	11,154,235.89	7,202,547	3,951,689	155,478	1.39	25.4	43,619,182.20	29,416,747	197,414
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	7,705,375.51	3,034,159	4,671,217	363,566	4.72	12.8	29,799,971.24	19,863,881	468,983
355.00	POWER GENERATION EQUIPMENT	1,950,870.32	689,571	1,261,299	66,195	3.39	19.1	2,449,808.39	943,612	51,060
360.10	COLLECTION SEWERS - FORCE MAINS	4,583,561.31	1,482,222	3,101,339	69,279	1.51	44.8	14,570,539.52	6,441,647	122,746
361.10	COLLECTION SEWERS - GRAVITY MAINS	53,769,146.70	19,919,455	33,849,692	771,959	1.44	43.8	210,160,005.55	109,882,544	1,443,995
361.20	MANHOLES	330,000.00	1,900	328,100	7,293	2.21	45.0	330,000.00	1,900	7,251
363.00	SERVICES	8,778,429.06	4,876,016	3,902,413	223,527	2.55	17.5	44,569,921.21	33,137,607	291,524
364.00	FLOW MEASURING DEVICES	300,000.00	233,538	66,462	22,833	7.61	2.9	655,213.52	473,150	13,855
371.00	PUMPING EQUIPMENT	6,844,482.75	1,823,320	5,021,163	313,184	4.58	16.0	17,688,697.35	8,886,525	403,139
380.00	TREATMENT EQUIPMENT	18,864,065.79	7,979,654	10,884,412	701,555	3.72	15.5	53,050,122.74	29,553,142	874,088
382.00	OUTFALL SEWER LINES	25,662.14	22,618	3,044	526	2.05	5.8	492,092.57	419,083	1,497
390.00	OFFICE FURNITURE AND EQUIPMENT	88,705.80	1,121	87,585	5,127	5.78	17.1	87,921.72	773	5,037
390.20	COMPUTER AND PERIPHERAL EQUIPMENT	7,899.00	3,882	4,017	2,964	37.52	1.4			0
391.00	TRANSPORTATION EQUIPMENT	830,927.00	469,399	361,528	70,298	8.46	5.1	884,478.47	511,047	31,592
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	150,000.00	4,894	145,106	7,386	4.92	19.6	150,000.00	4,894	7,139
395.00	POWER OPERATED EQUIPMENT	1,134,169.60	580,933	553,237	49,118	4.33	11.3	1,383,392.33	762,162	26,899
396.00	COMMUNICATION EQUIPMENT	646,228.20	53,284	592,944	51,039	7.90	11.6	614,982.88	37,403	45,629
<b>TOTAL DEPRECIABLE PLANT</b>		<b>159,694,770.04</b>	<b>58,141,013</b>	<b>101,553,758</b>	<b>3,872,049</b>	<b>2.42</b>		<b>499,035,455.85</b>	<b>273,017,995</b>	<b>5,055,838</b>
<b>NONDEPRECIABLE PLANT</b>										
353.40	LAND AND LAND RIGHTS - TDP	592,540.92						13,335,927.13		
<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>592,540.92</b>			<b>38,675</b>			<b>13,335,927.13</b>		
<b>AMORTIZATION OF NET SALVAGE</b>										
<b>TOTAL UTILITY PLANT</b>		<b>160,287,310.96</b>	<b>58,141,013</b>	<b>101,553,758</b>	<b>3,910,724</b>			<b>512,371,382.98</b>		



**PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS**

**TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024**

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2024 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2025 (8)
354.20	135		10,331										10,466
354.30	8,986,667		783,800		16,458		1,975						9,752,034
354.40	7,044,159		158,388										7,202,547
354.70	2,637,296		396,863										3,034,159
355.00	652,135		63,221		25,785								689,571
360.10	1,412,550		69,672										1,482,222
361.10	19,662,798		762,883		310,569		195,657						19,919,455
361.20	78		1,822										1,900
363.00	4,683,777		231,879		15,306		24,334						4,876,016
364.00	201,522		32,016										233,538
371.00	1,988,559		194,787		288,021		72,005						1,823,320
380.00	7,240,178		739,476										7,979,654
382.00	22,054		564										22,618
390.00	6,749		3,472								(9,100)		1,121
390.20	51,503		8,743		65,464						9,100		3,882
391.00	386,529		88,262		4,608		784						469,399
393.00	539		4,355										4,894
395.00	526,945		53,988										580,933
396.00	431,670		35,063		413,449								53,284
397.00	3,060				3,060								0
<b>TOTAL</b>	<b>55,938,903</b>		<b>3,639,585</b>		<b>1,142,721</b>		<b>294,755</b>		<b>0</b>		<b>0</b>		<b>58,141,013</b>

**PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS**

**TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025**

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2024 (2)	NET ORIGINAL COST AS OF 6/30/2025 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)*	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	10,500.00	8,325,000.00	2.61	10,331		10,331
354.30	34,072,469.32	34,206,010.97	2.30	783,800		783,800
354.40	11,154,235.89	11,154,235.89	1.42	158,388		158,388
354.70	7,355,375.51	7,705,375.51	5.26	396,863		396,863
355.00	1,741,655.08	1,950,870.32	3.37	63,221		63,221
360.10	4,583,561.31	4,583,561.31	1.52	69,672		69,672
361.10	51,159,715.70	53,769,146.70	1.41	744,566	18,317	762,883
361.20	6,300.00	330,000.00	2.19	1,822		1,822
363.00	8,621,985.33	8,778,429.06	2.66	230,942	937	231,879
364.00	300,000.00	300,000.00	10.67	32,016		32,016
371.00	4,507,503.80	6,844,482.75	4.23	194,787		194,787
380.00	18,864,065.79	18,864,065.79	3.92	739,476		739,476
382.00	25,662.14	25,662.14	2.21	564		564
390.00	55,805.80	88,705.80	5.22	3,472		3,472
390.20	73,363.00	7,899.00	23.07	8,743		8,743
391.00	793,535.36	830,927.00	10.76	88,178	84	88,262
393.00	21,000.00	150,000.00	4.93	4,355		4,355
395.00	1,134,169.60	1,134,169.60	4.76	53,988		53,988
396.00	947,927.35	646,228.20	4.51	35,063		35,063
397.00	3,059.83	0.00	0.00			0
<b>TOTAL</b>	<b>145,431,890.81</b>	<b>159,694,770.04</b>		<b>3,620,247</b>	<b>19,338</b>	<b>3,639,585</b>

\* ANNUAL ACCRUAL DEVELOPED BASED ON MONTHLY AVERAGES.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2020		2021		2022		2023		PROJECTED 2024		NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
361.10											(183,169.00)	(36,634)
363.00											(9,363.00)	(1,873)
391.00											(838.00)	(168)
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>193,370.00</b>	<b>(193,370.00)</b>	<b>(38,675)</b>

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1928	300,633	244,771		55,862	55,862	0.1
1930	59,408	59,408			55,862	0.1
1935	366,771	301,805		64,966	120,828	0.1
1945	424,842	336,427		88,415	209,243	0.2
1954	388,732	277,628		111,104	320,347	0.3
1955	1,284,263	932,664		351,599	671,946	0.7
1960	2,105,530	1,467,150		638,380	1,310,326	1.3
1963	337,033	217,338		119,695	1,430,021	1.4
1964	1,141,293	775,721		365,572	1,795,593	1.8
1965	951,945	710,459		241,486	2,037,079	2.0
1966	147,882	114,497		33,385	2,070,464	2.0
1967	135,489	83,649		51,840	2,122,304	2.1
1969	79,539	62,446		17,093	2,139,397	2.1
1970	696,224	431,745		264,479	2,403,876	2.4
1972	136,674	81,815		54,859	2,458,735	2.4
1973	34,119	20,254		13,865	2,472,600	2.4
1974	1,235	690		545	2,473,145	2.4
1979	8,750,352	4,568,777		4,181,575	6,654,720	6.6
1980	21,505,272	12,178,793		9,326,479	15,981,199	15.7
1981	1,659,827	1,099,248		560,579	16,541,778	16.3
1982	15,981,876	11,374,302		4,607,574	21,149,352	20.8
1985	54,509	25,412		29,097	21,178,449	20.9
1986	57,340	26,712		30,628	21,209,077	20.9
1991	247,957	142,855		105,102	21,314,179	21.0
1992	400,057	229,273		170,784	21,484,963	21.2
1993	2,605,216	1,517,965		1,087,251	22,572,214	22.2
1994	544,175	250,724		293,451	22,865,665	22.5
1995	66,114	37,740		28,374	22,894,039	22.5
1997	336,388	218,948		117,440	23,011,479	22.7
1998	358,366	207,717		150,649	23,162,128	22.8
1999	1,046,983	621,190		425,793	23,587,921	23.2
2000	797,161	405,698		391,463	23,979,384	23.6
2001	606,437	322,748		283,689	24,263,073	23.9
2002	892,469	310,316		582,153	24,845,226	24.5
2003	991,621	368,320		623,301	25,468,527	25.1
2004	908,410	249,952		658,458	26,126,985	25.7
2005	337,622	115,348		222,274	26,349,259	25.9
2006	304,359	78,368		225,991	26,575,250	26.2
2007	5,936,326	1,400,565		4,535,761	31,111,011	30.6
2008	217,796	52,246		165,550	31,276,561	30.8
2009	385,838	118,043		267,795	31,544,356	31.1
2010	857,904	242,631		615,273	32,159,629	31.7
2011	3,436,496	1,300,649		2,135,847	34,295,476	33.8
2012	6,900,640	1,569,604		5,331,036	39,626,512	39.0
2013	27,032,648	7,091,581		19,941,067	59,567,579	58.7

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2014	14,228,862	3,256,034	10,972,828		70,540,407	69.5
2015	254,034	71,930	182,104		70,722,511	69.6
2016	1,872,945	357,341	1,515,604		72,238,115	71.1
2017	173,656	47,233	126,423		72,364,538	71.3
2018	1,732,706	277,991	1,454,715		73,819,253	72.7
2019	7,057,421	1,179,476	5,877,945		79,697,198	78.5
2020	477,352	62,722	414,630		80,111,828	78.9
2021	3,026,776	347,993	2,678,783		82,790,611	81.5
2022	2,735,331	204,688	2,530,643		85,321,254	84.0
2023	81,582	12,432	69,150		85,390,404	84.1
2024	838,670	19,760	818,910		86,209,314	84.9
2025	15,403,664	59,221	15,344,443		101,553,757	100.0
SUBTOTAL	159,694,770	58,141,013	101,553,758			
NONDEPRECIABLE	592,541		592,541			
TOTAL	160,287,311	58,141,013	102,146,299			

**NET UTILITY PLANT IN SERVICE**



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2024	10,500.00	338	64	10,436	37.51	278
2025	8,314,500.00	54,876	10,402	8,304,098	37.77	219,860
	8,325,000.00	55,214	10,466	8,314,534		220,138
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.8 2.64

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1964	201,314.62	157,186	151,770	49,545	17.12	2,894
1969	14,731.65	10,972	10,594	4,138	19.19	216
1972	3,824.23	2,777	2,681	1,143	19.99	57
1979	248,220.27	166,705	160,961	87,259	22.49	3,880
1980	1,656,360.55	1,103,136	1,065,123	591,238	22.57	26,196
1981	955,167.46	626,208	604,629	350,538	23.11	15,168
1992	339,180.33	188,042	181,562	157,618	26.52	5,943
1999	82,110.97	39,068	37,722	44,389	28.64	1,550
2005	46,844.86	18,644	18,002	28,843	30.25	953
2010	413,223.00	133,264	128,672	284,551	31.51	9,030
2012	85,880.38	24,785	23,931	61,949	32.05	1,933
2013	19,972,763.82	5,416,614	5,229,963	14,742,801	32.25	457,141
2014	7,331,831.86	1,854,953	1,791,033	5,540,799	32.48	170,591
2016	527,024.34	112,889	108,999	418,025	33.02	12,660
2018	712,953.31	123,769	119,504	593,449	33.32	17,811
2022	1,464,585.25	119,950	115,816	1,348,769	33.63	40,106
2025	149,994.07	1,110	1,072	148,922	33.42	4,456
	34,206,010.97	10,100,072	9,752,034	24,453,977		770,585
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					31.7	2.25

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1982	9,241,348.09	6,000,407	6,561,901	2,679,447	23.23	115,344
1993	318,021.19	173,004	189,193	128,828	26.82	4,803
1995	66,113.50	34,511	37,740	28,374	27.47	1,033
2007	103,418.50	38,161	41,732	61,686	30.78	2,004
2011	713,354.63	217,716	238,089	475,266	31.87	14,913
2016	194,345.00	41,629	45,524	148,821	33.02	4,507
2017	142,304.45	27,664	30,253	112,051	33.15	3,380
2019	317,761.10	48,427	52,959	264,802	33.37	7,935
2022	57,569.43	4,715	5,156	52,413	33.63	1,559
	11,154,235.89	6,586,234	7,202,547	3,951,689		155,478
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.4 1.39

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
1964	231,540.50	223,159	174,294	57,246	2.29	24,998
1965	856,105.48	821,861	641,897	214,208	2.50	85,683
1966	68,822.22	65,780	51,376	17,446	2.73	6,390
1982	947,151.33	806,405	629,825	317,326	7.51	42,254
1994	158,949.55	116,287	90,823	68,127	11.37	5,992
2003	445,625.00	266,662	208,271	237,354	14.76	16,081
2007	20,981.75	10,990	8,584	12,398	16.36	758
2011	875,562.85	379,994	296,786	578,777	18.26	31,696
2012	624,318.68	255,658	199,676	424,643	18.75	22,648
2013	1,864,142.52	715,831	559,085	1,305,058	19.25	67,795
2015	106,662.50	35,199	27,491	79,172	20.30	3,900
2016	119,387.28	35,995	28,113	91,274	20.85	4,378
2020	8,152.35	1,435	1,121	7,031	23.41	300
2021	1,027,973.50	146,383	114,329	913,644	24.09	37,926
2025	350,000.00	3,185	2,488	347,512	27.22	12,767
	7,705,375.51	3,884,824	3,034,159	4,671,217		363,566
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.8 4.72

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1999	24,919.15	16,133	14,449	10,470	14.16	739
2000	79,174.56	50,078	44,852	34,323	14.53	2,362
2001	508,424.49	313,596	280,868	227,556	14.91	15,262
2005	53,265.49	29,296	26,239	27,026	16.36	1,652
2010	19,227.77	8,681	7,775	11,453	18.22	629
2013	751,097.18	287,520	257,513	493,584	19.35	25,508
2014	47,730.87	17,064	15,283	32,448	19.77	1,641
2016	81,446.70	24,776	22,190	59,257	20.59	2,878
2018	30,819.84	7,594	6,802	24,018	21.41	1,122
2021	67,371.02	10,133	9,075	58,296	22.60	2,579
2024	52,439.27	2,632	2,357	50,082	23.63	2,119
2025	234,953.98	2,420	2,168	232,786	23.96	9,716
	1,950,870.32	769,923	689,571	1,261,299		66,207
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.1 3.39

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1964	4,600.00	3,423	3,104	1,496	20.97	71
1969	9,998.04	6,999	6,346	3,652	24.00	152
1972	35,042.92	23,587	21,387	13,656	25.74	531
1979	467,472.84	281,699	255,424	212,049	30.34	6,989
1980	1,451,956.04	862,462	782,016	669,940	30.76	21,780
2005	68,212.54	19,782	17,937	50,276	48.97	1,027
2010	35,546.50	7,838	7,107	28,440	53.03	536
2013	2,234,372.95	399,506	362,242	1,872,131	55.11	33,971
2016	71,505.28	9,653	8,752	62,753	57.67	1,088
2018	172,854.20	18,271	16,567	156,287	59.23	2,639
2022	32,000.00	1,478	1,340	30,660	61.94	495
	4,583,561.31	1,634,698	1,482,222	3,101,339		69,279
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.8 1.51

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1928	300,632.54	268,284	244,771	55,862	11.70	4,775
1935	306,849.09	265,118	241,883	64,966	14.17	4,585
1945	356,202.43	293,511	267,787	88,415	17.09	5,173
1954	358,975.74	275,263	251,139	107,837	21.59	4,995
1955	1,078,616.96	822,985	750,858	327,759	21.74	15,076
1960	1,769,473.52	1,288,177	1,175,280	594,194	24.29	24,462
1963	337,032.79	238,215	217,338	119,695	25.72	4,654
1964	703,838.25	489,449	446,553	257,285	26.72	9,629
1965	62,216.92	42,930	39,168	23,049	26.96	855
1967	133,350.30	89,718	81,855	51,495	28.21	1,825
1970	612,681.79	397,630	362,781	249,901	29.75	8,400
1972	89,941.72	56,726	51,754	38,188	31.03	1,231
1973	30,657.95	19,131	17,454	13,204	31.33	421
1974	1,234.80	756	690	545	32.33	17
1979	8,015,134.91	4,534,963	4,137,515	3,877,620	35.30	109,848
1980	14,447,741.26	8,061,840	7,355,294	7,092,447	35.65	198,947
1985	53,886.58	27,374	24,975	28,912	38.74	746
1986	54,010.92	26,752	24,407	29,604	39.74	745
1991	77,808.53	34,391	31,377	46,432	42.92	1,082
1993	583,778.97	244,720	223,273	360,506	44.34	8,130
1994	309,042.68	126,460	115,377	193,666	44.76	4,327
1997	143,297.46	53,765	49,053	94,244	46.63	2,021
1999	57,331.40	20,123	18,359	38,972	48.07	811
2000	223,941.87	76,140	69,467	154,475	48.53	3,183
2001	50,314.35	16,423	14,984	35,330	49.53	713
2002	578,890.71	182,408	166,422	412,469	49.99	8,251
2003	487,008.25	146,784	133,920	353,088	50.99	6,925
2004	852,148.71	246,953	225,310	626,839	51.46	12,181
2005	113,916.57	31,669	28,893	85,024	51.94	1,637
2006	270,491.79	71,437	65,176	205,316	52.94	3,878
2007	5,712,432.40	1,439,533	1,313,371	4,399,061	53.43	82,333
2008	183,062.56	43,880	40,034	143,029	53.92	2,653
2009	219,599.40	49,893	45,520	174,079	54.42	3,199
2010	263,610.47	56,149	51,228	212,382	55.42	3,832
2011	357,838.60	71,639	65,361	292,478	55.93	5,229
2012	4,279,449.52	801,113	730,903	3,548,547	56.44	62,873
2013	354,578.68	61,697	56,290	298,289	56.97	5,236
2014	3,801,933.89	610,591	557,078	3,244,856	57.49	56,442
2015	54,692.67	8,040	7,335	47,358	58.03	816
2016	600,631.50	80,004	72,992	527,640	58.57	9,009
2018	467,100.69	49,046	44,748	422,353	59.67	7,078

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2019	155,440.76	14,083	12,849	142,592	60.23	2,367
2020	194,497.33	14,879	13,575	180,922	60.36	2,997
2021	437,193.60	26,931	24,571	412,623	60.94	6,771
2022	603,335.21	28,417	25,926	577,409	60.69	9,514
2024	704,333.14	14,368	13,109	691,224	60.10	11,501
2025	2,918,966.52	12,552	11,452	2,907,515	57.55	50,522
	53,769,146.70	21,832,910	19,919,455	33,849,692		771,895
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					43.9	1.44



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2024	6,300.00	174	169	6,131	44.00	139
2025	323,700.00	1,780	1,731	321,969	45.00	7,155
	330,000.00	1,954	1,900	328,100		7,294
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.0 2.21

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1930	59,407.74	59,408	59,408			
1935	59,922.30	59,922	59,922			
1945	68,639.57	68,640	68,640			
1954	29,756.64	28,944	26,489	3,268	1.99	1,642
1955	205,645.71	198,654	181,806	23,840	2.46	9,691
1960	336,056.90	318,918	291,870	44,187	3.49	12,661
1965	7,960.83	7,404	6,776	1,185	4.52	262
1967	2,138.86	1,960	1,794	345	5.29	65
1969	54,809.63	49,723	45,506	9,304	5.73	1,624
1970	83,541.86	75,355	68,964	14,578	5.98	2,438
1972	1,036.81	923	845	192	6.52	29
1973	3,461.20	3,060	2,800	661	6.82	97
1979	19,524.08	16,256	14,877	4,647	9.25	502
1980	3,949,214.43	3,252,178	2,976,360	972,854	9.64	100,918
1985	622.70	478	437	186	12.08	15
1986	3,329.39	2,519	2,305	1,024	12.55	82
1991	5,404.79	3,712	3,397	2,008	15.50	130
1993	59,349.46	38,933	35,631	23,718	16.78	1,413
1994	76,182.84	48,650	44,524	31,659	17.54	1,805
1997	9,425.05	5,568	5,096	4,329	19.39	223
1999	13,735.76	7,643	6,995	6,741	20.73	325
2000	57,493.71	30,903	28,282	29,212	21.51	1,358
2001	36,301.38	18,906	17,303	18,998	22.08	860
2002	313,578.12	157,228	143,894	169,684	22.87	7,420
2003	58,987.86	28,550	26,129	32,859	23.45	1,401
2004	45,131.32	20,945	19,169	25,962	24.25	1,071
2005	30,006.98	13,323	12,193	17,814	25.05	711
2006	33,867.22	14,414	13,192	20,675	25.64	806
2007	99,493.11	40,295	36,878	62,615	26.44	2,368
2008	34,733.17	13,344	12,212	22,521	27.25	826
2009	56,463.59	20,508	18,769	37,695	28.05	1,344
2010	26,594.31	9,135	8,360	18,234	28.67	636
2011	69,524.36	22,387	20,488	49,036	29.48	1,663
2012	1,678,160.94	503,952	461,211	1,216,950	30.29	40,177
2014	361,480.55	92,647	84,790	276,691	31.92	8,668
2016	53,529.80	11,370	10,406	43,124	33.37	1,292
2018	19,711.68	3,284	3,005	16,707	35.02	477
2019	129,724.72	18,603	17,025	112,700	35.84	3,145
2020	43,750.61	5,250	4,805	38,946	36.67	1,062
2021	264,741.98	25,627	23,454	241,288	37.32	6,465

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2022	128,502.28	9,368	8,573	119,929	38.15	3,144
2024	15,747.23	487	446	15,301	39.23	390
2025	171,737.59	1,082	990	170,748	39.43	4,330
	8,778,429.06	5,310,456	4,876,016	3,902,413		223,536
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.5 2.55

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1999	250,000.00	227,500	200,979	49,021	2.57	19,074
2012	50,000.00	36,855	32,559	17,441	4.64	3,759
	300,000.00	264,355	233,538	66,462		22,833
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.9 7.61

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1972	6,828.67	6,551	5,148	1,681	2.25	747
1981	704,659.48	629,402	494,619	210,040	5.26	39,932
1999	618,885.82	436,067	342,686	276,200	10.90	25,339
2004	11,130.01	6,965	5,473	5,657	12.56	450
2005	25,375.16	15,377	12,084	13,291	13.00	1,022
2009	88,500.26	46,587	36,611	51,889	14.40	3,603
2010	99,702.01	50,250	39,489	60,213	14.76	4,079
2011	291,998.96	140,218	110,191	181,808	15.15	12,001
2013	1,855,692.74	797,206	626,488	1,229,205	15.93	77,163
2015	35,878.86	13,419	10,545	25,334	16.74	1,513
2016	200,925.54	69,259	54,428	146,498	17.11	8,562
2018	239,016.24	67,092	52,725	186,291	17.94	10,384
2019	41,727.42	10,290	8,086	33,641	18.33	1,835
2025	2,624,161.58	31,490	24,747	2,599,415	20.54	126,554
	6,844,482.75	2,320,173	1,823,320	5,021,163		313,184

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.0 4.58

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1966	79,060.20	75,566	63,121	15,939	2.73	5,838
1982	5,793,376.21	5,007,215	4,182,576	1,610,800	6.75	238,637
1991	164,744.00	129,390	108,081	56,663	9.29	6,099
1992	32,985.00	25,471	21,276	11,709	9.74	1,202
1993	1,564,790.95	1,191,745	995,477	569,314	10.02	56,818
1998	358,366.45	248,670	207,717	150,649	11.91	12,649
2000	365,592.13	242,205	202,316	163,276	12.74	12,816
2011	721,737.70	313,234	261,647	460,091	18.26	25,197
2014	2,635,000.00	930,418	777,187	1,857,813	20.15	92,199
2016	24,150.00	7,107	5,937	18,213	21.58	844
2018	16,100.00	3,753	3,135	12,965	23.03	563
2019	6,360,680.00	1,282,313	1,071,129	5,289,551	23.76	222,624
2020	192,835.45	32,589	27,222	165,613	24.59	6,735
2021	189,913.00	25,828	21,574	168,339	25.41	6,625
2022	364,734.70	37,422	31,259	333,476	26.24	12,709
	18,864,065.79	9,552,926	7,979,654	10,884,412		701,555
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.5 3.72

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1965	25,662.14	23,404	22,618	3,044	5.79	526
	25,662.14	23,404	22,618	3,044		526
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.8 2.05

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	8,298.00	2,489	233	8,065	14.00	576
2021	43,027.80	8,606	804	42,224	16.00	2,639
2022	2,380.00	357	33	2,347	17.00	138
2024	2,100.00	131	12	2,088	18.75	111
2025	32,900.00	411	39	32,861	19.75	1,664
	88,705.80	11,994	1,121	87,585		5,128
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.1 5.78



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 390.20 COMPUTER AND PERIPHERAL EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	4,235.00	4,235	4,235			
2021	1,721.00	1,377	191-	1,912	1.00	1,912
2022	1,943.00	1,166	162-	2,105	2.00	1,052
	7,899.00	6,778	3,882	4,017		2,964
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.4						37.52

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
2009	21,274.39	18,687	17,143	4,131	2.21	1,869
2011	350,886.92	299,166	274,440	76,447	2.42	31,590
2012	87,318.15	72,649	66,645	20,673	2.62	7,890
2014	25,770.64	19,617	17,996	7,775	3.45	2,254
2017	31,351.49	18,510	16,980	14,371	5.55	2,589
2018	43,013.45	22,492	20,633	22,380	6.39	3,502
2019	34,999.96	15,813	14,506	20,494	7.28	2,815
2020	33,881.00	12,824	11,764	22,117	8.21	2,694
2022	80,281.00	18,256	16,747	63,534	10.19	6,235
2023	69,650.00	11,882	10,900	58,750	10.94	5,370
2024	10,500.00	995	913	9,587	11.94	803
2025	42,000.00	798	732	41,268	12.94	3,189
	830,927.00	511,689	469,399	361,528		70,800
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.1						8.52

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	21,000.00	1,312	2,196	18,804	18.75	1,003
2025	129,000.00	1,612	2,698	126,302	19.75	6,395
	150,000.00	2,924	4,894	145,106		7,398
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.6 4.93

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
1992	27,892.00	26,232	26,435	1,457	2.09	697
1993	79,275.00	73,821	74,391	4,884	2.36	2,069
1997	183,665.00	163,535	164,799	18,866	3.45	5,468
2000	70,959.00	60,315	60,781	10,178	4.41	2,308
2001	11,397.00	9,519	9,593	1,804	4.74	381
2011	55,592.00	33,389	33,647	21,945	9.31	2,357
2012	95,512.00	54,260	54,679	40,833	9.88	4,133
2014	25,114.00	12,570	12,667	12,447	10.98	1,134
2015	56,800.00	26,355	26,559	30,241	11.55	2,618
2018	31,137.00	10,789	10,872	20,265	13.20	1,535
2019	8,789.00	2,668	2,689	6,100	13.76	443
2021	476,106.00	101,506	102,289	373,817	14.76	25,326
2023	11,931.60	1,520	1,532	10,400	15.42	674
	1,134,169.60	576,479	580,933	553,237		49,143

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.3 4.33

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BASA WASTEWATER OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2021	518,728.20	138,329	52,088	466,640	11.00	42,422
2024	15,750.00	1,312	494	15,256	13.75	1,110
2025	111,750.00	1,863	702	111,048	14.75	7,529
	646,228.20	141,504	53,284	592,944		51,061
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.6 7.90

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**PART III. EXPERIENCED AND ESTIMATED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
BASA WASTEWATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2024 TRANSACTION YEAR				
354.30	16,458.35			
355.00	25,784.76			
361.10	310,569.00	183,169.00		183,169.00-
363.00	15,306.27	9,363.00		9,363.00-
371.00	288,021.05			
391.00	4,608.36	838.00		838.00-
396.00	413,449.15			
	1,074,196.94	193,370.00		193,370.00-
TOTAL	1,074,196.94	193,370.00		193,370.00-

**EXHIBIT NO. 11-I - DEPRECIATION STUDY**

**BRENTWOOD WASTEWATER  
OPERATIONS**

**AS OF JUNE 30, 2024**



Exhibit No. 11-I  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
MECHANICSBURG, PENNSYLVANIA

BRENTWOOD WASTEWATER OPERATIONS

2024 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-I  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
Mechanicsburg, Pennsylvania

BRENTWOOD WASTEWATER OPERATIONS

2024 DEPRECIATION STUDY  
CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant. The results of our study as of June 30, 2024 are presented in the attached report. The results of our study as of June 30, 2025 are presented in our report, "2025 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2025." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of June 30, 2024.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. INTRODUCTION**

# **PENNSYLVANIA-AMERICAN WATER COMPANY**

## **BRENTWOOD WASTEWATER OPERATIONS**

### **DEPRECIATION STUDY**

#### **PART I. INTRODUCTION**

##### **SCOPE**

This report sets forth the results of the depreciation study for Pennsylvania-American Water Company to determine the annual depreciation accrual rates and amounts applicable to the original cost of wastewater plant as of June 30, 2024. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to wastewater plant in service as of June 30, 2024.

Part I, Introduction, contains statements with respect to the basis of the study and the development of net original cost. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VI, Service Life Statistics, presents the statistical analysis of service life estimates and Part VII, Detailed Depreciation Calculations, presents the detailed tabulations of annual depreciation.

## **BASIS OF THE STUDY**

The purpose of the depreciation study was to determine the annual depreciation accruals applicable to the original cost of wastewater plant in service as of June 30, 2024. For most accounts, the straight line remaining life method using attained ages, the book depreciation reserve and estimated survivor curves, was the basis for the calculation of annual depreciation. For certain accounts, the annual and accrued amortization amounts were based on the age of the property and the selected amortization period.

The survivor curve estimates were based on judgment which incorporated (1) analyses of historical data related to wastewater property for all Pennsylvania-American Water Company Wastewater Operations; (2) consideration of the character, use and location of the property; (3) probable future events and management plans; and (4) a general knowledge of wastewater property lives. The use of lowa type survivor curves is a generally-accepted method of estimating average service life when the actual lives of individual property units are dispersed.

## **DEVELOPMENT OF NET ORIGINAL COST**

The original cost data used in this study were obtained from the Company's continuing property records and work order system which show in detail the original cost of the property including descriptions, locations and years of installation of property units. The net original cost was developed from the original cost data by deducting contributions in aid of construction. The development of net original cost by plant account is set forth in Table 1 on page V-4.



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## **PART II. ESTIMATION OF SURVIVOR CURVES**

## **PART II. ESTIMATION OF SURVIVOR CURVES**

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

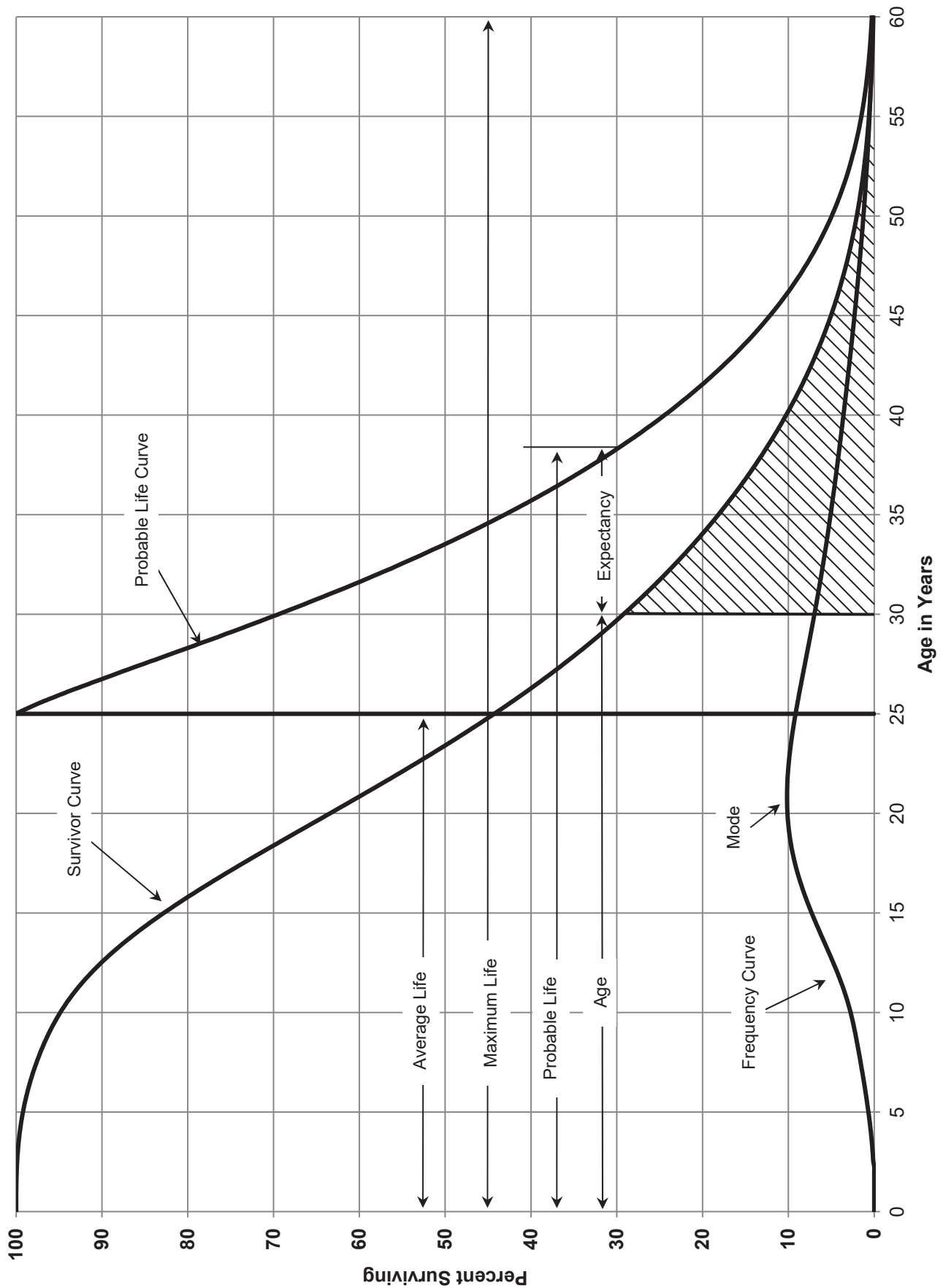
The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

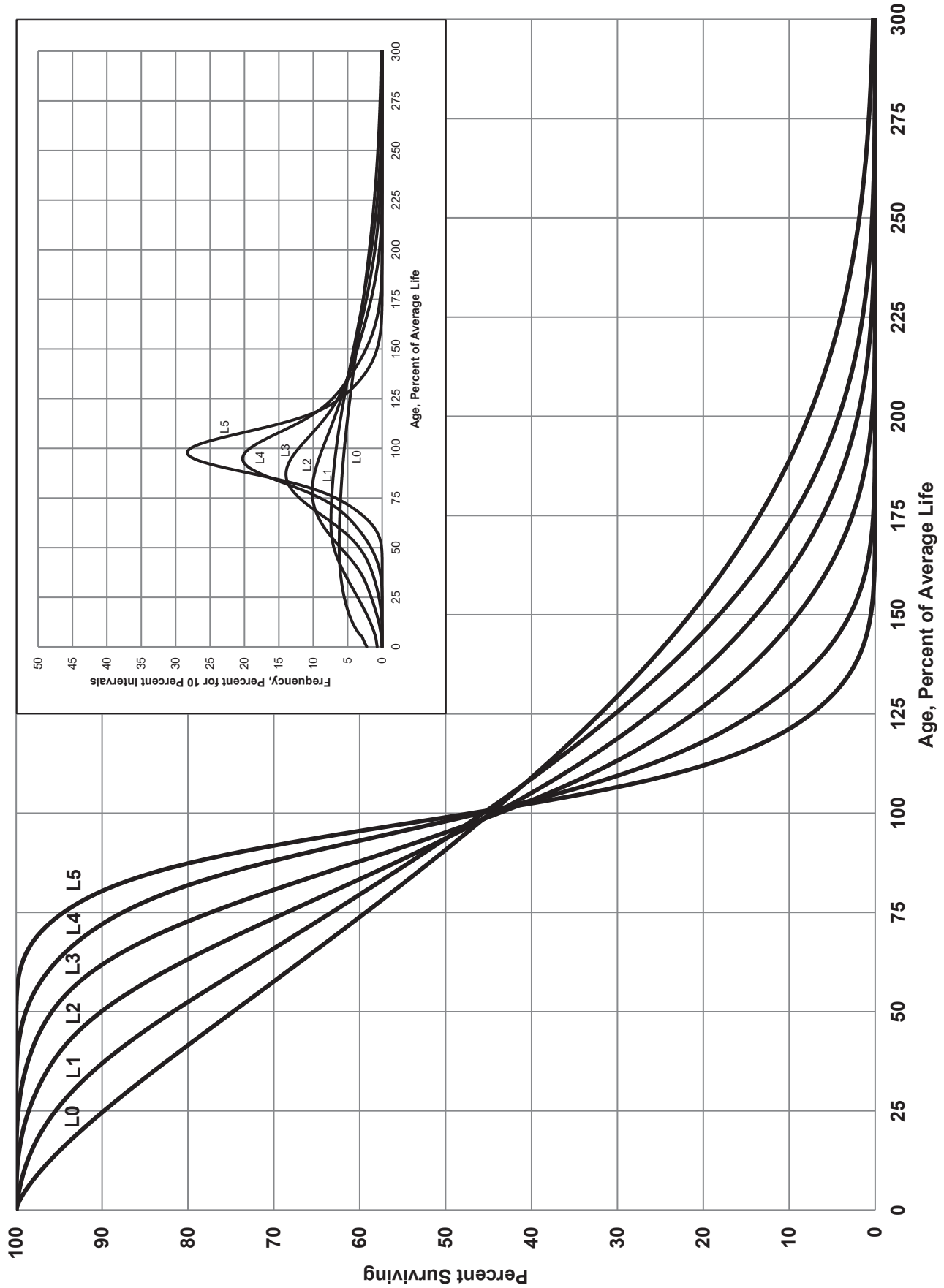
### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

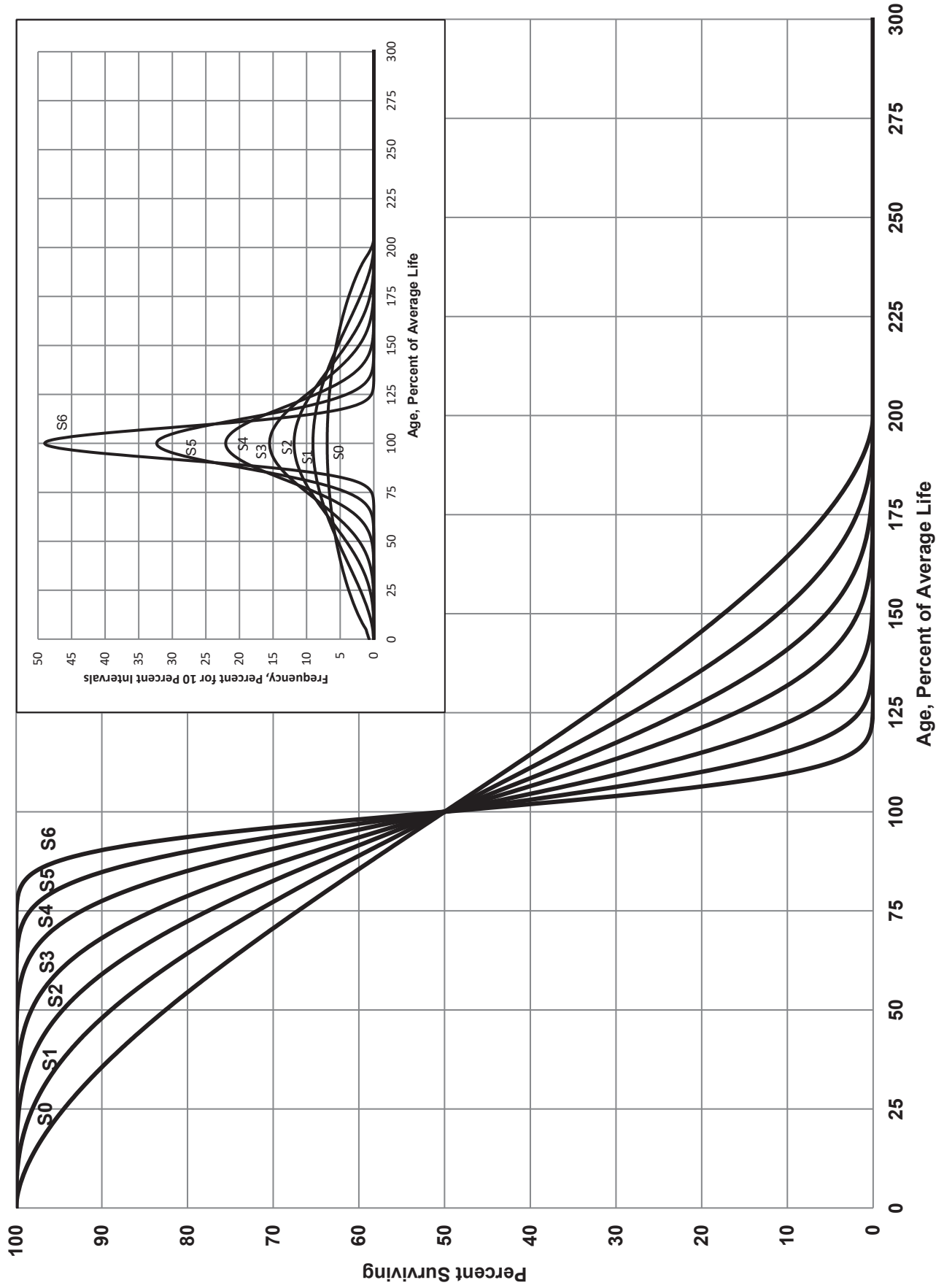
The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.



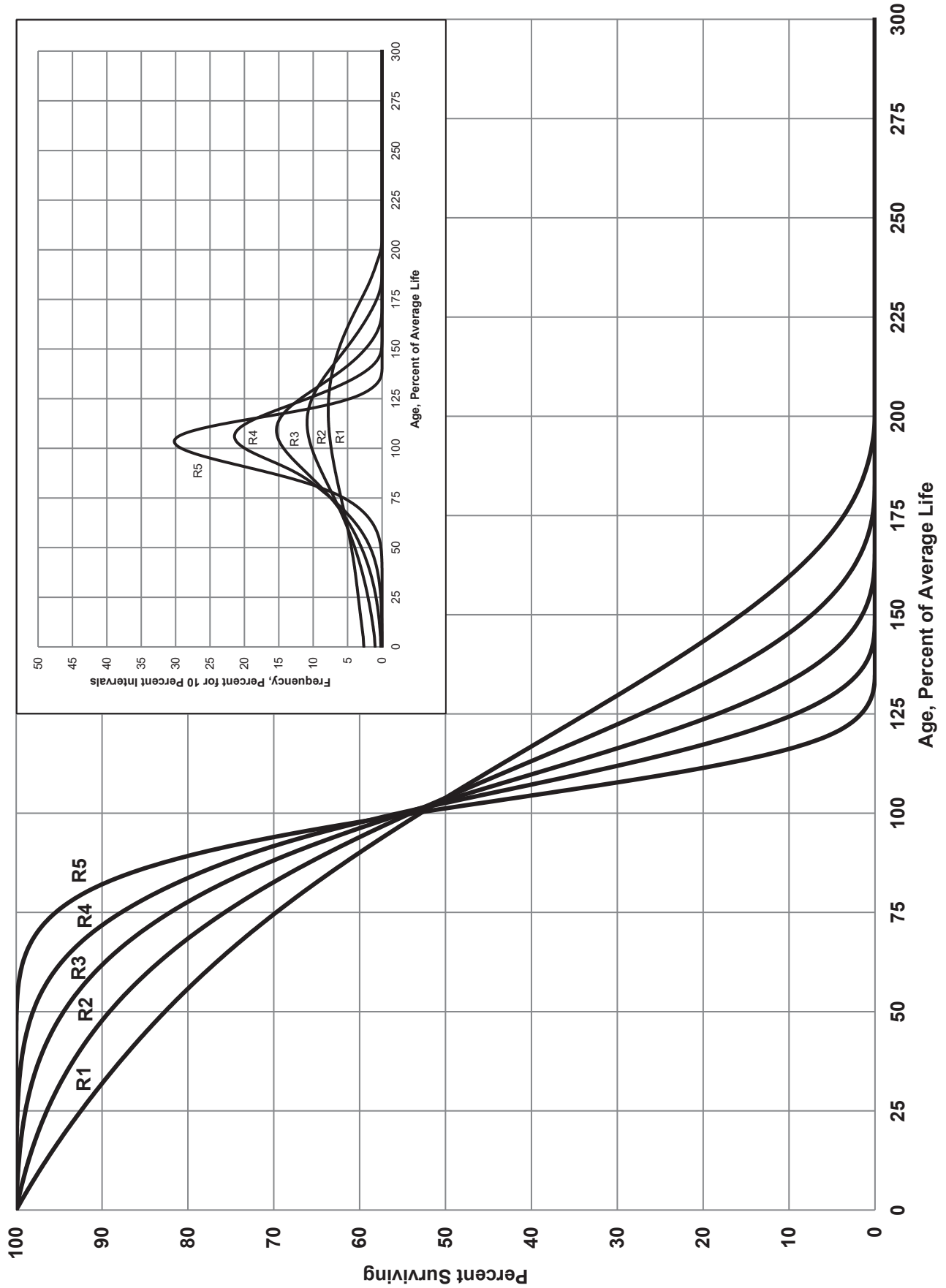
**FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES**



**FIGURE 2.. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES**



**FIGURE 3.. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES**



**FIGURE 4.. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES**

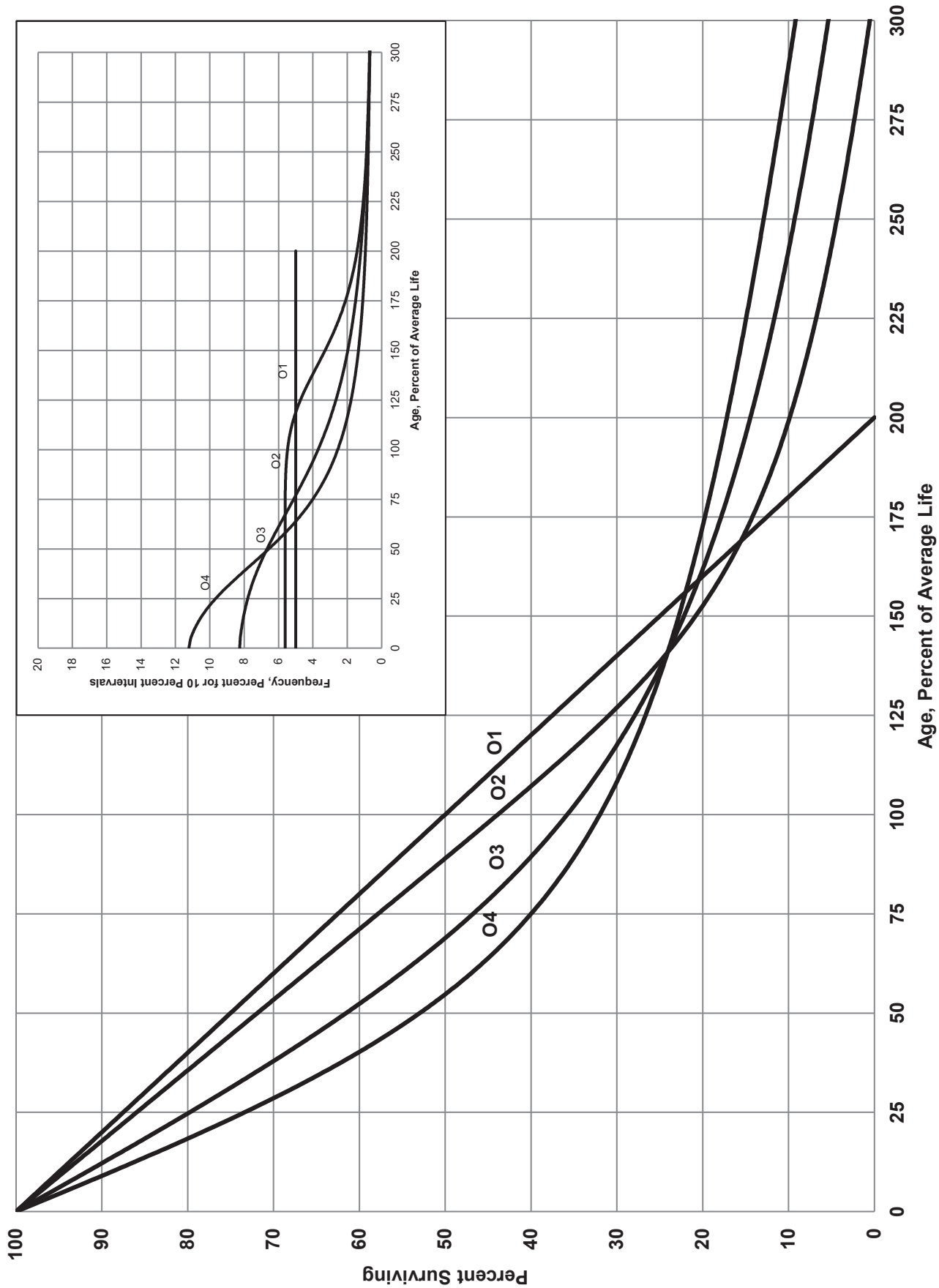


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES



These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

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<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

## **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2015-2024 for which there were placements during the years 2010-2024. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2010 were retired in 2015. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2015 retirements of 2010 installations and ending with the 2024 retirements of the 2019 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL

Experience Band 2015-2024 Placement Band 2010-2024

Year	Retirements, Thousands of Dollars													Total During Age Interval (12)	Age Interval (13)
	During Year														
Placed (1)	2015 (2)	2016 (3)	2017 (4)	2018 (5)	2019 (6)	2020 (7)	2021 (8)	2022 (9)	2023 (10)	2024 (11)	Total During Age Interval (12)		Age Interval (13)		
2010	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½		
2011	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½		
2012	11	12	13	14	16	17	19	21	22	18	18	64	11½-12½		
2013	8	9	10	11	11	13	14	15	16	17	17	83	10½-11½		
2014	9	10	11	12	13	14	16	17	19	20	20	93	9½-10½		
2015	4	9	10	11	12	13	14	15	16	20	20	105	8½-9½		
2016		5	11	12	13	14	15	16	18	20	20	113	7½-8½		
2017			6	12	13	15	16	17	19	19	19	124	6½-7½		
2018				6	13	15	16	17	19	19	19	131	5½-6½		
2019					7	14	16	17	19	20	20	143	4½-5½		
2020						8	18	20	22	23	23	146	3½-4½		
2021							9	20	22	25	25	150	2½-3½		
2022								11	23	25	25	151	1½-2½		
2023									11	24	24	153	½-1½		
2024										13	13	80	0-½		
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>308</b>	<b>1,606</b>			

**SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL**

Year Placed	Experience Band 2015-2024										Placement Band 2010-2024	
	Acquisitions, Transfers and Sales, Thousands of Dollars										Total During Age Interval	Age Interval
	During Year											
(1)	2015 (2)	2016 (3)	2017 (4)	2018 (5)	2019 (6)	2020 (7)	2021 (8)	2022 (9)	2023 (10)	2024 (11)	(12)	(13)
2010	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	13½-14½
2011	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2012	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2013	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	60	10½-11½
2014	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	9½-10½
2015	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2016	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2017	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2018	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	5½-6½
2019	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	4½-5½
2020	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	10	3½-4½
2021	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2022	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	1½-2½
2023	-	-	-	-	-	-	-	-	-	-	-	½-1½
2024	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)	

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

**Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2015 through 2024 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2020 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

**SCHEDULE 3. PLANT EXPOSED TO RETIREMENT**  
**JANUARY 1 OF EACH YEAR 2015-2024**  
**SUMMARIZED BY AGE INTERVAL**

Year Placed	Exposures, Thousands of Dollars												Total at		Age Interval	Age Interval
	Annual Survivors at the Beginning of the Year												Beginning of			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2023	2024	Age Interval	Age Interval		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)				
2010	255	245	234	222	209	195	239	216	192	167	167	167	13½-14½	167		
2011	279	268	256	243	228	212	194	174	153	131	131	131	12½-13½	323		
2012	307	296	284	271	257	241	224	205	184	162	162	162	11½-12½	531		
2013	338	330	321	311	300	289	276	262	242	226	226	226	10½-11½	823		
2014	376	367	357	346	334	321	307	297	280	261	261	261	9½-10½	1,097		
2015	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	316	316	8½-9½	1,503		
2016		460 <sup>a</sup>	455	444	432	419	405	390	374	356	356	356	7½-8½	1,952		
2017			510 <sup>a</sup>	504	492	479	464	448	431	412	412	412	6½-7½	2,463		
2018				580 <sup>a</sup>	574	561	546	530	501	482	482	482	5½-6½	3,057		
2019					660 <sup>a</sup>	653	639	623	628	609	609	609	4½-5½	3,789		
2020						750 <sup>a</sup>	742	724	685	663	663	663	3½-4½	4,332		
2021							850 <sup>a</sup>	841	821	799	799	799	2½-3½	4,955		
2022								960 <sup>a</sup>	949	926	926	926	1½-2½	5,719		
2023									1,080 <sup>a</sup>	1,069	1,069	1,069	½-1½	6,579		
2024										1,220 <sup>a</sup>	1,220 <sup>a</sup>	1,220 <sup>a</sup>	0-½	7,490		
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>7,799</b>	<b>7,799</b>		<b>44,780</b>		

<sup>a</sup>Additions during the year

For the entire experience band 2015-2024, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

**Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2015-2024

Placement Band 2010-2024

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
Total	<u>44,780</u>	<u>1,606</u>			35.66

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.



The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

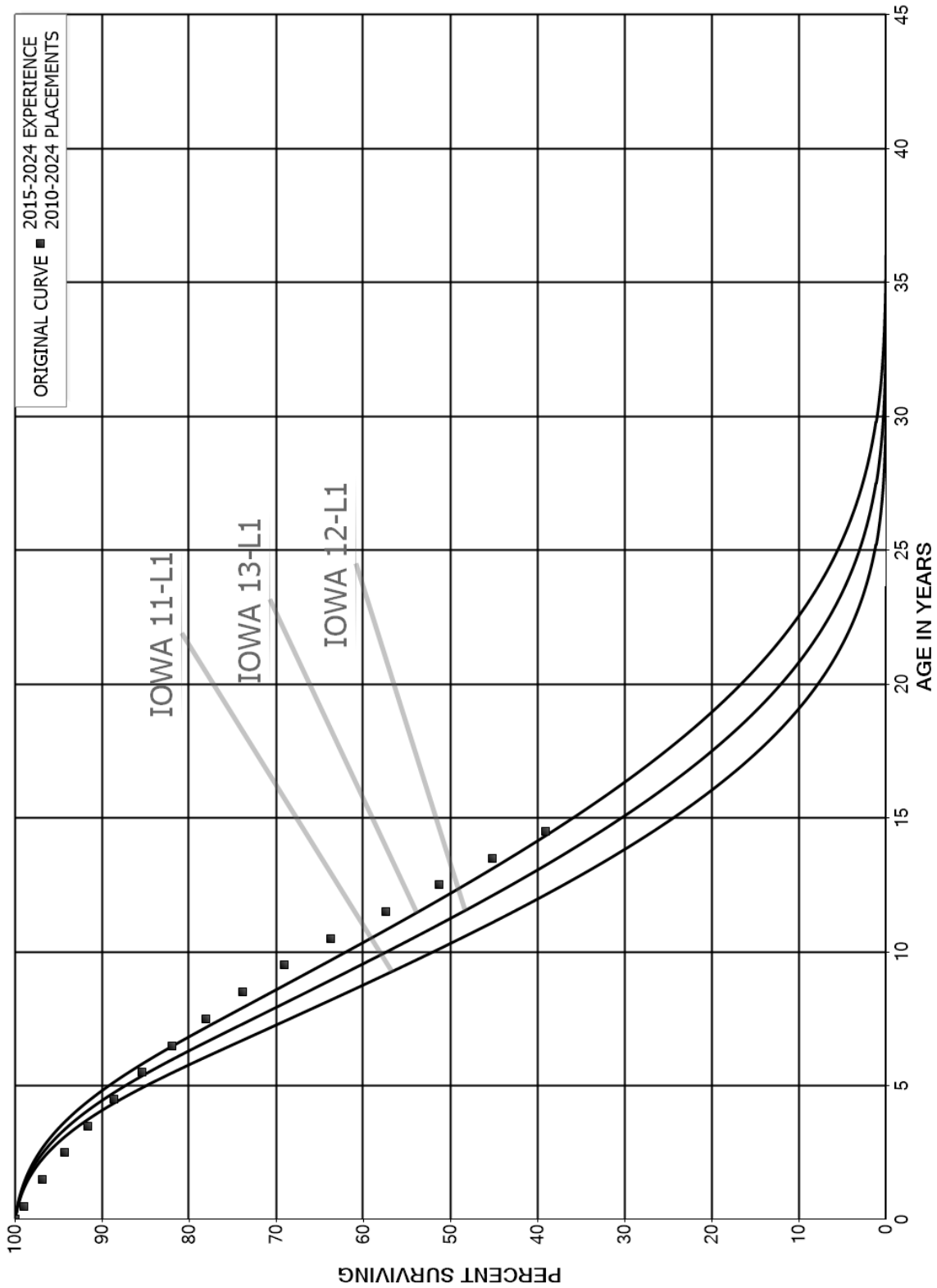


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

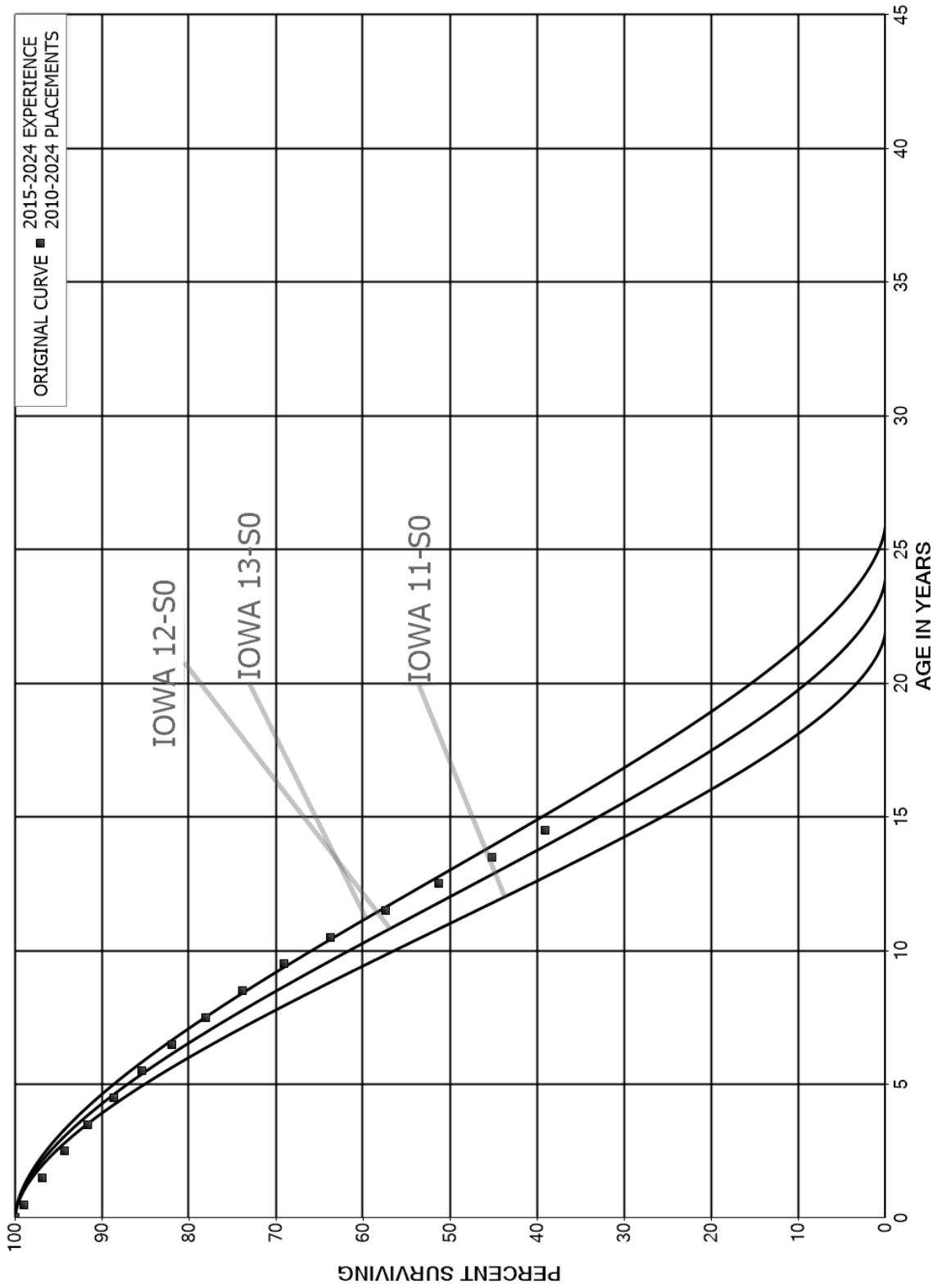


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

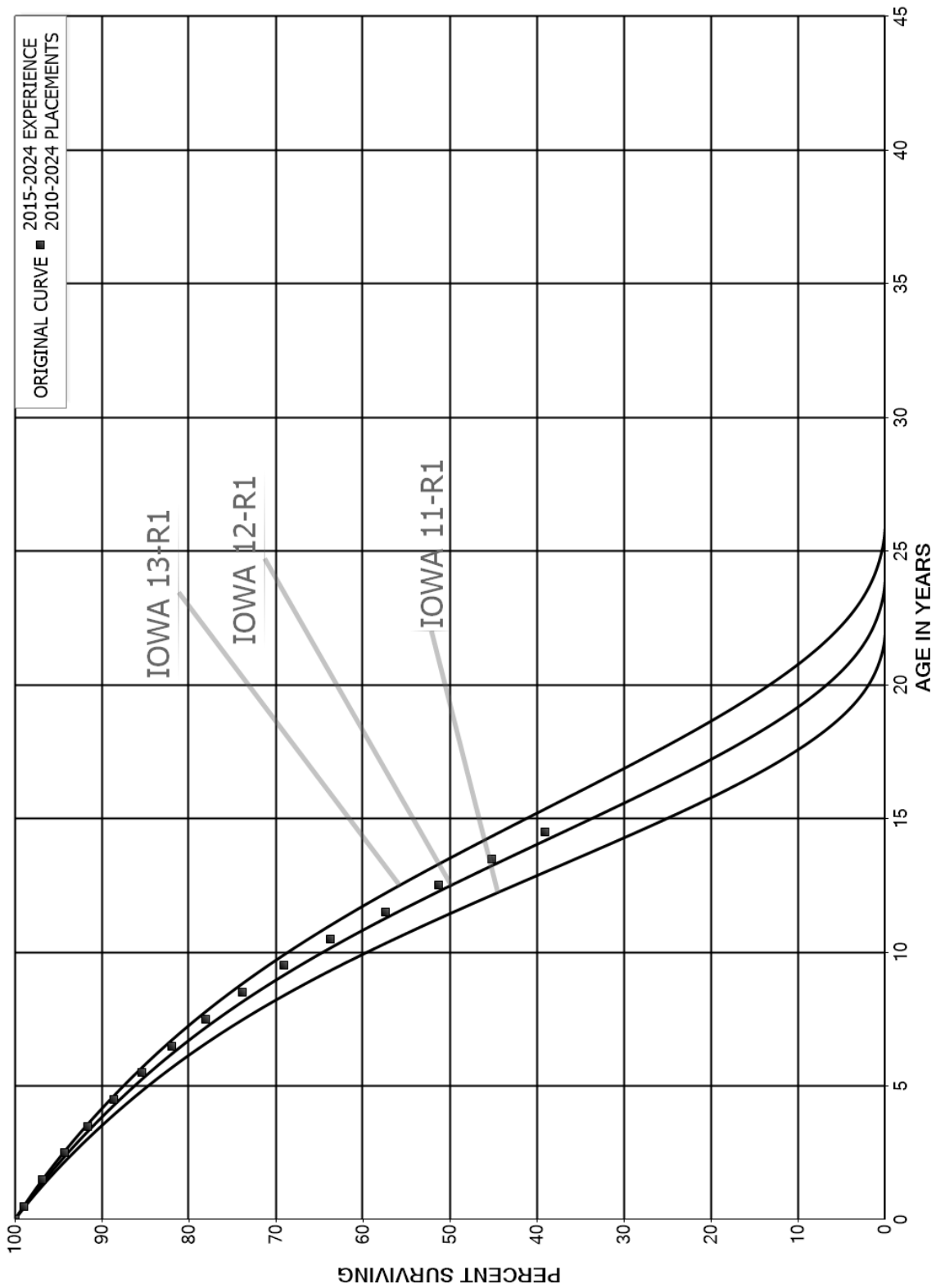
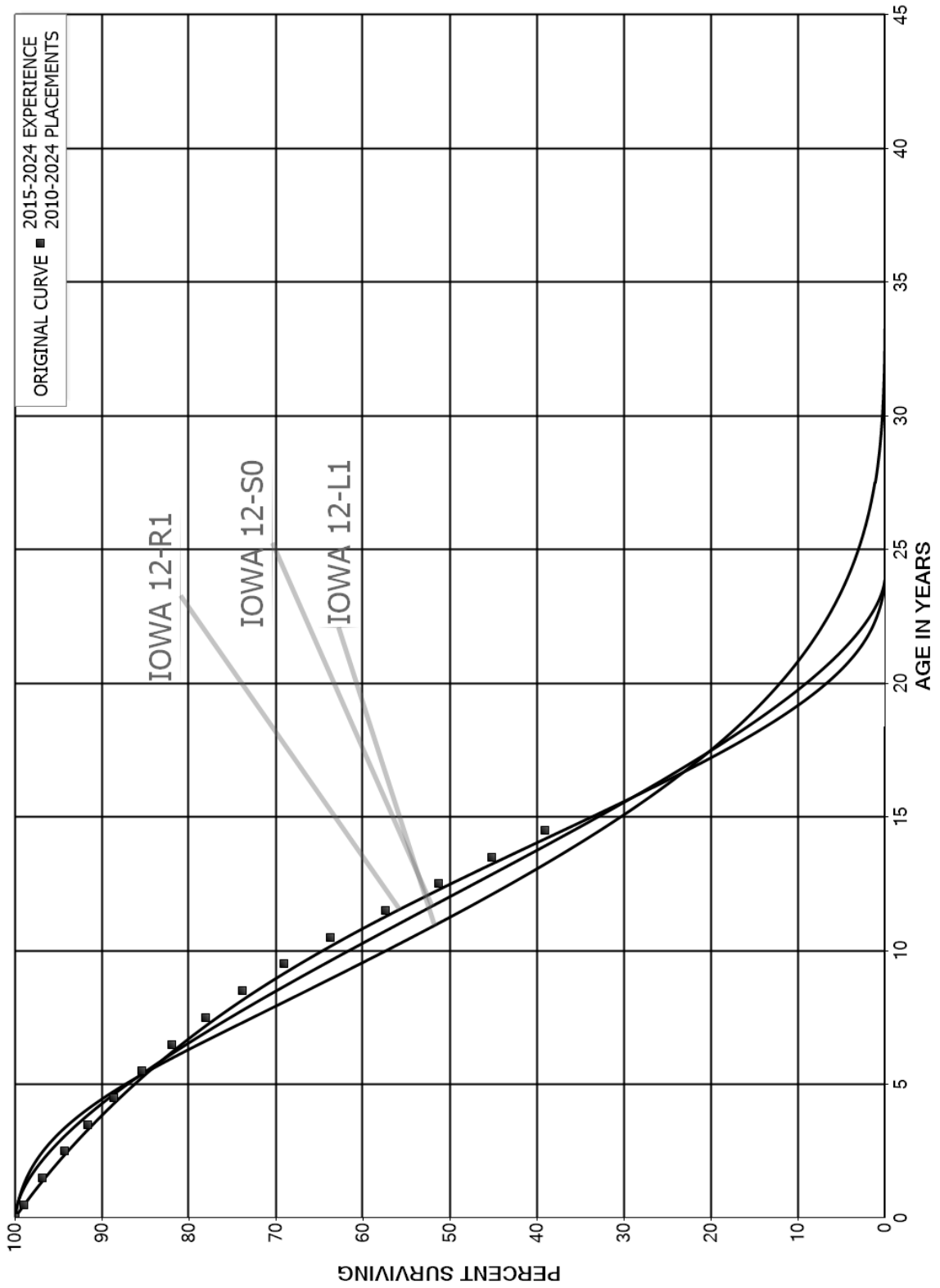


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



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## **PART III. SERVICE LIFE CONSIDERATIONS**

## **PART III. SERVICE LIFE CONSIDERATIONS**

### **JUDGMENTS**

The survivor curve estimates were based on judgment which considered factors including statistical analyses of retirements, Company policies and outlook as determined during discussions with management, and survivor curve estimates from previous studies of other Pennsylvania-American wastewater systems. For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group.

The amortization periods selected for general plant Accounts 390 and 393 are discussed in the section, "Amortization of General Plant Accounts."

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**PART IV. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**



## **PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION**

### **BOOK RESERVE**

The book reserve as of June 30, 2023, is the result of a bringforward of the book reserves established by the Commission for the Brentwood wastewater operation at the time of acquisition during the first quarter of 2024. The projected book reserve as of June 30, 2024, is a bringforward of the June 30, 2023 book reserve based on projected accruals, retirements, cost of removal, salvage and other credits.

### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

### **Single Unit of Property**

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left( 1 - \frac{6}{10} \right) = \$400.$$

### **Remaining Life Annual Accruals**

For the purpose of calculating remaining life accruals as of June 30, 2024, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of June 30, 2024, are set forth in the Results of Study section of the report.

### **Average Service Life Procedure**

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics

are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \frac{\text{Average Remaining Life}}{\text{Average Service Life}}$$

## **AMORTIZATION OF GENERAL PLANT ACCOUNTS**

In order to use a more efficient and cost effective accounting process for equipment recorded in general plant Accounts 390 and 393, amounts capitalized in these accounts are amortized rather than depreciated. Amortization as defined in the Uniform System of Accounts is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

The primary reasons for the amortization of certain general plant accounts is that the effort required to unitize additions, periodically inventory equipment and determine amounts to be retired for equipment recorded in these accounts is disproportionate to the original cost of the equipment when compared to other wastewater plant accounts.

Accounting for such equipment using an amortization concept consists of capitalization of amounts to these accounts based on the same criteria as used previously under depreciation accounting, amortization of the asset over a fixed period, retirement of the equipment at the end of the amortization period and recognition of any net salvage related to disposition of equipment in these accounts as a gain or loss.

For equipment in these accounts that was placed in service prior to implementation of amortization accounting, the net book value by vintage is amortized over the remaining amortization period specified for each account and the original cost will be retired at the end of this period.

The amortization periods selected for each account or subaccount are based on a review of the existing depreciation rates for the accounts, typical service lives used for each type of equipment and a consideration of the period during which it is anticipated that most of the benefit of the equipment will be realized. The amortization periods are as follows:

<u>Account Number</u>	<u>Description</u>	<u>Amortization Period, Years</u>
390.00	Office Furniture and Equipment	20
393.00	Tools, Shop and Garage Equipment	20

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## PART V. RESULTS OF STUDY

## **PART V. RESULTS OF STUDY**

### **DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of the net original cost used in the study. The results of the depreciation study are summarized in Table 2 which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 3 presents the bringforward to June 30, 2024 of the book reserve as of June 30, 2023. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months ended June 30, 2024.

### **DESCRIPTION OF DETAILED TABULATIONS**

Supporting statistical data for the estimates of average service lives and survivor curves and the annual depreciation calculations are presented in two sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life

derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to net original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	ORIGINAL COST	CUSTOMER	CONTRIBUTIONS	EXCLUDED	NET ORIGINAL COST
	AS OF JUNE 30, 2024 (2)	ADVANCES (3)	IN AID OF CONSTRUCTION (4)	PROPERTY (5)	AS OF JUNE 30, 2024 (6)
<b>DEPRECIABLE PLANT</b>					
353.20 LAND AND LAND RIGHTS - COLLECTION	36.00	-	-	-	36.00
361.10 COLLECTION SEWERS - GRAVITY MAINS	8,120,630.40	-	-	-	8,120,630.40
361.20 MANHOLES	1,512,306.05	-	-	-	1,512,306.05
363.00 SERVICES	488,708.30	-	-	-	488,708.30
390.00 OFFICE FURNITURE AND EQUIPMENT	1,050.00	-	-	-	1,050.00
391.00 TRANSPORTATION EQUIPMENT	14,700.00	-	-	-	14,700.00
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	10,500.00	-	-	-	10,500.00
<b>TOTAL DEPRECIABLE PLANT</b>	<b>10,147,930.75</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10,147,930.75</b>



PENNSYLVANIA AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2024 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	(7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)	FMV PLANT (9)	FMV RESERVE (10)	CALCULATED EXPENSE (11)=(9)-(10)/(7)
<b>DEPRECIABLE PLANT</b>										
361.10	COLLECTION SEWERS - GRAVITY MAINS	8,120,630.40	2,120,652	5,999,978	126,169	1.55	47.6	33,836,977.20	17,615,329	251,436
361.20	MANHOLES	1,152,306.05	359,710	1,152,596	65,840	4.35	17.5	4,450,344.13	2,634,261	79,000
363.00	SERVICES	488,708.30	246,411	242,297	15,743	3.22	15.4	8,134,112.13	6,705,851	45,990
390.00	OFFICE FURNITURE AND EQUIPMENT	1,050.00	.26	1,024	52	4.95	19.7	1,050.00	26	51
391.00	TRANSPORTATION EQUIPMENT	14,700.00	509	14,191	1,097	7.46	12.9	14,700.00	509	1,059
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	10,500.00	263	10,237	518	4.93	19.8	10,500.00	263	505
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>10,147,994.75</b>	<b>2,727,571</b>	<b>7,420,323</b>	<b>209,419</b>	<b>2.06</b>		<b>46,447,683.46</b>	<b>26,956,239</b>	<b>378,041</b>
<b>NONDEPRECIABLE PLANT</b>										
353.20	LAND AND LAND RIGHTS - COLLECTION	36.00						32,371.20		
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>36.00</b>						<b>32,371.20</b>		
<b>AMORTIZATION OF NET SALVAGE</b>										
	<b>TOTAL UTILITY PLANT</b>	<b>10,147,930.75</b>	<b>2,727,571</b>	<b>7,420,323</b>	<b>209,419</b>	<b>0</b>		<b>46,480,054.66</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2023 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2024 (8)
361.10	0		55,220		17,510		11,032				2,093,974		2,120,652
361.20	0		18,677		3,182		1,018				345,233		359,710
363.00	0		5,913		578		920				241,996		246,411
390.00	0		26										26
391.00	0		509										509
393.00	0		263										263
394.00	0												-
395.00	0												-
396.00	0												-
397.00	0												-
<b>TOTAL</b>	<b>0</b>		<b>80,608</b>		<b>21,271</b>		<b>12,969</b>		<b>0</b>		<b>2,681,203</b>		<b>2,727,571</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

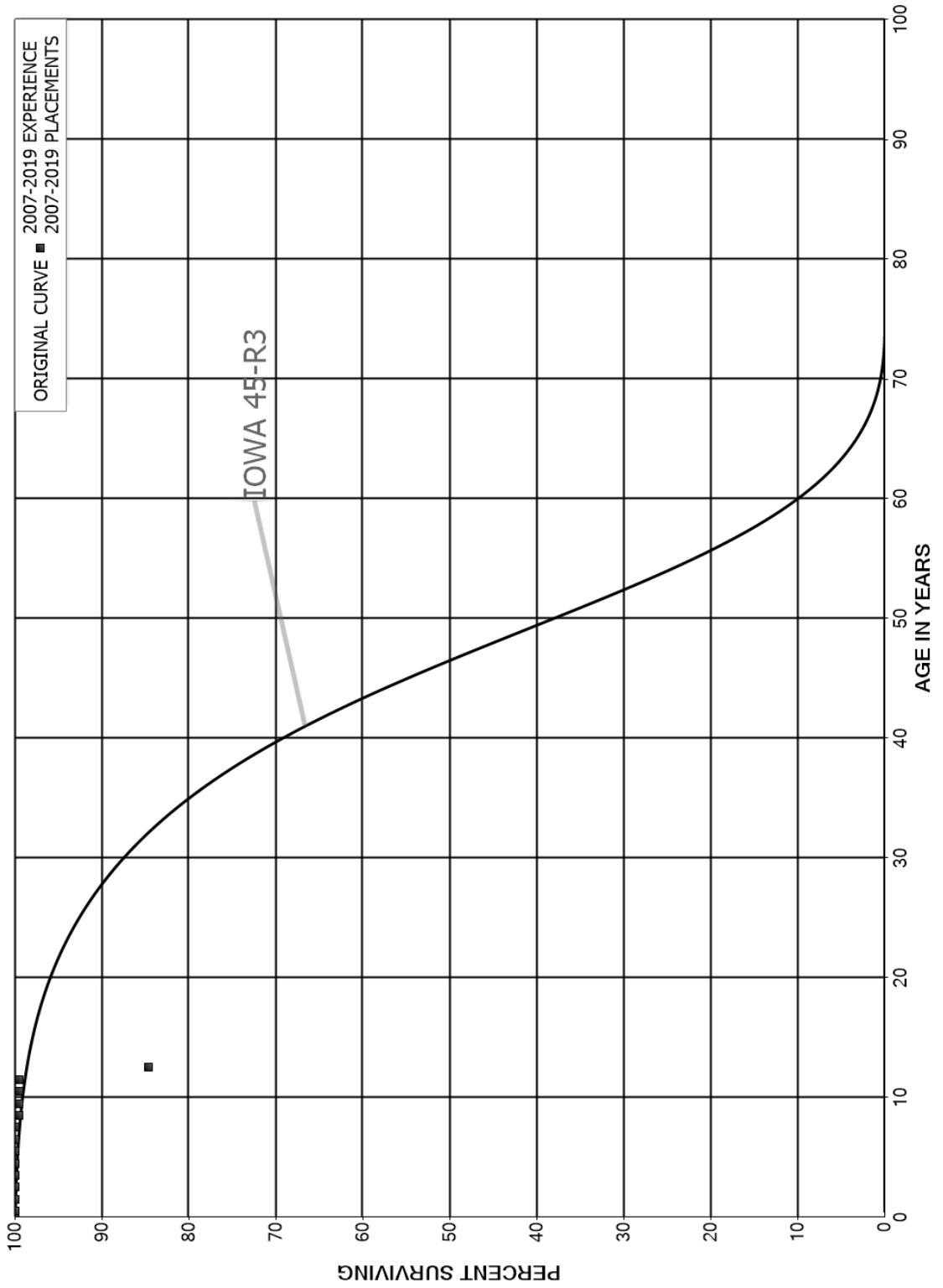
TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2023 (2)	NET ORIGINAL COST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS $(5) = ((2) + (3)) / 2 * (4)$	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS $(7) = (5) + (6)$
361.10	0.00	8,120,630.40	1.36	55,220		55,220
361.20	0.00	1,512,306.05	2.47	18,677		18,677
363.00	0.00	488,708.30	2.42	5,913		5,913
390.00	0.00	1,050.00	5.00	26		26
391.00	0.00	14,700.00	6.92	509		509
393.00	0.00	10,500.00	5.00	263		263
<b>TOTAL</b>	<b>0.00</b>	<b>10,147,894.75</b>		<b>80,608</b>	<b>0</b>	<b>80,608</b>

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## **PART VI. SERVICE LIFE STATISTICS**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



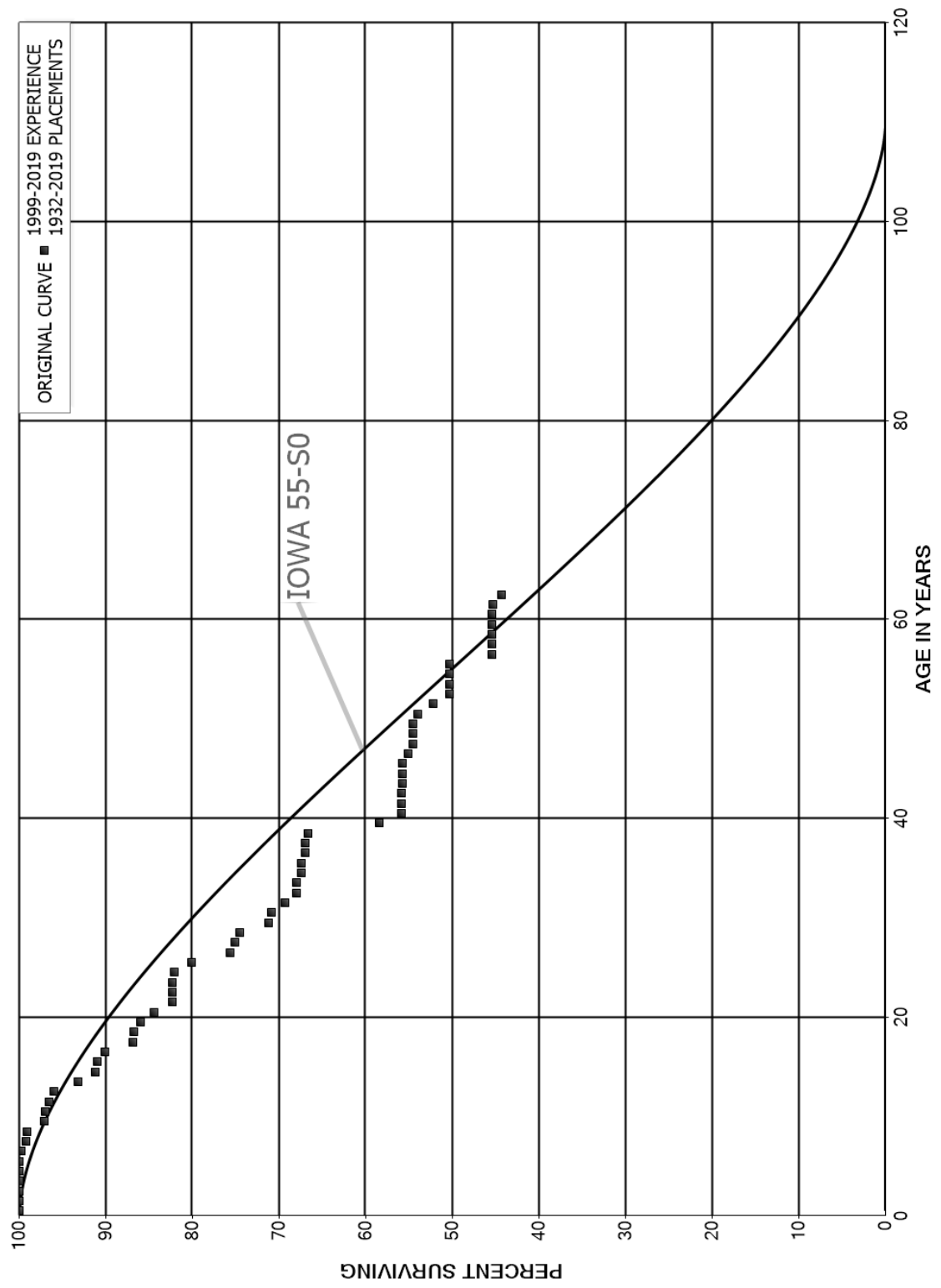
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,844,636		0.0000	1.0000	100.00
0.5	3,478,774		0.0000	1.0000	100.00
1.5	1,864,154		0.0000	1.0000	100.00
2.5	516,452	0	0.0000	1.0000	100.00
3.5	479,797		0.0000	1.0000	100.00
4.5	437,900	416	0.0010	0.9990	100.00
5.5	422,717		0.0000	1.0000	99.90
6.5	321,516		0.0000	1.0000	99.90
7.5	321,516	1,408	0.0044	0.9956	99.90
8.5	311,522		0.0000	1.0000	99.47
9.5	311,522		0.0000	1.0000	99.47
10.5	134,415		0.0000	1.0000	99.47
11.5	20,659	3,076	0.1489	0.8511	99.47
12.5					84.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE

PLACEMENT BAND 1932-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	70,500,767		0.0000	1.0000	100.00
0.5	76,131,665		0.0000	1.0000	100.00
1.5	80,233,751	6,642	0.0001	0.9999	100.00
2.5	105,447,960		0.0000	1.0000	99.99
3.5	85,605,007	28,836	0.0003	0.9997	99.99
4.5	79,002,174	4,425	0.0001	0.9999	99.96
5.5	46,624,214	105,422	0.0023	0.9977	99.95
6.5	51,444,895	277,564	0.0054	0.9946	99.73
7.5	50,906,335	75,090	0.0015	0.9985	99.19
8.5	50,793,050	1,027,715	0.0202	0.9798	99.04
9.5	34,780,266	28,544	0.0008	0.9992	97.04
10.5	15,695,508	65,025	0.0041	0.9959	96.96
11.5	15,618,899	88,716	0.0057	0.9943	96.56
12.5	20,002,643	601,564	0.0301	0.9699	96.01
13.5	17,169,269	353,428	0.0206	0.9794	93.12
14.5	16,203,968	41,247	0.0025	0.9975	91.20
15.5	16,204,082	163,309	0.0101	0.9899	90.97
16.5	13,585,539	481,677	0.0355	0.9645	90.06
17.5	12,995,837	17,548	0.0014	0.9986	86.86
18.5	12,210,208	114,143	0.0093	0.9907	86.74
19.5	7,393,964	134,551	0.0182	0.9818	85.93
20.5	6,513,761	157,405	0.0242	0.9758	84.37
21.5	6,711,244	2,801	0.0004	0.9996	82.33
22.5	7,374,817	1,543	0.0002	0.9998	82.30
23.5	6,783,698	15,823	0.0023	0.9977	82.28
24.5	6,921,413	166,617	0.0241	0.9759	82.09
25.5	6,763,696	380,532	0.0563	0.9437	80.11
26.5	5,899,041	38,147	0.0065	0.9935	75.60
27.5	4,281,769	34,820	0.0081	0.9919	75.12
28.5	3,967,252	175,318	0.0442	0.9558	74.50
29.5	4,051,668	21,732	0.0054	0.9946	71.21
30.5	5,300,696	114,682	0.0216	0.9784	70.83
31.5	4,027,463	76,382	0.0190	0.9810	69.30
32.5	2,813,504	2,190	0.0008	0.9992	67.98
33.5	2,649,698	20,846	0.0079	0.9921	67.93
34.5	1,122,954		0.0000	1.0000	67.40
35.5	398,615	2,457	0.0062	0.9938	67.40
36.5	369,394		0.0000	1.0000	66.98
37.5	339,885	1,942	0.0057	0.9943	66.98
38.5	249,055	30,753	0.1235	0.8765	66.60



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	877,505	37,754	0.0430	0.9570	58.37
40.5	1,351,121		0.0000	1.0000	55.86
41.5	19,298,436	4,893	0.0003	0.9997	55.86
42.5	19,293,543	30,808	0.0016	0.9984	55.85
43.5	32,745,779		0.0000	1.0000	55.76
44.5	14,343,608	10,968	0.0008	0.9992	55.76
45.5	14,332,640	153,806	0.0107	0.9893	55.72
46.5	14,199,715	156,087	0.0110	0.9890	55.12
47.5	552,598		0.0000	1.0000	54.51
48.5	1,223,925		0.0000	1.0000	54.51
49.5	1,265,936	12,500	0.0099	0.9901	54.51
50.5	1,284,936	43,517	0.0339	0.9661	53.98
51.5	570,093	20,853	0.0366	0.9634	52.15
52.5	524,823		0.0000	1.0000	50.24
53.5	524,823		0.0000	1.0000	50.24
54.5	447,474		0.0000	1.0000	50.24
55.5	447,474	42,843	0.0957	0.9043	50.24
56.5	13,313,486	1,903	0.0001	0.9999	45.43
57.5	13,311,583		0.0000	1.0000	45.42
58.5	13,049,341	13	0.0000	1.0000	45.42
59.5	140,486		0.0000	1.0000	45.42
60.5	140,486	363	0.0026	0.9974	45.42
61.5	140,123	3,040	0.0217	0.9783	45.31
62.5					44.32
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	39,928		0.0000		
69.5	39,928		0.0000		
70.5	39,928		0.0000		
71.5	39,928		0.0000		
72.5	40,428		0.0000		
73.5	39,928		0.0000		
74.5	39,928		0.0000		
75.5	39,928		0.0000		
76.5	602		0.0000		
77.5	602		0.0000		
78.5	602		0.0000		

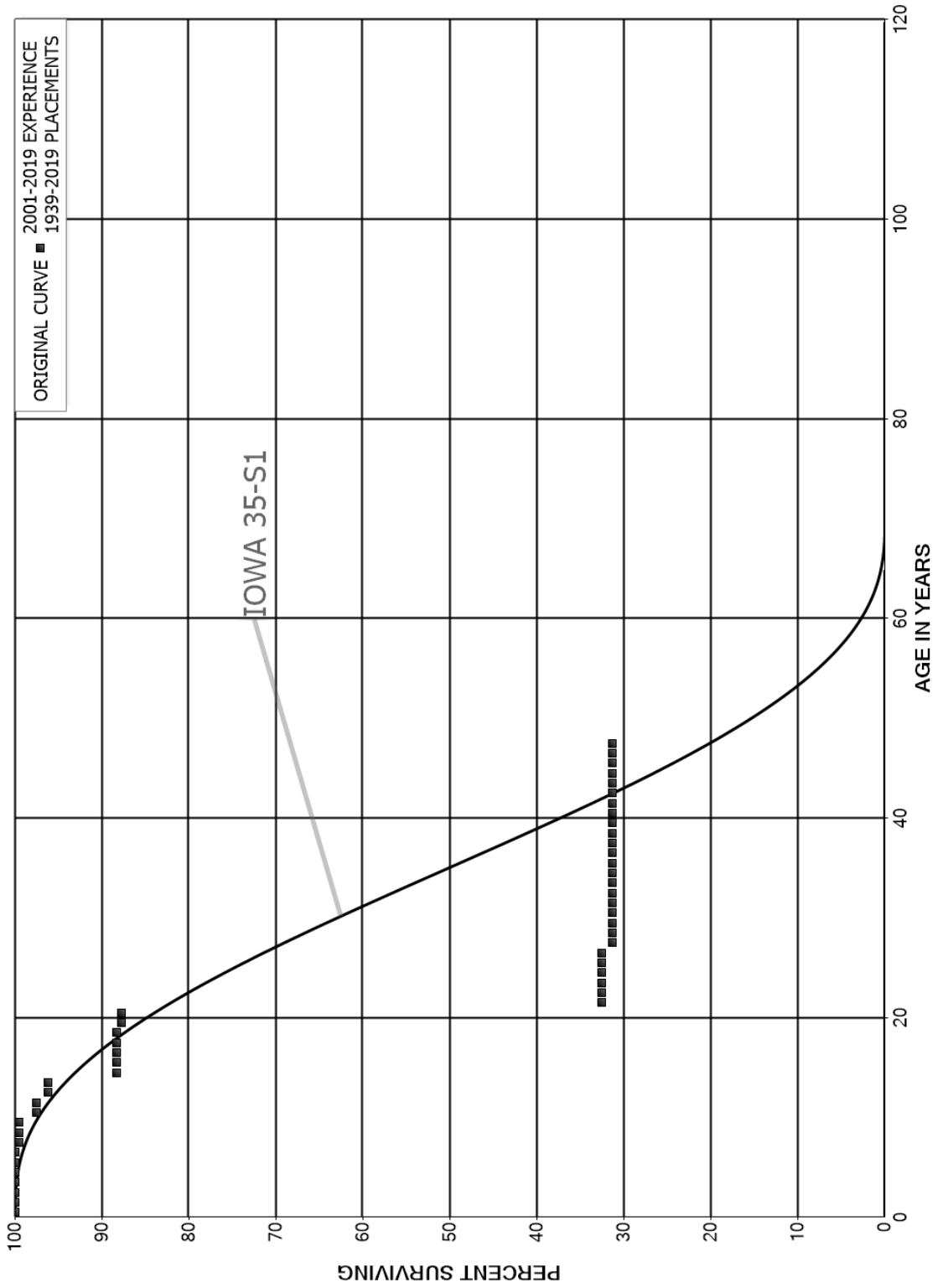
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	602		0.0000		
80.5	602		0.0000		
81.5	602		0.0000		
82.5	602		0.0000		
83.5	602		0.0000		
84.5	602		0.0000		
85.5	602		0.0000		
86.5	602		0.0000		
87.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,331,347		0.0000	1.0000	100.00
0.5	2,248,872	400	0.0002	0.9998	100.00
1.5	2,139,519		0.0000	1.0000	99.98
2.5	2,007,976		0.0000	1.0000	99.98
3.5	1,998,798		0.0000	1.0000	99.98
4.5	978,189		0.0000	1.0000	99.98
5.5	566,034		0.0000	1.0000	99.98
6.5	540,776	2,524	0.0047	0.9953	99.98
7.5	668,631		0.0000	1.0000	99.52
8.5	661,526		0.0000	1.0000	99.52
9.5	622,592	12,303	0.0198	0.9802	99.52
10.5	529,371	373	0.0007	0.9993	97.55
11.5	209,362	2,752	0.0131	0.9869	97.48
12.5	204,311		0.0000	1.0000	96.20
13.5	220,425	18,073	0.0820	0.9180	96.20
14.5	208,207		0.0000	1.0000	88.31
15.5	208,207		0.0000	1.0000	88.31
16.5	165,317		0.0000	1.0000	88.31
17.5	193,471		0.0000	1.0000	88.31
18.5	210,457	1,510	0.0072	0.9928	88.31
19.5	223,914		0.0000	1.0000	87.68
20.5	223,914	140,772	0.6287	0.3713	87.68
21.5	67,028		0.0000	1.0000	32.56
22.5	73,481		0.0000	1.0000	32.56
23.5	73,481		0.0000	1.0000	32.56
24.5	73,481		0.0000	1.0000	32.56
25.5	44,261		0.0000	1.0000	32.56
26.5	27,275	1,047	0.0384	0.9616	32.56
27.5	11,260		0.0000	1.0000	31.31
28.5	11,260		0.0000	1.0000	31.31
29.5	11,260		0.0000	1.0000	31.31
30.5	11,260		0.0000	1.0000	31.31
31.5	11,260		0.0000	1.0000	31.31
32.5	11,260		0.0000	1.0000	31.31
33.5	11,260		0.0000	1.0000	31.31
34.5	11,260		0.0000	1.0000	31.31
35.5	450		0.0000	1.0000	31.31
36.5	450		0.0000	1.0000	31.31
37.5	450		0.0000	1.0000	31.31
38.5	450		0.0000	1.0000	31.31

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	450		0.0000	1.0000	31.31
40.5	450		0.0000	1.0000	31.31
41.5	450		0.0000	1.0000	31.31
42.5	450		0.0000	1.0000	31.31
43.5	450		0.0000	1.0000	31.31
44.5	450		0.0000	1.0000	31.31
45.5	450		0.0000	1.0000	31.31
46.5	450		0.0000	1.0000	31.31
47.5					31.31
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	3,802		0.0000		
69.5	3,802		0.0000		
70.5	3,802	283	0.0744		
71.5	3,519		0.0000		
72.5	3,519		0.0000		
73.5	3,519		0.0000		
74.5	3,519		0.0000		
75.5	3,519		0.0000		
76.5	3,519		0.0000		
77.5	3,519		0.0000		
78.5	3,519		0.0000		

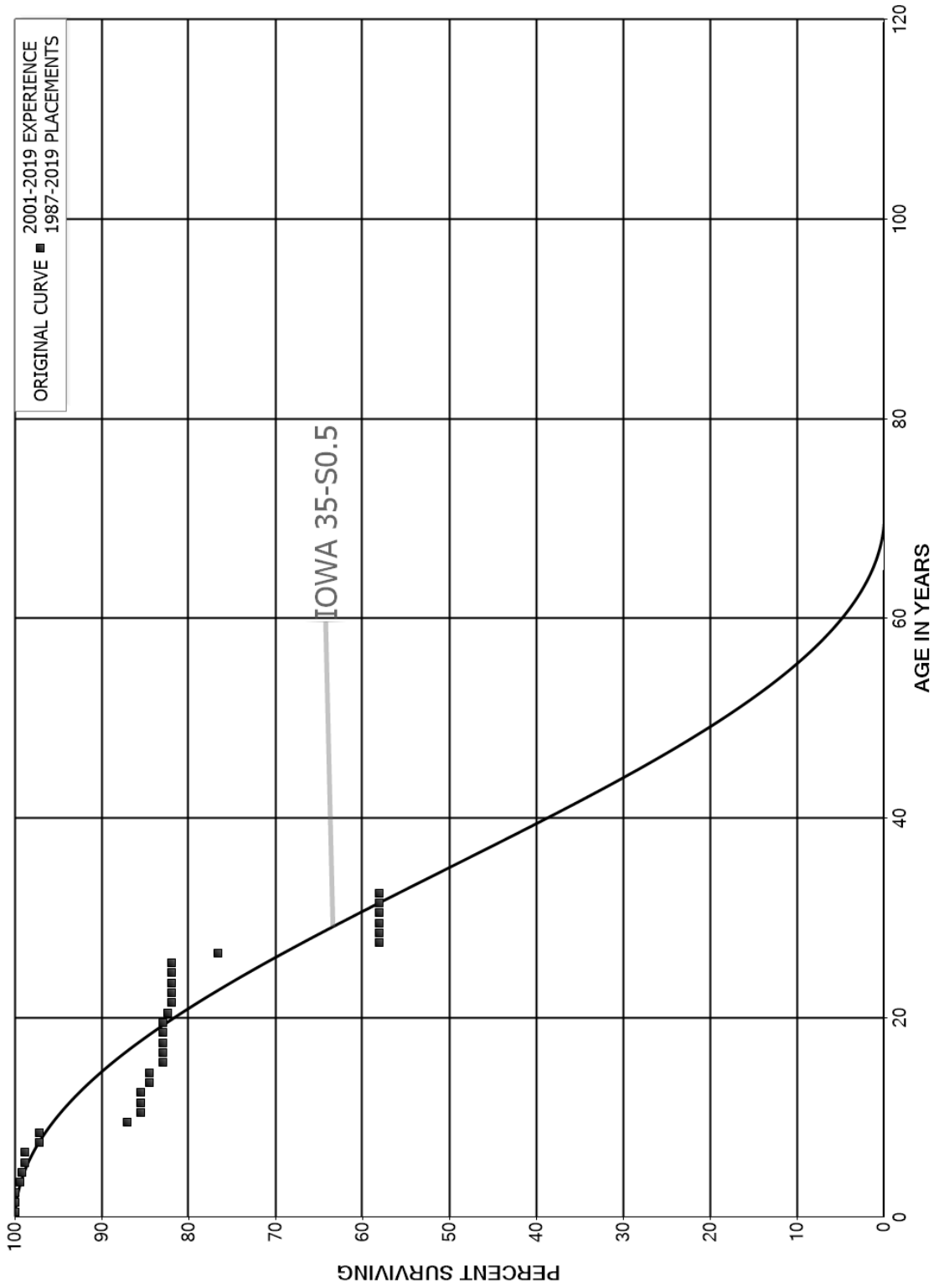
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5	3,519		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 355.00 POWER GENERATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

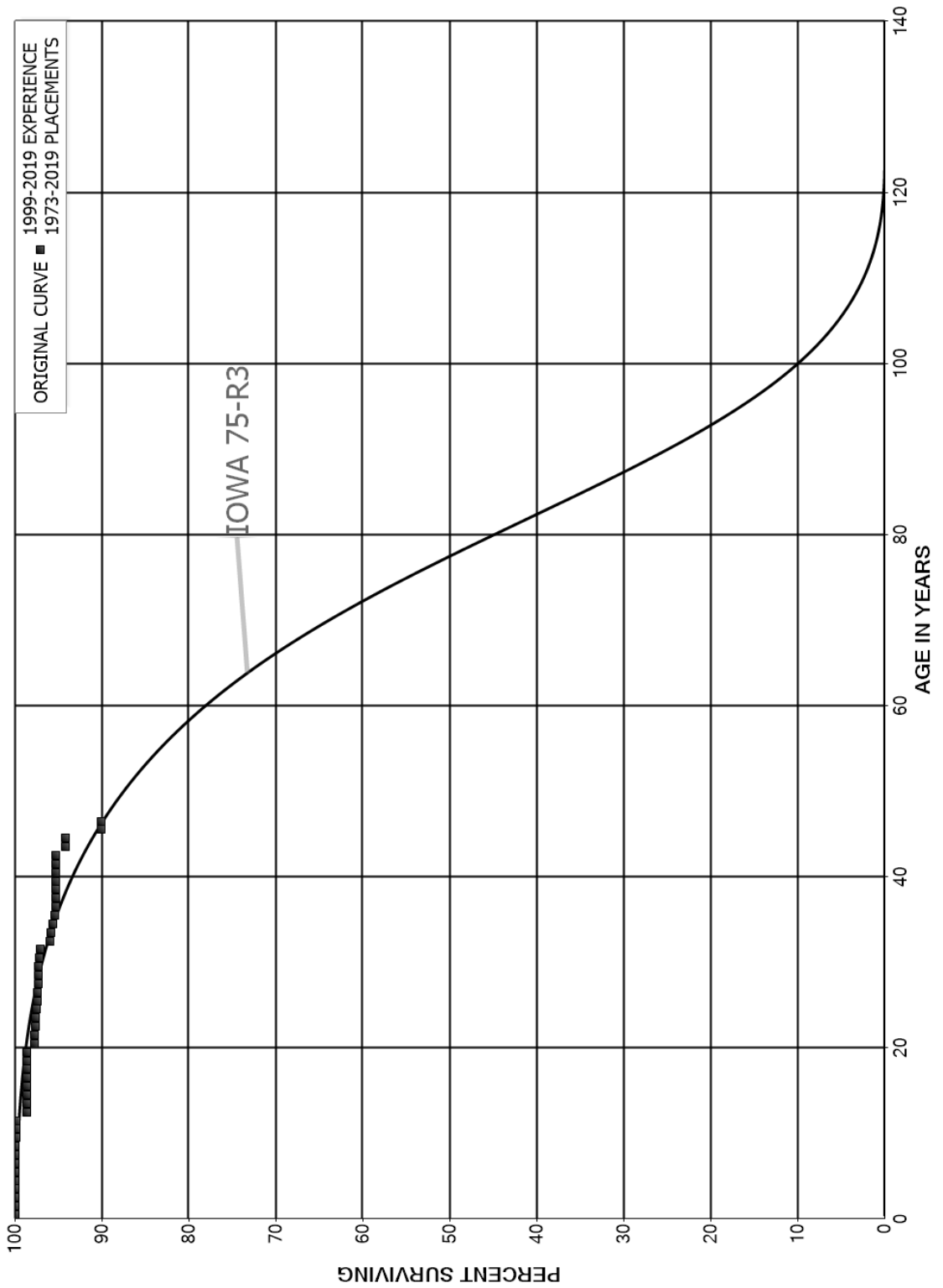
ACCOUNT 355.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1987-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,656,122		0.0000	1.0000	100.00
0.5	3,685,338		0.0000	1.0000	100.00
1.5	4,385,880		0.0000	1.0000	100.00
2.5	4,494,639	26,926	0.0060	0.9940	100.00
3.5	4,479,665	10,161	0.0023	0.9977	99.40
4.5	4,398,000	14,523	0.0033	0.9967	99.18
5.5	3,773,674	1,387	0.0004	0.9996	98.85
6.5	3,828,658	61,470	0.0161	0.9839	98.81
7.5	3,336,361		0.0000	1.0000	97.23
8.5	3,321,984	347,576	0.1046	0.8954	97.23
9.5	2,953,727	51,388	0.0174	0.9826	87.05
10.5	328,249		0.0000	1.0000	85.54
11.5	144,528		0.0000	1.0000	85.54
12.5	267,555	3,097	0.0116	0.9884	85.54
13.5	327,093		0.0000	1.0000	84.55
14.5	278,538	5,336	0.0192	0.9808	84.55
15.5	281,064		0.0000	1.0000	82.93
16.5	293,645		0.0000	1.0000	82.93
17.5	241,944		0.0000	1.0000	82.93
18.5	203,466		0.0000	1.0000	82.93
19.5	203,466	1,204	0.0059	0.9941	82.93
20.5	202,262	1,103	0.0055	0.9945	82.44
21.5	432,455		0.0000	1.0000	81.99
22.5	402,008		0.0000	1.0000	81.99
23.5	402,008		0.0000	1.0000	81.99
24.5	402,008		0.0000	1.0000	81.99
25.5	402,978	26,388	0.0655	0.9345	81.99
26.5	174,978	42,310	0.2418	0.7582	76.62
27.5	89,880		0.0000	1.0000	58.09
28.5	68,585		0.0000	1.0000	58.09
29.5	68,585		0.0000	1.0000	58.09
30.5	19,246		0.0000	1.0000	58.09
31.5	19,246		0.0000	1.0000	58.09
32.5					58.09



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	31,766,704	19	0.0000	1.0000	100.00	
0.5	28,215,316	26	0.0000	1.0000	100.00	
1.5	35,558,986	33	0.0000	1.0000	100.00	
2.5	23,783,577	70	0.0000	1.0000	100.00	
3.5	21,373,939	350	0.0000	1.0000	100.00	
4.5	18,774,036	315	0.0000	1.0000	100.00	
5.5	14,425,014	397	0.0000	1.0000	100.00	
6.5	14,188,090	1,611	0.0001	0.9999	99.99	
7.5	14,122,868	1,747	0.0001	0.9999	99.98	
8.5	13,850,582	16,747	0.0012	0.9988	99.97	
9.5	13,465,099	64	0.0000	1.0000	99.85	
10.5	13,318,392	82	0.0000	1.0000	99.85	
11.5	10,748,868	127,626	0.0119	0.9881	99.85	
12.5	9,661,386		0.0000	1.0000	98.66	
13.5	7,868,737	3,291	0.0004	0.9996	98.66	
14.5	7,779,655	99	0.0000	1.0000	98.62	
15.5	5,905,707	9	0.0000	1.0000	98.62	
16.5	5,774,986	949	0.0002	0.9998	98.62	
17.5	5,344,267	1,253	0.0002	0.9998	98.60	
18.5	4,614,847	826	0.0002	0.9998	98.58	
19.5	4,197,905	37,017	0.0088	0.9912	98.56	
20.5	3,986,776	70	0.0000	1.0000	97.69	
21.5	4,475,797	1,897	0.0004	0.9996	97.69	
22.5	3,907,599	569	0.0001	0.9999	97.65	
23.5	4,900,347	3,932	0.0008	0.9992	97.64	
24.5	6,419,851	13,411	0.0021	0.9979	97.56	
25.5	6,580,720	788	0.0001	0.9999	97.35	
26.5	6,033,834	1,095	0.0002	0.9998	97.34	
27.5	6,011,515	2,049	0.0003	0.9997	97.32	
28.5	5,991,855	3,135	0.0005	0.9995	97.29	
29.5	6,011,945	3,365	0.0006	0.9994	97.24	
30.5	5,911,879	4,784	0.0008	0.9992	97.19	
31.5	5,517,306	65,876	0.0119	0.9881	97.11	
32.5	5,225,480	4,106	0.0008	0.9992	95.95	
33.5	5,192,765	13,636	0.0026	0.9974	95.87	
34.5	4,869,190	12,733	0.0026	0.9974	95.62	
35.5	4,856,457	2,869	0.0006	0.9994	95.37	
36.5	4,661,206	15	0.0000	1.0000	95.31	
37.5	4,607,713		0.0000	1.0000	95.31	
38.5	4,446,768	1,883	0.0004	0.9996	95.31	

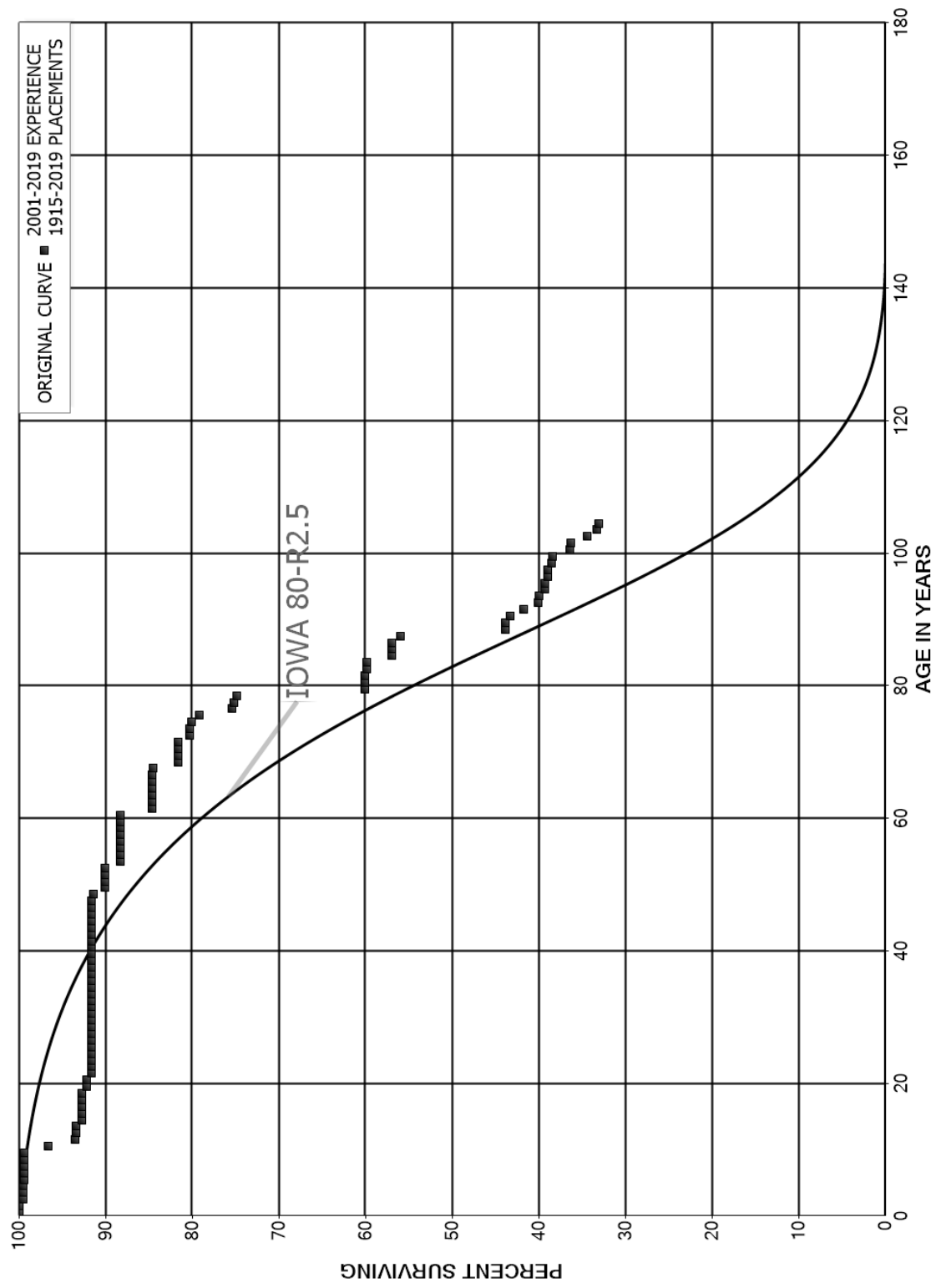
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	4,369,779	82	0.0000	1.0000	95.27	
40.5	4,295,948	6	0.0000	1.0000	95.27	
41.5	4,025,587	0	0.0000	1.0000	95.27	
42.5	3,566,737	42,283	0.0119	0.9881	95.27	
43.5	2,553,034		0.0000	1.0000	94.14	
44.5	1,703,254	73,783	0.0433	0.9567	94.14	
45.5	125,695		0.0000	1.0000	90.06	
46.5					90.06	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	123,698,865	1,489	0.0000	1.0000	100.00
0.5	80,968,134	1,744	0.0000	1.0000	100.00
1.5	71,427,735	349,743	0.0049	0.9951	100.00
2.5	61,491,291		0.0000	1.0000	99.51
3.5	47,985,505		0.0000	1.0000	99.51
4.5	43,496,282	26,093	0.0006	0.9994	99.51
5.5	34,622,702	11,064	0.0003	0.9997	99.45
6.5	36,236,717	10,556	0.0003	0.9997	99.42
7.5	44,473,440	0	0.0000	1.0000	99.39
8.5	44,403,805	13,334	0.0003	0.9997	99.39
9.5	42,579,956	1,180,167	0.0277	0.9723	99.36
10.5	27,257,562	886,763	0.0325	0.9675	96.60
11.5	23,041,413	10,064	0.0004	0.9996	93.46
12.5	15,696,984	13,300	0.0008	0.9992	93.42
13.5	13,197,516	82,522	0.0063	0.9937	93.34
14.5	9,898,866	187	0.0000	1.0000	92.76
15.5	8,175,329	367	0.0000	1.0000	92.75
16.5	11,005,722	1,374	0.0001	0.9999	92.75
17.5	22,668,123		0.0000	1.0000	92.74
18.5	22,367,436	144,378	0.0065	0.9935	92.74
19.5	21,841,271		0.0000	1.0000	92.14
20.5	10,429,000	56,430	0.0054	0.9946	92.14
21.5	13,494,984		0.0000	1.0000	91.64
22.5	12,095,717		0.0000	1.0000	91.64
23.5	13,846,891		0.0000	1.0000	91.64
24.5	14,182,481		0.0000	1.0000	91.64
25.5	19,071,002		0.0000	1.0000	91.64
26.5	16,170,692		0.0000	1.0000	91.64
27.5	36,060,280		0.0000	1.0000	91.64
28.5	35,923,542		0.0000	1.0000	91.64
29.5	33,683,971		0.0000	1.0000	91.64
30.5	8,391,683	866	0.0001	0.9999	91.64
31.5	8,167,272	21	0.0000	1.0000	91.63
32.5	8,027,418		0.0000	1.0000	91.63
33.5	7,266,714		0.0000	1.0000	91.63
34.5	5,540,059		0.0000	1.0000	91.63
35.5	3,406,034		0.0000	1.0000	91.63
36.5	3,951,146		0.0000	1.0000	91.63
37.5	4,287,296		0.0000	1.0000	91.63
38.5	4,273,219		0.0000	1.0000	91.63

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,243,666		0.0000	1.0000	91.63
40.5	41,503,891	5,447	0.0001	0.9999	91.63
41.5	41,043,016	49	0.0000	1.0000	91.62
42.5	41,341,828		0.0000	1.0000	91.62
43.5	20,516,395		0.0000	1.0000	91.62
44.5	17,262,745	4,573	0.0003	0.9997	91.62
45.5	17,447,879		0.0000	1.0000	91.60
46.5	16,922,111	1,617	0.0001	0.9999	91.60
47.5	1,493,981	2,878	0.0019	0.9981	91.59
48.5	1,491,103	21,283	0.0143	0.9857	91.41
49.5	995,707	187	0.0002	0.9998	90.11
50.5	1,249,631		0.0000	1.0000	90.09
51.5	1,214,773		0.0000	1.0000	90.09
52.5	1,253,366	24,618	0.0196	0.9804	90.09
53.5	28,374,663		0.0000	1.0000	88.32
54.5	38,998,170		0.0000	1.0000	88.32
55.5	39,986,553		0.0000	1.0000	88.32
56.5	13,005,874		0.0000	1.0000	88.32
57.5	59,432,346		0.0000	1.0000	88.32
58.5	60,820,282	557	0.0000	1.0000	88.32
59.5	59,761,303	747	0.0000	1.0000	88.32
60.5	2,094,297	87,761	0.0419	0.9581	88.32
61.5	22,663,762	8	0.0000	1.0000	84.62
62.5	21,213,491	61	0.0000	1.0000	84.62
63.5	21,215,934	289	0.0000	1.0000	84.62
64.5	46,353		0.0000	1.0000	84.62
65.5	1,102,303		0.0000	1.0000	84.62
66.5	1,102,303	1,673	0.0015	0.9985	84.62
67.5	1,100,630	37,140	0.0337	0.9663	84.49
68.5	1,259,440		0.0000	1.0000	81.64
69.5	290,689		0.0000	1.0000	81.64
70.5	962,463	168	0.0002	0.9998	81.64
71.5	962,295	15,230	0.0158	0.9842	81.62
72.5	1,042,298	993	0.0010	0.9990	80.33
73.5	946,072	2,053	0.0022	0.9978	80.25
74.5	683,176	7,508	0.0110	0.9890	80.08
75.5	675,668	32,767	0.0485	0.9515	79.20
76.5	642,901	1,310	0.0020	0.9980	75.36
77.5	1,531,686	8,017	0.0052	0.9948	75.20
78.5	1,523,669	299,242	0.1964	0.8036	74.81

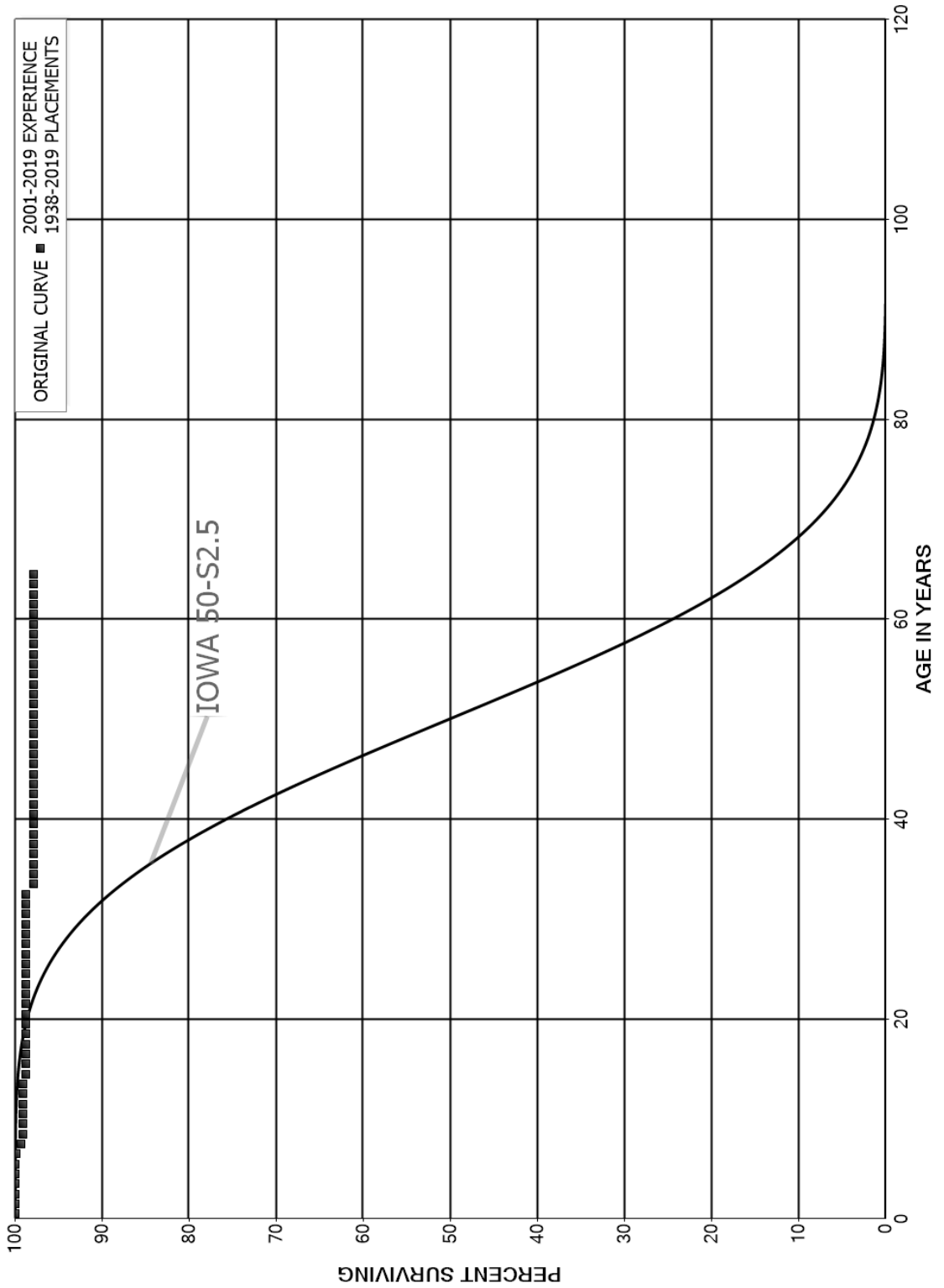
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,224,427	291	0.0002	0.9998	60.12	
80.5	1,522,508		0.0000	1.0000	60.10	
81.5	632,413	2,303	0.0036	0.9964	60.10	
82.5	648,868		0.0000	1.0000	59.89	
83.5	648,868	31,252	0.0482	0.9518	59.89	
84.5	601,981	10	0.0000	1.0000	57.00	
85.5	722,814		0.0000	1.0000	57.00	
86.5	722,814	13,485	0.0187	0.9813	57.00	
87.5	709,329	153,014	0.2157	0.7843	55.94	
88.5	556,315	264	0.0005	0.9995	43.87	
89.5	329,027	4,352	0.0132	0.9868	43.85	
90.5	306,175	11,276	0.0368	0.9632	43.27	
91.5	294,898	11,132	0.0377	0.9623	41.68	
92.5	283,767	1,273	0.0045	0.9955	40.10	
93.5	282,494	4,366	0.0155	0.9845	39.92	
94.5	278,128	221	0.0008	0.9992	39.31	
95.5	277,906	1,967	0.0071	0.9929	39.27	
96.5	275,939	42	0.0002	0.9998	39.00	
97.5	3,804,626	42,906	0.0113	0.9887	38.99	
98.5	3,761,720	15,091	0.0040	0.9960	38.55	
99.5	3,616,599	191,754	0.0530	0.9470	38.40	
100.5	3,424,846	6,012	0.0018	0.9982	36.36	
101.5	96,405	5,167	0.0536	0.9464	36.30	
102.5	91,238	2,967	0.0325	0.9675	34.35	
103.5	88,271	309	0.0035	0.9965	33.23	
104.5					33.12	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.20 MANHOLES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-2019

EXPERIENCE BAND 2001-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,379,651		0.0000	1.0000	100.00
0.5	10,176,887		0.0000	1.0000	100.00
1.5	10,661,285	0	0.0000	1.0000	100.00
2.5	11,952,425		0.0000	1.0000	100.00
3.5	12,083,028	911	0.0001	0.9999	100.00
4.5	7,585,455		0.0000	1.0000	99.99
5.5	5,573,639	6,667	0.0012	0.9988	99.99
6.5	4,589,383	27,566	0.0060	0.9940	99.87
7.5	4,569,090	10,961	0.0024	0.9976	99.27
8.5	5,066,097		0.0000	1.0000	99.03
9.5	5,304,644		0.0000	1.0000	99.03
10.5	5,838,060		0.0000	1.0000	99.03
11.5	5,353,439		0.0000	1.0000	99.03
12.5	4,555,554		0.0000	1.0000	99.03
13.5	4,114,028	12,188	0.0030	0.9970	99.03
14.5	2,635,311		0.0000	1.0000	98.74
15.5	2,105,291	0	0.0000	1.0000	98.74
16.5	2,247,105	472	0.0002	0.9998	98.74
17.5	2,934,821		0.0000	1.0000	98.72
18.5	2,849,242		0.0000	1.0000	98.72
19.5	2,782,656		0.0000	1.0000	98.72
20.5	2,425,509	0	0.0000	1.0000	98.72
21.5	1,772,096		0.0000	1.0000	98.72
22.5	970,343		0.0000	1.0000	98.72
23.5	1,299,611		0.0000	1.0000	98.72
24.5	1,741,110		0.0000	1.0000	98.72
25.5	2,636,710		0.0000	1.0000	98.72
26.5	3,361,749		0.0000	1.0000	98.72
27.5	3,450,899		0.0000	1.0000	98.72
28.5	3,240,536		0.0000	1.0000	98.72
29.5	2,574,979		0.0000	1.0000	98.72
30.5	1,538,799		0.0000	1.0000	98.72
31.5	1,635,548		0.0000	1.0000	98.72
32.5	1,551,747	13,277	0.0086	0.9914	98.72
33.5	1,328,056		0.0000	1.0000	97.88
34.5	1,038,030		0.0000	1.0000	97.88
35.5	1,093,592		0.0000	1.0000	97.88
36.5	1,326,879		0.0000	1.0000	97.88
37.5	1,450,927		0.0000	1.0000	97.88
38.5	1,304,196		0.0000	1.0000	97.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	994,944		0.0000	1.0000	97.88
40.5	2,263,935		0.0000	1.0000	97.88
41.5	2,043,826		0.0000	1.0000	97.88
42.5	2,216,232		0.0000	1.0000	97.88
43.5	2,406,018		0.0000	1.0000	97.88
44.5	2,040,304		0.0000	1.0000	97.88
45.5	2,008,665		0.0000	1.0000	97.88
46.5	1,708,150		0.0000	1.0000	97.88
47.5	301,817		0.0000	1.0000	97.88
48.5	301,817		0.0000	1.0000	97.88
49.5	170,327		0.0000	1.0000	97.88
50.5	201,568		0.0000	1.0000	97.88
51.5	166,180		0.0000	1.0000	97.88
52.5	172,781		0.0000	1.0000	97.88
53.5	1,995,623		0.0000	1.0000	97.88
54.5	1,827,036		0.0000	1.0000	97.88
55.5	1,951,871		0.0000	1.0000	97.88
56.5	131,436		0.0000	1.0000	97.88
57.5	10,950,272		0.0000	1.0000	97.88
58.5	10,950,272		0.0000	1.0000	97.88
59.5	10,825,437		0.0000	1.0000	97.88
60.5	89,564		0.0000	1.0000	97.88
61.5	89,564		0.0000	1.0000	97.88
62.5	89,564		0.0000	1.0000	97.88
63.5	89,564		0.0000	1.0000	97.88
64.5					97.88
65.5	100,437		0.0000		
66.5	100,437		0.0000		
67.5	123,426		0.0000		
68.5	167,059	22,989	0.1376		
69.5	43,633		0.0000		
70.5	84,331		0.0000		
71.5	84,331		0.0000		
72.5	90,699		0.0000		
73.5	84,331		0.0000		
74.5	43,633		0.0000		
75.5	43,633		0.0000		
76.5	43,633		0.0000		
77.5	306,691		0.0000		
78.5	306,691		0.0000		

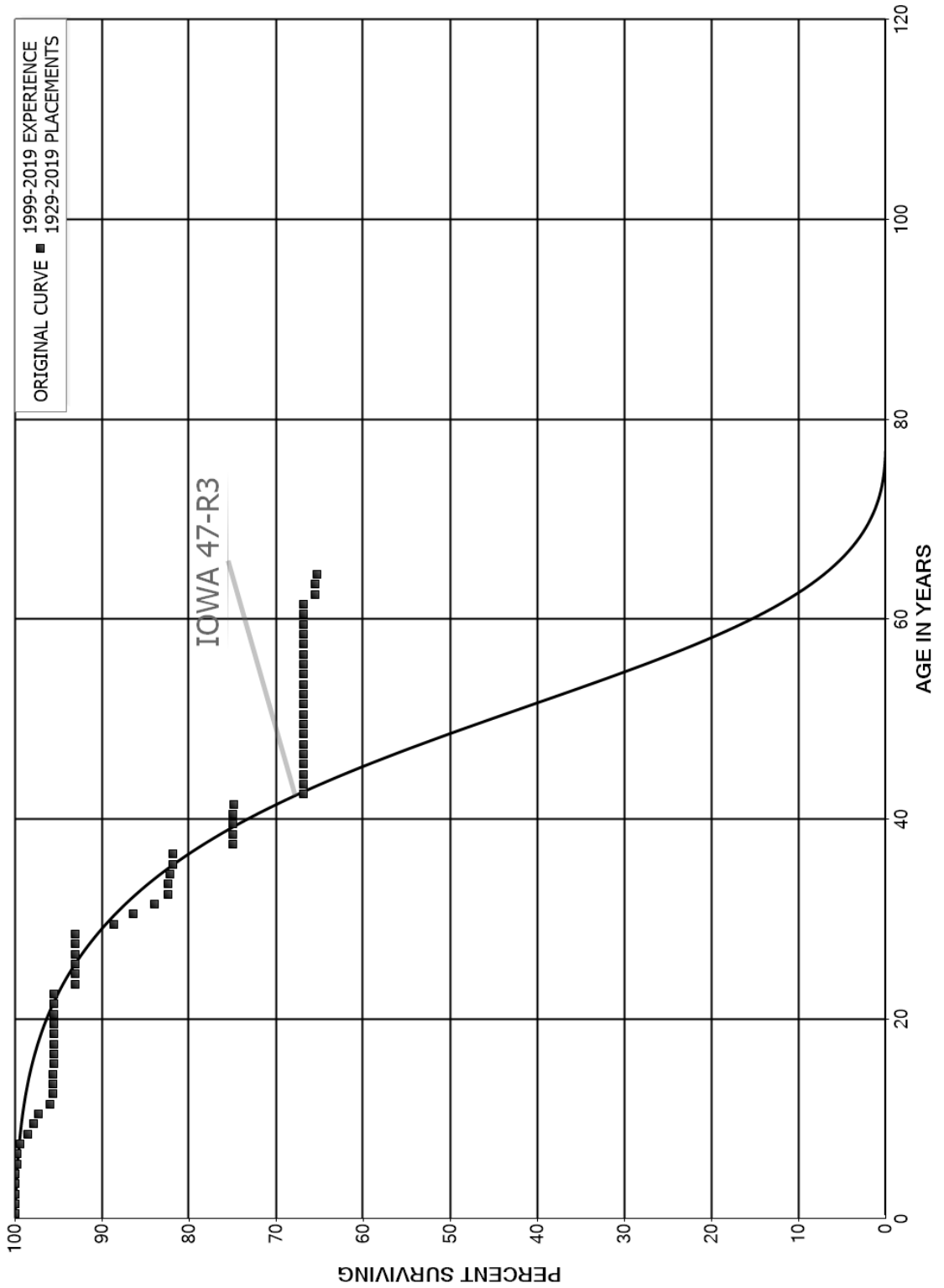
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	306,691	1,171	0.0038		
80.5	263,058		0.0000		
81.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 363.00 SERVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,615,796	0	0.0000	1.0000	100.00
0.5	10,038,138	0	0.0000	1.0000	100.00
1.5	9,510,472	60	0.0000	1.0000	100.00
2.5	8,790,677	5,668	0.0006	0.9994	100.00
3.5	8,679,530	421	0.0000	1.0000	99.93
4.5	7,932,683	12,635	0.0016	0.9984	99.93
5.5	6,966,530	2,890	0.0004	0.9996	99.77
6.5	8,411,000	31,963	0.0038	0.9962	99.73
7.5	8,278,555	65,894	0.0080	0.9920	99.35
8.5	8,313,922	64,649	0.0078	0.9922	98.56
9.5	8,351,147	42,617	0.0051	0.9949	97.79
10.5	6,470,010	87,729	0.0136	0.9864	97.29
11.5	6,246,021	19,892	0.0032	0.9968	95.98
12.5	5,858,877	0	0.0000	1.0000	95.67
13.5	4,698,450	4,942	0.0011	0.9989	95.67
14.5	4,095,435	871	0.0002	0.9998	95.57
15.5	3,284,377		0.0000	1.0000	95.55
16.5	3,511,888	0	0.0000	1.0000	95.55
17.5	3,953,464	0	0.0000	1.0000	95.55
18.5	3,909,166	55	0.0000	1.0000	95.55
19.5	3,630,733		0.0000	1.0000	95.55
20.5	3,925,137		0.0000	1.0000	95.55
21.5	3,646,749		0.0000	1.0000	95.55
22.5	3,395,484	87,997	0.0259	0.9741	95.55
23.5	3,780,922		0.0000	1.0000	93.07
24.5	4,115,954	497	0.0001	0.9999	93.07
25.5	5,003,579		0.0000	1.0000	93.06
26.5	5,176,777		0.0000	1.0000	93.06
27.5	4,635,070		0.0000	1.0000	93.06
28.5	4,421,930	209,578	0.0474	0.9526	93.06
29.5	3,596,999	92,585	0.0257	0.9743	88.65
30.5	2,947,708	80,733	0.0274	0.9726	86.37
31.5	2,783,645	51,927	0.0187	0.9813	84.00
32.5	2,491,265	1,241	0.0005	0.9995	82.43
33.5	2,228,511	4,871	0.0022	0.9978	82.39
34.5	1,965,612	8,461	0.0043	0.9957	82.21
35.5	1,925,423	503	0.0003	0.9997	81.86
36.5	1,973,278	167,021	0.0846	0.9154	81.84
37.5	1,839,375	192	0.0001	0.9999	74.91
38.5	1,657,395		0.0000	1.0000	74.90

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,207,182		0.0000	1.0000	74.90
40.5	1,197,802	385	0.0003	0.9997	74.90
41.5	1,022,673	110,064	0.1076	0.8924	74.88
42.5	886,687		0.0000	1.0000	66.82
43.5	1,408,938		0.0000	1.0000	66.82
44.5	900,914		0.0000	1.0000	66.82
45.5	855,938		0.0000	1.0000	66.82
46.5	736,586		0.0000	1.0000	66.82
47.5	156,414		0.0000	1.0000	66.82
48.5	155,860		0.0000	1.0000	66.82
49.5	82,277		0.0000	1.0000	66.82
50.5	145,022		0.0000	1.0000	66.82
51.5	132,653		0.0000	1.0000	66.82
52.5	134,754	0	0.0000	1.0000	66.82
53.5	137,757		0.0000	1.0000	66.82
54.5	20,119		0.0000	1.0000	66.82
55.5	100,869		0.0000	1.0000	66.82
56.5	100,869		0.0000	1.0000	66.82
57.5	97,866		0.0000	1.0000	66.82
58.5	256,316		0.0000	1.0000	66.82
59.5	180,162	20	0.0001	0.9999	66.82
60.5	228,822		0.0000	1.0000	66.81
61.5	228,822	4,595	0.0201	0.9799	66.81
62.5	50,781		0.0000	1.0000	65.47
63.5	50,781	162	0.0032	0.9968	65.47
64.5					65.26
65.5	60,144		0.0000		
66.5	60,144		0.0000		
67.5	60,144		0.0000		
68.5	70,211		0.0000		
69.5	13,932	819	0.0588		
70.5	36,101		0.0000		
71.5	36,101	4,521	0.1252		
72.5	31,580	1,251	0.0396		
73.5	30,329	442	0.0146		
74.5	6,899	644	0.0933		
75.5	6,255		0.0000		
76.5	6,255		0.0000		
77.5	151,010		0.0000		
78.5	151,010		0.0000		

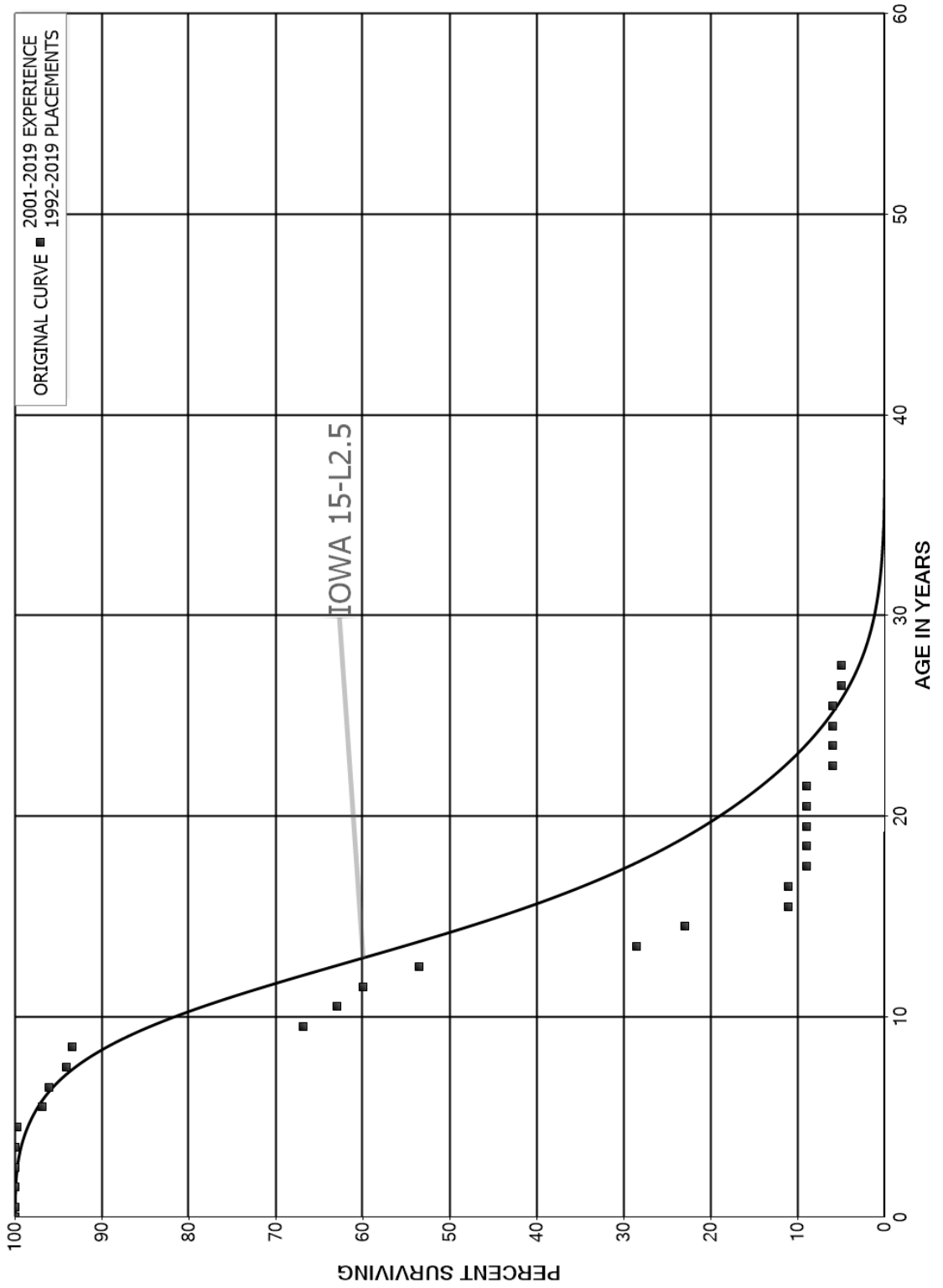
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	151,010		0.0000		
80.5	144,755	1,628	0.0112		
81.5					
82.5	717		0.0000		
83.5	717		0.0000		
84.5	717		0.0000		
85.5	717		0.0000		
86.5	717		0.0000		
87.5	717		0.0000		
88.5	717		0.0000		
89.5	717		0.0000		
90.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 364.00 FLOW MEASURING DEVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





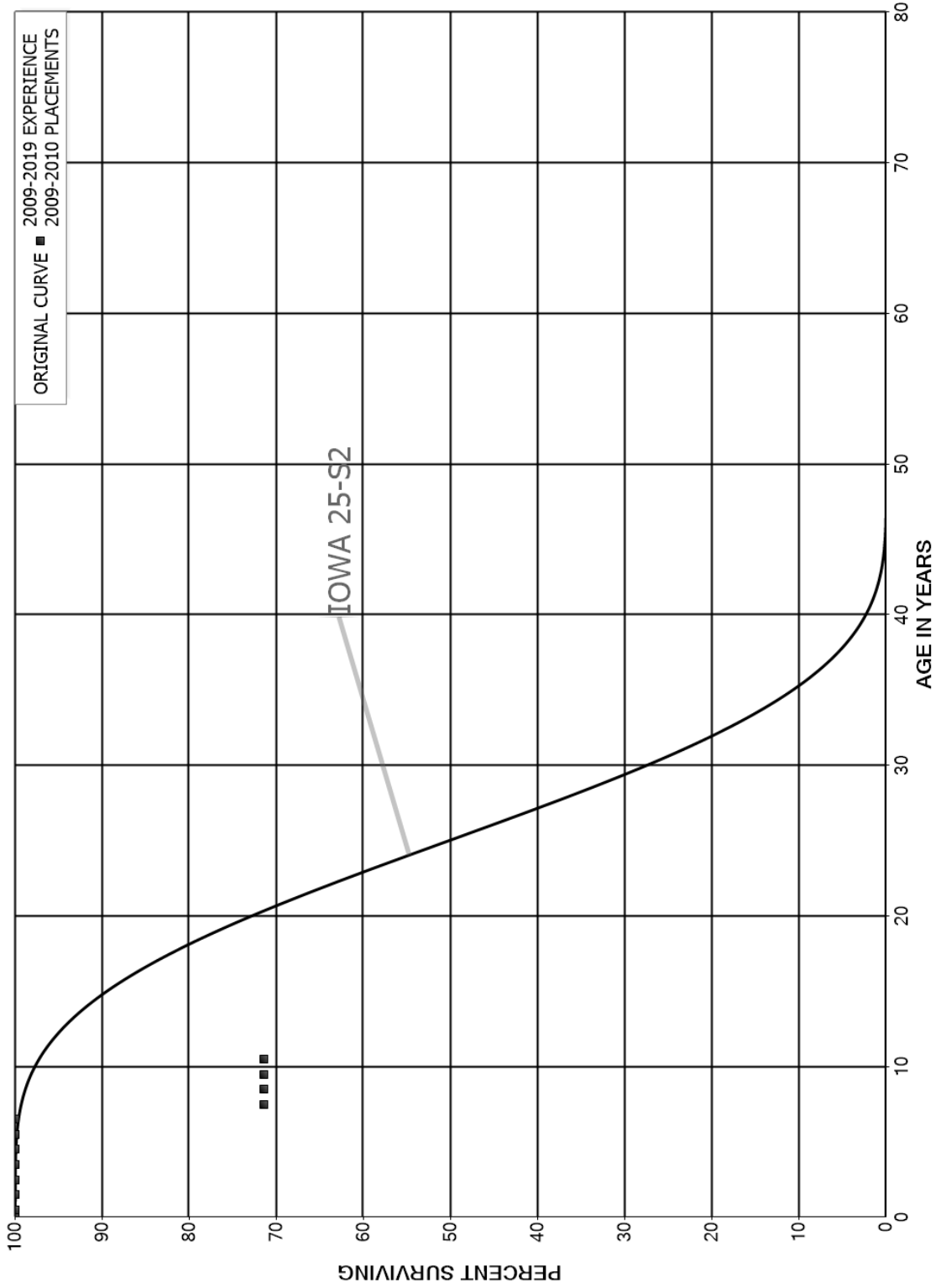
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,359,184		0.0000	1.0000	100.00
0.5	993,961		0.0000	1.0000	100.00
1.5	1,007,023		0.0000	1.0000	100.00
2.5	1,088,761		0.0000	1.0000	100.00
3.5	829,368	2,564	0.0031	0.9969	100.00
4.5	790,917	22,463	0.0284	0.9716	99.69
5.5	745,466	5,882	0.0079	0.9921	96.86
6.5	575,156	12,254	0.0213	0.9787	96.10
7.5	576,785	4,337	0.0075	0.9925	94.05
8.5	639,652	181,670	0.2840	0.7160	93.34
9.5	332,968	19,182	0.0576	0.9424	66.83
10.5	221,704	10,816	0.0488	0.9512	62.98
11.5	90,287	9,617	0.1065	0.8935	59.91
12.5	71,639	33,466	0.4671	0.5329	53.53
13.5	31,704	6,133	0.1934	0.8066	28.52
14.5	16,849	8,739	0.5187	0.4813	23.00
15.5	16,281		0.0000	1.0000	11.07
16.5	16,281	3,203	0.1967	0.8033	11.07
17.5	13,078		0.0000	1.0000	8.90
18.5	13,078		0.0000	1.0000	8.90
19.5	13,078		0.0000	1.0000	8.90
20.5	13,078		0.0000	1.0000	8.90
21.5	13,078	4,272	0.3266	0.6734	8.90
22.5	8,806		0.0000	1.0000	5.99
23.5	8,806		0.0000	1.0000	5.99
24.5	8,806		0.0000	1.0000	5.99
25.5	8,806	1,522	0.1728	0.8272	5.99
26.5	7,285		0.0000	1.0000	4.95
27.5					4.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



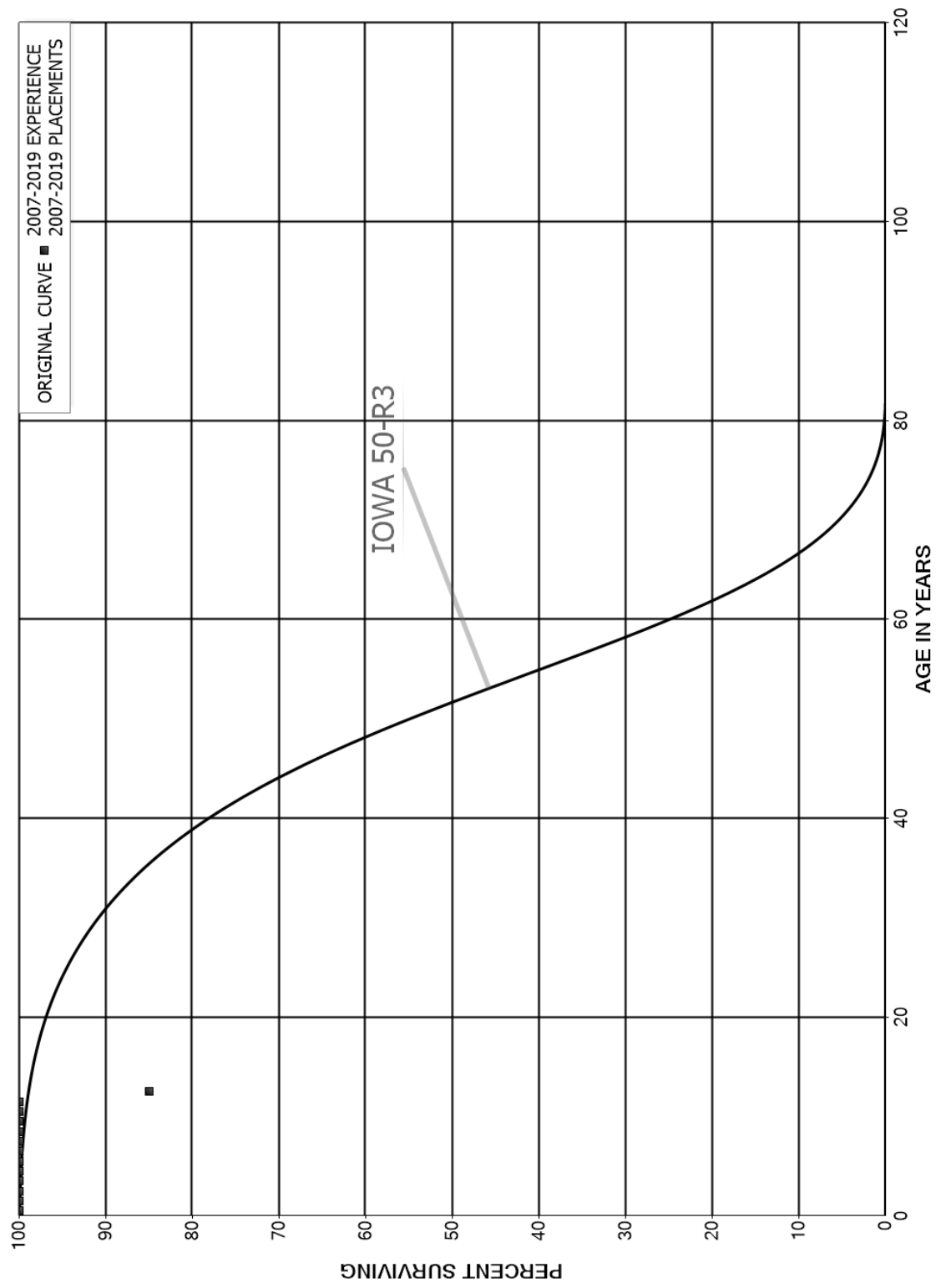
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2009-2010			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,918		0.0000	1.0000	100.00
0.5	20,918		0.0000	1.0000	100.00
1.5	20,918		0.0000	1.0000	100.00
2.5	20,918		0.0000	1.0000	100.00
3.5	20,918		0.0000	1.0000	100.00
4.5	20,918		0.0000	1.0000	100.00
5.5	20,918		0.0000	1.0000	100.00
6.5	20,918	5,980	0.2859	0.7141	100.00
7.5	14,938		0.0000	1.0000	71.41
8.5	14,938		0.0000	1.0000	71.41
9.5	14,938		0.0000	1.0000	71.41
10.5					71.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 370.00 RECEIVING WELLS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



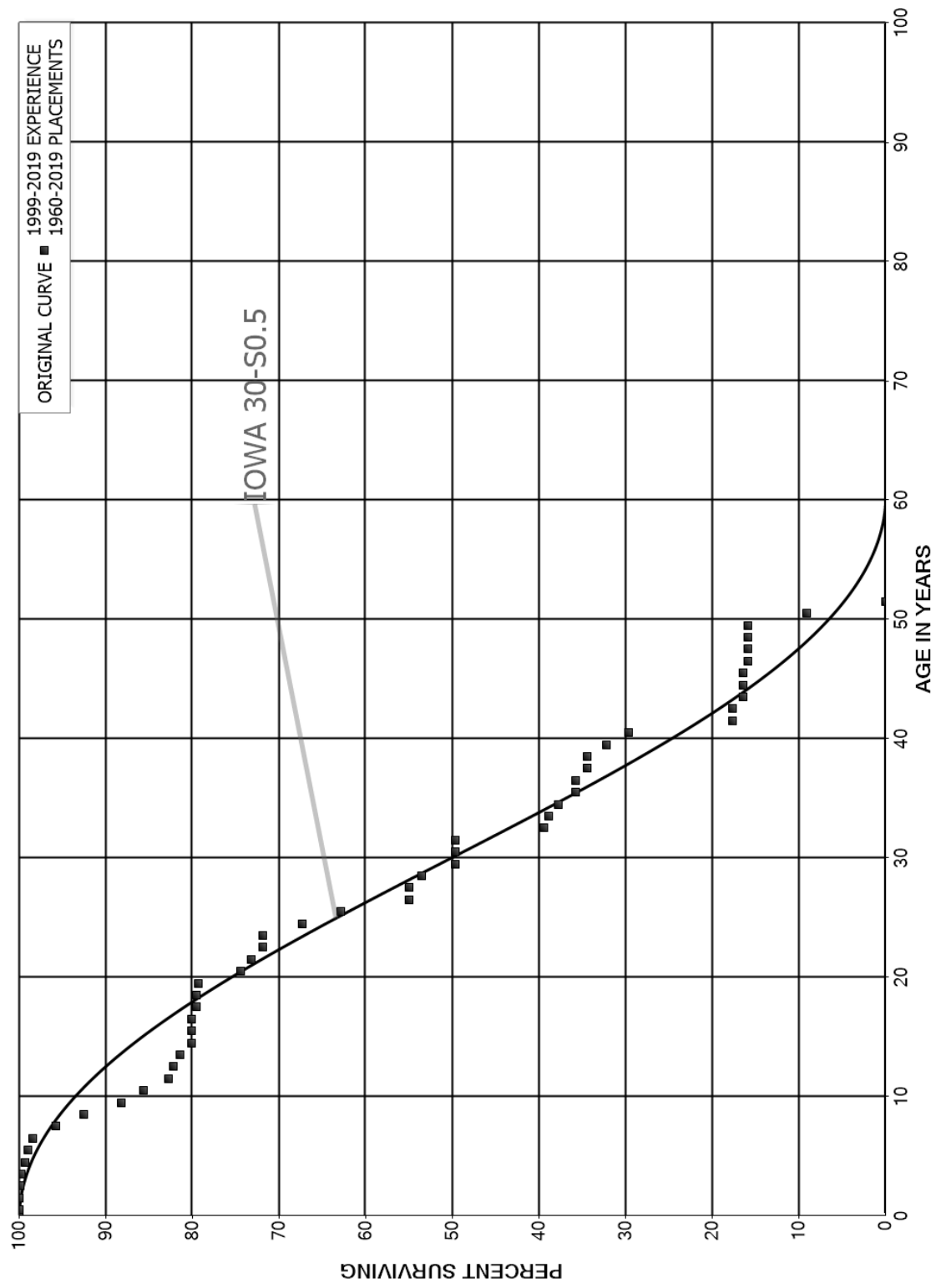
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	121,180		0.0000	1.0000	100.00
0.5	111,148		0.0000	1.0000	100.00
1.5	111,148		0.0000	1.0000	100.00
2.5	132,949		0.0000	1.0000	100.00
3.5	132,949		0.0000	1.0000	100.00
4.5	132,949		0.0000	1.0000	100.00
5.5	132,949		0.0000	1.0000	100.00
6.5	99,482		0.0000	1.0000	100.00
7.5	99,482		0.0000	1.0000	100.00
8.5	99,482		0.0000	1.0000	100.00
9.5	99,482		0.0000	1.0000	100.00
10.5	7,370		0.0000	1.0000	100.00
11.5	7,370	1,109	0.1505	0.8495	100.00
12.5					84.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 371.00 PUMPING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,928,914		0.0000	1.0000	100.00
0.5	8,653,630	5,419	0.0006	0.9994	100.00
1.5	11,021,964	12,306	0.0011	0.9989	99.94
2.5	10,781,219	12,096	0.0011	0.9989	99.83
3.5	9,453,412	44,345	0.0047	0.9953	99.71
4.5	6,817,321	23,246	0.0034	0.9966	99.25
5.5	5,785,361	27,560	0.0048	0.9952	98.91
6.5	5,413,591	148,677	0.0275	0.9725	98.44
7.5	3,768,518	126,794	0.0336	0.9664	95.73
8.5	3,446,810	160,001	0.0464	0.9536	92.51
9.5	2,549,487	73,710	0.0289	0.9711	88.22
10.5	1,455,129	50,056	0.0344	0.9656	85.67
11.5	1,043,502	7,445	0.0071	0.9929	82.72
12.5	1,137,255	10,025	0.0088	0.9912	82.13
13.5	837,345	14,096	0.0168	0.9832	81.41
14.5	784,395		0.0000	1.0000	80.04
15.5	677,887		0.0000	1.0000	80.04
16.5	534,434	3,610	0.0068	0.9932	80.04
17.5	610,401	101	0.0002	0.9998	79.50
18.5	664,971	1,413	0.0021	0.9979	79.48
19.5	663,558	41,426	0.0624	0.9376	79.31
20.5	588,736	9,514	0.0162	0.9838	74.36
21.5	638,927	11,409	0.0179	0.9821	73.16
22.5	599,786		0.0000	1.0000	71.85
23.5	517,501	33,177	0.0641	0.9359	71.85
24.5	484,324	31,555	0.0652	0.9348	67.25
25.5	497,723	62,415	0.1254	0.8746	62.87
26.5	428,133		0.0000	1.0000	54.98
27.5	312,603	8,673	0.0277	0.9723	54.98
28.5	241,647	17,595	0.0728	0.9272	53.46
29.5	235,281		0.0000	1.0000	49.56
30.5	280,168		0.0000	1.0000	49.56
31.5	280,168	57,666	0.2058	0.7942	49.56
32.5	222,502	2,887	0.0130	0.9870	39.36
33.5	140,599	3,932	0.0280	0.9720	38.85
34.5	136,159	7,170	0.0527	0.9473	37.77
35.5	183,946		0.0000	1.0000	35.78
36.5	183,946	7,008	0.0381	0.9619	35.78
37.5	176,938		0.0000	1.0000	34.41
38.5	127,299	8,408	0.0660	0.9340	34.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

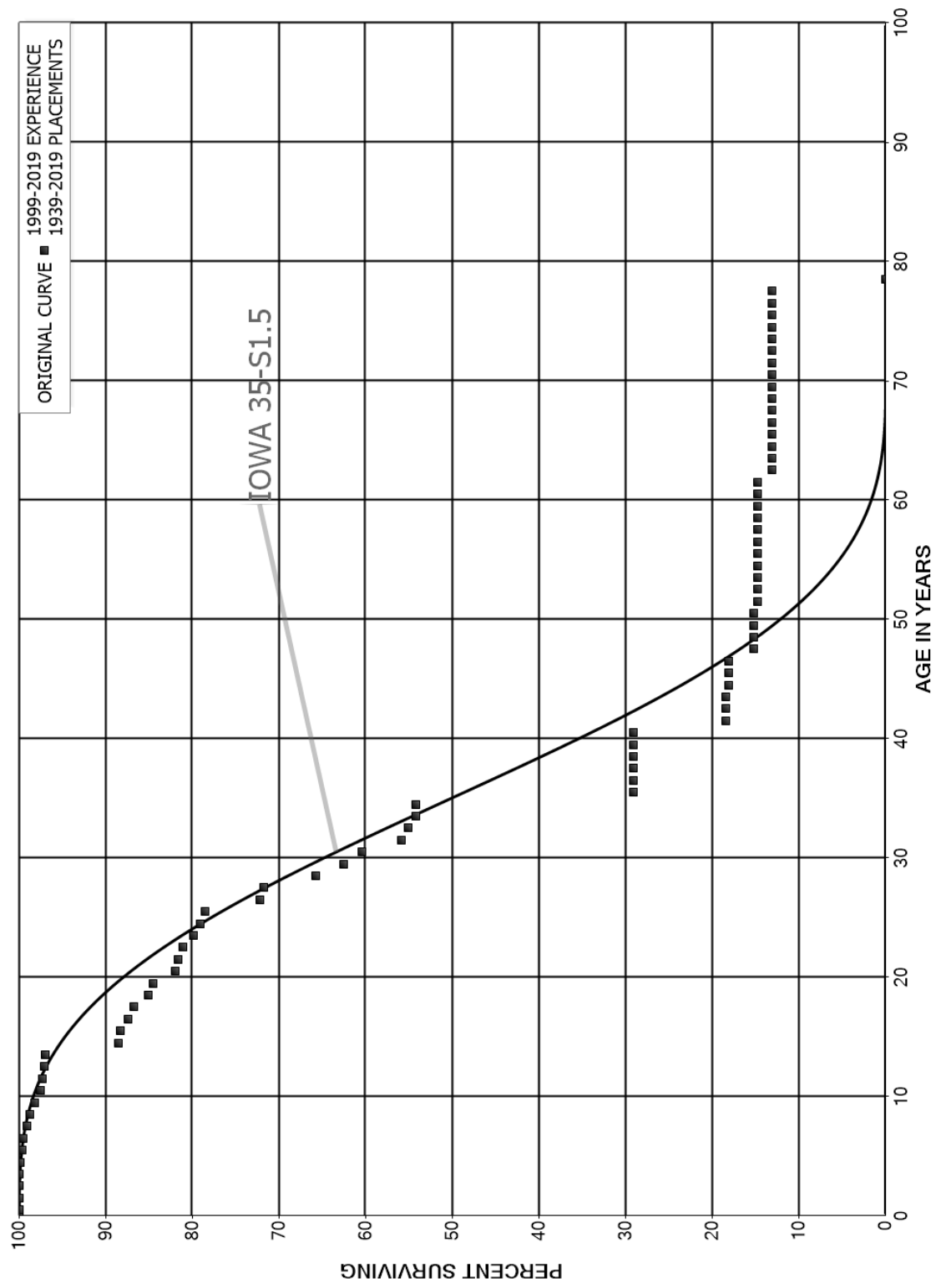
ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	128,004	9,910	0.0774	0.9226	32.14
40.5	140,361	56,891	0.4053	0.5947	29.65
41.5	83,470		0.0000	1.0000	17.63
42.5	83,470	6,122	0.0733	0.9267	17.63
43.5	28,842		0.0000	1.0000	16.34
44.5	28,842		0.0000	1.0000	16.34
45.5	28,842	860	0.0298	0.9702	16.34
46.5	27,983		0.0000	1.0000	15.85
47.5	21,408		0.0000	1.0000	15.85
48.5	5,141		0.0000	1.0000	15.85
49.5	5,141	2,187	0.4255	0.5745	15.85
50.5	2,953	2,953	1.0000		9.11
51.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 380.00 TREATMENT EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	52,484,979		0.0000	1.0000	100.00
0.5	52,338,297		0.0000	1.0000	100.00
1.5	64,377,580	1,853	0.0000	1.0000	100.00
2.5	61,280,085	2,456	0.0000	1.0000	100.00
3.5	56,645,719	97,216	0.0017	0.9983	99.99
4.5	44,542,853	95,360	0.0021	0.9979	99.82
5.5	39,192,994	29,279	0.0007	0.9993	99.61
6.5	37,993,990	195,343	0.0051	0.9949	99.53
7.5	37,038,634	104,008	0.0028	0.9972	99.02
8.5	38,046,057	237,211	0.0062	0.9938	98.74
9.5	28,856,102	179,693	0.0062	0.9938	98.13
10.5	11,015,164	26,343	0.0024	0.9976	97.52
11.5	15,100,040	30,352	0.0020	0.9980	97.28
12.5	16,280,292	28,816	0.0018	0.9982	97.09
13.5	16,807,417	1,468,058	0.0873	0.9127	96.92
14.5	14,676,816	22,218	0.0015	0.9985	88.45
15.5	11,808,330	121,942	0.0103	0.9897	88.32
16.5	11,627,778	92,492	0.0080	0.9920	87.41
17.5	12,550,432	231,211	0.0184	0.9816	86.71
18.5	10,724,551	78,054	0.0073	0.9927	85.11
19.5	10,812,422	322,982	0.0299	0.9701	84.49
20.5	9,468,414	37,906	0.0040	0.9960	81.97
21.5	9,609,732	62,020	0.0065	0.9935	81.64
22.5	9,543,450	153,592	0.0161	0.9839	81.11
23.5	9,334,263	87,607	0.0094	0.9906	79.81
24.5	9,070,811	59,133	0.0065	0.9935	79.06
25.5	8,792,217	707,485	0.0805	0.9195	78.54
26.5	4,703,706	32,521	0.0069	0.9931	72.22
27.5	4,778,474	397,707	0.0832	0.9168	71.72
28.5	6,059,797	298,086	0.0492	0.9508	65.75
29.5	6,184,153	215,062	0.0348	0.9652	62.52
30.5	5,152,304	387,965	0.0753	0.9247	60.35
31.5	5,356,247	72,674	0.0136	0.9864	55.80
32.5	3,421,800	52,448	0.0153	0.9847	55.05
33.5	2,753,091		0.0000	1.0000	54.20
34.5	2,272,767	1,055,181	0.4643	0.5357	54.20
35.5	635,826		0.0000	1.0000	29.04
36.5	779,480		0.0000	1.0000	29.04
37.5	801,627		0.0000	1.0000	29.04
38.5	778,140		0.0000	1.0000	29.04

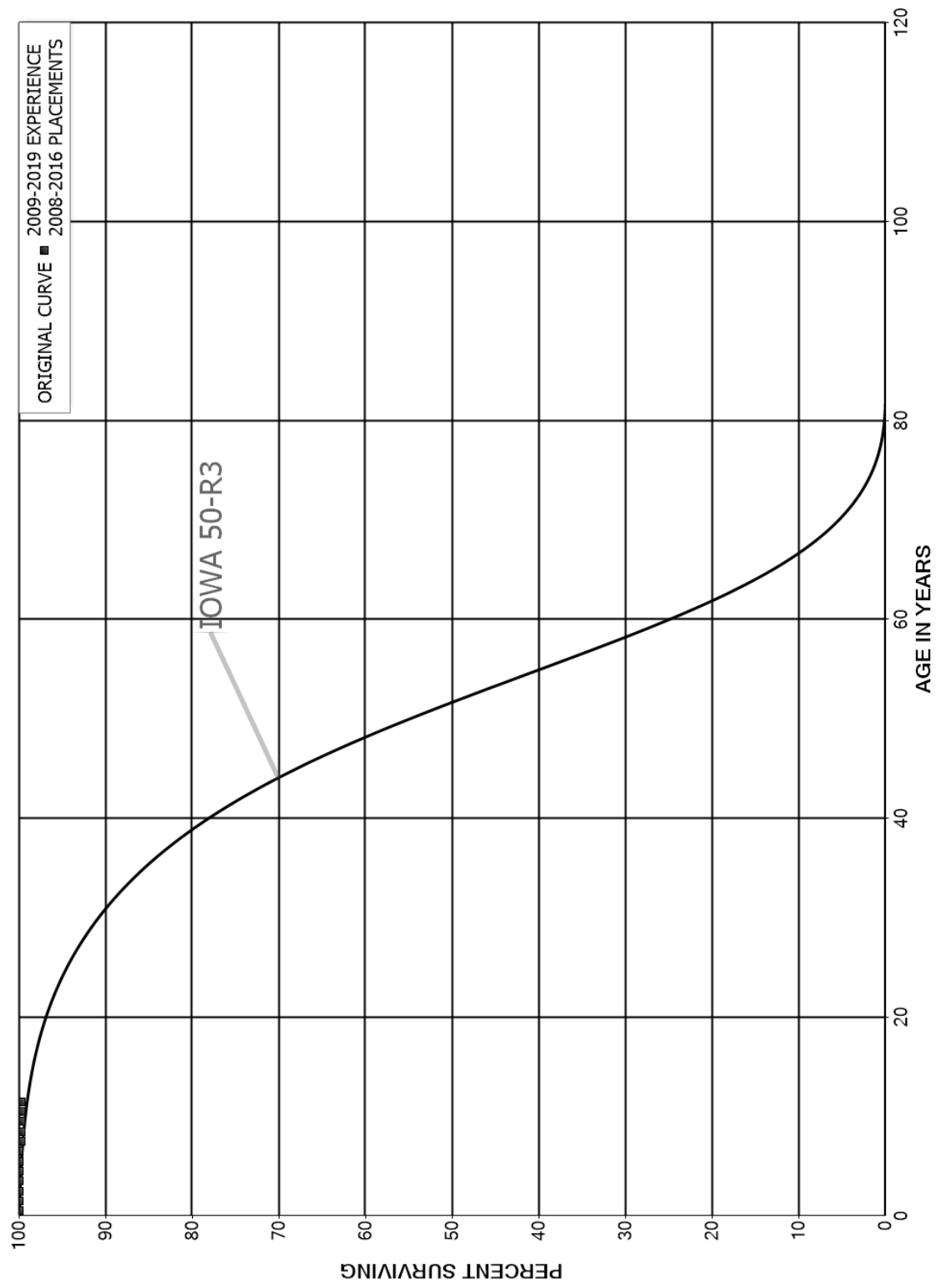
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	778,140	411	0.0005	0.9995	29.04	
40.5	777,730	285,407	0.3670	0.6330	29.02	
41.5	15,823,498		0.0000	1.0000	18.37	
42.5	15,823,498		0.0000	1.0000	18.37	
43.5	15,823,498	268,317	0.0170	0.9830	18.37	
44.5	515,644		0.0000	1.0000	18.06	
45.5	515,644		0.0000	1.0000	18.06	
46.5	371,038	60,316	0.1626	0.8374	18.06	
47.5	288,575		0.0000	1.0000	15.12	
48.5	288,575		0.0000	1.0000	15.12	
49.5	288,575		0.0000	1.0000	15.12	
50.5	288,575	6,818	0.0236	0.9764	15.12	
51.5	281,757	315	0.0011	0.9989	14.77	
52.5	107,182		0.0000	1.0000	14.75	
53.5	107,182	462	0.0043	0.9957	14.75	
54.5	23,321		0.0000	1.0000	14.69	
55.5	23,321		0.0000	1.0000	14.69	
56.5	298,010		0.0000	1.0000	14.69	
57.5	298,010		0.0000	1.0000	14.69	
58.5	298,010		0.0000	1.0000	14.69	
59.5	25,215		0.0000	1.0000	14.69	
60.5	25,215		0.0000	1.0000	14.69	
61.5	25,215	2,761	0.1095	0.8905	14.69	
62.5	1,894		0.0000	1.0000	13.08	
63.5	1,894		0.0000	1.0000	13.08	
64.5	1,894		0.0000	1.0000	13.08	
65.5	1,894		0.0000	1.0000	13.08	
66.5	1,894		0.0000	1.0000	13.08	
67.5	1,894		0.0000	1.0000	13.08	
68.5	1,894		0.0000	1.0000	13.08	
69.5	1,894		0.0000	1.0000	13.08	
70.5	1,894		0.0000	1.0000	13.08	
71.5	1,894		0.0000	1.0000	13.08	
72.5	1,894		0.0000	1.0000	13.08	
73.5	1,894		0.0000	1.0000	13.08	
74.5	1,894		0.0000	1.0000	13.08	
75.5	1,894		0.0000	1.0000	13.08	
76.5	1,894		0.0000	1.0000	13.08	
77.5	1,894	1,894	1.0000		13.08	
78.5						

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 381.00 PLANT SEWERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



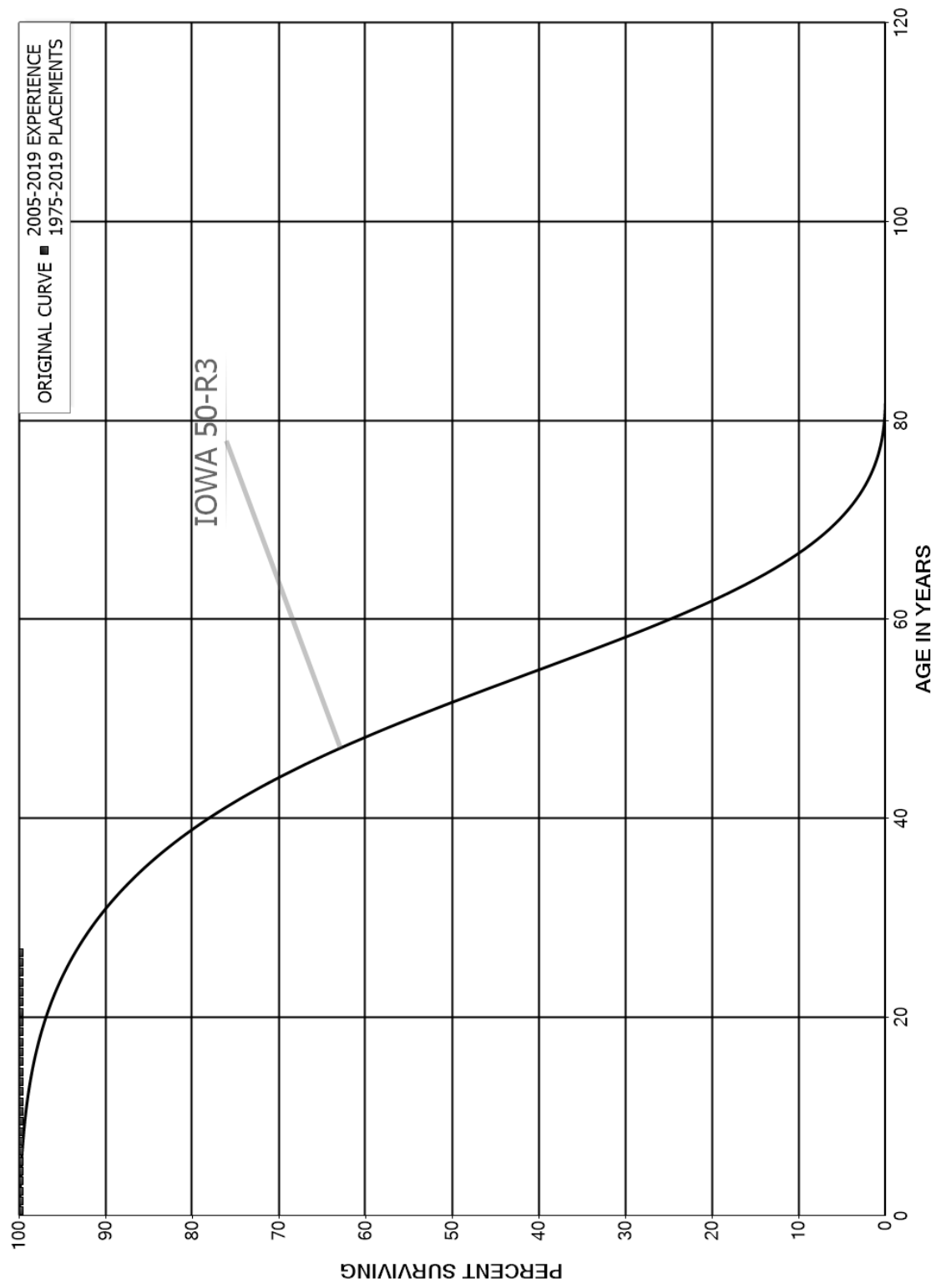
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2016			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,524,134		0.0000	1.0000	100.00
0.5	6,227,961		0.0000	1.0000	100.00
1.5	6,227,961		0.0000	1.0000	100.00
2.5	6,227,961		0.0000	1.0000	100.00
3.5	6,182,721		0.0000	1.0000	100.00
4.5	6,175,263		0.0000	1.0000	100.00
5.5	5,940,945		0.0000	1.0000	100.00
6.5	5,940,945	13,300	0.0022	0.9978	100.00
7.5	5,925,961	2,120	0.0004	0.9996	99.78
8.5	5,917,243		0.0000	1.0000	99.74
9.5	4,729,279		0.0000	1.0000	99.74
10.5	294,412		0.0000	1.0000	99.74
11.5					99.74

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 382.00 OUTFALL SEWER LINES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1975-2019

EXPERIENCE BAND 2005-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,700,716		0.0000	1.0000	100.00
0.5	1,605,061		0.0000	1.0000	100.00
1.5	360,675		0.0000	1.0000	100.00
2.5	355,425		0.0000	1.0000	100.00
3.5	355,425		0.0000	1.0000	100.00
4.5	355,425		0.0000	1.0000	100.00
5.5	255,003		0.0000	1.0000	100.00
6.5	264,243		0.0000	1.0000	100.00
7.5	265,939		0.0000	1.0000	100.00
8.5	265,939		0.0000	1.0000	100.00
9.5	238,111		0.0000	1.0000	100.00
10.5	212,060		0.0000	1.0000	100.00
11.5	244,789	6	0.0000	1.0000	100.00
12.5	244,783		0.0000	1.0000	100.00
13.5	43,666		0.0000	1.0000	100.00
14.5	34,425		0.0000	1.0000	100.00
15.5	32,729		0.0000	1.0000	100.00
16.5	32,729		0.0000	1.0000	100.00
17.5	32,729		0.0000	1.0000	100.00
18.5	32,729		0.0000	1.0000	100.00
19.5	32,729		0.0000	1.0000	100.00
20.5	32,729		0.0000	1.0000	100.00
21.5	202,476		0.0000	1.0000	100.00
22.5	202,476		0.0000	1.0000	100.00
23.5	202,476		0.0000	1.0000	100.00
24.5	202,476		0.0000	1.0000	100.00
25.5	202,476		0.0000	1.0000	100.00
26.5					100.00
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5	4,984		0.0000		
37.5	4,984		0.0000		
38.5	4,984		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

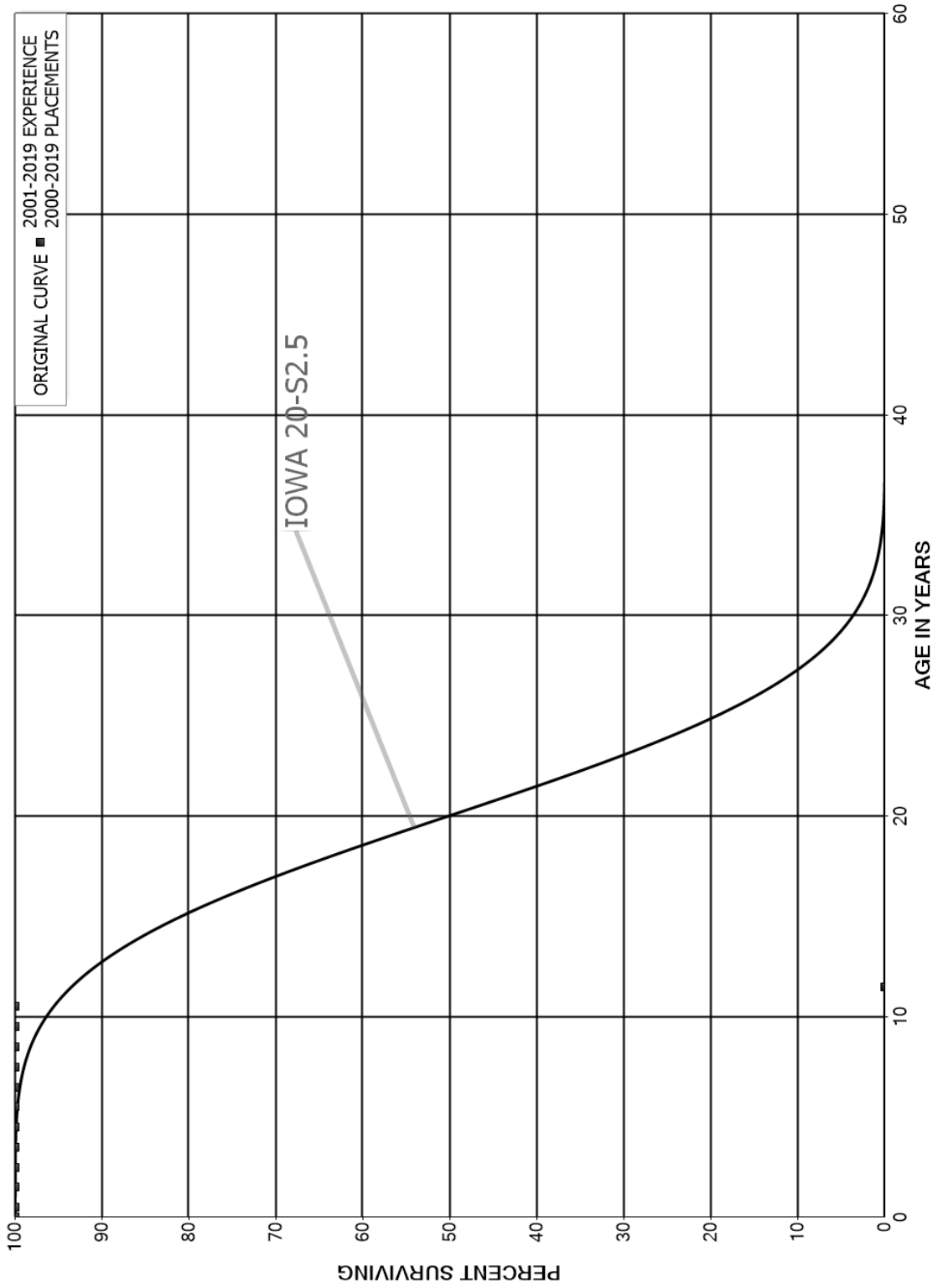
ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1975-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,984		0.0000		
40.5	4,984		0.0000		
41.5	4,984		0.0000		
42.5	4,984		0.0000		
43.5	4,984		0.0000		
44.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



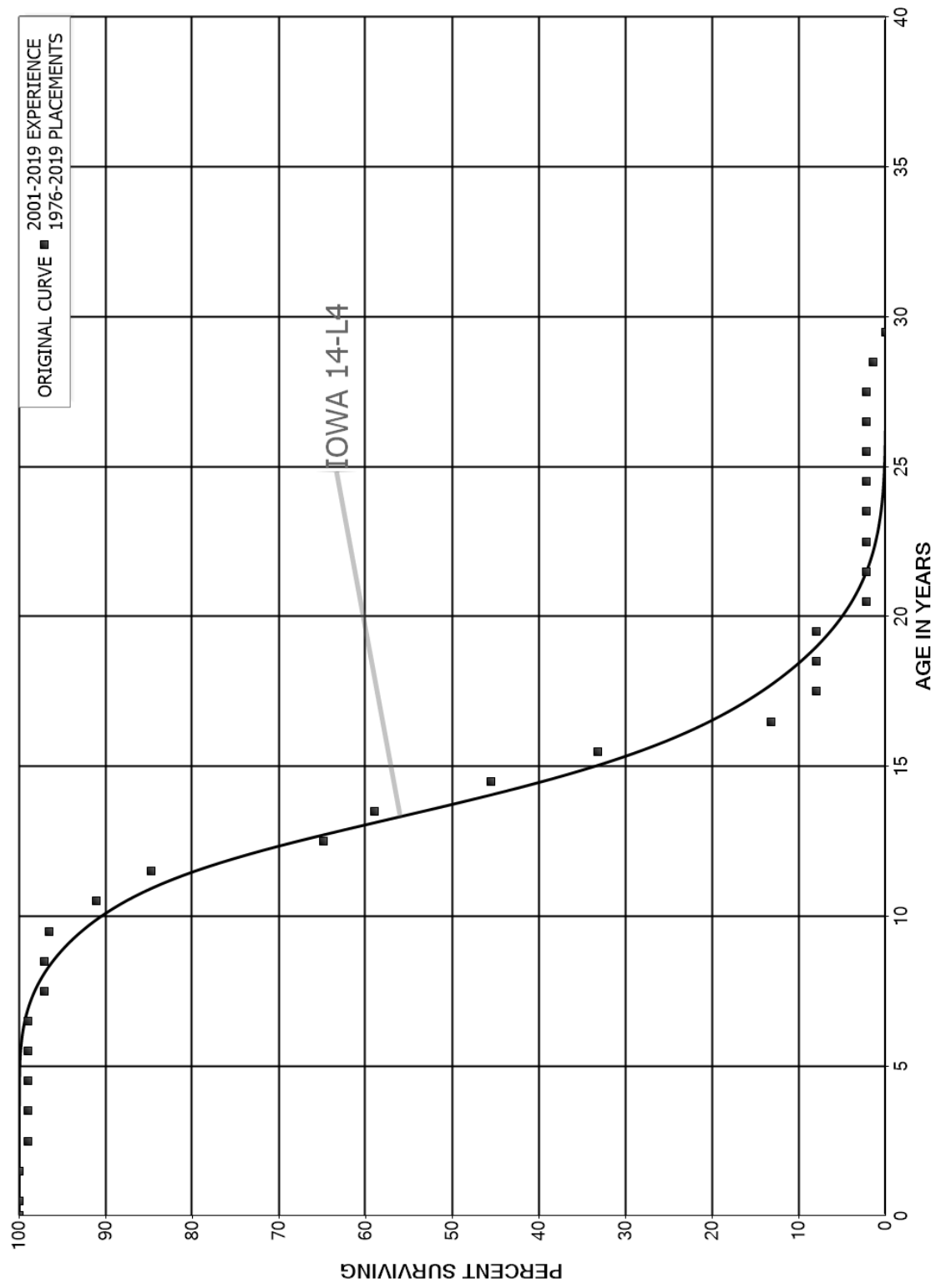
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2000-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	737,756		0.0000	1.0000	100.00
0.5	437,340		0.0000	1.0000	100.00
1.5	405,165		0.0000	1.0000	100.00
2.5	4,547,918		0.0000	1.0000	100.00
3.5	4,547,918		0.0000	1.0000	100.00
4.5	4,547,918	2,997	0.0007	0.9993	100.00
5.5	4,544,921		0.0000	1.0000	99.93
6.5	393,353		0.0000	1.0000	99.93
7.5	393,353		0.0000	1.0000	99.93
8.5	281,642		0.0000	1.0000	99.93
9.5	8,492		0.0000	1.0000	99.93
10.5	8,492	8,492	1.0000		99.93
11.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 391.00 TRANSPORTATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



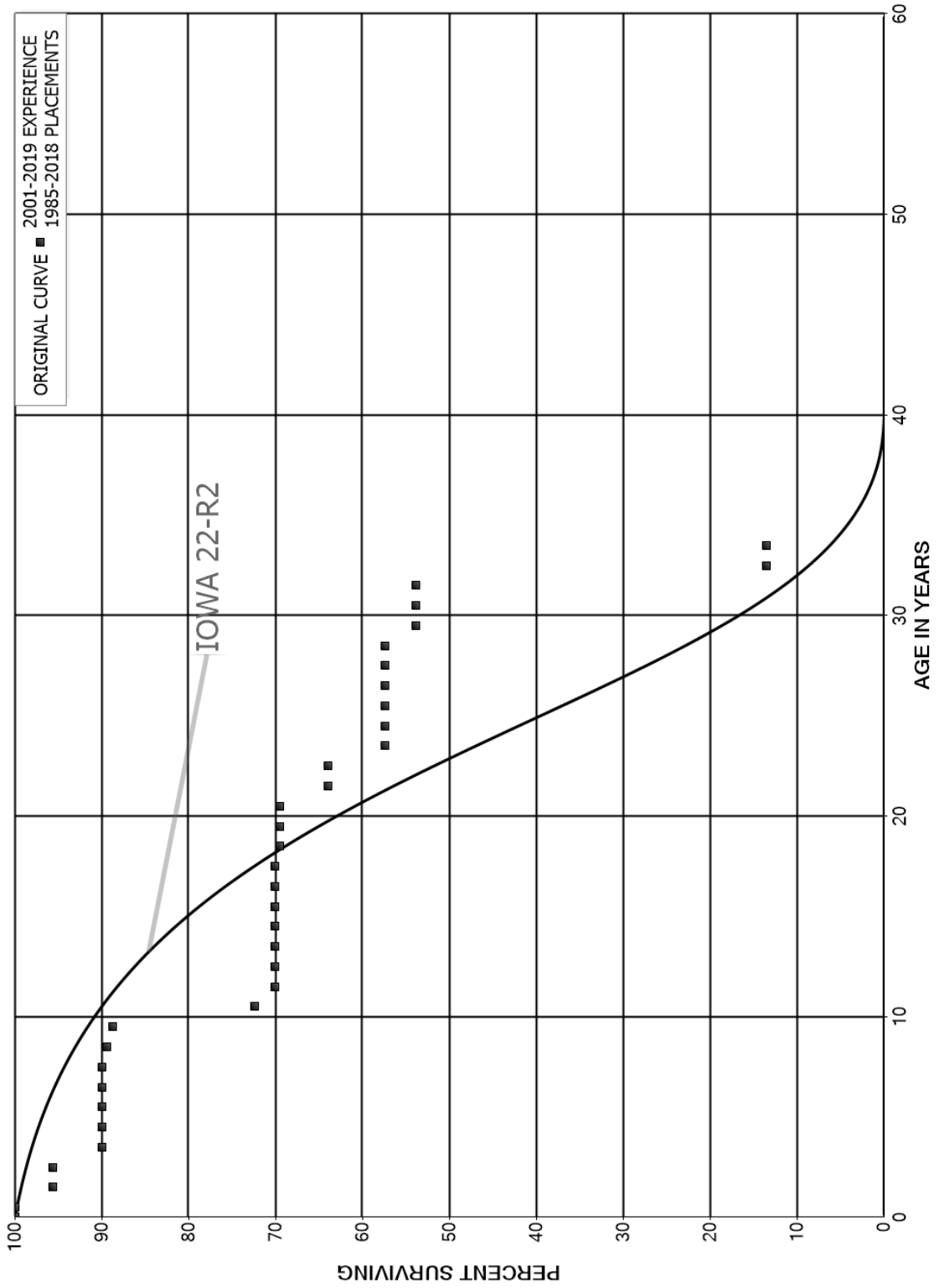
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,168,919		0.0000	1.0000	100.00
0.5	3,692,372		0.0000	1.0000	100.00
1.5	1,458,511	14,523	0.0100	0.9900	100.00
2.5	2,332,879		0.0000	1.0000	99.00
3.5	2,514,168		0.0000	1.0000	99.00
4.5	1,930,107		0.0000	1.0000	99.00
5.5	1,664,209		0.0000	1.0000	99.00
6.5	1,677,203	32,676	0.0195	0.9805	99.00
7.5	1,535,566		0.0000	1.0000	97.08
8.5	1,373,777	8,793	0.0064	0.9936	97.08
9.5	1,545,830	87,008	0.0563	0.9437	96.45
10.5	879,899	61,030	0.0694	0.9306	91.03
11.5	743,329	174,600	0.2349	0.7651	84.71
12.5	440,822	40,215	0.0912	0.9088	64.81
13.5	348,542	79,500	0.2281	0.7719	58.90
14.5	276,542	75,000	0.2712	0.7288	45.47
15.5	195,354	117,872	0.6034	0.3966	33.14
16.5	51,900	20,700	0.3988	0.6012	13.14
17.5	31,200		0.0000	1.0000	7.90
18.5	32,855		0.0000	1.0000	7.90
19.5	32,855	23,700	0.7214	0.2786	7.90
20.5	9,155		0.0000	1.0000	2.20
21.5	9,155		0.0000	1.0000	2.20
22.5	9,155		0.0000	1.0000	2.20
23.5	9,155		0.0000	1.0000	2.20
24.5	14,155		0.0000	1.0000	2.20
25.5	14,155		0.0000	1.0000	2.20
26.5	14,155		0.0000	1.0000	2.20
27.5	14,155	5,000	0.3532	0.6468	2.20
28.5	9,155	9,155	1.0000		1.42
29.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 395.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2018			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	192,967		0.0000	1.0000	100.00
0.5	192,967	8,551	0.0443	0.9557	100.00
1.5	127,706		0.0000	1.0000	95.57
2.5	255,380	14,864	0.0582	0.9418	95.57
3.5	324,176		0.0000	1.0000	90.01
4.5	885,603		0.0000	1.0000	90.01
5.5	967,489		0.0000	1.0000	90.01
6.5	1,410,131		0.0000	1.0000	90.01
7.5	1,250,710	8,033	0.0064	0.9936	90.01
8.5	871,073	6,988	0.0080	0.9920	89.43
9.5	536,633	98,717	0.1840	0.8160	88.71
10.5	191,853	6,125	0.0319	0.9681	72.39
11.5	137,458		0.0000	1.0000	70.08
12.5	190,308		0.0000	1.0000	70.08
13.5	169,091		0.0000	1.0000	70.08
14.5	169,091		0.0000	1.0000	70.08
15.5	169,587		0.0000	1.0000	70.08
16.5	190,470		0.0000	1.0000	70.08
17.5	117,685	875	0.0074	0.9926	70.08
18.5	116,810		0.0000	1.0000	69.56
19.5	116,810		0.0000	1.0000	69.56
20.5	124,335	9,999	0.0804	0.9196	69.56
21.5	124,336		0.0000	1.0000	63.97
22.5	124,336	12,782	0.1028	0.8972	63.97
23.5	111,554		0.0000	1.0000	57.39
24.5	111,554		0.0000	1.0000	57.39
25.5	111,554		0.0000	1.0000	57.39
26.5	18,021		0.0000	1.0000	57.39
27.5	8,021		0.0000	1.0000	57.39
28.5	8,021	496	0.0618	0.9382	57.39
29.5	30,053		0.0000	1.0000	53.84
30.5	30,053		0.0000	1.0000	53.84
31.5	30,053	22,528	0.7496	0.2504	53.84
32.5	7,525		0.0000	1.0000	13.48
33.5					13.48

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**PART VII. DETAILED DEPRECIATION  
CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**



PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1919	8,313	6,745	1,568		1,568	0.0
1920	52,452	42,115	10,337		11,905	0.2
1924	4,262	3,405	857		12,762	0.2
1927	156,739	122,765	33,974		46,736	0.6
1929	206,032	158,998	47,034		93,770	1.3
1930	521,956	400,149	121,807		215,577	2.9
1938	39,855	29,799	10,056		225,633	3.0
1945	3,092	2,310	782		226,415	3.1
1946	8,452	5,758	2,694		229,109	3.1
1947	6,649	4,446	2,203		231,312	3.1
1948	22,873	15,316	7,557		238,869	3.2
1949	36,762	24,574	12,188		251,057	3.4
1950	37,484	24,727	12,757		263,814	3.6
1952	16,749	10,994	5,755		269,569	3.6
1958	58,216	36,259	21,957		291,526	3.9
1961	22,508	13,681	8,827		300,353	4.0
1962	2,717	1,679	1,038		301,391	4.1
1963	17,233	10,222	7,011		308,402	4.2
1964	2,613	1,569	1,044		309,446	4.2
1966	21,055	12,153	8,902		318,348	4.3
1971	32,358	17,850	14,508		332,856	4.5
1972	4,617	2,549	2,068		334,924	4.5
1982	40,220	17,744	22,476		357,400	4.8
1990	714,564	265,417	449,147		806,547	10.9
1991	697,274	270,181	427,093		1,233,640	16.6
2001	23,343	6,181	17,162		1,250,802	16.9
2002	36,963	9,362	27,601		1,278,403	17.2
2003	298,769	77,854	220,915		1,499,318	20.2
2004	145,859	36,745	109,114		1,608,432	21.7
2005	312,360	69,325	243,035		1,851,467	25.0
2006	847,363	182,300	665,063		2,516,530	33.9
2007	1,712,913	356,433	1,356,480		3,873,010	52.2
2008	882,877	174,673	708,204		4,581,214	61.7
2010	67,282	11,320	55,962		4,637,176	62.5
2011	123,763	23,101	100,662		4,737,838	63.8
2012	397,711	58,867	338,844		5,076,682	68.4
2013	260,232	37,932	222,300		5,298,982	71.4
2014	240,725	32,867	207,858		5,506,840	74.2
2015	348,247	39,499	308,748		5,815,588	78.4
2016	33,475	4,421	29,054		5,844,642	78.8
2017	515,629	47,028	468,601		6,313,243	85.1
2018	265,629	21,051	244,578		6,557,821	88.4
2019	273,921	17,976	255,945		6,813,766	91.8
2020	162,776	9,045	153,731		6,967,497	93.9

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2021	128,389	5,489	122,900		7,090,397	95.6
2022	107,654	3,170	104,484		7,194,881	97.0
2024	226,968	1,527	225,441		7,420,322	100.0
SUBTOTAL	10,147,895	2,727,571	7,420,323			
NONDEPRECIABLE	36			36		
TOTAL	10,147,931	2,727,571	7,420,359			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1919	6,746.32	6,163	5,179	1,567	9.94	158
1920	43,137.67	39,031	32,800	10,338	10.94	945
1924	3,516.29	3,165	2,660	856	11.11	77
1927	118,771.36	105,992	89,071	29,700	11.70	2,538
1929	150,692.98	133,137	111,883	38,810	12.53	3,097
1930	397,531.50	351,259	295,184	102,348	12.38	8,267
1938	29,013.31	24,702	20,759	8,254	15.01	550
1945	1,829.79	1,489	1,251	579	18.09	32
1946	6,169.89	5,005	4,206	1,964	18.15	108
1947	4,945.22	3,960	3,328	1,617	19.15	84
1948	14,631.17	11,676	9,812	4,819	19.24	250
1949	23,899.36	19,000	15,967	7,932	19.34	410
1950	27,693.27	21,723	18,255	9,438	20.34	464
1952	12,995.32	10,105	8,492	4,503	20.59	219
1958	44,777.45	32,804	27,567	17,210	24.09	714
1961	15,094.79	10,746	9,031	6,064	25.50	238
1962	936.14	662	556	380	25.72	15
1963	13,467.21	9,365	7,870	5,597	26.72	209
1964	1,157.91	799	671	487	26.96	18
1966	15,068.36	10,138	8,520	6,548	28.21	232
1971	21,545.15	13,589	11,420	10,125	31.03	326
1972	2,408.76	1,503	1,263	1,146	31.33	37
1982	40,219.92	21,115	17,744	22,476	38.00	591
1990	714,563.59	315,837	265,417	449,147	42.92	10,465
1991	509,115.52	220,091	184,956	324,160	43.34	7,479
2001	23,342.66	7,355	6,181	17,162	49.99	343
2002	36,962.58	11,141	9,362	27,601	50.99	541
2003	215,472.60	62,444	52,475	162,998	51.46	3,167
2004	101,386.62	28,185	23,686	77,701	51.94	1,496
2005	312,360.46	82,494	69,325	243,035	52.94	4,591
2006	781,220.43	196,868	165,440	615,780	53.43	11,525
2007	1,430,997.64	343,010	288,251	1,142,747	53.92	21,193
2008	721,110.76	163,836	137,681	583,430	54.42	10,721
2010	67,282.41	13,470	11,320	55,962	55.93	1,001
2012	371,175.37	64,585	54,274	316,901	56.97	5,563
2013	141,639.15	22,747	19,116	122,523	57.49	2,131
2014	89,590.99	13,170	11,068	78,523	58.03	1,353
2015	328,944.53	43,815	36,820	292,125	58.57	4,988
2017	452,481.62	47,511	39,926	412,556	59.67	6,914
2018	205,885.12	18,653	15,675	190,210	60.23	3,158
2019	253,672.91	19,406	16,308	237,365	60.36	3,932

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2020	106,044.87	6,532	5,489	100,556	60.94	1,650
2021	95,902.74	4,517	3,796	92,107	60.69	1,518
2024	165,228.69	710	597	164,632	57.55	2,861
	8,120,630.40	2,523,505	2,120,652	5,999,978		126,169
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						47.6 1.55

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1927	12,388.94	12,378	8,115	4,274	0.09	4,274
1929	23,345.93	23,066	15,122	8,224	1.15	7,151
1930	55,138.13	54,421	35,679	19,459	1.24	15,693
1938	4,964.59	4,825	3,163	1,802	2.50	721
1945	545.57	522	342	204	3.64	56
1946	867.64	826	542	326	3.97	82
1947	1,035.86	981	643	393	4.30	91
1948	3,806.24	3,616	2,371	1,435	4.00	359
1949	5,646.03	5,335	3,498	2,148	4.37	492
1950	4,772.93	4,486	2,941	1,832	4.74	386
1952	1,459.77	1,366	896	564	4.92	115
1958	6,084.83	5,582	3,660	2,425	5.94	408
1961	4,045.12	3,644	2,389	1,656	6.93	239
1962	876.49	788	517	359	6.97	52
1963	1,931.94	1,721	1,128	804	7.49	107
1964	835.39	742	486	349	7.57	46
1966	3,757.98	3,313	2,172	1,586	7.79	204
1971	5,623.96	4,769	3,127	2,497	9.50	263
1972	1,375.97	1,159	760	616	9.73	63
1991	96,858.61	63,287	41,492	55,367	17.51	3,162
2003	60,814.10	27,330	17,918	42,896	25.73	1,667
2004	29,787.05	12,808	8,397	21,390	26.51	807
2006	66,142.27	25,716	16,860	49,282	28.30	1,741
2007	281,915.10	103,998	68,182	213,733	29.08	7,350
2008	161,766.59	56,424	36,992	124,775	29.87	4,177
2011	123,763.24	35,235	23,101	100,662	32.66	3,082
2012	26,536.10	7,006	4,593	21,943	33.45	656
2013	118,592.58	28,699	18,816	99,777	34.45	2,896
2014	151,134.29	33,250	21,799	129,335	35.45	3,648
2015	11,428.42	2,263	1,484	9,944	36.45	273
2016	5,829.22	1,026	673	5,156	37.45	138
2017	23,741.54	3,673	2,408	21,334	38.25	558
2018	48,020.28	6,367	4,174	43,846	39.25	1,117
2019	5,216.39	576	378	4,838	40.25	120
2020	32,899.18	2,908	1,906	30,993	41.25	751
2022	99,327.78	4,390	2,878	96,450	43.25	2,230
2024	30,030.00	165	108	29,922	45.00	665
	1,512,306.05	548,661	359,710	1,152,596		65,840

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.5 4.35

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1919	1,566.30	1,566	1,566			
1920	9,314.76	9,315	9,315			
1924	745.46	745	745			
1927	25,578.90	25,579	25,579			
1929	31,992.67	31,993	31,993			
1930	69,285.96	69,286	69,286			
1938	5,876.79	5,877	5,877			
1945	716.89	717	717			
1946	1,414.75	1,412	1,010	405	0.12	405
1947	668.17	664	475	193	0.52	193
1948	4,435.66	4,382	3,133	1,303	0.92	1,303
1949	7,216.95	7,145	5,109	2,108	0.76	2,108
1950	5,017.42	4,938	3,531	1,486	1.19	1,249
1952	2,293.55	2,246	1,606	688	1.53	450
1958	7,353.73	7,038	5,032	2,322	2.97	782
1961	3,368.49	3,162	2,261	1,107	4.11	269
1962	904.23	847	606	298	4.23	70
1963	1,834.00	1,712	1,224	610	4.36	140
1964	619.85	576	412	208	4.52	46
1966	2,229.06	2,043	1,461	768	5.29	145
1971	5,189.20	4,620	3,303	1,886	6.52	289
1972	832.35	736	526	306	6.82	45
1991	91,299.82	61,162	43,733	47,567	16.26	2,925
2003	22,482.40	10,434	7,461	15,021	24.25	619
2004	14,685.38	6,520	4,662	10,023	25.05	400
2015	7,873.84	1,672	1,195	6,679	33.37	200
2016	27,646.08	5,242	3,748	23,898	34.19	699
2017	39,405.47	6,565	4,694	34,711	35.02	991
2018	11,723.51	1,681	1,202	10,522	35.84	294
2019	15,031.78	1,804	1,290	13,742	36.67	375
2020	23,832.25	2,307	1,650	22,182	37.32	594
2021	32,486.67	2,368	1,693	30,794	38.15	807
2022	8,326.23	408	292	8,034	38.82	207
2024	5,459.73	34	24	5,436	39.43	138
	488,708.30	286,796	246,411	242,297		15,743

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.4 3.22

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	1,050.00	13	26	1,024	19.75	52
	1,050.00	13	26	1,024		52
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.7 4.95						



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
2024	14,700.00	279	509	14,191	12.94	1,097
	14,700.00	279	509	14,191		1,097
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.9 7.46

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	10,500.00	131	263	10,237	19.75	518
	10,500.00	131	263	10,237		518
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.8 4.93

**EXHIBIT NO. 11-J - DEPRECIATION STUDY**

**BRENTWOOD WASTEWATER  
OPERATIONS**

**AS OF JUNE 30, 2025**

Exhibit No. 11-J  
Witness: J. J. Spanos

# PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

## BRENTWOOD WASTEWATER OPERATIONS

### 2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2025

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-J  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

BRENTWOOD WASTEWATER OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

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[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention: Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of June 30, 2025. The results of our study as of June 30, 2024 are presented in our report titled "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2024". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS  
President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.  
Senior Analyst

JJS:mle

075543.100

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**PART I. RESULTS OF STUDY**



**PENNSYLVANIA-AMERICAN WATER COMPANY**

**BRENTWOOD WASTEWATER OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of June 30, 2025. Table 1 sets forth the development of the net original cost by account as of June 30, 2025. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of June 30, 2025, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to June 30, 2025. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended June 30, 2025. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2020 through 2024.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-6. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2020 through 2024 on page III-2.

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2025

(1) DEPRECIABLE GROUP	(2)	(3)	(4)	(5)	(6)
	ORIGINAL COST AS OF JUNE 30, 2025	CUSTOMER ADVANCES	CONTRIBUTIONS IN AID OF CONSTRUCTION	EXCLUDED PROPERTY	NET ORIGINAL COST AS OF JUNE 30, 2025
<b>DEPRECIABLE PLANT</b>					
353.20 LAND AND LAND RIGHTS - COLLECTION	36.00				36.00
361.10 COLLECTION SEWERS - GRAVITY MAINS	10,948,269.08				10,948,269.08
361.20 MANHOLES	1,677,231.43				1,677,231.43
363.00 SERVICES	518,694.72				518,694.72
390.00 OFFICE FURNITURE AND EQUIPMENT	5,000.00				5,000.00
391.00 TRANSPORTATION EQUIPMENT	70,000.00				70,000.00
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	55,000.00				55,000.00
<b>TOTAL DEPRECIABLE PLANT</b>	<b>13,274,231.23</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>13,274,231.23</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2025 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	(7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)	FMV PLANT (9)	FMV RESERVE (10)	CALCULATED EXPENSE (11)=(9)-(10))(7)
<b>DEPRECIABLE PLANT</b>										
361.10	COLLECTION SEWERS - GRAVITY MAINS	10,948,269.08	1,713,845	9,234,424	181,903	1.66	50.8	36,664,615.88	17,206,522	322,971
361.20	MANHOLES	1,677,231.43	403,896	1,273,335	61,221	3.65	20.8	4,615,269.51	2,678,447	70,694
363.00	SERVICES	518,694.72	253,860	264,835	15,336	2.96	17.3	8,164,098.55	6,713,300	42,944
390.00	OFFICE FURNITURE AND EQUIPMENT	5,000.00	222	4,778	244	4.88	19.6	5,000.00	222	233
391.00	TRANSPORTATION EQUIPMENT	70,000.00	4,601	65,399	5,113	7.30	12.8	70,000.00	4,601	4,774
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	55,000.00	2,242	52,758	2,690	4.89	19.6	55,000.00	2,242	2,580
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>13,274,195.23</b>	<b>2,378,666</b>	<b>10,895,529</b>	<b>266,507</b>	<b>2.01</b>		<b>49,573,983.94</b>	<b>26,607,334</b>	<b>444,196</b>
<b>NONDEPRECIABLE PLANT</b>										
353.20	LAND AND LAND RIGHTS - COLLECTION	36.00						32,371.20		
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>36.00</b>						<b>32,371.20</b>		
	<b>AMORTIZATION OF NET SALVAGE</b>				<b>11,610</b>					
	<b>TOTAL UTILITY PLANT</b>	<b>13,274,231.23</b>	<b>2,378,666</b>	<b>10,895,529</b>	<b>278,117</b>			<b>49,606,355.14</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2024 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2025 (8)
361.10	2,120,652		139,393		335,091		211,109						1,713,845
361.20	359,710		69,985		19,545		6,254						403,896
363.00	246,411		16,653		3,554		5,650						253,860
390.00	26		196										222
391.00	509		4,092										4,601
393.00	263		1,979										2,242
<b>TOTAL</b>	<b>2,727,571</b>		<b>232,298</b>		<b>358,190</b>		<b>223,013</b>		<b>0</b>		<b>0</b>		<b>2,378,666</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2024 (2)	NET ORIGINAL COST AS OF 6/30/2025 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS $(5) = ((2) + (3)) / 2 * (4)$	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7) = (5) + (6)
361.10	8,120,630.40	10,948,269.08	1.55	134,455	4,938	139,393
361.20	1,512,306.05	1,677,231.43	4.35	69,529	456	69,985
363.00	488,708.30	518,694.72	3.22	16,241	412	16,653
390.00	1,050.00	5,000.00	4.95	196		196
391.00	14,700.00	70,000.00	7.46	4,092		4,092
393.00	10,500.00	55,000.00	4.93	1,979		1,979
<b>TOTAL</b>	<b>10,147,894.75</b>	<b>13,274,195.23</b>		<b>226,492</b>	<b>5,806</b>	<b>232,298</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2020		2021		2022		2023		PROJECTED 2024		NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
361.10											(49,381.00)	(9,876)
361.20											(4,556.00)	(911)
363.00											(4,117.00)	(823)
<b>TOTAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>58,054.00</b>	<b>(58,054.00)</b>	<b>(11,610)</b>

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**



PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	DEPRECIATED ORIGINAL COST		PCT OF COL 4 TOTAL (6)
			AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	
1919	1,517	1,517			0.0
1920	9,037	9,037			0.0
1924	985	895	90	90	0.0
1927	99,376	74,087	25,289	25,379	0.2
1929	149,906	109,183	40,723	66,102	0.6
1930	391,466	279,540	111,926	178,028	1.6
1938	34,140	23,771	10,369	188,397	1.7
1945	2,797	2,008	789	189,186	1.7
1946	7,594	5,150	2,444	191,630	1.8
1947	5,961	3,723	2,238	193,868	1.8
1948	20,826	13,231	7,595	201,463	1.8
1949	33,593	21,248	12,345	213,808	2.0
1950	34,121	21,057	13,064	226,872	2.1
1952	15,345	9,263	6,082	232,954	2.1
1958	54,385	31,494	22,891	255,845	2.3
1961	21,280	12,273	9,007	264,852	2.4
1962	2,609	1,633	976	265,828	2.4
1963	16,329	9,007	7,322	273,150	2.5
1964	2,506	1,500	1,006	274,156	2.5
1966	20,130	10,919	9,211	283,367	2.6
1971	31,357	16,504	14,853	298,220	2.7
1972	4,487	2,443	2,044	300,264	2.8
1982	39,494	15,478	24,016	324,280	3.0
1990	706,816	232,688	474,128	798,408	7.3
1991	691,176	255,809	435,367	1,233,775	11.3
2001	23,217	5,525	17,692	1,251,467	11.5
2002	36,776	8,449	28,327	1,279,794	11.7
2003	297,622	75,853	221,769	1,501,563	13.8
2004	145,354	36,108	109,246	1,610,809	14.8
2005	311,073	63,055	248,018	1,858,827	17.1
2006	844,276	169,424	674,852	2,533,679	23.3
2007	1,707,491	341,018	1,366,473	3,900,152	35.8
2008	880,326	168,642	711,684	4,611,836	42.3
2010	67,086	10,419	56,667	4,668,503	42.8
2011	123,714	27,375	96,339	4,764,842	43.7
2012	396,760	55,984	340,776	5,105,618	46.9
2013	259,868	40,517	219,351	5,324,969	48.9
2014	240,501	36,859	203,642	5,528,611	50.7
2015	347,570	38,394	309,176	5,837,787	53.6
2016	33,467	5,258	28,209	5,865,996	53.8
2017	514,815	47,902	466,913	6,332,909	58.1
2018	265,285	22,569	242,716	6,575,625	60.4
2019	273,529	18,855	254,674	6,830,299	62.7
2020	162,620	10,686	151,934	6,982,233	64.1
2021	128,257	6,672	121,585	7,103,818	65.2

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST	
			(2)	(3)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
2022	107,652	5,209	102,443		7,206,261	66.1
2024	226,793	6,137	220,656		7,426,917	68.2
2025	3,482,911	14,298	3,468,613		10,895,530	100.0
SUBTOTAL	13,274,195	2,378,666	10,895,529			
NONDEPRECIABLE	36			36		
TOTAL	13,274,231	2,378,666	10,895,565			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1924	258.46	232	169	89	11.36	8
1927	64,206.66	57,259	41,750	22,457	11.89	1,889
1929	99,072.96	87,501	63,800	35,273	12.70	2,777
1930	277,132.68	244,847	178,528	98,605	12.53	7,870
1938	23,974.99	20,441	14,904	9,071	15.04	603
1945	1,593.76	1,313	957	637	17.09	37
1946	5,405.93	4,399	3,207	2,199	18.09	122
1947	4,355.34	3,533	2,576	1,779	18.15	98
1948	12,951.37	10,371	7,562	5,389	19.15	281
1949	21,261.75	16,967	12,371	8,891	19.24	462
1950	24,754.29	19,680	14,349	10,405	19.34	538
1952	11,718.34	9,153	6,674	5,044	20.46	247
1958	41,353.51	30,755	22,425	18,929	23.09	820
1961	14,097.74	10,105	7,368	6,730	25.29	266
1962	877.42	625	456	421	25.50	17
1963	12,666.17	8,952	6,527	6,139	25.72	239
1964	1,092.74	760	554	539	26.72	20
1966	14,311.90	9,711	7,081	7,231	27.96	259
1971	20,749.42	13,222	9,641	11,108	30.75	361
1972	2,325.28	1,467	1,070	1,255	31.03	40
1982	39,493.95	21,228	15,478	24,016	37.00	649
1990	706,816.02	319,127	232,688	474,128	42.52	11,151
1991	503,928.25	222,736	162,406	341,522	42.92	7,957
2001	23,216.99	7,578	5,525	17,692	49.53	357
2002	36,776.12	11,588	8,449	28,327	49.99	567
2003	214,454.68	64,637	47,129	167,326	50.99	3,282
2004	100,938.82	29,252	21,329	79,610	51.46	1,547
2005	311,072.89	86,478	63,055	248,018	51.94	4,775
2006	778,208.91	205,525	149,856	628,353	52.94	11,869
2007	1,425,841.64	359,312	261,989	1,163,853	53.43	21,783
2008	718,683.74	172,268	125,607	593,077	53.92	10,999
2010	67,085.87	14,289	10,419	56,667	55.42	1,023
2012	370,232.34	69,307	50,534	319,698	56.44	5,664
2013	141,303.81	24,587	17,927	123,377	56.97	2,166
2014	89,393.41	14,357	10,468	78,925	57.49	1,373
2015	328,271.63	48,256	35,186	293,086	58.03	5,051
2017	451,680.27	53,840	39,257	412,423	59.11	6,977
2018	205,546.01	21,582	15,736	189,810	59.67	3,181
2019	253,284.49	22,948	16,732	236,552	60.23	3,927
2020	105,894.40	8,101	5,907	99,987	60.36	1,657

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2021	95,776.46	5,900	4,302	91,474	60.94	1,501
2024	165,054.45	2,723	1,986	163,068	59.61	2,736
2025	3,161,153.22	13,593	9,911	3,151,242	57.55	54,757
	10,948,269.08	2,350,505	1,713,845	9,234,424		181,903
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						50.8 1.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1927	10,166.07	10,162	7,334	2,832	0.04	2,832
1929	19,502.77	19,472	14,053	5,450	0.15	5,450
1930	46,424.72	45,868	33,103	13,322	1.15	11,584
1938	4,371.15	4,259	3,074	1,297	2.29	566
1945	493.92	474	342	152	3.33	46
1946	788.06	753	543	245	3.64	67
1947	944.24	899	649	295	3.97	74
1948	3,480.75	3,297	2,379	1,102	4.30	256
1949	5,178.77	4,920	3,551	1,628	4.00	407
1950	4,392.23	4,151	2,996	1,396	4.37	319
1952	1,351.11	1,262	911	440	5.12	86
1958	5,722.97	5,253	3,791	1,932	5.99	323
1961	3,831.91	3,482	2,513	1,319	6.42	205
1962	832.20	750	541	291	6.93	42
1963	1,838.35	1,653	1,193	645	6.97	93
1964	796.64	709	512	285	7.49	38
1966	3,598.64	3,185	2,299	1,300	7.67	169
1971	5,436.95	4,668	3,369	2,068	8.89	233
1972	1,332.60	1,130	816	517	9.50	54
1991	96,076.60	64,025	46,206	49,871	17.02	2,930
2003	60,700.72	28,444	20,528	40,173	24.95	1,610
2004	29,739.55	13,365	9,645	20,095	25.73	781
2006	66,067.40	27,114	19,568	46,499	27.30	1,703
2007	281,649.26	109,505	79,029	202,620	28.30	7,160
2008	161,642.23	59,630	43,035	118,607	29.08	4,079
2011	123,714.20	37,931	27,375	96,339	31.66	3,043
2012	26,527.84	7,552	5,450	21,078	32.66	645
2013	118,564.52	31,301	22,590	95,975	33.45	2,869
2014	151,108.04	36,568	26,391	124,717	34.45	3,620
2015	11,426.97	2,514	1,814	9,613	35.45	271
2016	5,828.71	1,154	833	4,996	36.45	137
2017	23,740.17	4,178	3,015	20,725	37.45	553
2018	48,018.49	7,428	5,361	42,657	38.25	1,115
2019	5,216.28	692	499	4,717	39.25	120
2020	32,898.81	3,635	2,624	30,275	40.25	752

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2022	99,327.59	6,585	4,752	94,576	42.25	2,238
2024	30,030.00	664	479	29,551	44.25	668
2025	184,470.00	1,015	733	183,737	45.00	4,083
	1,677,231.43	559,647	403,896	1,273,335		61,221
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.8 3.65

PENNSYLVANIA-AMERICAN WATER COMPANY  
BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1919	1,516.98	1,517	1,517			
1920	9,037.17	9,037	9,037			
1924	726.50	726	726			
1927	25,003.27	25,003	25,003			
1929	31,329.80	31,330	31,330			
1930	67,908.88	67,909	67,909			
1938	5,793.36	5,793	5,793			
1945	709.31	709	709			
1946	1,400.40	1,400	1,400			
1947	661.67	661	498	164	0.12	164
1948	4,394.25	4,365	3,290	1,104	0.52	1,104
1949	7,152.31	7,066	5,326	1,826	0.92	1,826
1950	4,974.30	4,925	3,712	1,262	0.76	1,262
1952	2,275.40	2,226	1,678	597	1.63	366
1958	7,308.18	7,002	5,278	2,030	2.93	693
1961	3,350.03	3,173	2,392	958	3.57	268
1962	899.47	844	636	263	4.11	64
1963	1,824.74	1,708	1,287	538	4.23	127
1964	616.85	576	434	183	4.36	42
1966	2,219.12	2,042	1,539	680	5.10	133
1971	5,170.44	4,635	3,494	1,676	6.24	269
1972	829.47	739	557	272	6.52	42
1991	91,170.67	62,616	47,197	43,974	15.50	2,837
2003	22,466.29	10,874	8,196	14,270	23.45	609
2004	14,675.49	6,811	5,134	9,541	24.25	393
2015	7,871.31	1,850	1,394	6,477	32.55	199
2016	27,637.82	5,870	4,425	23,213	33.37	696
2017	39,394.54	7,469	5,630	33,765	34.19	988
2018	11,720.49	1,953	1,472	10,248	35.02	293
2019	15,028.20	2,155	1,624	13,404	35.84	374
2020	23,827.00	2,859	2,155	21,672	36.67	591
2021	32,480.05	3,144	2,370	30,110	37.32	807
2022	8,324.67	607	457	7,868	38.15	206
2024	5,458.86	135	102	5,357	39.32	136
2025	33,537.43	211	159	33,378	39.43	847
	518,694.72	289,940	253,860	264,835		15,336

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.3 2.96



PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	1,050.00	52	114	936	19.00	49
2025	3,950.00	49	108	3,842	19.75	195
	5,000.00	101	222	4,778		244
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.6 4.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
2024	14,700.00	1,114	2,367	12,333	12.19	1,012
2025	55,300.00	1,051	2,234	53,066	12.94	4,101
	70,000.00	2,165	4,601	65,399		5,113
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.8 7.30

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
 RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2024	10,500.00	525	1,089	9,411	19.00	495
2025	44,500.00	556	1,153	43,347	19.75	2,195
	55,000.00	1,081	2,242	52,758		2,690
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.6 4.89

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**PART III. EXPERIENCED AND ESTIMATED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 BRENTWOOD WASTEWATER OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
 COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2024 TRANSACTION YEAR				
361.10	335,091.32	49,381.00		49,381.00-
361.20	19,544.62	4,556.00		4,556.00-
363.00	3,553.58	4,117.00		4,117.00-
	358,189.52	58,054.00		58,054.00-
TOTAL	358,189.52	58,054.00		58,054.00-

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**EXHIBITS NO. 11-K, 11-L, 11-M  
DEPRECIATION STUDY**

**WASTEWATER CSS OPERATIONS  
AS OF JUNE 30, 2023, 2024, 2025**

**EXHIBIT NO. 11-K - DEPRECIATION STUDY**

**WASTEWATER CSS OPERATIONS**

**AS OF JUNE 30, 2023**

Exhibit No. 11-K  
Witness: J. J. Spanos

# PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

## WASTEWATER CSS OPERATIONS

### 2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2023

*Prepared by:*



# **GANNETT FLEMING**

**Excellence Delivered As Promised**



Exhibit No. 11-K  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
Mechanicsburg, Pennsylvania

WASTEWATER CSS OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2023

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention: Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of June 30, 2023. Summaries of the original cost, annual accruals and the book depreciation reserve are presented in Tables 1 through 3, beginning on page I-3 of the attached report.

A description of the methods and procedures upon which the study was based, as well as support for the service life estimates, is set forth in a companion report "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2024".

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS  
President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.  
Senior Analyst

JJS:mle

075543.100

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**PART I. RESULTS OF STUDY**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**WASTEWATER CSS OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of net original cost used in the study. The net original cost is the original cost of wastewater plant less advances and contributions. The results of the depreciation study are summarized in Table 2, which sets forth the book reserve and the calculated annual depreciation related to net original cost as of June 30, 2023, and the annual amortization of net negative salvage. Table 3 presents the calculation of the amortization of experienced net salvage by account, based on the five-year period, 2018-2022.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage, and cost of removal are set forth by account for the years 2018 through 2022, on pages III-2 through III-4.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2023

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2023 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2023 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	8,334,302.21				8,334,302.21
354.30 STRUCTURES AND IMPROVEMENTS - SPP	20,986,044.46				20,986,044.46
354.40 STRUCTURES AND IMPROVEMENTS - TDP	125,862,935.68		2,500,000.00		123,362,935.68
355.00 POWER GENERATING EQUIPMENT	932,654.26				932,654.26
360.10 COLLECTION SEWERS - FORCE MAINS	9,576,689.00				9,576,689.00
361.10 COLLECTION SEWERS - GRAVITY MAINS	391,547,732.60		8,113,082.47		383,434,650.13
361.20 MANHOLES	38,889,415.73				38,889,415.73
363.00 SERVICES	14,254,769.13		1,133,516.15		13,121,252.98
364.00 FLOW MEASURING DEVICES	2,099,193.73				2,099,193.73
371.00 PUMPING EQUIPMENT	14,926,204.71				14,926,204.71
380.00 TREATMENT EQUIPMENT	78,524,654.41				78,524,654.41
381.00 PLANT SEWERS	1,576,345.41				1,576,345.41
382.00 OUTFALL SEWER LINES	189,250.37				189,250.37
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	10,740,054.36				10,740,054.36
390.00 OFFICE FURNITURE AND EQUIPMENT	2,551,002.00				2,551,002.00
391.00 TRANSPORTATION EQUIPMENT	7,818,254.14				7,818,254.14
392.00 STORES EQUIPMENT	106,844.28				106,844.28
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	2,286,410.29				2,286,410.29
394.00 LABORATORY EQUIPMENT	1,323,996.94				1,323,996.94
395.00 POWER OPERATED EQUIPMENT	1,909,398.22				1,909,398.22
396.00 COMMUNICATION EQUIPMENT	2,767,307.88				2,767,307.88
397.00 MISCELLANEOUS EQUIPMENT	2,662,917.90				2,662,917.90
<b>TOTAL DEPRECIABLE PLANT</b>	<b>739,866,377.71</b>	<b>0.00</b>	<b>11,746,598.62</b>	<b>0.00</b>	<b>728,119,779.09</b>
<b>NONDEPRECIABLE PLANT</b>					
353.20 LAND AND LAND RIGHTS - COLLECTION	3,161,743.45				3,161,743.45
353.30 LAND AND LAND RIGHTS - SPP	1,153,570.00				1,153,570.00
353.40 LAND AND LAND RIGHTS - TDP	148,041.59				148,041.59
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>4,463,355.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4,463,355.04</b>
<b>TOTAL UTILITY PLANT</b>	<b>744,329,732.75</b>	<b>0.00</b>	<b>11,746,598.62</b>	<b>0.00</b>	<b>732,583,134.13</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2023

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	ANNUAL ACCRUAL RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)
<b>DEPRECIABLE PLANT</b>								
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	8,334,302.21	573,427	7,760,875	213,970	2.57	36.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	20,986,044.46	7,304,734	13,681,310	434,551	2.07	31.5
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	123,362,935.68	52,990,817	70,372,118	2,334,160	1.89	30.1
355.00	POWER GENERATING EQUIPMENT	35-S0.5	932,654.26	296,907	635,747	31,574	3.39	20.1
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	9,576,689.00	567,264	9,009,425	150,395	1.57	59.9
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	383,434,650.13	150,631,841	232,802,809	5,202,980	1.36	44.7
361.20	MANHOLES	50-S2.5	38,889,415.73	20,528,009	18,361,407	960,372	2.47	19.1
363.00	SERVICES	47-R3	13,121,252.98	5,815,433	7,305,820	317,052	2.42	23.0
364.00	FLOW MEASURING DEVICES	15-L2.5	2,099,193.73	728,505	1,370,689	182,525	8.70	7.5
371.00	PUMPING EQUIPMENT	30-S0.5	14,926,204.71	4,539,008	10,387,196	599,686	4.02	17.3
380.00	TREATMENT EQUIPMENT	35-S1.5	78,524,654.41	26,850,889	51,673,765	2,792,661	3.56	18.5
381.00	PLANT SEWERS	50-R3	1,576,345.41	800,718	775,628	31,722	2.01	24.5
382.00	OUTFALL SEWER LINES	50-R3	189,250.37	50,018	139,232	3,551	1.88	39.2
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT	20-S2.5	10,740,054.36	2,563,314	8,186,740	644,251	6.00	12.7
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	2,551,002.00	377,432	2,173,570	145,239	5.69	15.0
391.00	TRANSPORTATION EQUIPMENT	14-L4	7,818,254.14	3,816,617	4,001,637	541,361	7.4	7.4
392.00	STORES EQUIPMENT	25-SQ	106,844.28	11,756	95,089	4,359	4.08	21.8
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	2,286,410.29	334,814	1,951,596	117,338	5.13	16.6
394.00	LABORATORY EQUIPMENT	15-SQ	1,323,996.94	149,758	1,174,239	96,345	7.28	12.2
395.00	POWER OPERATED EQUIPMENT	22-R2	1,909,398.22	957,232	952,166	75,037	3.93	12.7
396.00	COMMUNICATION EQUIPMENT	15-SQ	2,767,307.88	825,358	1,941,950	189,893	6.86	10.2
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	2,662,917.90	434,518	2,228,400	183,761	6.90	12.1
	<b>TOTAL DEPRECIABLE PLANT</b>		<b>728,119,779.09</b>	<b>281,138,370</b>	<b>446,981,408</b>	<b>15,252,783</b>	<b>2.09</b>	
<b>NONDEPRECIABLE PLANT</b>								
353.20	LAND AND LAND RIGHTS - COLLECTION		3,161,743.45					
353.30	LAND AND LAND RIGHTS - SPP		1,153,570.00					
353.40	LAND AND LAND RIGHTS - TDP		148,041.59					
	<b>TOTAL NONDEPRECIABLE PLANT</b>		<b>4,463,355.04</b>			<b>1,950,438</b>		
<b>AMORTIZATION OF NET SALVAGE</b>								
	<b>TOTAL UTILITY PLANT</b>		<b>732,583,134.13</b>	<b>281,138,370</b>	<b>446,981,408</b>	<b>17,203,221</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

ACCOUNT (1)	2018			2019			2020			2021			2022				
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	+	GROSS SALVAGE (4)	COST OF REMOVAL (5)	+	GROSS SALVAGE (6)	COST OF REMOVAL (7)	+	GROSS SALVAGE (8)	COST OF REMOVAL (9)	+	GROSS SALVAGE (10)	COST OF REMOVAL (11)	=	NET SALVAGE (12)*	SALVAGE ACCURAL (13)=(12)/5
354.20		12,897.00						27,261.65						30,686.12		(70,844.77)	(14,169)
354.30		2,859.26			85,934.54									2,731.90		(99,139.68)	(19,828)
354.40		2,465.65			67,526.93			3,035.88						612,785.01		(762,402.58)	(152,481)
360.10		2,819.19			2,367.85			22,982.08						232,064.30		(425,203.69)	(85,041)
361.10		26,538.94			1,430,976.01		3,491.13	1,344,641.10						2,044,135.19		(5,917,076.99)	(1,183,415)
361.20					90,279.20			81,137.03						328,964.80		(718,158.98)	(143,632)
363.00					52,929.84			75,298.32						108,024.33		(393,623.59)	(78,725)
364.00		27,682.42						8,901.01								(8,901.01)	(1,760)
371.00					66,936.02			24,730.31						14,057.96		(157,599.60)	(31,520)
380.00		58,050.21			92,448.13			399,155.43						277,412.74		(931,936.99)	(186,387)
382.00		1,045.59			3,306.40											(4,351.99)	(870)
389.10		3,678.20						1,886.85						12,873.26		(3,678.20)	(736)
390.00		13,128.96			9,975.61											(39,347.24)	(7,869)
391.00		42,449.74			48,014.34			7,289.38						6,599.32		(90,464.08)	(18,093)
393.00		4,038.83			28,436.64			1,548.07								(47,317.66)	(9,464)
394.00					5,445.26			1,919.19						877.73		(9,790.25)	(1,958)
395.00					5,217.77			510.16						183.61		(5,911.54)	(1,182)
396.00					39,091.19			1,822.13						1,647.58		(52,394.65)	(10,479)
397.00					4,026.89			3,318.49								(14,043.91)	(2,809)
<b>TOTAL</b>	<b>0.00</b>	<b>198,176.60</b>		<b>0.00</b>	<b>2,032,912.62</b>		<b>3,491.13</b>	<b>2,003,517.89</b>		<b>0.00</b>	<b>1,850,027.17</b>		<b>0.00</b>	<b>3,671,043.85</b>		<b>(9,752,187.00)</b>	<b>(1,950,438)</b>

\* Column (12) equals the summation of Columns (2) through (11).



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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST	PCT OF
			(2)	(3)	CUMULATIVE AMOUNT (5)	COL 4 TOTAL (6)
1918	3,377,082	3,050,031	327,051		327,051	0.1
1938	1,270,233	1,086,800	183,433		510,484	0.1
1945	274,246	223,775	50,471		560,955	0.1
1950	1,040,208	813,135	227,073		788,028	0.2
1955	17,124,064	12,588,799	4,535,265		5,323,293	1.2
1959	66,899,799	48,305,703	18,594,096		23,917,389	5.4
1960	14,474,967	12,162,407	2,312,560		26,229,949	5.9
1962	11,518,386	7,862,477	3,655,909		29,885,858	6.7
1963	28,918,420	19,811,932	9,106,488		38,992,346	8.7
1965	837,811	583,816	253,995		39,246,341	8.8
1968	3,025,034	2,122,171	902,863		40,149,204	9.0
1970	1,057,224	705,333	351,891		40,501,095	9.1
1972	30,694,797	20,871,074	9,823,723		50,324,818	11.3
1973	938,414	628,779	309,635		50,634,453	11.3
1974	746,732	487,744	258,988		50,893,441	11.4
1975	35,935,260	26,838,810	9,096,450		59,989,891	13.4
1976	36,756,942	20,891,081	15,865,861		75,855,752	17.0
1977	559,981	356,862	203,119		76,058,871	17.0
1978	1,474,471	928,002	546,469		76,605,340	17.1
1979	1,550,569	959,382	591,187		77,196,527	17.3
1980	2,028,930	1,186,066	842,864		78,039,391	17.5
1981	1,209,220	725,949	483,271		78,522,662	17.6
1982	932,252	554,668	377,584		78,900,246	17.7
1983	668,516	390,000	278,516		79,178,762	17.7
1984	991,019	549,033	441,986		79,620,748	17.8
1985	3,541,517	2,037,736	1,503,781		81,124,529	18.1
1986	1,405,177	778,255	626,922		81,751,451	18.3
1987	2,620,506	1,643,600	976,906		82,728,357	18.5
1988	897,936	542,091	355,845		83,084,202	18.6
1989	26,693,511	11,980,710	14,712,801		97,797,003	21.9
1990	4,845,014	2,411,751	2,433,263		100,230,266	22.4
1991	2,018,395	995,919	1,022,476		101,252,742	22.7
1992	3,100,426	1,418,504	1,681,922		102,934,664	23.0
1993	480,762	206,231	274,531		103,209,195	23.1
1994	1,431,052	635,158	795,894		104,005,089	23.3
1995	18,163,368	9,723,750	8,439,618		112,444,707	25.2
1996	9,066,553	4,245,440	4,821,113		117,265,820	26.2
1997	423,074	179,314	243,760		117,509,580	26.3
1998	2,736,819	1,113,680	1,623,139		119,132,719	26.7
1999	13,226,522	4,589,803	8,636,719		127,769,438	28.6
2000	420,448	148,801	271,647		128,041,085	28.6
2001	2,540,163	1,211,045	1,329,118		129,370,203	28.9
2002	500,564	213,575	286,989		129,657,192	29.0
2003	2,244,245	973,855	1,270,390		130,927,582	29.3
2004	7,602,143	3,156,490	4,445,653		135,373,235	30.3

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2005	2,542,671	770,562	1,772,109		137,145,344	30.7
2006	5,395,209	1,957,657	3,437,552		140,582,896	31.5
2007	5,881,812	1,542,598	4,339,214		144,922,110	32.4
2008	4,568,849	1,434,077	3,134,772		148,056,882	33.1
2009	10,712,942	2,844,762	7,868,180		155,925,062	34.9
2010	17,667,360	5,453,768	12,213,592		168,138,654	37.6
2011	4,840,939	1,046,034	3,794,905		171,933,559	38.5
2012	3,468,009	1,351,626	2,116,383		174,049,942	38.9
2013	6,204,938	2,617,897	3,587,041		177,636,983	39.7
2014	29,320,830	6,872,350	22,448,480		200,085,463	44.8
2015	24,615,111	6,219,033	18,396,078		218,481,541	48.9
2016	39,649,790	6,661,117	32,988,673		251,470,214	56.3
2017	15,713,936	2,258,809	13,455,127		264,925,341	59.3
2018	12,423,395	1,947,279	10,476,116		275,401,457	61.6
2019	45,763,192	3,427,144	42,336,048		317,737,505	71.1
2020	54,763,953	3,947,899	50,816,054		368,553,559	82.5
2021	29,998,825	1,522,464	28,476,361		397,029,920	88.8
2022	40,379,411	1,039,008	39,340,403		436,370,324	97.6
2023	17,692,434	98,227	17,594,206		453,964,531	101.6
9999	11,746,599-	4,763,478-	6,983,121-		446,981,410	100.0
SUBTOTAL	728,119,779	281,138,370	446,981,408			
NONDEPRECIABLE	4,463,355		4,463,355			
TOTAL	732,583,134	281,138,370	451,444,763			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2017	1,006,878.64	151,032	143,874	863,005	34.00	25,382
2018	1,926,648.96	241,794	230,334	1,696,315	34.84	48,689
2019	1,211,517.34	122,121	116,332	1,095,185	35.68	30,695
2020	173,808.85	13,244	12,616	161,193	36.37	4,432
2021	218,083.90	11,166	10,637	207,447	37.06	5,598
2022	1,945,021.67	50,376	47,989	1,897,033	37.61	50,440
2023	1,852,342.85	12,225	11,645	1,840,698	37.77	48,734
	8,334,302.21	601,958	573,427	7,760,875		213,970
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						36.3 2.57

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1960	2,307,540.06	1,831,725	1,959,250	348,290	16.37	21,276
1968	671,326.79	494,768	529,214	142,113	19.63	7,240
1970	60,405.27	43,860	46,914	13,491	19.99	675
1972	432,344.07	306,489	327,827	104,517	20.94	4,991
1990	89,924.53	49,854	53,325	36,600	26.52	1,380
1995	131,932.60	65,755	70,333	61,600	28.18	2,186
1996	513,721.35	251,056	268,535	245,186	28.25	8,679
2000	105,072.37	46,158	49,372	55,700	29.36	1,897
2004	244,354.55	93,783	100,312	144,043	30.50	4,723
2005	52,725.90	19,456	20,811	31,915	30.78	1,037
2006	2,710,094.59	958,289	1,025,005	1,685,090	31.08	54,218
2011	7,145.91	1,938	2,073	5,073	32.25	157
2012	7,147.63	1,808	1,934	5,214	32.48	161
2013	148,319.26	34,707	37,123	111,196	32.74	3,396
2014	10,489,746.72	2,246,904	2,403,333	8,086,414	33.02	244,894
2015	40,952.90	7,961	8,515	32,438	33.15	979
2017	762,725.81	116,239	124,332	638,394	33.37	19,131
2018	1,526,953.41	197,740	211,506	1,315,447	33.61	39,139
2019	446,541.64	47,512	50,820	395,722	33.59	11,781
2021	237,069.10	13,276	14,200	222,869	33.71	6,611
	20,986,044.46	6,829,278	7,304,734	13,681,310		434,551
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					31.5	2.07

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1960	10,599,624.45	8,413,982	9,031,719	1,567,905	16.37	95,779
1972	12,719,036.07	9,016,525	9,678,499	3,040,537	20.94	145,202
1975	17,982,761.29	12,343,367	13,249,590	4,733,171	21.93	215,831
1985	1,204,742.75	727,906	781,347	423,396	24.89	17,011
1993	12,736.38	6,648	7,136	5,600	27.47	204
1994	101,865.06	51,992	55,809	46,056	27.82	1,655
1995	8,797,962.75	4,384,905	4,706,835	4,091,128	28.18	145,178
1996	2,958,647.48	1,445,891	1,552,045	1,406,602	28.25	49,791
1999	75,887.27	34,240	36,754	39,133	29.19	1,341
2001	236,542.84	100,436	107,810	128,733	29.81	4,318
2003	1,489,978.03	593,011	636,549	853,429	30.25	28,213
2004	367,499.67	141,046	151,401	216,099	30.50	7,085
2006	131,140.18	46,371	49,775	81,365	31.08	2,618
2007	18,890.83	6,378	6,846	12,045	31.39	384
2008	404,821.01	130,555	140,140	264,681	31.51	8,400
2009	16,621.70	5,073	5,445	11,177	31.87	351
2010	12,122,799.45	3,498,640	3,755,503	8,367,296	32.05	261,070
2011	393,025.03	106,588	114,413	278,612	32.25	8,639
2012	282,267.24	71,414	76,657	205,610	32.48	6,330
2013	8,325.00	1,948	2,091	6,234	32.74	190
2014	16,814,574.82	3,601,682	3,866,111	12,948,464	33.02	392,140
2015	5,564,740.72	1,081,786	1,161,209	4,403,532	33.15	132,837
2016	19,818,007.39	3,440,406	3,692,993	16,125,014	33.32	483,944
2017	3,095,376.46	471,735	506,369	2,589,007	33.37	77,585
2018	101,683.42	13,168	14,135	87,548	33.61	2,605
2019	265,878.40	28,289	30,366	235,512	33.59	7,011
2020	1,060,026.32	86,816	93,190	966,836	33.63	28,749
2021	9,213,537.28	515,958	553,838	8,659,699	33.71	256,888
2022	3,936.39	114	123	3,813	33.48	114
9999	2,500,000.00-	1,000,431-	1,073,881-	1,426,119-		47,303-
	123,362,935.68	49,366,439	52,990,817	70,372,118		2,334,160
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.1 1.89



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1991	21,295.06	15,401	14,682	6,613	12.25	540
2002	19,740.16	11,234	10,709	9,031	15.90	568
2004	38,295.54	20,373	19,421	18,875	16.71	1,130
2012	403,177.35	144,136	137,403	265,774	19.77	13,443
2015	426,122.43	117,610	112,116	314,006	20.99	14,960
2020	22,037.01	2,545	2,426	19,611	22.97	854
2021	1,986.71	157	150	1,837	23.38	79
	932,654.26	311,456	296,907	635,747		31,574
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.1 3.39

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1955	1,834.70	1,460	1,210	625	17.47	36
1960	17,379.90	13,249	10,976	6,404	19.64	326
1972	234,615.90	153,157	126,881	107,735	27.12	3,973
1989	4,590.34	2,154	1,784	2,806	38.46	73
1995	333,428.74	131,638	109,054	224,375	42.92	5,228
1996	180,459.83	69,188	57,318	123,142	43.42	2,836
2004	32,074.48	8,897	7,371	24,703	49.49	499
2015	1,176,886.32	142,168	117,778	1,059,108	58.23	18,188
2018	135,690.81	10,313	8,544	127,147	60.79	2,092
2019	37,085.16	2,270	1,881	35,204	61.36	574
2020	355,800.39	16,438	13,618	342,182	61.94	5,524
2021	1,912,544.39	59,289	49,117	1,863,427	62.52	29,805
2022	4,606,802.78	72,327	59,917	4,546,886	62.69	72,530
2023	547,495.26	2,190	1,815	545,681	62.64	8,711
	9,576,689.00	684,738	567,264	9,009,425		150,395
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						59.9 1.57

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1918	3,165,687.50	2,891,856	2,838,636	327,052	9.94	32,903
1938	864,120.91	727,158	713,776	150,345	16.01	9,391
1945	211,474.50	171,548	168,391	43,084	18.15	2,374
1950	883,492.33	690,096	677,396	206,096	20.46	10,073
1955	16,990,586.69	12,708,959	12,475,071	4,515,516	22.91	197,098
1959	56,285,174.18	40,345,213	39,602,725	16,682,449	25.29	659,646
1960	1,048,519.00	746,441	732,704	315,815	25.50	12,385
1962	11,518,386.30	8,009,886	7,862,477	3,655,909	26.72	136,823
1963	27,097,985.26	18,697,610	18,353,511	8,744,474	26.96	324,350
1965	643,545.07	432,977	425,009	218,536	28.21	7,747
1968	1,816,850.93	1,179,136	1,157,436	659,415	29.75	22,165
1970	758,504.59	478,389	469,585	288,920	31.03	9,311
1972	15,322,894.08	9,377,611	9,205,031	6,117,863	32.33	189,232
1973	521,012.45	315,213	309,412	211,600	32.64	6,483
1974	461,865.68	273,840	268,800	193,066	33.64	5,739
1975	2,152,470.28	1,260,487	1,237,290	915,180	33.97	26,941
1976	35,540,394.99	20,378,862	20,003,823	15,536,572	34.97	444,283
1977	317,232.52	179,490	176,187	141,046	35.30	3,996
1978	827,334.53	461,653	453,157	374,178	35.65	10,496
1979	873,231.30	476,435	467,667	405,564	36.65	11,066
1980	1,418,197.87	762,281	748,252	669,946	37.00	18,107
1981	670,590.22	352,060	345,581	325,009	38.00	8,553
1982	500,997.21	258,815	254,052	246,945	38.37	6,436
1983	368,514.24	187,205	183,760	184,754	38.74	4,769
1984	640,078.88	317,031	311,197	328,882	39.74	8,276
1985	1,586,704.73	771,773	757,570	829,135	40.12	20,666
1986	747,339.81	353,940	347,426	399,914	41.12	9,726
1987	693,358.17	321,996	316,070	377,288	41.52	9,087
1988	277,604.33	125,338	123,031	154,573	42.52	3,635
1989	24,461,874.61	10,812,149	10,613,169	13,848,706	42.92	322,663
1990	2,866,885.77	1,239,355	1,216,547	1,650,339	43.34	38,079
1991	1,111,799.61	466,066	457,489	654,311	44.34	14,757
1992	2,121,767.08	868,227	852,249	1,269,518	44.76	28,363
1993	361,205.59	143,037	140,405	220,801	45.76	4,825
1994	942,968.24	363,703	357,010	585,958	46.19	12,686
1995	2,290,835.85	859,522	843,704	1,447,132	46.63	31,034
1996	3,469,911.30	1,255,414	1,232,310	2,237,601	47.63	46,979
1997	222,135.18	77,969	76,534	145,601	48.07	3,029
1998	1,457,372.54	495,507	486,388	970,985	48.53	20,008
1999	11,527,136.26	3,762,457	3,693,215	7,833,921	49.53	158,165
2000	303,294.31	95,568	93,809	209,485	49.99	4,191

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2001	543,534.45	163,821	160,806	382,728	50.99	7,506
2002	203,064.99	58,848	57,765	145,300	51.46	2,824
2003	33,631.17	9,349	9,177	24,454	51.94	471
2004	1,870,309.08	493,949	484,859	1,385,450	52.94	26,170
2005	1,348,814.96	339,901	333,646	1,015,169	53.43	19,000
2006	1,133,612.79	271,727	266,726	866,887	53.92	16,077
2007	4,888,314.95	1,110,625	1,090,186	3,798,129	54.42	69,793
2008	2,341,549.71	498,750	489,571	1,851,979	55.42	33,417
2009	9,135,819.13	1,828,991	1,795,331	7,340,488	55.93	131,244
2010	3,738,045.64	699,762	686,884	3,051,162	56.44	54,060
2011	3,667,547.99	638,153	626,409	3,041,139	56.97	53,381
2012	260,419.22	41,823	41,053	219,366	57.49	3,816
2013	436,419.34	64,154	62,973	373,446	58.03	6,435
2014	1,125,472.88	149,913	147,154	978,319	58.57	16,703
2015	16,178.80	1,929	1,893	14,286	59.11	242
2016	12,896,387.96	1,354,121	1,329,201	11,567,187	59.67	193,853
2017	6,837,445.87	619,473	608,073	6,229,373	60.23	103,426
2018	3,906,758.97	298,867	293,367	3,613,392	60.36	59,864
2019	37,737,163.87	2,324,609	2,281,828	35,455,336	60.94	581,807
2020	30,762,974.56	1,448,936	1,422,271	29,340,704	60.69	483,452
2021	11,244,090.85	359,811	353,189	10,890,902	60.50	180,015
2022	11,327,268.31	186,900	183,460	11,143,808	59.61	186,945
2023	10,751,572.22	46,232	45,382	10,706,190	57.55	186,033
9999	8,113,082.47-	3,246,970-	3,187,215-	4,925,867-		110,090-
	383,434,650.13	153,455,947	150,631,841	232,802,809		5,202,980

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 44.7 1.36

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1918	192,002.76	192,003	192,003			
1938	263,057.70	254,903	229,969	33,089	2.72	12,165
1945	40,698.28	38,728	34,940	5,758	3.97	1,450
1950	100,436.85	93,848	84,668	15,769	5.12	3,080
1955	82,962.76	76,724	69,219	13,744	5.53	2,485
1959	10,614,625.01	9,646,571	8,702,978	1,911,647	6.42	297,764
1960	124,835.20	112,464	101,463	23,372	6.93	3,373
1963	1,820,434.96	1,616,546	1,458,421	362,014	7.57	47,822
1965	115,835.77	102,121	92,132	23,704	7.79	3,043
1968	63,258.02	54,623	49,280	13,978	8.69	1,609
1970	131,490.13	111,504	100,597	30,893	9.50	3,252
1972	1,406,333.16	1,176,257	1,061,200	345,133	9.98	34,582
1973	300,514.18	249,427	225,029	75,485	10.24	7,372
1974	145,131.67	119,472	107,786	37,346	10.52	3,550
1975	428,835.35	349,930	315,701	113,134	10.82	10,456
1976	1,216,546.67	983,456	887,258	329,289	11.14	29,559
1977	135,672.33	108,592	97,970	37,702	11.47	3,287
1978	365,240.42	287,627	259,492	105,748	12.14	8,711
1979	376,391.09	293,133	264,460	111,931	12.50	8,954
1980	344,640.29	265,270	239,322	105,318	12.87	8,183
1981	303,876.29	231,007	208,411	95,465	13.25	7,205
1982	241,192.22	180,967	163,265	77,927	13.64	5,713
1983	167,201.76	123,729	111,626	55,576	14.05	3,956
1984	193,153.85	140,867	127,088	66,066	14.48	4,563
1985	425,383.15	305,510	275,626	149,757	14.91	10,044
1986	362,362.31	256,081	231,032	131,330	15.36	8,550
1987	251,003.20	173,493	156,523	94,480	16.08	5,876
1988	96,404.18	65,458	59,055	37,349	16.55	2,257
1989	1,480,246.96	986,437	889,947	590,300	17.02	34,683
1990	1,029,539.70	672,701	606,900	422,640	17.51	24,137
1991	480,597.06	306,044	276,108	204,489	18.25	11,205
1992	446,706.85	278,343	251,117	195,590	18.75	10,431
1993	106,820.01	65,053	58,690	48,130	19.26	2,499
1994	172,867.94	102,269	92,265	80,603	20.02	4,026
1995	499,983.10	288,390	260,181	239,802	20.54	11,675
1996	766,628.21	428,469	386,558	380,070	21.31	17,835
1997	99,518.88	53,820	48,556	50,963	22.08	2,308
1998	667,600.22	350,490	316,206	351,394	22.62	15,535
1999	377,718.65	191,277	172,567	205,152	23.39	8,771
2001	40,263.23	18,867	17,021	23,242	24.95	932
2004	391,028.74	160,478	144,781	246,248	27.30	9,020

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2005	622,671.32	242,095	218,414	404,257	28.30	14,285
2006	485,376.83	179,056	161,541	323,836	29.08	11,136
2007	261,475.47	91,203	82,282	179,193	29.87	5,999
2008	302,656.61	98,969	89,288	213,369	30.87	6,912
2010	100,531.28	28,621	25,821	74,710	32.66	2,288
2011	258,381.57	68,213	61,541	196,841	33.45	5,885
2012	100,205.47	24,250	21,878	78,327	34.45	2,274
2013	16,187.94	3,561	3,213	12,975	35.45	366
2014	101,870.38	20,170	18,197	83,673	36.45	2,296
2016	19,978.89	3,091	2,789	17,190	38.25	449
2018	20,870.34	2,306	2,080	18,790	40.25	467
2019	2,569,932.92	227,182	204,960	2,364,973	41.25	57,333
2020	1,739,484.28	115,328	104,047	1,635,437	42.25	38,709
2021	987,890.94	43,665	39,394	948,497	43.25	21,931
2022	2,881,786.38	63,687	57,457	2,824,329	44.25	63,827
2023	1,551,076.00	8,531	7,696	1,543,380	45.00	34,297
	38,889,415.73	22,732,877	20,528,009	18,361,407		960,372
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.1 2.47

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1918	19,391.53	19,392	19,392			
1938	143,054.88	143,055	143,055			
1945	22,073.48	22,038	20,444	1,629	0.12	1,629
1950	56,278.80	55,052	51,071	5,208	1.63	3,195
1955	48,679.71	46,674	43,299	5,381	2.92	1,843
1960	76,154.48	71,486	66,316	9,838	4.11	2,394
1965	78,429.72	71,873	66,675	11,755	5.29	2,222
1970	106,824.27	95,116	88,237	18,587	6.52	2,851
1972	579,573.92	508,402	471,636	107,938	7.14	15,117
1973	116,887.81	101,692	94,338	22,550	7.47	3,019
1974	139,735.00	119,823	111,158	28,577	8.14	3,511
1975	332,974.60	282,895	262,437	70,538	8.50	8,299
1977	107,076.26	89,152	82,705	24,371	9.25	2,635
1978	281,896.00	232,141	215,353	66,543	9.64	6,903
1979	300,946.68	244,971	227,255	73,692	10.05	7,333
1980	266,091.96	213,965	198,492	67,600	10.48	6,450
1981	234,753.75	185,362	171,957	62,797	11.19	5,612
1982	190,062.15	148,058	137,351	52,711	11.63	4,532
1983	132,799.92	101,990	94,614	38,186	12.08	3,161
1984	157,785.94	119,381	110,748	47,038	12.55	3,748
1985	324,685.98	240,592	223,193	101,493	13.28	7,643
1986	295,474.98	215,372	199,797	95,678	13.76	6,953
1987	205,043.94	146,893	136,270	68,774	14.25	4,826
1988	70,509.94	49,357	45,788	24,722	15.00	1,648
1989	746,798.97	512,902	475,810	270,989	15.50	17,483
1990	832,608.91	557,765	517,429	315,180	16.26	19,384
1991	393,283.11	257,994	239,337	153,946	16.78	9,174
1992	531,951.61	339,704	315,138	216,814	17.54	12,361
1994	66,342.64	40,403	37,481	28,862	18.62	1,550
1995	100,262.25	59,235	54,951	45,311	19.39	2,337
1996	265,445.95	151,941	140,953	124,493	20.17	6,172
1997	87,126.12	48,477	44,971	42,155	20.73	2,034
1998	573,379.95	308,192	285,905	287,475	21.51	13,365
1999	165,344.70	86,112	79,885	85,460	22.08	3,870
2000	12,081.20	6,058	5,620	6,461	22.87	283
2004	188,269.92	80,128	74,333	113,937	25.64	4,444
2005	502,155.36	203,373	188,666	313,489	26.44	11,857
2006	406,003.36	155,986	144,705	261,298	27.25	9,589
2007	228,819.60	83,107	77,097	151,723	28.05	5,409
2008	64,952.16	22,311	20,698	44,254	28.67	1,544
2009	79,573.30	25,623	23,770	55,803	29.48	1,893

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2011	170,969.39	47,598	44,156	126,813	31.10	4,078
2012	79,926.00	20,485	19,004	60,922	31.92	1,909
2013	16,092.23	3,782	3,508	12,584	32.55	387
2014	58,450.63	12,415	11,517	46,934	33.37	1,406
2016	134,440.98	22,398	20,778	113,663	35.02	3,246
2017	244,388.55	35,045	32,511	211,878	35.84	5,912
2018	200,000.13	24,000	22,264	177,736	36.67	4,847
2019	316,998.28	30,685	28,466	288,532	37.32	7,731
2020	725,786.40	52,910	49,084	676,702	38.15	17,738
2021	1,090,214.49	53,421	49,557	1,040,657	38.82	26,807
2022	1,094,692.63	27,148	25,185	1,069,508	39.32	27,200
2023	591,224.61	3,725	3,455	587,770	39.43	14,907
9999	1,133,516.15-	540,539-	502,382-	631,134-		27,389-
	13,121,252.98	6,257,116	5,815,433	7,305,820		317,052
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.0 2.42



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1960	34,668.83	34,669	34,669			
1996	10,667.26	9,793	7,432	3,235	2.41	1,342
1998	11,518.92	10,367	7,868	3,651	2.78	1,313
2008	91,182.72	70,575	53,559	37,624	4.38	8,590
2010	110,716.42	81,609	61,933	48,783	4.64	10,514
2011	38,771.91	27,683	21,009	17,763	4.81	3,693
2013	175,978.36	114,210	86,674	89,304	5.41	16,507
2015	40,642.36	22,695	17,223	23,419	6.33	3,700
2016	442,654.44	222,788	169,074	273,580	6.91	39,592
2017	160,544.63	70,993	53,877	106,668	7.57	14,091
2018	43,907.33	16,531	12,545	31,362	8.28	3,788
2019	795,450.85	244,363	185,448	610,003	9.02	67,628
2020	73,232.10	17,136	13,005	60,227	9.82	6,133
2022	69,257.60	5,520	4,189	65,069	11.55	5,634
	2,099,193.73	948,932	728,505	1,370,689		182,525
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.5 8.70

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1991	11,419.78	8,917	8,303	3,117	8.98	347
1996	865,081.19	621,301	578,506	286,575	10.59	27,061
1997	12,345.74	8,699	8,100	4,246	10.90	390
1998	26,947.66	18,594	17,313	9,635	11.23	858
2001	72,361.53	46,485	43,283	29,079	12.25	2,374
2002	53,105.57	33,233	30,944	22,162	12.56	1,764
2004	392,031.81	230,162	214,309	177,723	13.36	13,303
2005	8,726.79	4,964	4,622	4,105	13.65	301
2006	407,498.43	223,065	207,700	199,798	14.06	14,210
2007	12,937.95	6,811	6,342	6,596	14.40	458
2008	19,211.28	9,682	9,015	10,196	14.76	691
2009	466,279.80	223,908	208,485	257,795	15.15	17,016
2010	709,519.49	322,831	300,595	408,924	15.57	26,264
2011	128,559.92	55,229	51,425	77,135	15.93	4,842
2012	1,573,089.45	633,326	589,703	983,386	16.32	60,256
2013	413,699.69	154,724	144,067	269,633	16.74	16,107
2014	92,722.35	31,961	29,760	62,962	17.11	3,680
2015	3,950,385.67	1,238,841	1,153,511	2,796,875	17.51	159,730
2016	1,239,193.93	347,842	323,883	915,311	17.94	51,021
2017	146,258.17	36,067	33,583	112,675	18.33	6,147
2018	1,351,999.41	284,596	264,993	1,087,006	18.75	57,974
2019	555,436.69	95,979	89,368	466,069	19.15	24,338
2020	1,329,556.93	176,698	164,527	1,165,030	19.57	59,531
2021	320,418.37	29,222	27,209	293,209	19.93	14,712
2022	640,944.19	30,124	28,049	612,895	20.28	30,222
2023	126,472.92	1,518	1,413	125,059	20.54	6,089
	14,926,204.71	4,874,779	4,539,008	10,387,196		599,686
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.3 4.02

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1960	266,244.60	258,311	225,310	40,935	1.94	21,101
1968	473,598.24	442,814	386,241	87,357	3.82	22,868
1975	15,038,218.01	13,498,304	11,773,792	3,264,426	5.48	595,698
1987	1,471,100.21	1,186,295	1,034,737	436,363	8.64	50,505
1988	453,417.65	360,240	314,217	139,201	9.05	15,381
1990	26,054.86	20,120	17,550	8,505	9.74	873
1994	147,008.14	106,155	92,593	54,415	11.16	4,876
1995	5,121,087.36	3,627,778	3,164,301	1,956,786	11.53	169,713
1996	35,990.79	24,974	21,783	14,208	11.91	1,193
1997	1,947.81	1,322	1,153	795	12.31	65
1999	1,063,142.61	686,365	598,677	464,466	13.17	35,267
2001	1,639,960.84	1,003,000	874,859	765,102	13.97	54,768
2002	197,596.78	117,017	102,067	95,530	14.46	6,607
2003	91,197.97	52,165	45,501	45,697	14.97	3,053
2004	4,022,702.87	2,216,509	1,933,333	2,089,370	15.48	134,972
2006	15,980.22	8,096	7,062	8,918	16.56	539
2007	294,938.32	142,514	124,307	170,631	17.11	9,973
2008	1,128,495.46	517,979	451,803	676,692	17.68	38,274
2009	55,372.86	24,032	20,962	34,411	18.26	1,885
2010	59,634.62	24,343	21,233	38,402	18.85	2,037
2012	120,670.02	42,609	37,165	83,505	20.15	4,144
2013	57,973.54	18,783	16,383	41,591	20.86	1,994
2014	33,877.11	9,970	8,696	25,181	21.58	1,167
2015	11,571,720.19	3,054,934	2,664,642	8,907,078	22.30	399,421
2016	4,135,341.06	963,948	840,796	3,294,545	23.03	143,054
2017	2,481,538.11	500,278	436,364	2,045,174	23.76	86,076
2018	1,101,543.02	186,161	162,377	939,166	24.59	38,193
2019	167,428.01	22,770	19,861	147,567	25.41	5,807
2020	9,842,801.46	1,009,871	880,852	8,961,949	26.24	341,538
2021	2,375,913.56	162,988	142,165	2,233,749	27.15	82,274
2022	14,101,847.05	485,104	423,128	13,678,719	28.07	487,307
2023	930,311.06	8,001	6,979	923,332	28.82	32,038
	78,524,654.41	30,783,750	26,850,889	51,673,765		2,792,661

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.5 3.56

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1995	874,635.54	492,245	501,151	373,485	21.75	17,172
1999	17,293.00	8,550	8,705	8,588	24.54	350
2002	27,056.54	11,875	12,090	14,967	26.85	557
2003	603,123.96	253,312	257,895	345,229	27.62	12,499
2004	48,787.57	19,652	20,007	28,781	28.17	1,022
2016	5,448.80	854	870	4,579	37.64	122
	1,576,345.41	786,488	800,718	775,628		31,722
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.5 2.01

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2017	12,867.84	1,737	4,011	8,857	38.44	230
2018	176,024.64	19,891	45,931	130,094	39.25	3,314
2019	357.89	33	76	281	39.86	7
	189,250.37	21,661	50,018	139,232		3,551
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.2 1.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2003	732.57	608	483	250	4.10	61
2013	4,140,223.53	2,169,477	1,721,812	2,418,412	9.08	266,345
2019	38.03	8	6	32	14.18	2
2020	6,201,677.71	1,025,137	813,604	5,388,074	15.15	355,648
2022	397,382.52	21,936	17,409	379,973	17.12	22,195
	10,740,054.36	3,217,166	2,553,314	8,186,740		644,251
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.7 6.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	7,577.02	6,819	4,403	3,174	2.00	1,587
2008	12,008.00	9,006	5,815	6,193	5.00	1,239
2009	12,846.21	8,992	5,806	7,040	6.00	1,173
2010	44,755.08	29,091	18,784	25,971	7.00	3,710
2011	17,379.55	10,428	6,734	10,646	8.00	1,331
2012	39,909.19	21,950	14,173	25,736	9.00	2,860
2013	4,929.42	2,465	1,592	3,337	10.00	334
2014	23,508.40	10,579	6,831	16,677	11.00	1,516
2015	19,770.58	7,908	5,106	14,665	12.00	1,222
2016	717,221.40	251,027	162,092	555,129	13.00	42,702
2017	200,445.74	60,134	38,829	161,617	14.00	11,544
2018	57,523.48	14,381	9,286	48,237	15.00	3,216
2019	218,312.76	43,663	28,194	190,119	16.00	11,882
2020	417,202.09	62,580	40,409	376,793	17.00	22,164
2021	305,742.77	30,574	19,742	286,001	18.00	15,889
2022	247,326.91	12,366	7,985	239,342	19.00	12,597
2023	204,543.40	2,557	1,651	202,893	19.75	10,273

2,551,002.00      584,520      377,432      2,173,570      145,239

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.0      5.69

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
1995	13,240.08	13,124	13,240			
2001	7,500.00	7,128	7,266	234	1.15	203
2003	25,581.36	23,791	24,250	1,331	1.51	881
2004	6,788.48	6,243	6,363	425	1.66	256
2006	99,532.58	88,833	90,547	8,986	2.05	4,383
2007	154,794.96	135,972	138,595	16,200	2.21	7,330
2008	150,540.49	130,519	133,037	17,503	2.30	7,610
2009	672,138.06	573,065	584,121	88,017	2.42	36,371
2010	253,581.52	210,980	215,051	38,531	2.62	14,706
2011	91,691.79	73,500	74,918	16,774	2.97	5,648
2012	283,568.72	215,853	220,017	63,552	3.45	18,421
2013	590,227.54	419,062	427,147	163,081	4.08	39,971
2014	555,945.44	362,754	369,753	186,192	4.79	38,871
2015	697,815.92	411,991	419,940	277,876	5.55	50,068
2016	185,576.14	97,038	98,910	86,666	6.39	13,563
2017	177,747.52	80,306	81,855	95,893	7.28	13,172
2018	1,449,339.70	548,575	559,159	890,181	8.21	108,426
2019	840,388.91	254,806	259,722	580,667	9.19	63,185
2021	89,577.43	13,580	13,842	75,735	11.19	6,768
2022	869,888.42	65,938	67,210	802,678	12.19	65,847
2023	602,789.08	11,453	11,674	591,115	12.94	45,681
	7,818,254.14	3,744,511	3,816,617	4,001,637		541,361

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.4 6.92



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	6,402.78	1,537	1,330	5,073	19.00	267
2020	100,441.50	12,053	10,426	90,016	22.00	4,092
	106,844.28	13,590	11,756	95,089		4,359
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.8 4.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	5,970.32	5,075	4,596	1,374	3.00	458
2007	7,829.70	6,264	5,673	2,157	4.00	539
2008	5,161.15	3,871	3,506	1,655	5.00	331
2009	28,227.61	19,759	17,895	10,333	6.00	1,722
2010	23,867.97	15,514	14,051	9,817	7.00	1,402
2011	11,907.00	7,144	6,470	5,437	8.00	680
2012	34,047.65	18,726	16,960	17,088	9.00	1,899
2013	19,113.82	9,557	8,655	10,459	10.00	1,046
2014	13,575.00	6,109	5,533	8,042	11.00	731
2015	28,072.98	11,229	10,170	17,903	12.00	1,492
2016	36,897.99	12,914	11,696	25,202	13.00	1,939
2017	210,186.54	63,056	57,108	153,079	14.00	10,934
2018	247,854.50	61,964	56,118	191,736	15.00	12,782
2019	188,452.28	37,690	34,135	154,317	16.00	9,645
2020	225,198.10	33,780	30,593	194,605	17.00	11,447
2021	211,300.01	21,130	19,137	192,163	18.00	10,676
2022	627,893.94	31,395	28,433	599,461	19.00	31,551
2023	360,853.73	4,511	4,085	356,768	19.75	18,064
	2,286,410.29	369,688	334,814	1,951,596		117,338
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.6 5.13

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	63,682.43	55,192	44,316	19,366	2.00	9,683
2011	7,356.65	5,885	4,725	2,632	3.00	877
2012	727.50	533	428	300	4.00	75
2013	4,573.96	3,049	2,448	2,126	5.00	425
2014	8,402.05	5,041	4,048	4,354	6.00	726
2015	18,226.62	9,721	7,806	10,421	7.00	1,489
2017	9,868.23	3,947	3,169	6,699	9.00	744
2018	16,270.55	5,423	4,354	11,917	10.00	1,192
2019	88,575.86	23,621	18,967	69,609	11.00	6,328
2020	15,147.63	3,030	2,433	12,715	12.00	1,060
2021	14,898.86	1,986	1,595	13,304	13.00	1,023
2022	1,022,807.99	68,191	54,754	968,054	14.00	69,147
2023	53,458.61	891	715	52,744	14.75	3,576
	1,323,996.94	186,510	149,758	1,174,239		96,345

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.2 7.28

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
2007	13,810.00	9,104	11,270	2,540	8.27	307
2008	48,270.00	30,410	37,645	10,625	8.81	1,206
2009	246,063.00	147,785	182,947	63,116	9.31	6,779
2010	440,226.19	250,092	309,597	130,629	9.88	13,222
2011	45,902.54	24,567	30,412	15,491	10.42	1,487
2012	282,853.13	141,568	175,251	107,602	10.98	9,800
2013	157,521.76	73,090	90,480	67,042	11.55	5,805
2014	2,683.87	1,145	1,417	1,267	12.10	105
2015	7,815.84	3,026	3,746	4,070	12.66	321
2016	15,995.00	5,542	6,861	9,134	13.20	692
2017	29,847.33	9,062	11,218	18,629	13.76	1,354
2018	44,891.21	11,649	14,421	30,470	14.27	2,135
2020	9,692.97	1,599	1,979	7,714	15.18	508
2021	563,825.38	64,614	79,988	483,837	15.45	31,316
	1,909,398.22	773,253	957,232	952,166		75,037
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.7 3.93

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	2,300.20	1,840	1,749	551	3.00	184
2013	15,352.54	10,235	9,731	5,622	5.00	1,124
2015	1,055,779.23	563,079	535,378	520,401	7.00	74,343
2016	2,645.52	1,235	1,174	1,472	8.00	184
2017	232,168.62	92,867	88,298	143,871	9.00	15,986
2018	92,490.12	30,830	29,313	63,177	10.00	6,318
2019	110,810.89	29,550	28,096	82,715	11.00	7,520
2021	820,669.12	109,420	104,037	716,632	13.00	55,126
2022	435,091.64	29,008	27,582	407,510	14.00	29,108
	2,767,307.88	868,064	825,358	1,941,950		189,893
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.2 6.86

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	99,244.73	39,698	34,008	65,237	9.00	7,249
2018	22,944.61	7,648	6,552	16,393	10.00	1,639
2019	212,822.69	56,753	48,618	164,205	11.00	14,928
2020	1,709,084.63	341,817	292,819	1,416,266	12.00	118,022
2021	391,062.13	52,140	44,666	346,396	13.00	26,646
2022	107,463.52	7,165	6,138	101,326	14.00	7,238
2023	120,295.59	2,005	1,717	118,578	14.75	8,039
	2,662,917.90	507,226	434,518	2,228,400		183,761
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.1 6.90

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## **PART III. EXPERIENCED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2018 TRANSACTION YEAR				
354.20		12,897.00		12,897.00-
354.30	5,732.53	2,859.26		2,859.26-
354.40	202,178.63	2,465.65		2,465.65-
355.00	3,187.39			
360.10		2,819.19		2,819.19-
361.10	229,297.81	26,538.94		26,538.94-
363.00	4,745.21	27,682.42		27,682.42-
371.00	65,154.40	522.61		522.61-
380.00	1,806,025.87	58,050.21		58,050.21-
382.00		1,045.59		1,045.59-
389.10		3,678.20		3,678.20-
390.00	64,677.45	13,128.96		13,128.96-
391.00	423,853.34	42,449.74		42,449.74-
393.00	225,336.27	4,038.83		4,038.83-
394.00	11,316.17			
395.00	8,551.14			
	3,050,056.21	198,176.60		198,176.60-
2019 TRANSACTION YEAR				
354.30	796,005.52	85,934.54		85,934.54-
354.40	1,080,902.70	67,526.93		67,526.93-
360.10	3,403.50	2,367.85		2,367.85-
361.10	6,619.40	1,430,976.01		1,430,976.01-
361.20		90,279.20		90,279.20-
363.00	3,929.16	52,929.84		52,929.84-
364.00	59,781.23			
371.00	185,795.47	66,936.02		66,936.02-
380.00	1,622,269.11	92,448.13		92,448.13-
382.00		3,306.40		3,306.40-
390.00	130,250.08	9,975.61		9,975.61-
391.00	83,792.82	48,014.34		48,014.34-
393.00	7,573.30	28,436.64		28,436.64-
394.00	19,315.01	5,445.26		5,445.26-
395.00	52,412.61	5,217.77		5,217.77-
396.00		39,091.19		39,091.19-
397.00		4,026.89		4,026.89-
	4,052,049.91	2,032,912.62		2,032,912.62-



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
354.20	5,414.90	27,261.65		27,261.65-
354.30	15,012.08			
354.40	5,402.39	3,035.88		3,035.88-
360.10	2,601.63	22,982.08		22,982.08-
361.10	1,935,411.80	1,344,641.10	3,491.13	1,341,149.97-
361.20	855,928.79	81,137.03		81,137.03-
363.00		75,298.32		75,298.32-
364.00		8,901.01		8,901.01-
371.00	208,080.94	24,730.31		24,730.31-
380.00	702,130.50	399,155.43		399,155.43-
390.00	724.38	1,886.85		1,886.85-
391.00	20,099.66			
393.00	68,342.45	7,289.38		7,289.38-
394.00	8,232.73	1,548.07		1,548.07-
395.00		510.16		510.16-
396.00		1,822.13		1,822.13-
397.00		3,318.49		3,318.49-
	3,827,382.25	2,003,517.89	3,491.13	2,000,026.76-
2021 TRANSACTION YEAR				
354.30	1,942.90	7,613.98		7,613.98-
354.40	45,344.71	76,589.11		76,589.11-
360.10	2,808.79	164,970.27		164,970.27-
361.10	1,848,146.44	1,074,276.48		1,074,276.48-
361.20	512,911.70	219,777.95		219,777.95-
363.00	130,642.17	129,688.68		129,688.68-
371.00	60,139.27	51,352.70		51,352.70-
380.00	230,130.31	104,870.48		104,870.48-
390.00		1,482.56		1,482.56-
393.00	33.43	953.49		953.49-
394.00	633.03	1,919.19		1,919.19-
396.00		9,833.75		9,833.75-
397.00		6,698.53		6,698.53-
	2,832,732.75	1,850,027.17		1,850,027.17-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
354.20	128,984.57	30,686.12		30,686.12-
354.30	5,000.83	2,731.90		2,731.90-
354.40	955,038.55	612,785.01		612,785.01-
360.10	6,487.72	232,064.30		232,064.30-
361.10	5,400,909.25	2,044,135.19		2,044,135.19-
361.20	863,890.35	326,964.80		326,964.80-
363.00	108,769.18	108,024.33		108,024.33-
371.00	101,130.80	14,057.96		14,057.96-
380.00	234,196.28	277,412.74		277,412.74-
390.00	99,806.02	12,873.26		12,873.26-
393.00	33,317.01	6,599.32		6,599.32-
394.00	10,743.07	877.73		877.73-
395.00	99,992.04	183.61		183.61-
396.00	17,087.95	1,647.58		1,647.58-
397.00	5,273.39			
	8,070,627.01	3,671,043.85		3,671,043.85-
TOTAL	21,832,848.13	9,755,678.13	3,491.13	9,752,187.00-

**EXHIBIT NO. 11-L - DEPRECIATION STUDY**

**WASTEWATER CSS OPERATIONS**

**AS OF JUNE 30, 2024**

Exhibit No. 11-L  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY  
MECHANICSBURG, PENNSYLVANIA

WASTEWATER CSS OPERATIONS

2024 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

Exhibit No. 11-L  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER CSS OPERATIONS

2024 DEPRECIATION STUDY  
CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2024

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

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[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant. The results of our study as of June 30, 2024 are presented in the attached report. The results of our study as of June 30, 2023 are presented in our report, "2023 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2023." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of June 30, 2024.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, reading "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink, reading "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:mle

075543.100

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## **PART I. INTRODUCTION**

# **PENNSYLVANIA-AMERICAN WATER COMPANY**

## **WASTEWATER CSS OPERATIONS**

### **DEPRECIATION STUDY**

#### **PART I. INTRODUCTION**

##### **SCOPE**

This report sets forth the results of the depreciation study for Pennsylvania-American Water Company to determine the annual depreciation accrual rates and amounts applicable to the original cost of wastewater plant as of June 30, 2024. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to wastewater plant in service as of June 30, 2024.

Part I, Introduction, contains statements with respect to the basis of the study and the development of net original cost. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VI, Service Life Statistics, presents the statistical analysis of service life estimates, Part VII, Detailed Depreciation Calculations, presents the detailed tabulations of annual depreciation and Part VIII, Experienced and Estimated Net Salvage, presents the cost of removal and gross salvage recorded for the period 2019-2023.

## **BASIS OF THE STUDY**

The purpose of the depreciation study was to determine the annual depreciation accruals applicable to the original cost of wastewater plant in service as of June 30, 2024. For most accounts, the straight line remaining life method using attained ages, the book depreciation reserve and estimated survivor curves, was the basis for the calculation of annual depreciation. For certain accounts, the annual and accrued amortization amounts were based on the age of the property and the selected amortization period.

The survivor curve estimates were based on judgment which incorporated (1) analyses of historical data related to wastewater property for all Pennsylvania-American Water Company Wastewater Operations; (2) consideration of the character, use and location of the property; (3) probable future events and management plans; and (4) a general knowledge of wastewater property lives. The use of lowa type survivor curves is a generally-accepted method of estimating average service life when the actual lives of individual property units are dispersed.

## **DEVELOPMENT OF NET ORIGINAL COST**

The original cost data used in this study were obtained from the Company's continuing property records and work order system which show in detail the original cost of the property including descriptions, locations and years of installation of property units. The net original cost was developed from the original cost data by deducting contributions in aid of construction. The development of net original cost by plant account is set forth in Table 1 on page V-4.

---

## **PART II. ESTIMATION OF SURVIVOR CURVES**

## **PART II. ESTIMATION OF SURVIVOR CURVES**

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

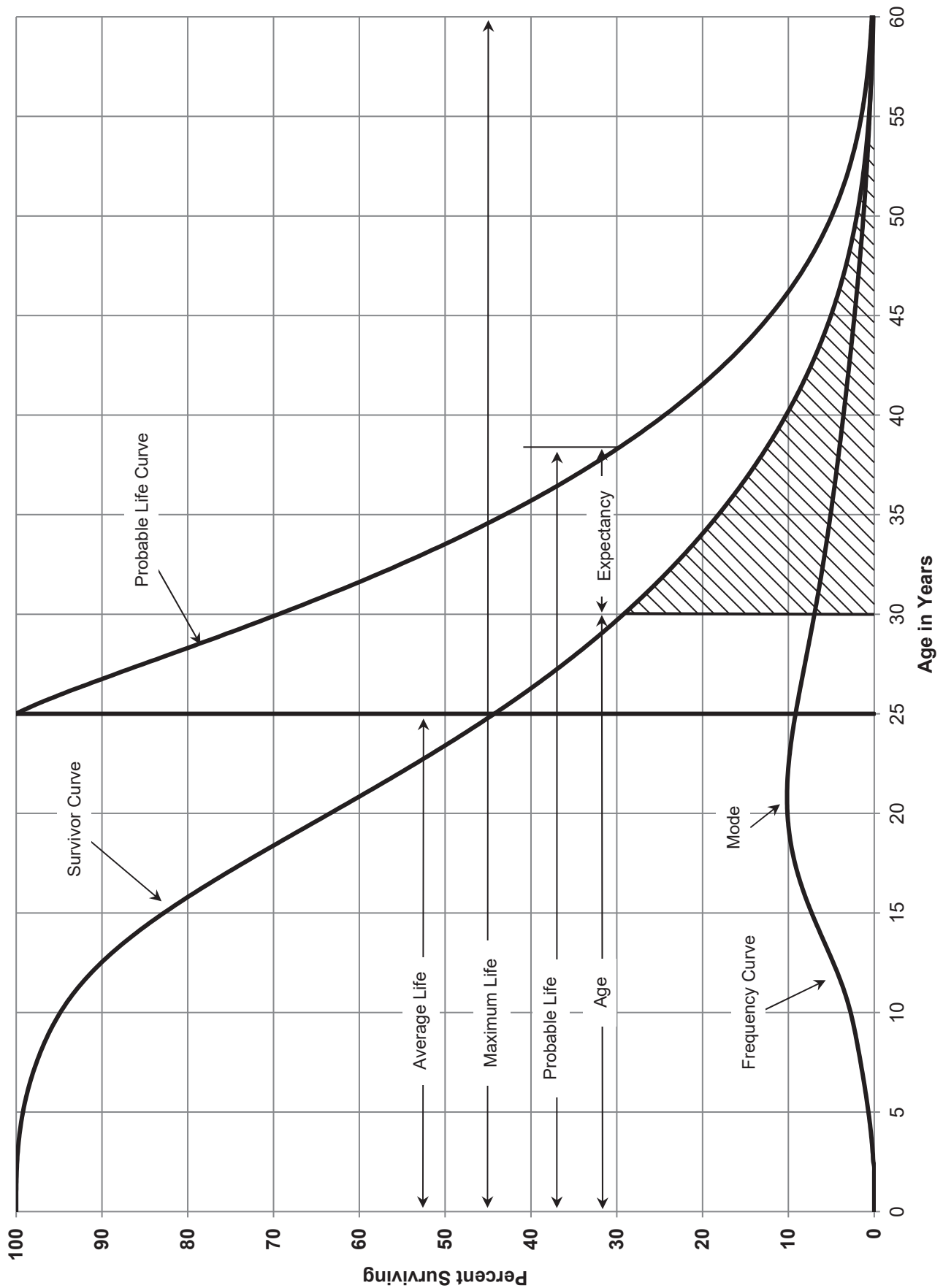
The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

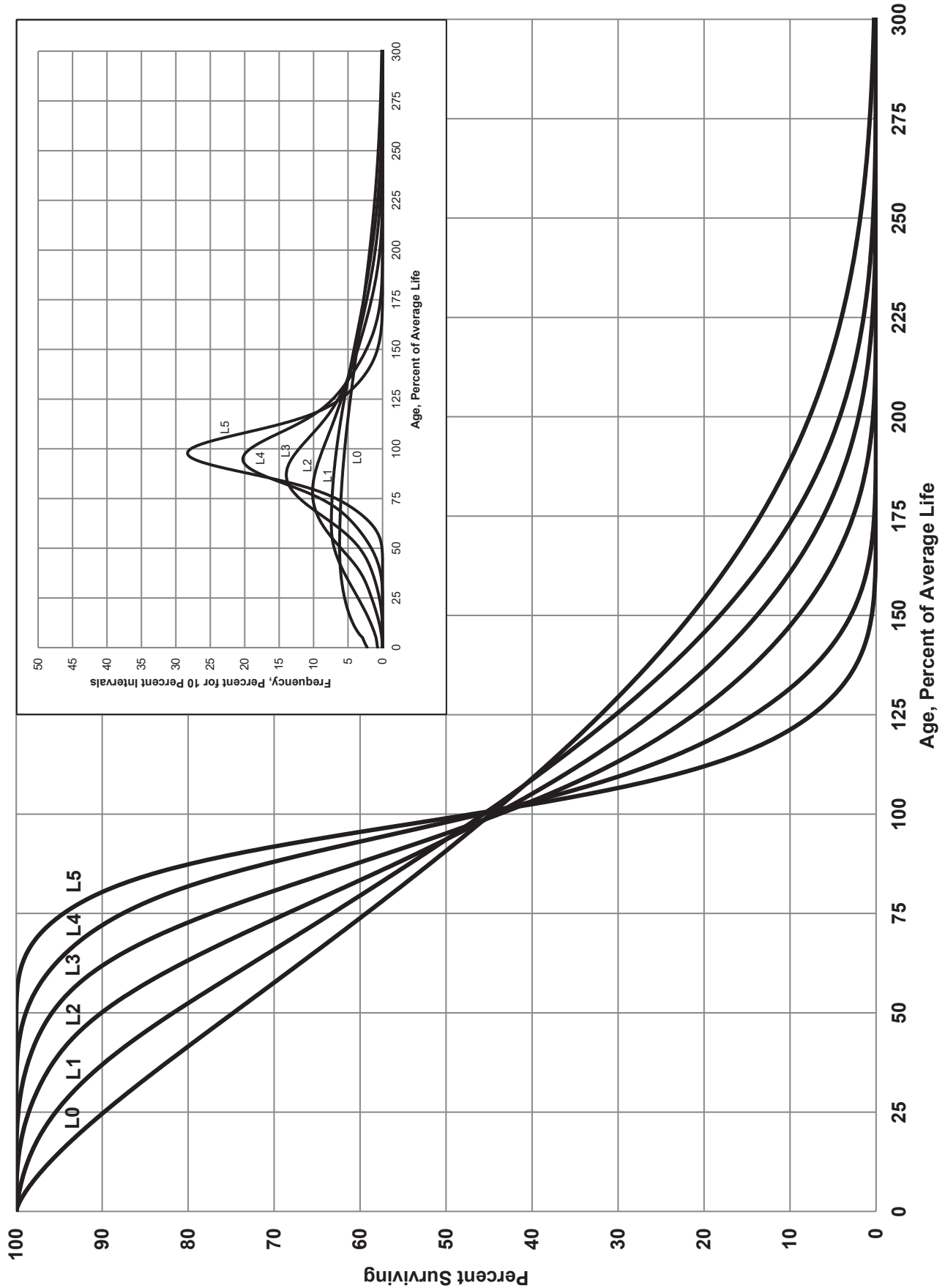
### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.

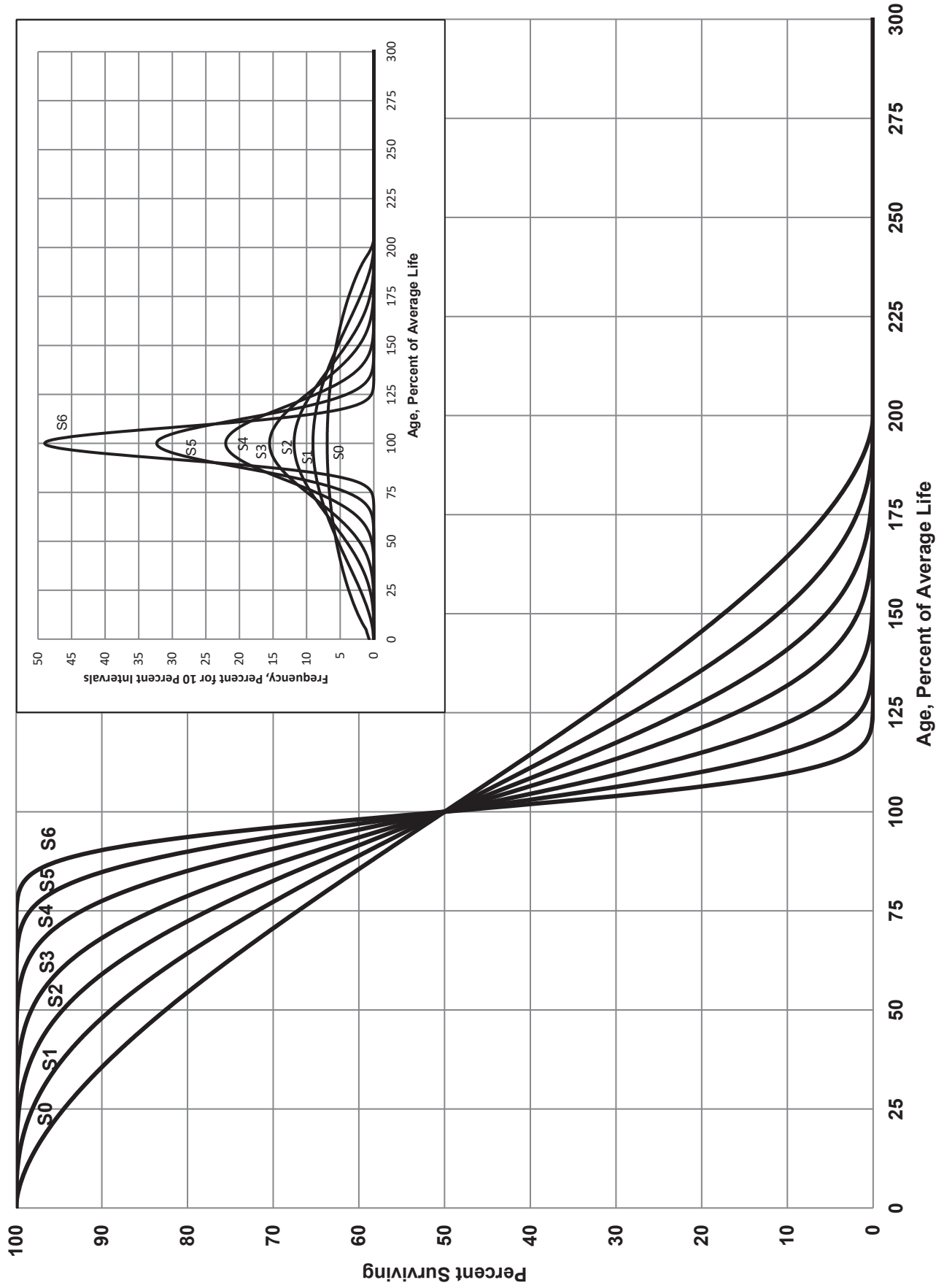


**FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES**

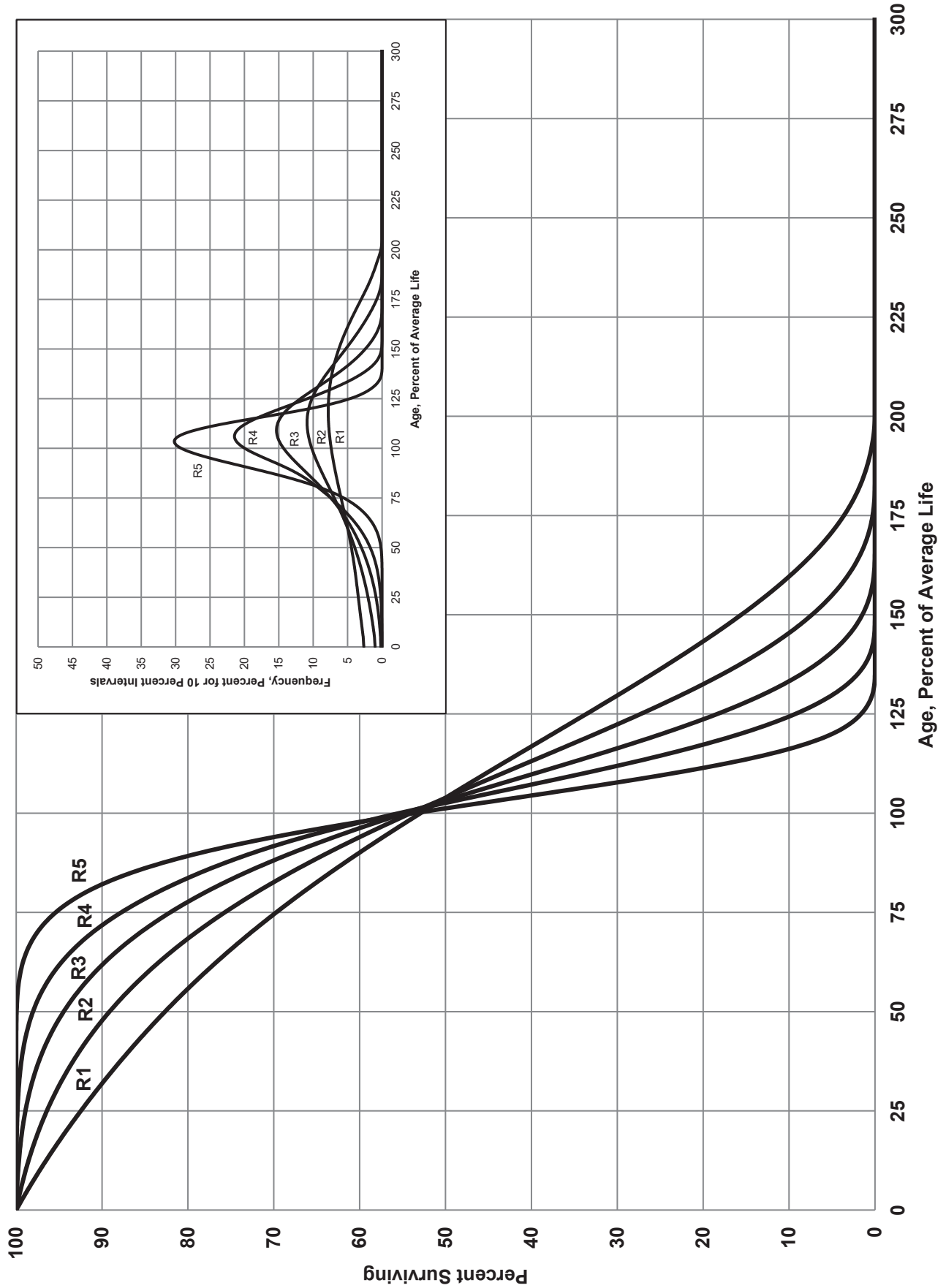


**FIGURE 2.. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES**





**FIGURE 3.. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES**



**FIGURE 4. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES**

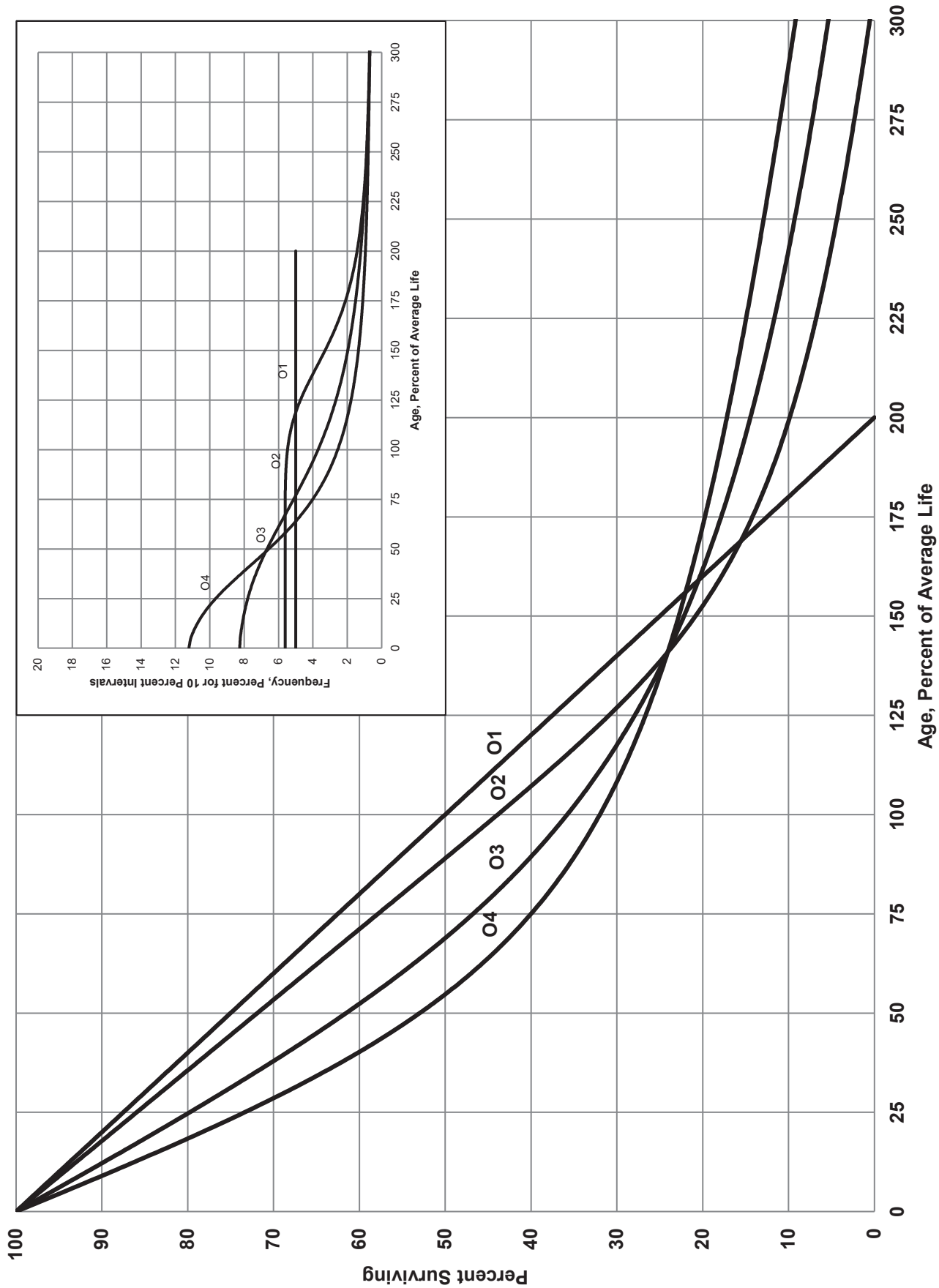


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

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<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

## **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2015-2024 for which there were placements during the years 2010-2024. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2010 were retired in 2015. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2015 retirements of 2010 installations and ending with the 2024 retirements of the 2019 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL

Experience Band 2015-2024 Placement Band 2010-2024

Year	Retirements, Thousands of Dollars													Total During		Age Interval
	During Year													Age Interval	Age Interval	
Placed	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(11)	(12)	(13)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
2010	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½			
2011	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½			
2012	11	12	13	14	16	17	19	21	22	18	64	11½-12½				
2013	8	9	10	11	11	13	14	15	16	17	83	10½-11½				
2014	9	10	11	12	13	14	16	17	19	20	93	9½-10½				
2015	4	9	10	11	12	13	14	15	16	20	105	8½-9½				
2016		5	11	12	13	14	15	16	18	20	113	7½-8½				
2017			6	12	13	15	16	17	19	19	124	6½-7½				
2018				6	13	15	16	17	19	19	131	5½-6½				
2019					13	15	16	17	19	20	143	4½-5½				
2020					7	14	16	17	19	23	146	3½-4½				
2021					8	8	18	20	22	25	150	2½-3½				
2022					9	9	9	11	23	25	151	1½-2½				
2023					11	11	11	11	11	24	153	½-1½				
2024					13	13	13	13	13	13	80	0-½				
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>					

**SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2015-2024  
SUMMARIZED BY AGE INTERVAL**

Experience Band 2015-2024		Placement Band 2010-2024													
		Acquisitions, Transfers and Sales, Thousands of Dollars													
Year Placed	(1)	During Year										Total During Age Interval (12)	Age Interval (13)		
		2015 (2)	2016 (3)	2017 (4)	2018 (5)	2019 (6)	2020 (7)	2021 (8)	2022 (9)	2023 (10)	2024 (11)				
2010	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	-	-	-	13½-14½
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2013	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	-	-	-	60	10½-11½
2014	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	-	-	-	9½-10½
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5½-6½
2019	-	-	-	-	-	-	-	-	-	-	(12) <sup>b</sup>	22 <sup>a</sup>	-	-	4½-5½
2020	-	-	-	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	10	3½-4½
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2022	-	-	-	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	1½-2½
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)				

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

**Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2015 through 2024 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2020 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000



**SCHEDULE 3. PLANT EXPOSED TO RETIREMENT**  
**JANUARY 1 OF EACH YEAR 2015-2024**  
**SUMMARIZED BY AGE INTERVAL**

Year Placed	Exposures, Thousands of Dollars										Total at		Age Interval	Age Interval
	Annual Survivors at the Beginning of the Year										Beginning of			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Age Interval	Age Interval		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
2010	255	245	234	222	209	195	239	216	192	167	167	167	13½-14½	
2011	279	268	256	243	228	212	194	174	153	131	323	323	12½-13½	
2012	307	296	284	271	257	241	224	205	184	162	531	531	11½-12½	
2013	338	330	321	311	300	289	276	262	242	226	823	823	10½-11½	
2014	376	367	357	346	334	321	307	297	280	261	1,097	1,097	9½-10½	
2015	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	1,503	8½-9½	
2016		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	1,952	7½-8½	
2017			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	2,463	6½-7½	
2018				580 <sup>a</sup>	574	561	546	530	501	482	3,057	3,057	5½-6½	
2019					660 <sup>a</sup>	653	639	623	628	609	3,789	3,789	4½-5½	
2020						750 <sup>a</sup>	742	724	685	663	4,332	4,332	3½-4½	
2021							850 <sup>a</sup>	841	821	799	4,955	4,955	2½-3½	
2022								960 <sup>a</sup>	949	926	5,719	5,719	1½-2½	
2023									1,080 <sup>a</sup>	1,069	6,579	6,579	½-1½	
2024										1,220 <sup>a</sup>	7,490	7,490	0-½	
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>44,780</b>	<b>44,780</b>		

<sup>a</sup>Additions during the year

Experience Band 2015-2024

Placement Band 2010-2024

For the entire experience band 2015-2024, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2015-2024

Placement Band 2010-2024

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
Total	<u>44,780</u>	<u>1,606</u>			35.66

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

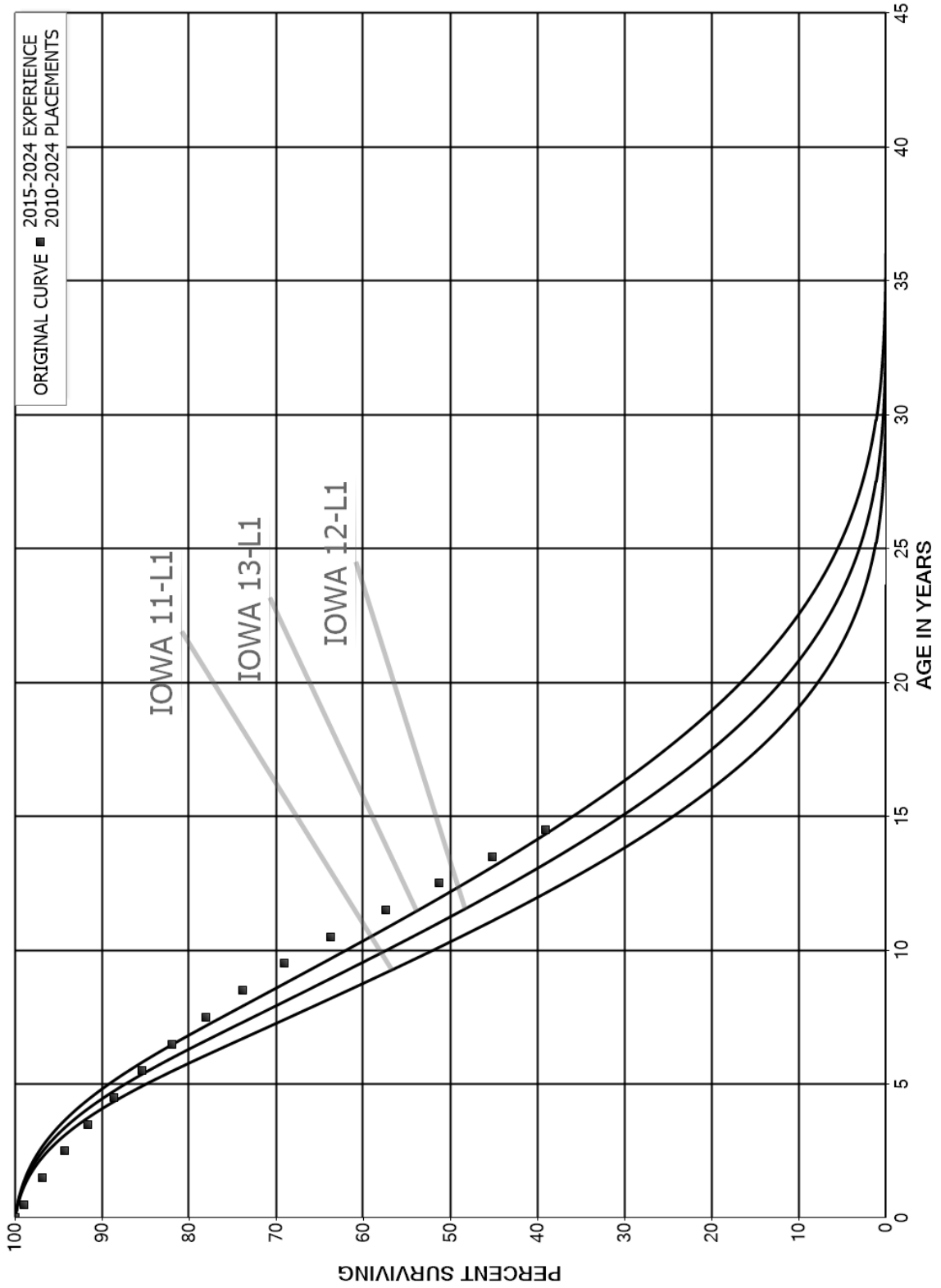


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

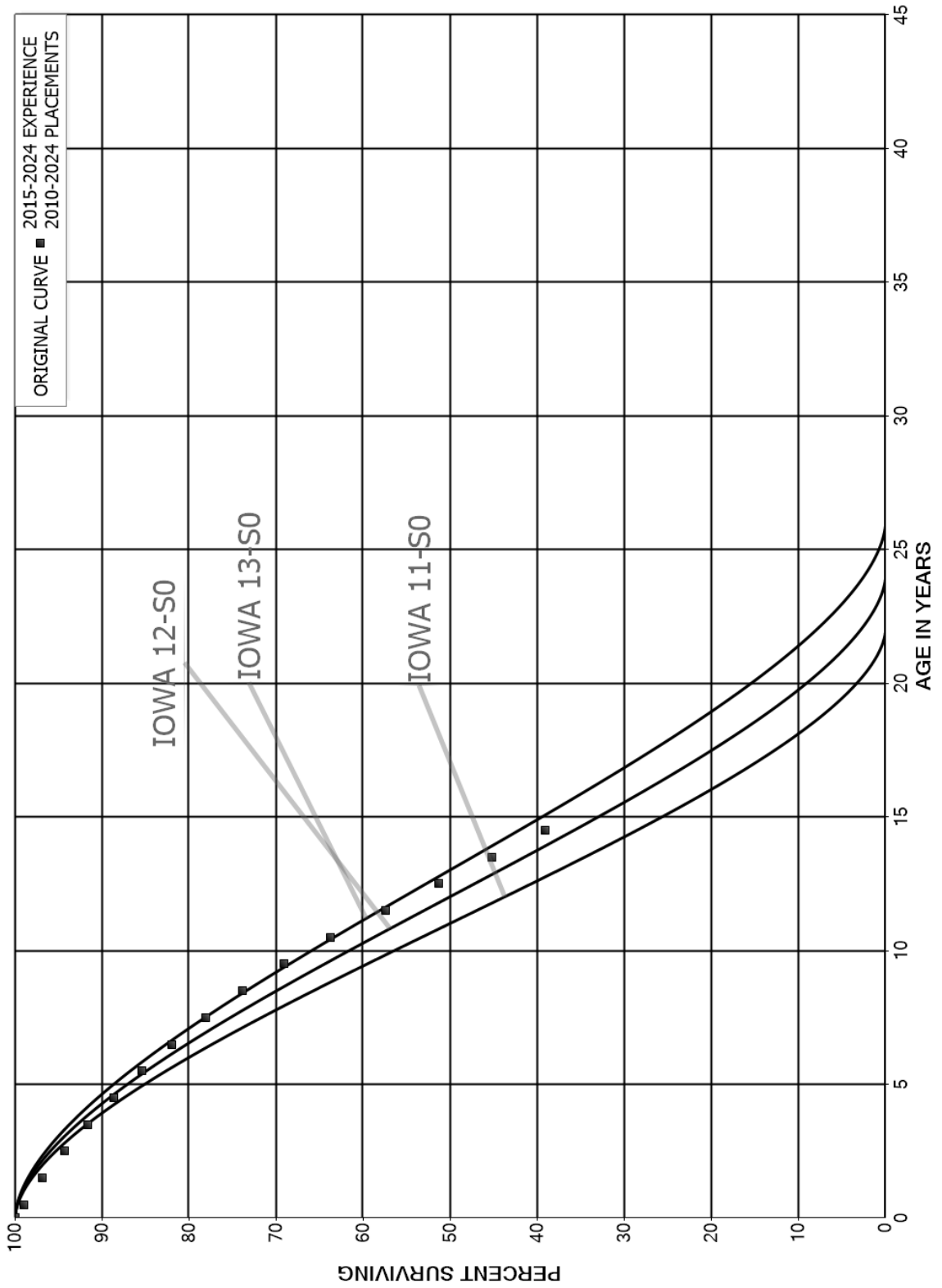


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

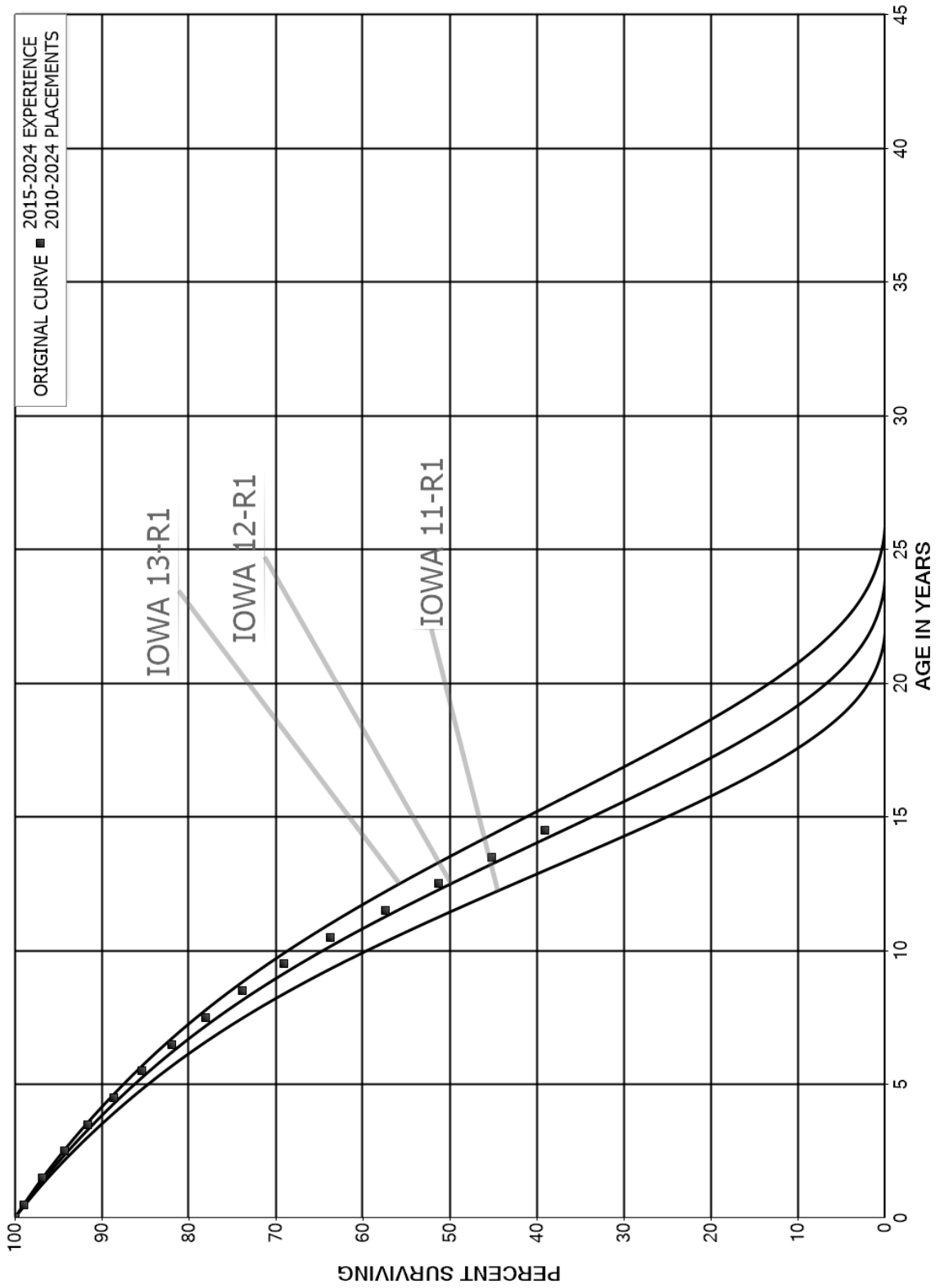
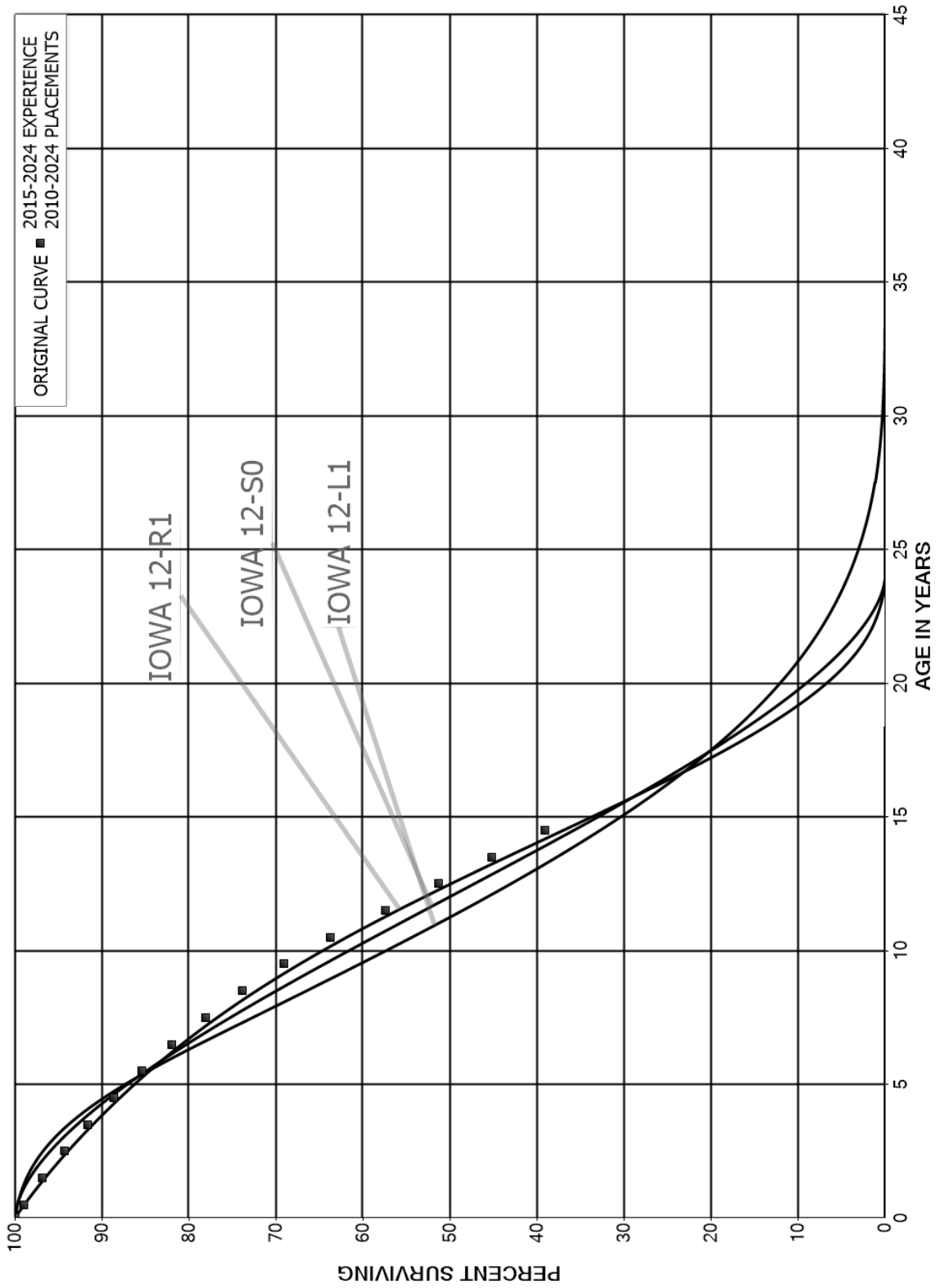


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES





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## **PART III. SERVICE LIFE CONSIDERATIONS**

## PART III. SERVICE LIFE CONSIDERATIONS

### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips have been conducted for the system. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the recent field trips.

#### January 28, 2020

McKeesport Wastewater Treatment Plant  
West Shore Pump Station  
28<sup>th</sup> Street Pump Station  
Long Run Pump Station  
Dravosburg Wastewater Treatment Plant  
Duquesne Wastewater Treatment Plant

#### March 27, 2017

Keyser Valley Pump Station  
Parrott Avenue Pump Station  
Scranton Wastewater Treatment Facility

**Judgments**. The survivor curve estimates were based on judgment which considered factors including statistical analyses of retirements, Company policies and outlook as determined during discussions with management, and survivor curve estimates from previous studies of other Pennsylvania-American wastewater systems. For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group.

The amortization periods selected for general plant Accounts 390.00, 392.00, 393.00, 394.00, 396.00 and 397.00 are discussed in the section, "Amortization of General Plant Accounts."

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**PART IV. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**

## **PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION**

### **BOOK RESERVE**

The book reserve as of June 30, 2023, is the result of a bringforward of the book reserves established by the Commission for the CSS wastewater operations. The projected book reserve as of June 30, 2024, is a bringforward of the June 30, 2023 book reserve based on projected accruals, retirements, cost of removal, gross salvage and other credits.

### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

### **Single Unit of Property**

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left( 1 - \frac{6}{10} \right) = \$400.$$

### **Remaining Life Annual Accruals**

For the purpose of calculating remaining life accruals as of June 30, 2024, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of June 30, 2024, are set forth in the Results of Study section of the report.

### **Equal Life Group Procedure**

In the equal life group procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the composite remaining life for the surviving original cost of that vintage. The composite remaining life is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left( \frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}}.$$

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accruals}}$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc. Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

The annual accrual rate for each account is equal to the sum of the remaining life annual accruals for all vintages divided by the account's total original cost. The account's "composite remaining life" is calculated by dividing the sum of the future book accruals for all vintages by the sum of the remaining life annual accruals for all vintages.

The calculated accrued depreciation in the equal life group procedure also represents that portion of depreciable cost which will not be allocated to expense through future accruals. However, the calculation is based at the equal life group level rather than the vintage group level and does not require the use of averages. The equal life group accrued depreciation ratio is calculated as follows:

$$\text{Ratio} = 1 - \left( \frac{\text{Remaining Life}}{\text{Service Life}} \right)$$

Inasmuch as service life minus remaining life equals age, when averages are not employed, the foregoing equation reduces to:

$$\text{Ratio} = \left( \frac{\text{Age}}{\text{Service Life}} \right)$$

## **AMORTIZATION OF GENERAL PLANT ACCOUNTS**

In order to use a more efficient and cost effective accounting process for equipment recorded in general plant Accounts 390, 392, 393, 394, 396 and 397; amounts capitalized in these accounts are amortized rather than depreciated. Amortization as defined in the Uniform System of Accounts is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

The primary reasons for the amortization of certain general plant accounts are that the effort required to unitize additions, periodically inventory equipment and determine amounts to be retired for equipment recorded in these accounts is disproportionate to the original cost of the equipment when compared to other wastewater plant accounts.

Accounting for such equipment using an amortization concept consists of capitalization of amounts to these accounts based on the same criteria as used previously under depreciation accounting, amortization of the asset over a fixed period, retirement of the equipment at the end of the amortization period and recognition of any net salvage related to disposition of equipment in these accounts as a gain or loss. For equipment in these accounts that was placed in service prior to implementation of amortization accounting, the net book value by vintage amortized over the remaining amortization period specified for each account and the original cost will be retired at the end of this period.

The amortization periods selected for each account or subaccount are based on a review of the existing depreciation rates for the accounts, typical service lives used for



each type of equipment and a consideration of the period during which it is anticipated that most of the benefit of the equipment will be realized. The amortization periods are as follows:

<u>Account Number</u>	<u>Description</u>	<u>Amortization Period, Years</u>
390.00	Office Furniture and Equipment	20
392.00	Stores Equipment	25
393.00	Tools, Shop and Garage Equipment	20
394.00	Laboratory Equipment	15
396.00	Communication Equipment	15
397.00	Miscellaneous Equipment	15

#### **NET SALVAGE**

Experienced net salvage is incorporated in the results of the study as it was reported on the Company's books and records for the period January 1, 2019 through June 30, 2023, and estimated for the period July 1, 2023 through December 31, 2023. The calculation of the amortization is shown in Table 5 on page V-8. The amounts of gross salvage and removal cost by account for each year are set forth in the section beginning on page VIII-2.

Net salvage is presented in this manner to determine the amount of net salvage to be amortized to the cost of service for ratemaking purposes. In order to be consistent with this manner of recognizing net salvage, no adjustments for net salvage were made to the annual depreciation calculated for the individual accounts.

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## **PART V. RESULTS OF STUDY**

## **PART V. RESULTS OF STUDY**

### **DESCRIPTION OF SUMMARY TABULATIONS**

Table 1 presents the development of the net original cost used in the study. The results of the depreciation study are summarized in Table 2 which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 3 presents the bringforward to June 30, 2024 of the book reserve as of June 30, 2023. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months ended June 30, 2024. Table 5 presents the amortization of experienced and estimated net salvage, by account, based on the five-year period, 2019-2023. The total amortization amount is incorporated in the total annual accrual in Table 2.

### **DESCRIPTION OF DETAILED TABULATIONS**

Supporting statistical data for the estimates of average service lives and survivor curves, the annual depreciation calculations, and gross salvage and cost of removal for the years 2019-2023 are presented in three sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3. The tabulations of experienced and estimated net salvage, by year and account for the five-year period 2019-2023, are presented in the section beginning on page VIII-2.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to net original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

Detailed tabulations setting forth the cost of removal, gross salvage and net salvage amounts, by account and year, are presented in the third section. The net salvage amounts, by account and year, are carried forward to Table 5, which presents the five-year amortization of net salvage.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2024 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2024 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	9,058,844.25				9,058,844.25
354.30 STRUCTURES AND IMPROVEMENTS - SPP	21,022,488.72				21,022,488.72
354.40 STRUCTURES AND IMPROVEMENTS - TDP	139,603,395.31		2,500,000.00		137,103,395.31
355.00 POWER GENERATING EQUIPMENT	1,059,130.23				1,059,130.23
360.10 COLLECTION SEWERS - FORCE MAINS	21,610,655.58		8,245,749.11		21,610,655.58
361.10 COLLECTION SEWERS - GRAVITY MAINS	419,099,952.24				410,854,203.13
361.20 MANHOLES	46,559,179.99				46,559,179.99
363.00 SERVICES	16,884,333.81		1,133,516.15		15,750,817.66
364.00 FLOW MEASURING DEVICES	2,099,193.73				2,099,193.73
371.00 PUMPING EQUIPMENT	17,227,545.48				17,227,545.48
380.00 TREATMENT EQUIPMENT	82,645,469.17				82,645,469.17
381.00 PLANT SEWERS	1,576,345.41				1,576,345.41
382.00 OUTFALL SEWER LINES	189,250.37				189,250.37
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	10,740,054.36				10,740,054.36
390.00 OFFICE FURNITURE AND EQUIPMENT	2,949,393.85				2,949,393.85
391.00 TRANSPORTATION EQUIPMENT	8,309,341.23				8,309,341.23
392.00 STORES EQUIPMENT	106,844.28				106,844.28
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	3,085,746.41				3,085,746.41
394.00 LABORATORY EQUIPMENT	1,364,898.43				1,364,898.43
395.00 POWER OPERATED EQUIPMENT	1,909,398.22				1,909,398.22
396.00 COMMUNICATION EQUIPMENT	2,856,535.48				2,856,535.48
397.00 MISCELLANEOUS EQUIPMENT	2,939,335.21				2,939,335.21
<b>TOTAL DEPRECIABLE PLANT</b>	<b>812,897,331.76</b>	<b>0.00</b>	<b>11,879,265.26</b>	<b>0.00</b>	<b>801,018,066.50</b>
<b>NONDEPRECIABLE PLANT</b>					
353.20 LAND AND LAND RIGHTS - COLLECTION	3,161,743.45				3,161,743.45
353.30 LAND AND LAND RIGHTS - SPP	1,153,570.00				1,153,570.00
353.40 LAND AND LAND RIGHTS - TDP	148,041.59				148,041.59
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>4,463,355.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4,463,355.04</b>
<b>TOTAL UTILITY PLANT</b>	<b>817,360,686.80</b>	<b>0.00</b>	<b>11,879,265.26</b>	<b>0.00</b>	<b>805,481,421.54</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2024

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF JUNE 30, 2024 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL		COMPOSITE REMAINING LIFE (8)
					ACCRUAL AMOUNT (6)	ACCURUAL RATE (7)=(6)/(3)	
<b>DEPRECIABLE PLANT</b>							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	9,058,844.25	678,726	8,380,118	233,637	2.58	35.9
354.30	STRUCTURES AND IMPROVEMENTS - SPP	21,022,488.72	7,754,269	13,268,220	423,726	2.02	31.3
354.40	STRUCTURES AND IMPROVEMENTS - TDP	137,103,395.31	53,649,066	83,454,329	2,740,423	2.00	30.5
355.00	POWER GENERATING EQUIPMENT	1,059,130.23	315,200	743,930	36,432	3.44	20.4
360.10	COLLECTION SEWERS - FORCE MAINS	21,610,655.58	336,740	21,273,916	341,092	1.58	62.4
361.10	COLLECTION SEWERS - GRAVITY MAINS	410,854,203.13	150,264,489	260,589,714	5,751,228	1.40	45.3
361.20	MANHOLES	46,559,179.99	20,545,147	26,014,033	1,089,740	2.34	23.9
363.00	SERVICES	15,750,817.66	5,504,611	10,246,207	418,919	2.66	24.5
364.00	FLOW MEASURING DEVICES	2,099,193.73	912,915	1,186,279	188,993	8.05	7.0
371.00	PUMPING EQUIPMENT	17,227,545.48	4,868,761	12,358,784	703,162	4.08	17.6
380.00	TREATMENT EQUIPMENT	82,645,469.17	29,306,935	53,338,534	2,823,974	3.42	18.9
381.00	PLANT SEWERS	1,576,345.41	832,403	743,942	31,193	1.98	23.8
382.00	OUTFALL SEWER LINES	189,250.37	54,342	134,908	3,514	1.86	38.4
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT	10,740,054.36	3,198,085	7,541,969	633,351	5.90	11.9
390.00	OFFICE FURNITURE AND EQUIPMENT	2,949,393.85	541,121	2,408,273	163,948	5.56	14.7
391.00	TRANSPORTATION EQUIPMENT	8,309,341.23	4,318,769	3,990,572	542,354	6.53	7.4
392.00	STORES EQUIPMENT	106,844.28	16,115	90,729	4,359	4.08	20.8
393.00	TOOLS SHOP AND GARAGE EQUIPMENT	3,085,746.41	482,262	2,603,484	154,945	5.02	16.8
394.00	LABORATORY EQUIPMENT	1,364,898.43	250,520	1,114,378	98,195	7.19	11.3
395.00	POWER OPERATED EQUIPMENT	1,909,398.22	1,033,646	875,752	71,505	3.74	12.2
396.00	COMMUNICATION EQUIPMENT	2,856,535.48	1,028,735	1,827,800	194,017	6.79	9.4
397.00	MISCELLANEOUS EQUIPMENT	2,939,335.21	630,605	2,308,730	201,227	6.85	11.5
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>801,018,066.50</b>	<b>286,523,462</b>	<b>514,494,601</b>	<b>16,829,934</b>	<b>2.10</b>	
<b>NONDEPRECIABLE PLANT</b>							
353.20	LAND AND LAND RIGHTS - COLLECTION	3,161,743.45					
353.30	LAND AND LAND RIGHTS - SPP	1,153,570.00					
353.40	LAND AND LAND RIGHTS - TDP	148,041.59					
	<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>4,463,355.04</b>					
<b>AMORTIZATION OF NET SALVAGE</b>							
	<b>TOTAL UTILITY PLANT</b>	<b>805,481,421.54</b>	<b>286,523,462</b>	<b>514,494,601</b>	<b>2,380,927</b>		
					<b>19,210,961</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2024, OF BOOK RESERVE AS OF JUNE 30, 2023

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2023 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2024 (8)
354.20	573,427		240,877		88,613		46,965						678,726
354.30	7,304,734		454,527		4,457		535						7,754,269
354.40	52,990,817		2,638,205		1,488,689		491,267						53,649,066
355.00	296,907		33,761		15,468								315,200
360.10	567,264		370,191		1,470,140		735,070				1,604,495		336,740
361.10	150,631,841		6,670,348		3,333,254		2,099,950				(1,604,495)		150,264,489
361.20	20,528,009		1,227,910		917,252		293,521						20,545,147
363.00	5,815,433		454,937		295,660		470,099						5,504,611
364.00	728,505		184,410										912,915
371.00	4,539,008		681,577		281,460		70,365						4,868,761
380.00	26,850,889		3,060,829		503,986		100,797						29,306,935
381.00	800,718		31,685										832,403
382.00	50,018		4,324										54,342
389.10	2,553,314		644,771										3,198,085
390.00	377,432		163,689										541,121
391.00	3,816,617		572,423		60,061		10,210						4,318,769
392.00	11,756		4,359										16,115
393.00	334,814		147,448										482,262
394.00	149,758		100,762										250,520
395.00	957,232		76,414										1,033,646
396.00	825,358		203,377										1,028,735
397.00	434,518		196,087										630,605
TOTAL	<b>281,138,370</b>		<b>18,162,911</b>		<b>8,459,041</b>		<b>4,318,779</b>		<b>0</b>		<b>0</b>		<b>286,523,462</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2024

ACCOUNT (1)	NET ORIGINAL COST AS OF 6/30/2023 (2)	NET ORIGINAL COST AS OF 6/30/2024 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)=[(2)+(3)]/2*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	8,334,302.21	9,058,844.25	2.57	223,502	17,375	240,877
354.30	20,986,044.46	21,022,488.72	2.07	434,788	19,739	454,527
354.40	123,362,935.68	137,103,395.31	1.89	2,461,407	176,798	2,638,205
355.00	932,654.26	1,059,130.23	3.39	33,761		33,761
360.10	9,576,689.00	21,610,655.58	1.57	244,821	125,370	370,191
361.10	383,434,650.13	410,854,203.13	1.36	5,401,164	1,269,184	6,670,348
361.20	38,889,415.73	46,559,179.99	2.47	1,055,290	172,620	1,227,910
363.00	13,121,252.98	15,750,817.66	2.42	349,352	105,585	454,937
364.00	2,099,193.73	2,099,193.73	8.70	182,630	1,780	184,410
371.00	14,926,204.71	17,227,545.48	4.02	646,290	35,287	681,577
380.00	78,524,654.41	82,645,469.17	3.56	2,868,828	192,001	3,060,829
381.00	1,576,345.41	1,576,345.41	2.01	31,685		31,685
382.00	189,250.37	189,250.37	1.88	3,558	766	4,324
389.10	10,740,054.36	10,740,054.36	6.00	644,403	368	644,771
390.00	2,551,002.00	2,949,393.85	5.69	156,486	7,203	163,689
391.00	7,818,254.14	8,309,341.23	6.92	558,015	14,408	572,423
392.00	106,844.28	106,844.28	4.08	4,359		4,359
393.00	2,286,410.29	3,085,746.41	5.13	137,796	9,652	147,448
394.00	1,323,996.94	1,364,898.43	7.28	97,876	2,886	100,762
395.00	1,909,398.22	1,909,398.22	3.93	75,039	1,375	76,414
396.00	2,767,307.88	2,856,535.48	6.86	192,898	10,479	203,377
397.00	2,662,917.90	2,939,335.21	6.90	193,278	2,809	196,087
<b>TOTAL</b>	<b>728,119,779.09</b>	<b>801,018,066.50</b>		<b>15,997,226</b>	<b>2,165,685</b>	<b>18,162,911</b>



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

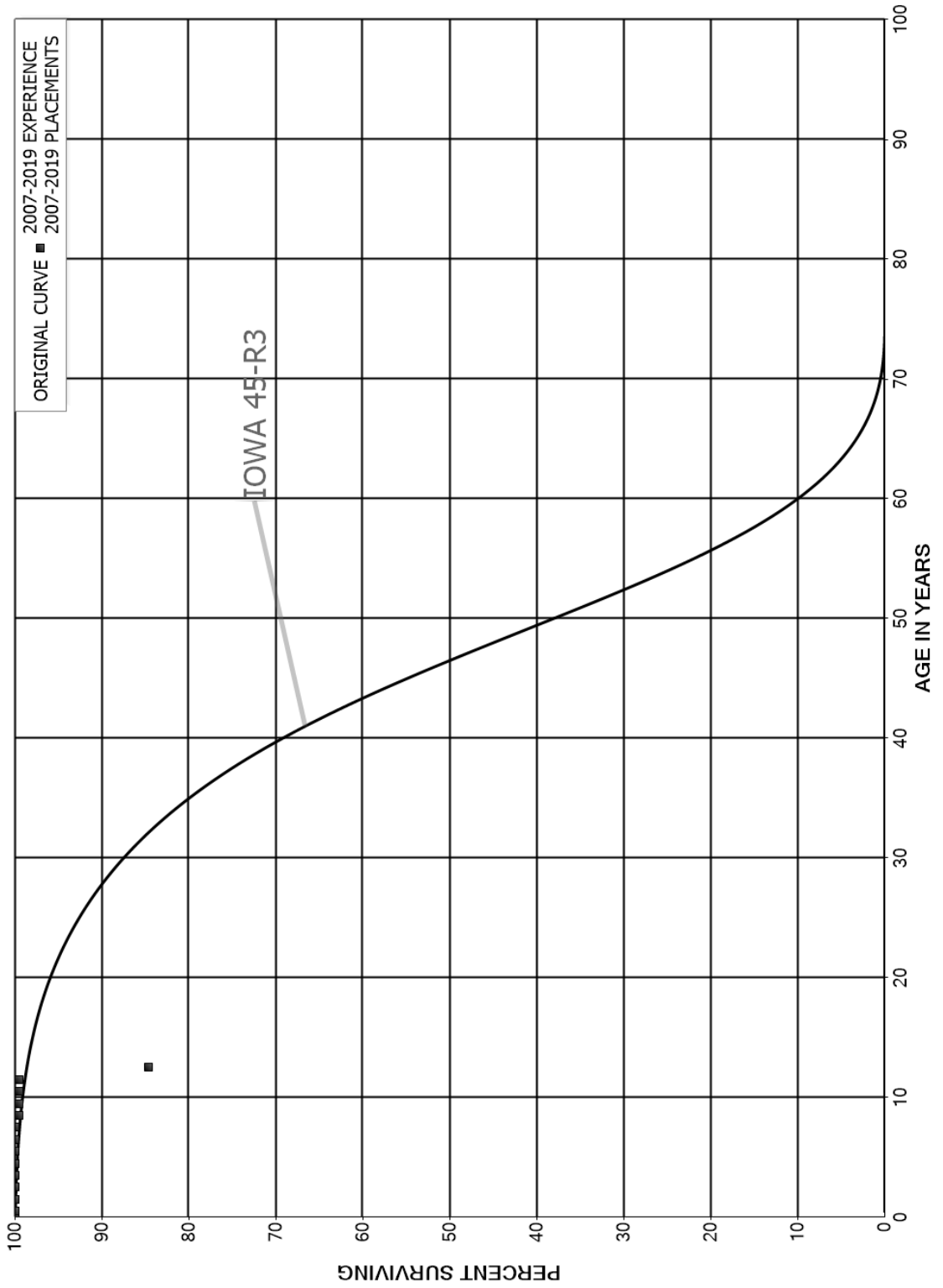
ACCOUNT (1)	2019		2020		2021		2022		PROJECTED 2023		NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
354.20				27,261.65		0.00	30,686.12			44,958.24	(102,906.01)	(20,581)
354.30		85,934.54				7,613.98	2,731.90			1,968.74	(98,249.16)	(19,650)
354.40		67,526.93				76,589.11	612,765.01			245,634.00	(1,005,570.93)	(201,114)
360.10		2,367.85				164,970.27	232,064.30			406,108.42	(828,492.92)	(165,689)
361.10		1,430,976.01		1,344,641.10		1,074,276.48	2,044,135.19		4,370.75	888,597.83	(6,774,764.73)	(1,354,953)
361.20		90,279.20		81,137.03		219,777.95	326,964.80			289,877.22	(1,008,036.20)	(201,607)
363.00		52,929.84		75,298.32		129,688.68	108,024.33			296,281.28	(662,222.45)	(132,444)
364.00				8,901.01							(8,901.01)	(1,780)
371.00		66,936.02		24,730.31		51,352.70	14,057.96			38,191.07	(195,268.06)	(39,054)
380.00		92,448.13		399,155.43		104,870.48	277,412.74			114,189.97	(988,076.75)	(197,615)
382.00		3,306.40									(3,306.40)	(661)
390.00		9,975.61		1,886.85		1,482.56	12,873.26			6,466.02	(32,684.30)	(6,537)
391.00		48,014.34									(53,613.07)	(10,723)
393.00		28,436.64		7,289.38		963.49	6,599.32			5,920.63	(49,199.46)	(9,840)
394.00		5,445.26		1,548.07		1,919.19	877.73			9,280.42	(19,070.67)	(3,814)
395.00		5,217.77		510.16			163.61			1,922.08	(7,833.62)	(1,567)
396.00		39,091.19		1,822.13		9,833.75	1,647.58				(52,394.65)	(10,479)
397.00		4,026.89		3,318.49		6,688.53					(14,043.91)	(2,809)
<b>TOTAL</b>	<b>0.00</b>	<b>2,032,912.62</b>	<b>3,491.13</b>	<b>2,003,517.89</b>	<b>0.00</b>	<b>1,850,027.17</b>	<b>3,671,043.85</b>	<b>0.00</b>	<b>4,370.75</b>	<b>2,354,994.65</b>	<b>(11,904,634.30)</b>	<b>(2,380,927)</b>

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART VI. SERVICE LIFE STATISTICS**

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



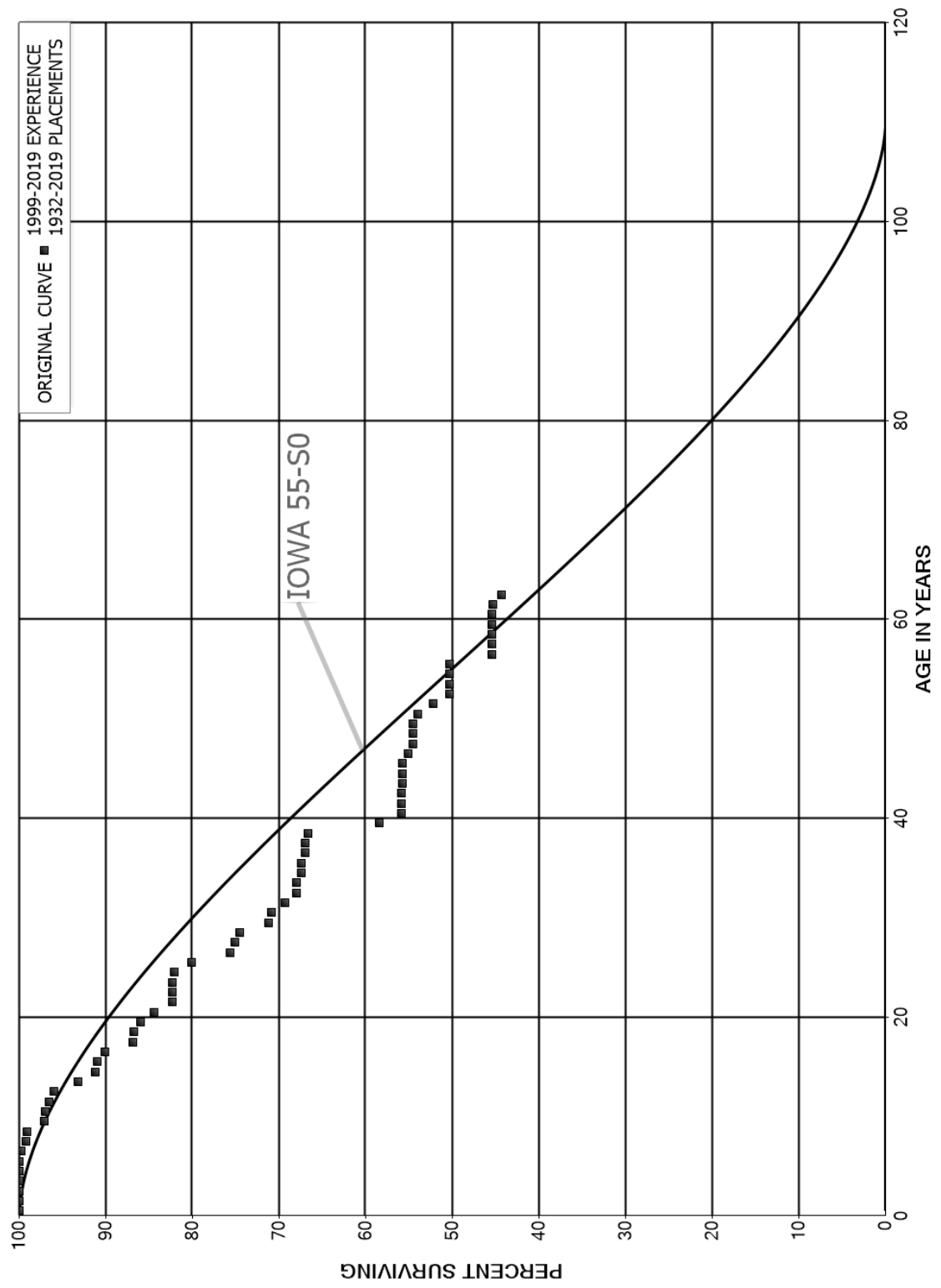
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,844,636		0.0000	1.0000	100.00
0.5	3,478,774		0.0000	1.0000	100.00
1.5	1,864,154		0.0000	1.0000	100.00
2.5	516,452	0	0.0000	1.0000	100.00
3.5	479,797		0.0000	1.0000	100.00
4.5	437,900	416	0.0010	0.9990	100.00
5.5	422,717		0.0000	1.0000	99.90
6.5	321,516		0.0000	1.0000	99.90
7.5	321,516	1,408	0.0044	0.9956	99.90
8.5	311,522		0.0000	1.0000	99.47
9.5	311,522		0.0000	1.0000	99.47
10.5	134,415		0.0000	1.0000	99.47
11.5	20,659	3,076	0.1489	0.8511	99.47
12.5					84.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE

PLACEMENT BAND 1932-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	70,500,767		0.0000	1.0000	100.00
0.5	76,131,665		0.0000	1.0000	100.00
1.5	80,233,751	6,642	0.0001	0.9999	100.00
2.5	105,447,960		0.0000	1.0000	99.99
3.5	85,605,007	28,836	0.0003	0.9997	99.99
4.5	79,002,174	4,425	0.0001	0.9999	99.96
5.5	46,624,214	105,422	0.0023	0.9977	99.95
6.5	51,444,895	277,564	0.0054	0.9946	99.73
7.5	50,906,335	75,090	0.0015	0.9985	99.19
8.5	50,793,050	1,027,715	0.0202	0.9798	99.04
9.5	34,780,266	28,544	0.0008	0.9992	97.04
10.5	15,695,508	65,025	0.0041	0.9959	96.96
11.5	15,618,899	88,716	0.0057	0.9943	96.56
12.5	20,002,643	601,564	0.0301	0.9699	96.01
13.5	17,169,269	353,428	0.0206	0.9794	93.12
14.5	16,203,968	41,247	0.0025	0.9975	91.20
15.5	16,204,082	163,309	0.0101	0.9899	90.97
16.5	13,585,539	481,677	0.0355	0.9645	90.06
17.5	12,995,837	17,548	0.0014	0.9986	86.86
18.5	12,210,208	114,143	0.0093	0.9907	86.74
19.5	7,393,964	134,551	0.0182	0.9818	85.93
20.5	6,513,761	157,405	0.0242	0.9758	84.37
21.5	6,711,244	2,801	0.0004	0.9996	82.33
22.5	7,374,817	1,543	0.0002	0.9998	82.30
23.5	6,783,698	15,823	0.0023	0.9977	82.28
24.5	6,921,413	166,617	0.0241	0.9759	82.09
25.5	6,763,696	380,532	0.0563	0.9437	80.11
26.5	5,899,041	38,147	0.0065	0.9935	75.60
27.5	4,281,769	34,820	0.0081	0.9919	75.12
28.5	3,967,252	175,318	0.0442	0.9558	74.50
29.5	4,051,668	21,732	0.0054	0.9946	71.21
30.5	5,300,696	114,682	0.0216	0.9784	70.83
31.5	4,027,463	76,382	0.0190	0.9810	69.30
32.5	2,813,504	2,190	0.0008	0.9992	67.98
33.5	2,649,698	20,846	0.0079	0.9921	67.93
34.5	1,122,954		0.0000	1.0000	67.40
35.5	398,615	2,457	0.0062	0.9938	67.40
36.5	369,394		0.0000	1.0000	66.98
37.5	339,885	1,942	0.0057	0.9943	66.98
38.5	249,055	30,753	0.1235	0.8765	66.60

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	877,505	37,754	0.0430	0.9570	58.37
40.5	1,351,121		0.0000	1.0000	55.86
41.5	19,298,436	4,893	0.0003	0.9997	55.86
42.5	19,293,543	30,808	0.0016	0.9984	55.85
43.5	32,745,779		0.0000	1.0000	55.76
44.5	14,343,608	10,968	0.0008	0.9992	55.76
45.5	14,332,640	153,806	0.0107	0.9893	55.72
46.5	14,199,715	156,087	0.0110	0.9890	55.12
47.5	552,598		0.0000	1.0000	54.51
48.5	1,223,925		0.0000	1.0000	54.51
49.5	1,265,936	12,500	0.0099	0.9901	54.51
50.5	1,284,936	43,517	0.0339	0.9661	53.98
51.5	570,093	20,853	0.0366	0.9634	52.15
52.5	524,823		0.0000	1.0000	50.24
53.5	524,823		0.0000	1.0000	50.24
54.5	447,474		0.0000	1.0000	50.24
55.5	447,474	42,843	0.0957	0.9043	50.24
56.5	13,313,486	1,903	0.0001	0.9999	45.43
57.5	13,311,583		0.0000	1.0000	45.42
58.5	13,049,341	13	0.0000	1.0000	45.42
59.5	140,486		0.0000	1.0000	45.42
60.5	140,486	363	0.0026	0.9974	45.42
61.5	140,123	3,040	0.0217	0.9783	45.31
62.5					44.32
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	39,928		0.0000		
69.5	39,928		0.0000		
70.5	39,928		0.0000		
71.5	39,928		0.0000		
72.5	40,428		0.0000		
73.5	39,928		0.0000		
74.5	39,928		0.0000		
75.5	39,928		0.0000		
76.5	602		0.0000		
77.5	602		0.0000		
78.5	602		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

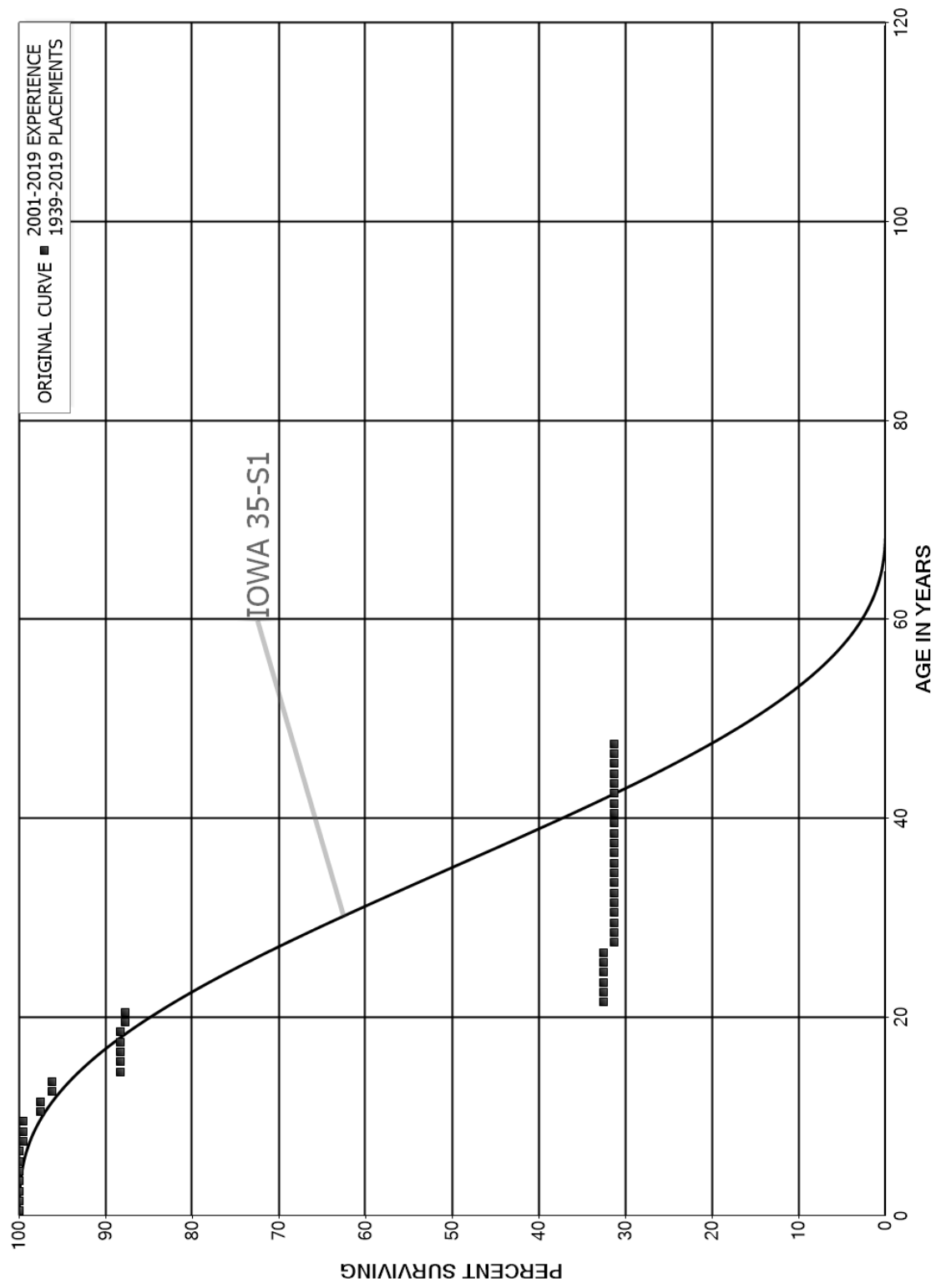
ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	602		0.0000		
80.5	602		0.0000		
81.5	602		0.0000		
82.5	602		0.0000		
83.5	602		0.0000		
84.5	602		0.0000		
85.5	602		0.0000		
86.5	602		0.0000		
87.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,331,347		0.0000	1.0000	100.00
0.5	2,248,872	400	0.0002	0.9998	100.00
1.5	2,139,519		0.0000	1.0000	99.98
2.5	2,007,976		0.0000	1.0000	99.98
3.5	1,998,798		0.0000	1.0000	99.98
4.5	978,189		0.0000	1.0000	99.98
5.5	566,034		0.0000	1.0000	99.98
6.5	540,776	2,524	0.0047	0.9953	99.98
7.5	668,631		0.0000	1.0000	99.52
8.5	661,526		0.0000	1.0000	99.52
9.5	622,592	12,303	0.0198	0.9802	99.52
10.5	529,371	373	0.0007	0.9993	97.55
11.5	209,362	2,752	0.0131	0.9869	97.48
12.5	204,311		0.0000	1.0000	96.20
13.5	220,425	18,073	0.0820	0.9180	96.20
14.5	208,207		0.0000	1.0000	88.31
15.5	208,207		0.0000	1.0000	88.31
16.5	165,317		0.0000	1.0000	88.31
17.5	193,471		0.0000	1.0000	88.31
18.5	210,457	1,510	0.0072	0.9928	88.31
19.5	223,914		0.0000	1.0000	87.68
20.5	223,914	140,772	0.6287	0.3713	87.68
21.5	67,028		0.0000	1.0000	32.56
22.5	73,481		0.0000	1.0000	32.56
23.5	73,481		0.0000	1.0000	32.56
24.5	73,481		0.0000	1.0000	32.56
25.5	44,261		0.0000	1.0000	32.56
26.5	27,275	1,047	0.0384	0.9616	32.56
27.5	11,260		0.0000	1.0000	31.31
28.5	11,260		0.0000	1.0000	31.31
29.5	11,260		0.0000	1.0000	31.31
30.5	11,260		0.0000	1.0000	31.31
31.5	11,260		0.0000	1.0000	31.31
32.5	11,260		0.0000	1.0000	31.31
33.5	11,260		0.0000	1.0000	31.31
34.5	11,260		0.0000	1.0000	31.31
35.5	450		0.0000	1.0000	31.31
36.5	450		0.0000	1.0000	31.31
37.5	450		0.0000	1.0000	31.31
38.5	450		0.0000	1.0000	31.31

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	450		0.0000	1.0000	31.31
40.5	450		0.0000	1.0000	31.31
41.5	450		0.0000	1.0000	31.31
42.5	450		0.0000	1.0000	31.31
43.5	450		0.0000	1.0000	31.31
44.5	450		0.0000	1.0000	31.31
45.5	450		0.0000	1.0000	31.31
46.5	450		0.0000	1.0000	31.31
47.5					31.31
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	3,802		0.0000		
69.5	3,802		0.0000		
70.5	3,802	283	0.0744		
71.5	3,519		0.0000		
72.5	3,519		0.0000		
73.5	3,519		0.0000		
74.5	3,519		0.0000		
75.5	3,519		0.0000		
76.5	3,519		0.0000		
77.5	3,519		0.0000		
78.5	3,519		0.0000		

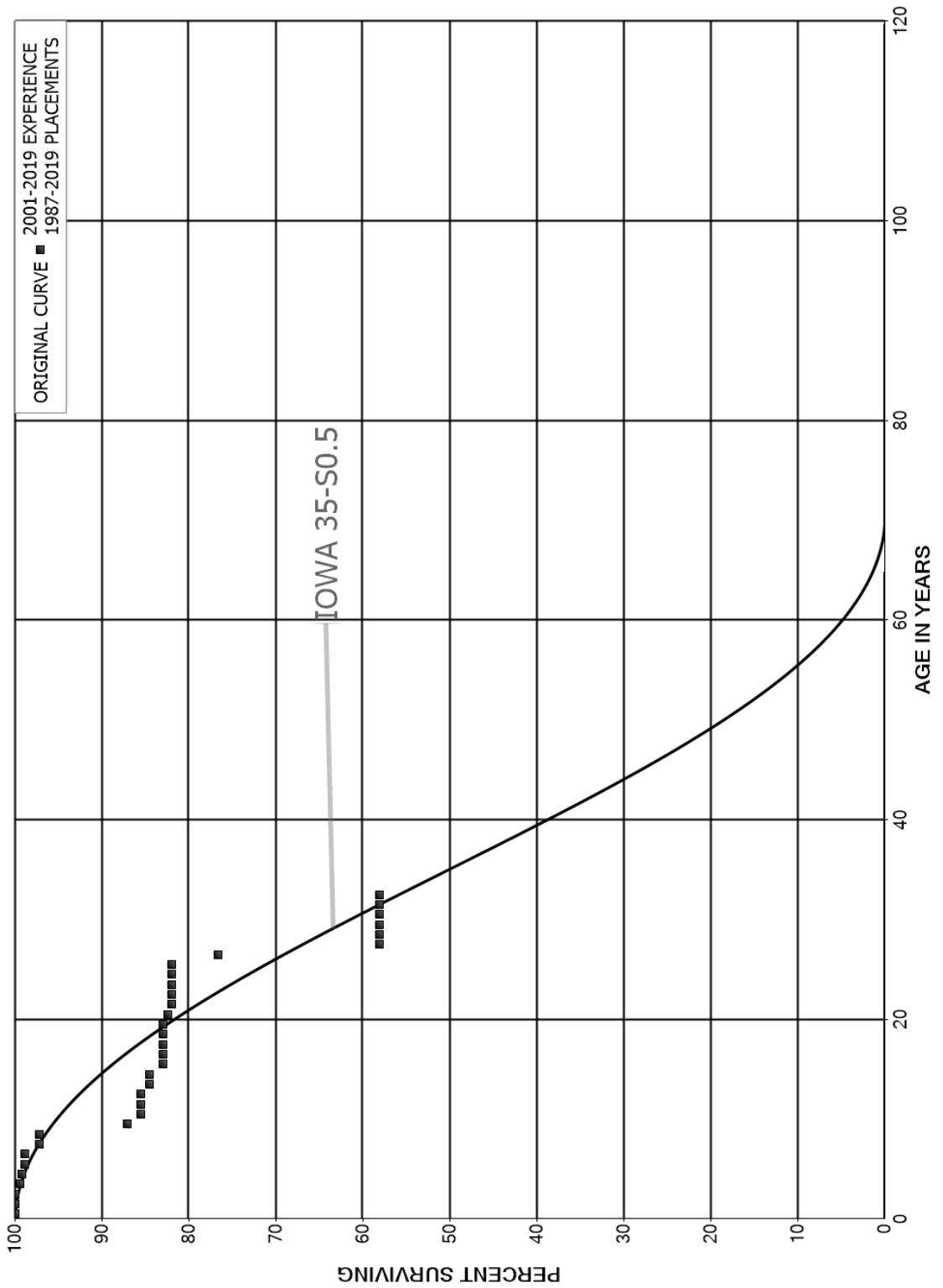
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5	3,519		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 355.00 POWER GENERATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



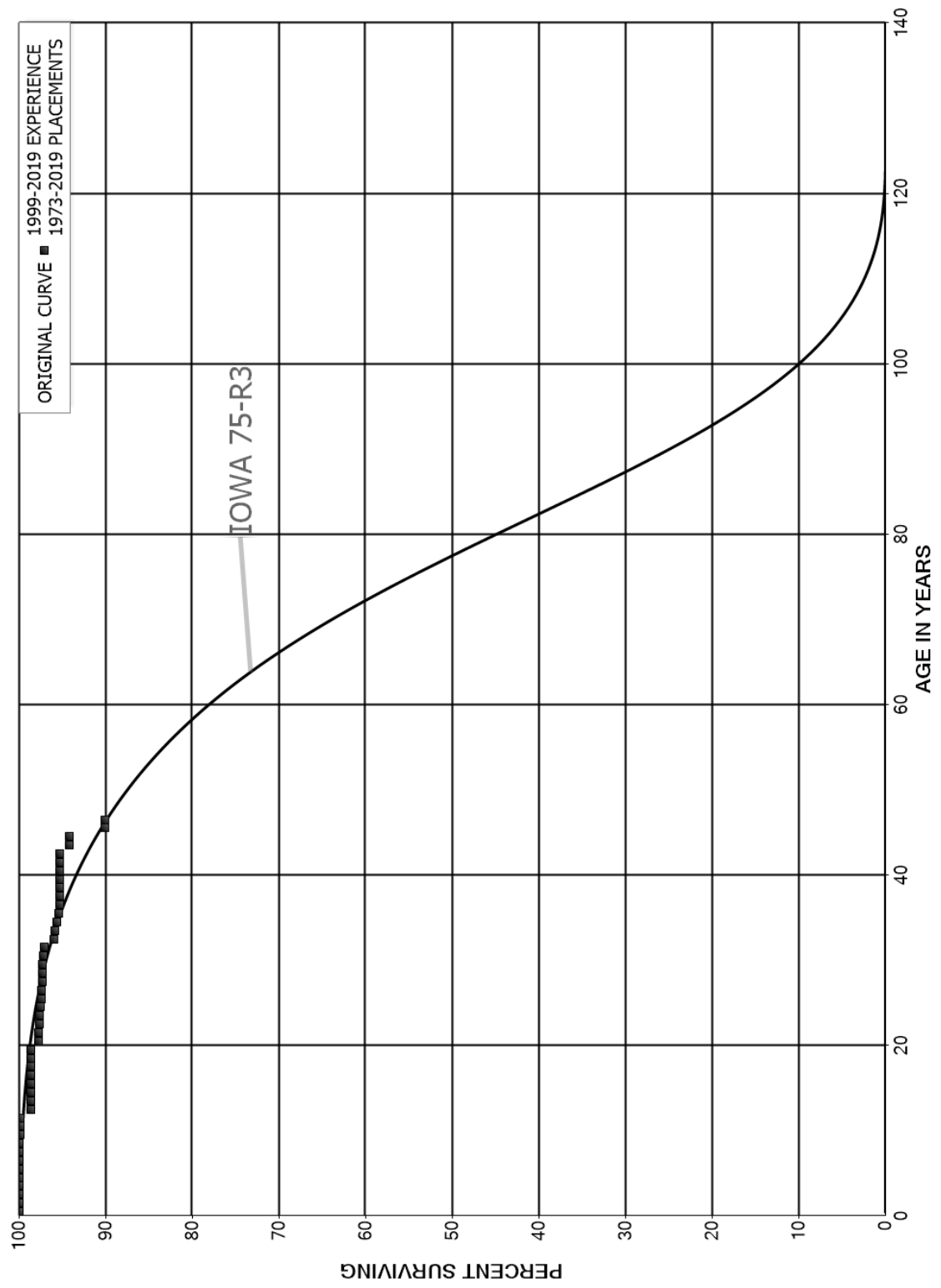
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1987-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,656,122		0.0000	1.0000	100.00
0.5	3,685,338		0.0000	1.0000	100.00
1.5	4,385,880		0.0000	1.0000	100.00
2.5	4,494,639	26,926	0.0060	0.9940	100.00
3.5	4,479,665	10,161	0.0023	0.9977	99.40
4.5	4,398,000	14,523	0.0033	0.9967	99.18
5.5	3,773,674	1,387	0.0004	0.9996	98.85
6.5	3,828,658	61,470	0.0161	0.9839	98.81
7.5	3,336,361		0.0000	1.0000	97.23
8.5	3,321,984	347,576	0.1046	0.8954	97.23
9.5	2,953,727	51,388	0.0174	0.9826	87.05
10.5	328,249		0.0000	1.0000	85.54
11.5	144,528		0.0000	1.0000	85.54
12.5	267,555	3,097	0.0116	0.9884	85.54
13.5	327,093		0.0000	1.0000	84.55
14.5	278,538	5,336	0.0192	0.9808	84.55
15.5	281,064		0.0000	1.0000	82.93
16.5	293,645		0.0000	1.0000	82.93
17.5	241,944		0.0000	1.0000	82.93
18.5	203,466		0.0000	1.0000	82.93
19.5	203,466	1,204	0.0059	0.9941	82.93
20.5	202,262	1,103	0.0055	0.9945	82.44
21.5	432,455		0.0000	1.0000	81.99
22.5	402,008		0.0000	1.0000	81.99
23.5	402,008		0.0000	1.0000	81.99
24.5	402,008		0.0000	1.0000	81.99
25.5	402,978	26,388	0.0655	0.9345	81.99
26.5	174,978	42,310	0.2418	0.7582	76.62
27.5	89,880		0.0000	1.0000	58.09
28.5	68,585		0.0000	1.0000	58.09
29.5	68,585		0.0000	1.0000	58.09
30.5	19,246		0.0000	1.0000	58.09
31.5	19,246		0.0000	1.0000	58.09
32.5					58.09

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	31,766,704	19	0.0000	1.0000	100.00
0.5	28,215,316	26	0.0000	1.0000	100.00
1.5	35,558,986	33	0.0000	1.0000	100.00
2.5	23,783,577	70	0.0000	1.0000	100.00
3.5	21,373,939	350	0.0000	1.0000	100.00
4.5	18,774,036	315	0.0000	1.0000	100.00
5.5	14,425,014	397	0.0000	1.0000	100.00
6.5	14,188,090	1,611	0.0001	0.9999	99.99
7.5	14,122,868	1,747	0.0001	0.9999	99.98
8.5	13,850,582	16,747	0.0012	0.9988	99.97
9.5	13,465,099	64	0.0000	1.0000	99.85
10.5	13,318,392	82	0.0000	1.0000	99.85
11.5	10,748,868	127,626	0.0119	0.9881	99.85
12.5	9,661,386		0.0000	1.0000	98.66
13.5	7,868,737	3,291	0.0004	0.9996	98.66
14.5	7,779,655	99	0.0000	1.0000	98.62
15.5	5,905,707	9	0.0000	1.0000	98.62
16.5	5,774,986	949	0.0002	0.9998	98.62
17.5	5,344,267	1,253	0.0002	0.9998	98.60
18.5	4,614,847	826	0.0002	0.9998	98.58
19.5	4,197,905	37,017	0.0088	0.9912	98.56
20.5	3,986,776	70	0.0000	1.0000	97.69
21.5	4,475,797	1,897	0.0004	0.9996	97.69
22.5	3,907,599	569	0.0001	0.9999	97.65
23.5	4,900,347	3,932	0.0008	0.9992	97.64
24.5	6,419,851	13,411	0.0021	0.9979	97.56
25.5	6,580,720	788	0.0001	0.9999	97.35
26.5	6,033,834	1,095	0.0002	0.9998	97.34
27.5	6,011,515	2,049	0.0003	0.9997	97.32
28.5	5,991,855	3,135	0.0005	0.9995	97.29
29.5	6,011,945	3,365	0.0006	0.9994	97.24
30.5	5,911,879	4,784	0.0008	0.9992	97.19
31.5	5,517,306	65,876	0.0119	0.9881	97.11
32.5	5,225,480	4,106	0.0008	0.9992	95.95
33.5	5,192,765	13,636	0.0026	0.9974	95.87
34.5	4,869,190	12,733	0.0026	0.9974	95.62
35.5	4,856,457	2,869	0.0006	0.9994	95.37
36.5	4,661,206	15	0.0000	1.0000	95.31
37.5	4,607,713		0.0000	1.0000	95.31
38.5	4,446,768	1,883	0.0004	0.9996	95.31



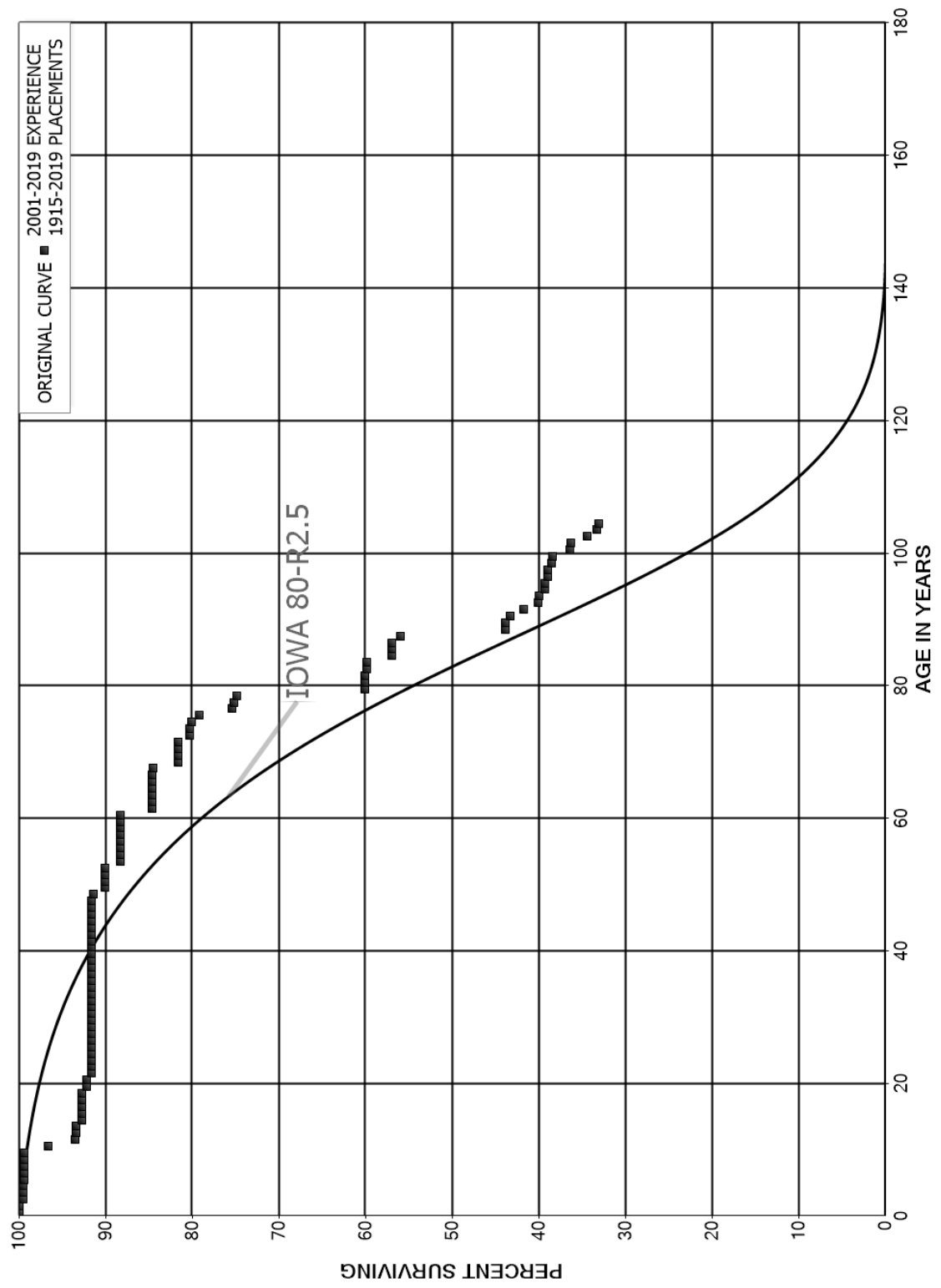
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	4,369,779	82	0.0000	1.0000	95.27	
40.5	4,295,948	6	0.0000	1.0000	95.27	
41.5	4,025,587	0	0.0000	1.0000	95.27	
42.5	3,566,737	42,283	0.0119	0.9881	95.27	
43.5	2,553,034		0.0000	1.0000	94.14	
44.5	1,703,254	73,783	0.0433	0.9567	94.14	
45.5	125,695		0.0000	1.0000	90.06	
46.5					90.06	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	123,698,865	1,489	0.0000	1.0000	100.00
0.5	80,968,134	1,744	0.0000	1.0000	100.00
1.5	71,427,735	349,743	0.0049	0.9951	100.00
2.5	61,491,291		0.0000	1.0000	99.51
3.5	47,985,505		0.0000	1.0000	99.51
4.5	43,496,282	26,093	0.0006	0.9994	99.51
5.5	34,622,702	11,064	0.0003	0.9997	99.45
6.5	36,236,717	10,556	0.0003	0.9997	99.42
7.5	44,473,440	0	0.0000	1.0000	99.39
8.5	44,403,805	13,334	0.0003	0.9997	99.39
9.5	42,579,956	1,180,167	0.0277	0.9723	99.36
10.5	27,257,562	886,763	0.0325	0.9675	96.60
11.5	23,041,413	10,064	0.0004	0.9996	93.46
12.5	15,696,984	13,300	0.0008	0.9992	93.42
13.5	13,197,516	82,522	0.0063	0.9937	93.34
14.5	9,898,866	187	0.0000	1.0000	92.76
15.5	8,175,329	367	0.0000	1.0000	92.75
16.5	11,005,722	1,374	0.0001	0.9999	92.75
17.5	22,668,123		0.0000	1.0000	92.74
18.5	22,367,436	144,378	0.0065	0.9935	92.74
19.5	21,841,271		0.0000	1.0000	92.14
20.5	10,429,000	56,430	0.0054	0.9946	92.14
21.5	13,494,984		0.0000	1.0000	91.64
22.5	12,095,717		0.0000	1.0000	91.64
23.5	13,846,891		0.0000	1.0000	91.64
24.5	14,182,481		0.0000	1.0000	91.64
25.5	19,071,002		0.0000	1.0000	91.64
26.5	16,170,692		0.0000	1.0000	91.64
27.5	36,060,280		0.0000	1.0000	91.64
28.5	35,923,542		0.0000	1.0000	91.64
29.5	33,683,971		0.0000	1.0000	91.64
30.5	8,391,683	866	0.0001	0.9999	91.64
31.5	8,167,272	21	0.0000	1.0000	91.63
32.5	8,027,418		0.0000	1.0000	91.63
33.5	7,266,714		0.0000	1.0000	91.63
34.5	5,540,059		0.0000	1.0000	91.63
35.5	3,406,034		0.0000	1.0000	91.63
36.5	3,951,146		0.0000	1.0000	91.63
37.5	4,287,296		0.0000	1.0000	91.63
38.5	4,273,219		0.0000	1.0000	91.63

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,243,666		0.0000	1.0000	91.63
40.5	41,503,891	5,447	0.0001	0.9999	91.63
41.5	41,043,016	49	0.0000	1.0000	91.62
42.5	41,341,828		0.0000	1.0000	91.62
43.5	20,516,395		0.0000	1.0000	91.62
44.5	17,262,745	4,573	0.0003	0.9997	91.62
45.5	17,447,879		0.0000	1.0000	91.60
46.5	16,922,111	1,617	0.0001	0.9999	91.60
47.5	1,493,981	2,878	0.0019	0.9981	91.59
48.5	1,491,103	21,283	0.0143	0.9857	91.41
49.5	995,707	187	0.0002	0.9998	90.11
50.5	1,249,631		0.0000	1.0000	90.09
51.5	1,214,773		0.0000	1.0000	90.09
52.5	1,253,366	24,618	0.0196	0.9804	90.09
53.5	28,374,663		0.0000	1.0000	88.32
54.5	38,998,170		0.0000	1.0000	88.32
55.5	39,986,553		0.0000	1.0000	88.32
56.5	13,005,874		0.0000	1.0000	88.32
57.5	59,432,346		0.0000	1.0000	88.32
58.5	60,820,282	557	0.0000	1.0000	88.32
59.5	59,761,303	747	0.0000	1.0000	88.32
60.5	2,094,297	87,761	0.0419	0.9581	88.32
61.5	22,663,762	8	0.0000	1.0000	84.62
62.5	21,213,491	61	0.0000	1.0000	84.62
63.5	21,215,934	289	0.0000	1.0000	84.62
64.5	46,353		0.0000	1.0000	84.62
65.5	1,102,303		0.0000	1.0000	84.62
66.5	1,102,303	1,673	0.0015	0.9985	84.62
67.5	1,100,630	37,140	0.0337	0.9663	84.49
68.5	1,259,440		0.0000	1.0000	81.64
69.5	290,689		0.0000	1.0000	81.64
70.5	962,463	168	0.0002	0.9998	81.64
71.5	962,295	15,230	0.0158	0.9842	81.62
72.5	1,042,298	993	0.0010	0.9990	80.33
73.5	946,072	2,053	0.0022	0.9978	80.25
74.5	683,176	7,508	0.0110	0.9890	80.08
75.5	675,668	32,767	0.0485	0.9515	79.20
76.5	642,901	1,310	0.0020	0.9980	75.36
77.5	1,531,686	8,017	0.0052	0.9948	75.20
78.5	1,523,669	299,242	0.1964	0.8036	74.81

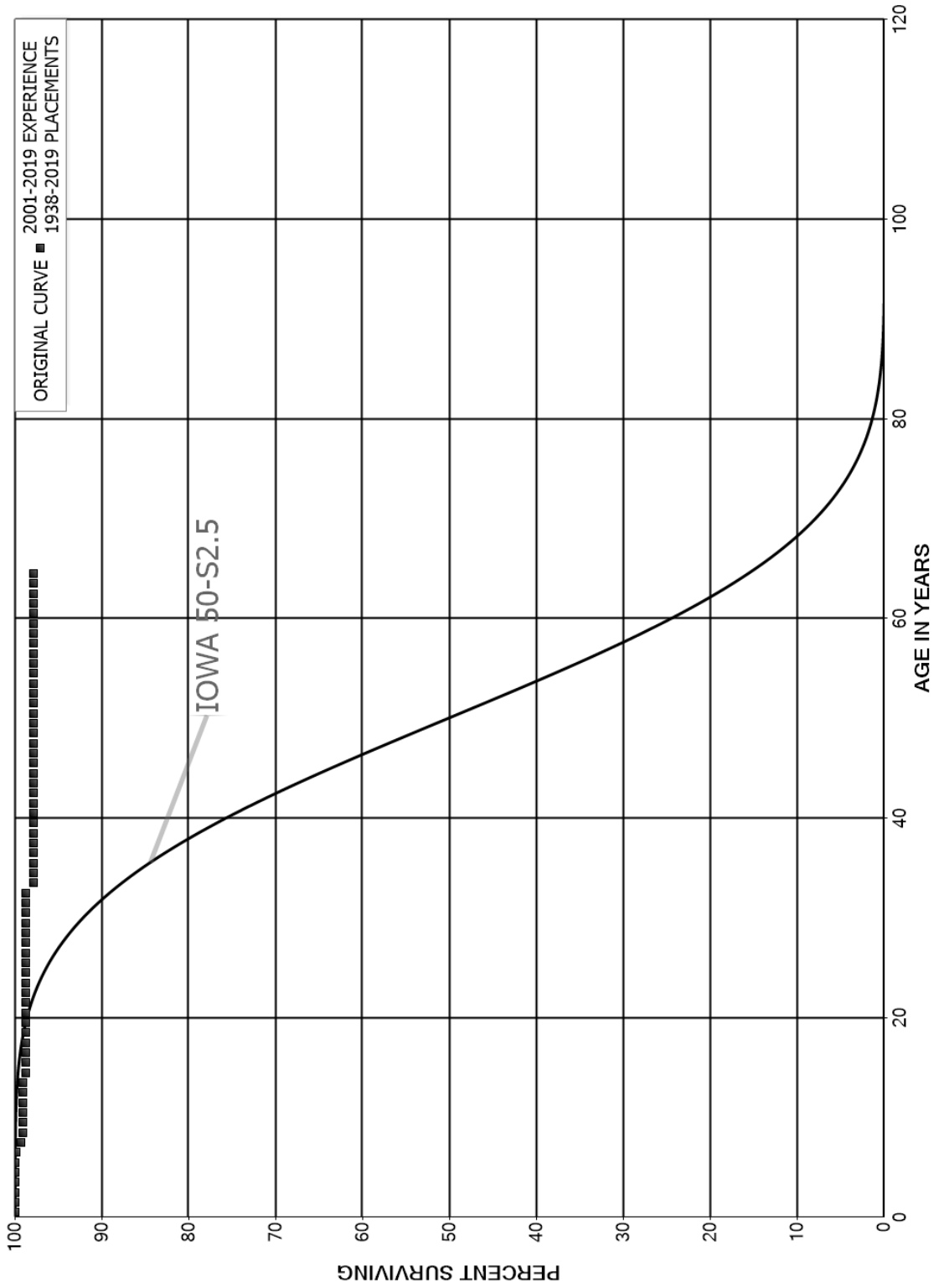
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019			EXPERIENCE BAND 2001-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,224,427	291	0.0002	0.9998	60.12	
80.5	1,522,508		0.0000	1.0000	60.10	
81.5	632,413	2,303	0.0036	0.9964	60.10	
82.5	648,868		0.0000	1.0000	59.89	
83.5	648,868	31,252	0.0482	0.9518	59.89	
84.5	601,981	10	0.0000	1.0000	57.00	
85.5	722,814		0.0000	1.0000	57.00	
86.5	722,814	13,485	0.0187	0.9813	57.00	
87.5	709,329	153,014	0.2157	0.7843	55.94	
88.5	556,315	264	0.0005	0.9995	43.87	
89.5	329,027	4,352	0.0132	0.9868	43.85	
90.5	306,175	11,276	0.0368	0.9632	43.27	
91.5	294,898	11,132	0.0377	0.9623	41.68	
92.5	283,767	1,273	0.0045	0.9955	40.10	
93.5	282,494	4,366	0.0155	0.9845	39.92	
94.5	278,128	221	0.0008	0.9992	39.31	
95.5	277,906	1,967	0.0071	0.9929	39.27	
96.5	275,939	42	0.0002	0.9998	39.00	
97.5	3,804,626	42,906	0.0113	0.9887	38.99	
98.5	3,761,720	15,091	0.0040	0.9960	38.55	
99.5	3,616,599	191,754	0.0530	0.9470	38.40	
100.5	3,424,846	6,012	0.0018	0.9982	36.36	
101.5	96,405	5,167	0.0536	0.9464	36.30	
102.5	91,238	2,967	0.0325	0.9675	34.35	
103.5	88,271	309	0.0035	0.9965	33.23	
104.5					33.12	

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 361.20 MANHOLES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-2019

EXPERIENCE BAND 2001-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,379,651		0.0000	1.0000	100.00
0.5	10,176,887		0.0000	1.0000	100.00
1.5	10,661,285	0	0.0000	1.0000	100.00
2.5	11,952,425		0.0000	1.0000	100.00
3.5	12,083,028	911	0.0001	0.9999	100.00
4.5	7,585,455		0.0000	1.0000	99.99
5.5	5,573,639	6,667	0.0012	0.9988	99.99
6.5	4,589,383	27,566	0.0060	0.9940	99.87
7.5	4,569,090	10,961	0.0024	0.9976	99.27
8.5	5,066,097		0.0000	1.0000	99.03
9.5	5,304,644		0.0000	1.0000	99.03
10.5	5,838,060		0.0000	1.0000	99.03
11.5	5,353,439		0.0000	1.0000	99.03
12.5	4,555,554		0.0000	1.0000	99.03
13.5	4,114,028	12,188	0.0030	0.9970	99.03
14.5	2,635,311		0.0000	1.0000	98.74
15.5	2,105,291	0	0.0000	1.0000	98.74
16.5	2,247,105	472	0.0002	0.9998	98.74
17.5	2,934,821		0.0000	1.0000	98.72
18.5	2,849,242		0.0000	1.0000	98.72
19.5	2,782,656		0.0000	1.0000	98.72
20.5	2,425,509	0	0.0000	1.0000	98.72
21.5	1,772,096		0.0000	1.0000	98.72
22.5	970,343		0.0000	1.0000	98.72
23.5	1,299,611		0.0000	1.0000	98.72
24.5	1,741,110		0.0000	1.0000	98.72
25.5	2,636,710		0.0000	1.0000	98.72
26.5	3,361,749		0.0000	1.0000	98.72
27.5	3,450,899		0.0000	1.0000	98.72
28.5	3,240,536		0.0000	1.0000	98.72
29.5	2,574,979		0.0000	1.0000	98.72
30.5	1,538,799		0.0000	1.0000	98.72
31.5	1,635,548		0.0000	1.0000	98.72
32.5	1,551,747	13,277	0.0086	0.9914	98.72
33.5	1,328,056		0.0000	1.0000	97.88
34.5	1,038,030		0.0000	1.0000	97.88
35.5	1,093,592		0.0000	1.0000	97.88
36.5	1,326,879		0.0000	1.0000	97.88
37.5	1,450,927		0.0000	1.0000	97.88
38.5	1,304,196		0.0000	1.0000	97.88

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	994,944		0.0000	1.0000	97.88
40.5	2,263,935		0.0000	1.0000	97.88
41.5	2,043,826		0.0000	1.0000	97.88
42.5	2,216,232		0.0000	1.0000	97.88
43.5	2,406,018		0.0000	1.0000	97.88
44.5	2,040,304		0.0000	1.0000	97.88
45.5	2,008,665		0.0000	1.0000	97.88
46.5	1,708,150		0.0000	1.0000	97.88
47.5	301,817		0.0000	1.0000	97.88
48.5	301,817		0.0000	1.0000	97.88
49.5	170,327		0.0000	1.0000	97.88
50.5	201,568		0.0000	1.0000	97.88
51.5	166,180		0.0000	1.0000	97.88
52.5	172,781		0.0000	1.0000	97.88
53.5	1,995,623		0.0000	1.0000	97.88
54.5	1,827,036		0.0000	1.0000	97.88
55.5	1,951,871		0.0000	1.0000	97.88
56.5	131,436		0.0000	1.0000	97.88
57.5	10,950,272		0.0000	1.0000	97.88
58.5	10,950,272		0.0000	1.0000	97.88
59.5	10,825,437		0.0000	1.0000	97.88
60.5	89,564		0.0000	1.0000	97.88
61.5	89,564		0.0000	1.0000	97.88
62.5	89,564		0.0000	1.0000	97.88
63.5	89,564		0.0000	1.0000	97.88
64.5					97.88
65.5	100,437		0.0000		
66.5	100,437		0.0000		
67.5	123,426		0.0000		
68.5	167,059	22,989	0.1376		
69.5	43,633		0.0000		
70.5	84,331		0.0000		
71.5	84,331		0.0000		
72.5	90,699		0.0000		
73.5	84,331		0.0000		
74.5	43,633		0.0000		
75.5	43,633		0.0000		
76.5	43,633		0.0000		
77.5	306,691		0.0000		
78.5	306,691		0.0000		



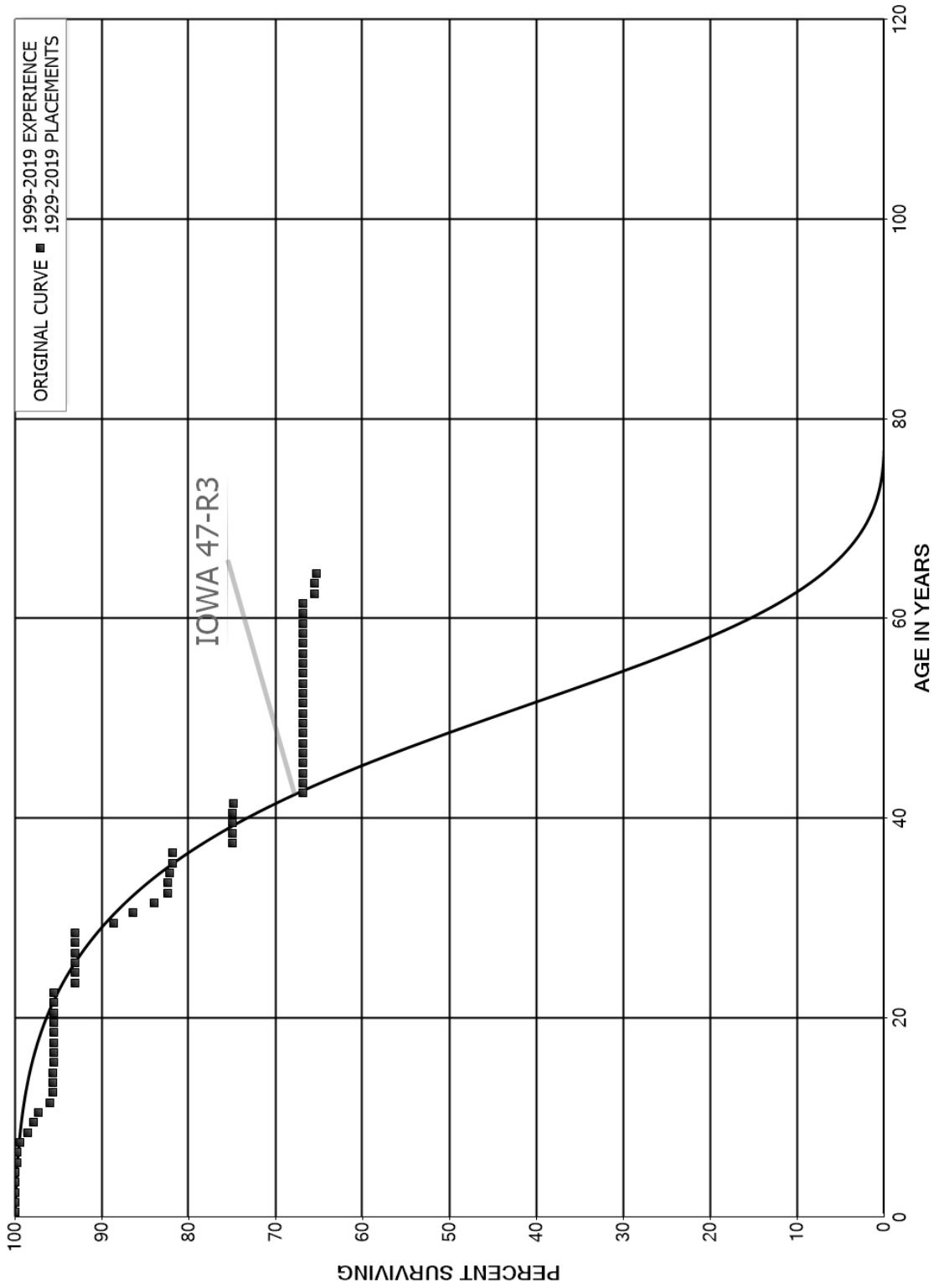
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	306,691	1,171	0.0038		
80.5	263,058		0.0000		
81.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 363.00 SERVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	10,615,796	0	0.0000	1.0000	100.00	
0.5	10,038,138	0	0.0000	1.0000	100.00	
1.5	9,510,472	60	0.0000	1.0000	100.00	
2.5	8,790,677	5,668	0.0006	0.9994	100.00	
3.5	8,679,530	421	0.0000	1.0000	99.93	
4.5	7,932,683	12,635	0.0016	0.9984	99.93	
5.5	6,966,530	2,890	0.0004	0.9996	99.77	
6.5	8,411,000	31,963	0.0038	0.9962	99.73	
7.5	8,278,555	65,894	0.0080	0.9920	99.35	
8.5	8,313,922	64,649	0.0078	0.9922	98.56	
9.5	8,351,147	42,617	0.0051	0.9949	97.79	
10.5	6,470,010	87,729	0.0136	0.9864	97.29	
11.5	6,246,021	19,892	0.0032	0.9968	95.98	
12.5	5,858,877	0	0.0000	1.0000	95.67	
13.5	4,698,450	4,942	0.0011	0.9989	95.67	
14.5	4,095,435	871	0.0002	0.9998	95.57	
15.5	3,284,377		0.0000	1.0000	95.55	
16.5	3,511,888	0	0.0000	1.0000	95.55	
17.5	3,953,464	0	0.0000	1.0000	95.55	
18.5	3,909,166	55	0.0000	1.0000	95.55	
19.5	3,630,733		0.0000	1.0000	95.55	
20.5	3,925,137		0.0000	1.0000	95.55	
21.5	3,646,749		0.0000	1.0000	95.55	
22.5	3,395,484	87,997	0.0259	0.9741	95.55	
23.5	3,780,922		0.0000	1.0000	93.07	
24.5	4,115,954	497	0.0001	0.9999	93.07	
25.5	5,003,579		0.0000	1.0000	93.06	
26.5	5,176,777		0.0000	1.0000	93.06	
27.5	4,635,070		0.0000	1.0000	93.06	
28.5	4,421,930	209,578	0.0474	0.9526	93.06	
29.5	3,596,999	92,585	0.0257	0.9743	88.65	
30.5	2,947,708	80,733	0.0274	0.9726	86.37	
31.5	2,783,645	51,927	0.0187	0.9813	84.00	
32.5	2,491,265	1,241	0.0005	0.9995	82.43	
33.5	2,228,511	4,871	0.0022	0.9978	82.39	
34.5	1,965,612	8,461	0.0043	0.9957	82.21	
35.5	1,925,423	503	0.0003	0.9997	81.86	
36.5	1,973,278	167,021	0.0846	0.9154	81.84	
37.5	1,839,375	192	0.0001	0.9999	74.91	
38.5	1,657,395		0.0000	1.0000	74.90	

PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,207,182		0.0000	1.0000	74.90
40.5	1,197,802	385	0.0003	0.9997	74.90
41.5	1,022,673	110,064	0.1076	0.8924	74.88
42.5	886,687		0.0000	1.0000	66.82
43.5	1,408,938		0.0000	1.0000	66.82
44.5	900,914		0.0000	1.0000	66.82
45.5	855,938		0.0000	1.0000	66.82
46.5	736,586		0.0000	1.0000	66.82
47.5	156,414		0.0000	1.0000	66.82
48.5	155,860		0.0000	1.0000	66.82
49.5	82,277		0.0000	1.0000	66.82
50.5	145,022		0.0000	1.0000	66.82
51.5	132,653		0.0000	1.0000	66.82
52.5	134,754	0	0.0000	1.0000	66.82
53.5	137,757		0.0000	1.0000	66.82
54.5	20,119		0.0000	1.0000	66.82
55.5	100,869		0.0000	1.0000	66.82
56.5	100,869		0.0000	1.0000	66.82
57.5	97,866		0.0000	1.0000	66.82
58.5	256,316		0.0000	1.0000	66.82
59.5	180,162	20	0.0001	0.9999	66.82
60.5	228,822		0.0000	1.0000	66.81
61.5	228,822	4,595	0.0201	0.9799	66.81
62.5	50,781		0.0000	1.0000	65.47
63.5	50,781	162	0.0032	0.9968	65.47
64.5					65.26
65.5	60,144		0.0000		
66.5	60,144		0.0000		
67.5	60,144		0.0000		
68.5	70,211		0.0000		
69.5	13,932	819	0.0588		
70.5	36,101		0.0000		
71.5	36,101	4,521	0.1252		
72.5	31,580	1,251	0.0396		
73.5	30,329	442	0.0146		
74.5	6,899	644	0.0933		
75.5	6,255		0.0000		
76.5	6,255		0.0000		
77.5	151,010		0.0000		
78.5	151,010		0.0000		

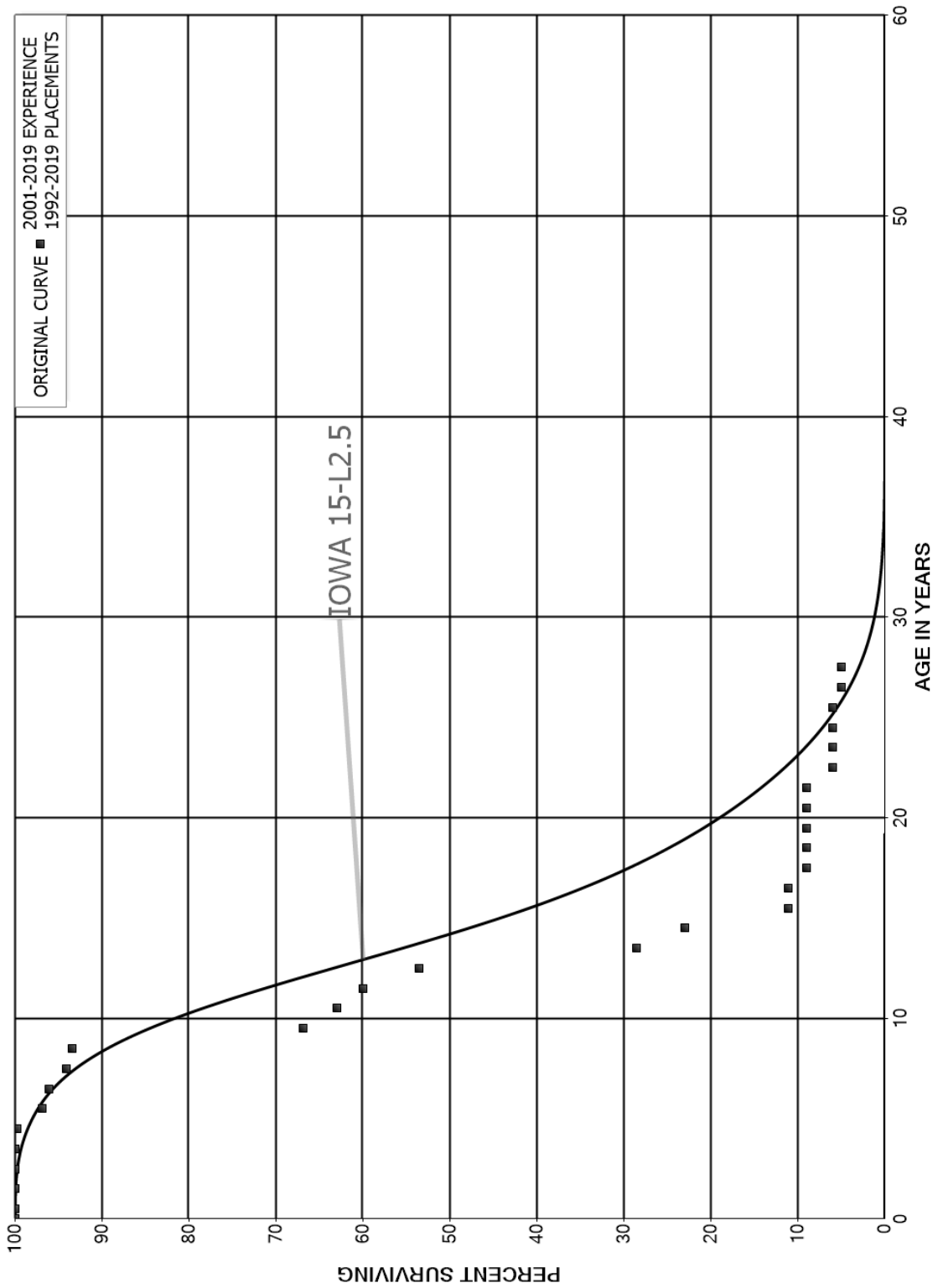
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	151,010		0.0000		
80.5	144,755	1,628	0.0112		
81.5					
82.5	717		0.0000		
83.5	717		0.0000		
84.5	717		0.0000		
85.5	717		0.0000		
86.5	717		0.0000		
87.5	717		0.0000		
88.5	717		0.0000		
89.5	717		0.0000		
90.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 364.00 FLOW MEASURING DEVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



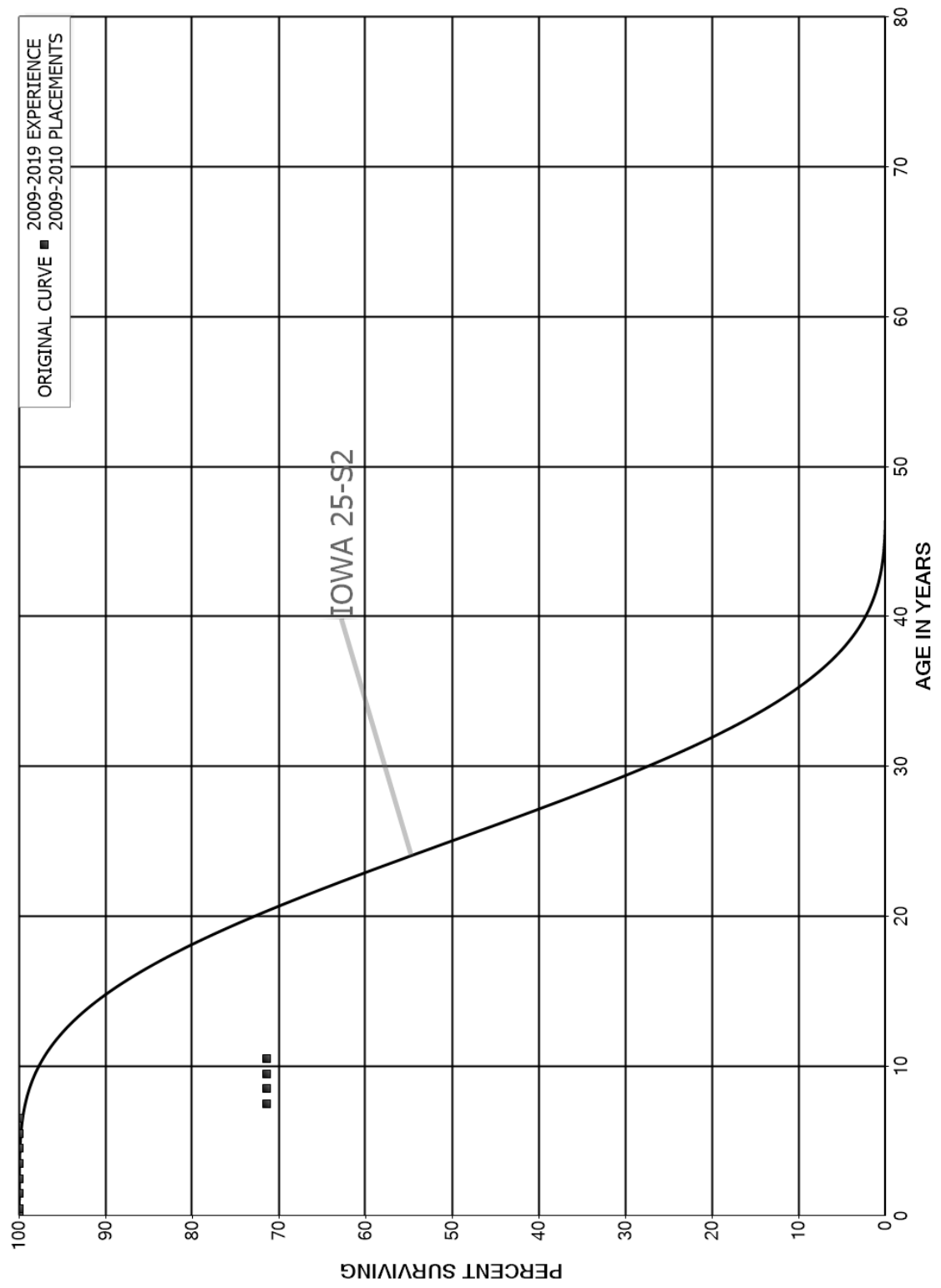
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,359,184		0.0000	1.0000	100.00
0.5	993,961		0.0000	1.0000	100.00
1.5	1,007,023		0.0000	1.0000	100.00
2.5	1,088,761		0.0000	1.0000	100.00
3.5	829,368	2,564	0.0031	0.9969	100.00
4.5	790,917	22,463	0.0284	0.9716	99.69
5.5	745,466	5,882	0.0079	0.9921	96.86
6.5	575,156	12,254	0.0213	0.9787	96.10
7.5	576,785	4,337	0.0075	0.9925	94.05
8.5	639,652	181,670	0.2840	0.7160	93.34
9.5	332,968	19,182	0.0576	0.9424	66.83
10.5	221,704	10,816	0.0488	0.9512	62.98
11.5	90,287	9,617	0.1065	0.8935	59.91
12.5	71,639	33,466	0.4671	0.5329	53.53
13.5	31,704	6,133	0.1934	0.8066	28.52
14.5	16,849	8,739	0.5187	0.4813	23.00
15.5	16,281		0.0000	1.0000	11.07
16.5	16,281	3,203	0.1967	0.8033	11.07
17.5	13,078		0.0000	1.0000	8.90
18.5	13,078		0.0000	1.0000	8.90
19.5	13,078		0.0000	1.0000	8.90
20.5	13,078		0.0000	1.0000	8.90
21.5	13,078	4,272	0.3266	0.6734	8.90
22.5	8,806		0.0000	1.0000	5.99
23.5	8,806		0.0000	1.0000	5.99
24.5	8,806		0.0000	1.0000	5.99
25.5	8,806	1,522	0.1728	0.8272	5.99
26.5	7,285		0.0000	1.0000	4.95
27.5					4.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





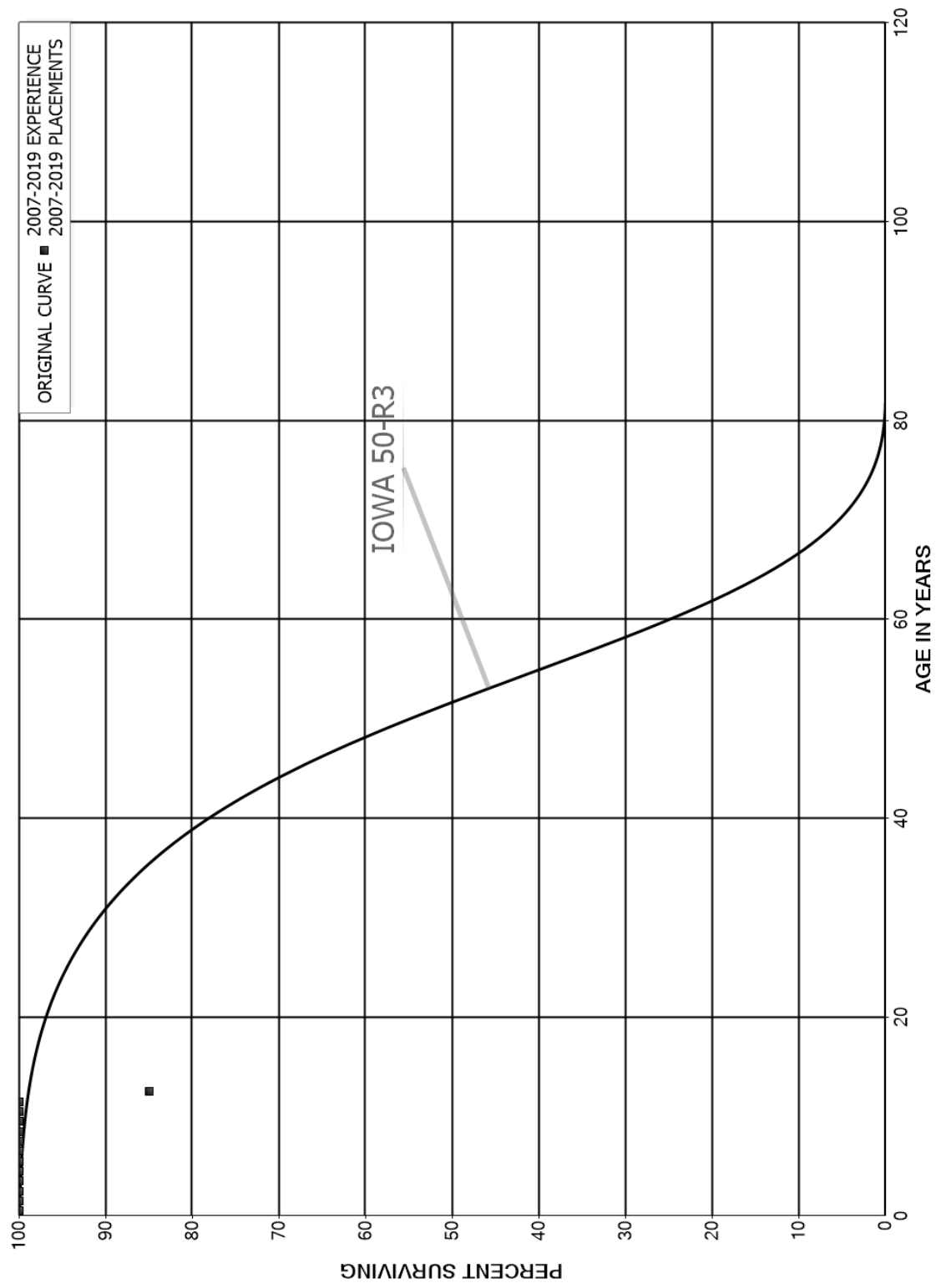
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2009-2010			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,918		0.0000	1.0000	100.00
0.5	20,918		0.0000	1.0000	100.00
1.5	20,918		0.0000	1.0000	100.00
2.5	20,918		0.0000	1.0000	100.00
3.5	20,918		0.0000	1.0000	100.00
4.5	20,918		0.0000	1.0000	100.00
5.5	20,918		0.0000	1.0000	100.00
6.5	20,918	5,980	0.2859	0.7141	100.00
7.5	14,938		0.0000	1.0000	71.41
8.5	14,938		0.0000	1.0000	71.41
9.5	14,938		0.0000	1.0000	71.41
10.5					71.41

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 370.00 RECEIVING WELLS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



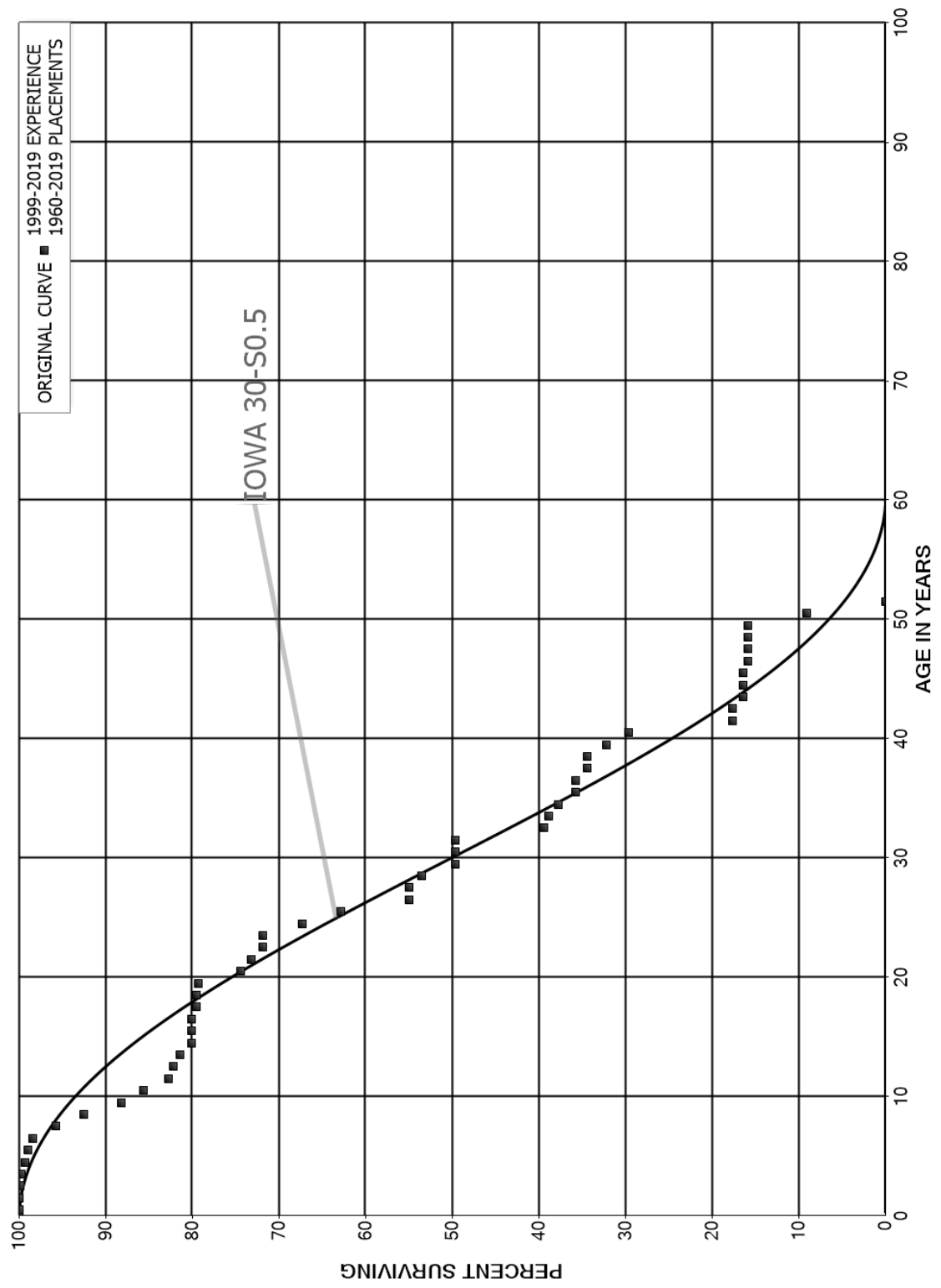
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 370.00 RECEIVING WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019			EXPERIENCE BAND 2007-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	121,180		0.0000	1.0000	100.00
0.5	111,148		0.0000	1.0000	100.00
1.5	111,148		0.0000	1.0000	100.00
2.5	132,949		0.0000	1.0000	100.00
3.5	132,949		0.0000	1.0000	100.00
4.5	132,949		0.0000	1.0000	100.00
5.5	132,949		0.0000	1.0000	100.00
6.5	99,482		0.0000	1.0000	100.00
7.5	99,482		0.0000	1.0000	100.00
8.5	99,482		0.0000	1.0000	100.00
9.5	99,482		0.0000	1.0000	100.00
10.5	7,370		0.0000	1.0000	100.00
11.5	7,370	1,109	0.1505	0.8495	100.00
12.5					84.95

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 371.00 PUMPING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,928,914		0.0000	1.0000	100.00
0.5	8,653,630	5,419	0.0006	0.9994	100.00
1.5	11,021,964	12,306	0.0011	0.9989	99.94
2.5	10,781,219	12,096	0.0011	0.9989	99.83
3.5	9,453,412	44,345	0.0047	0.9953	99.71
4.5	6,817,321	23,246	0.0034	0.9966	99.25
5.5	5,785,361	27,560	0.0048	0.9952	98.91
6.5	5,413,591	148,677	0.0275	0.9725	98.44
7.5	3,768,518	126,794	0.0336	0.9664	95.73
8.5	3,446,810	160,001	0.0464	0.9536	92.51
9.5	2,549,487	73,710	0.0289	0.9711	88.22
10.5	1,455,129	50,056	0.0344	0.9656	85.67
11.5	1,043,502	7,445	0.0071	0.9929	82.72
12.5	1,137,255	10,025	0.0088	0.9912	82.13
13.5	837,345	14,096	0.0168	0.9832	81.41
14.5	784,395		0.0000	1.0000	80.04
15.5	677,887		0.0000	1.0000	80.04
16.5	534,434	3,610	0.0068	0.9932	80.04
17.5	610,401	101	0.0002	0.9998	79.50
18.5	664,971	1,413	0.0021	0.9979	79.48
19.5	663,558	41,426	0.0624	0.9376	79.31
20.5	588,736	9,514	0.0162	0.9838	74.36
21.5	638,927	11,409	0.0179	0.9821	73.16
22.5	599,786		0.0000	1.0000	71.85
23.5	517,501	33,177	0.0641	0.9359	71.85
24.5	484,324	31,555	0.0652	0.9348	67.25
25.5	497,723	62,415	0.1254	0.8746	62.87
26.5	428,133		0.0000	1.0000	54.98
27.5	312,603	8,673	0.0277	0.9723	54.98
28.5	241,647	17,595	0.0728	0.9272	53.46
29.5	235,281		0.0000	1.0000	49.56
30.5	280,168		0.0000	1.0000	49.56
31.5	280,168	57,666	0.2058	0.7942	49.56
32.5	222,502	2,887	0.0130	0.9870	39.36
33.5	140,599	3,932	0.0280	0.9720	38.85
34.5	136,159	7,170	0.0527	0.9473	37.77
35.5	183,946		0.0000	1.0000	35.78
36.5	183,946	7,008	0.0381	0.9619	35.78
37.5	176,938		0.0000	1.0000	34.41
38.5	127,299	8,408	0.0660	0.9340	34.41

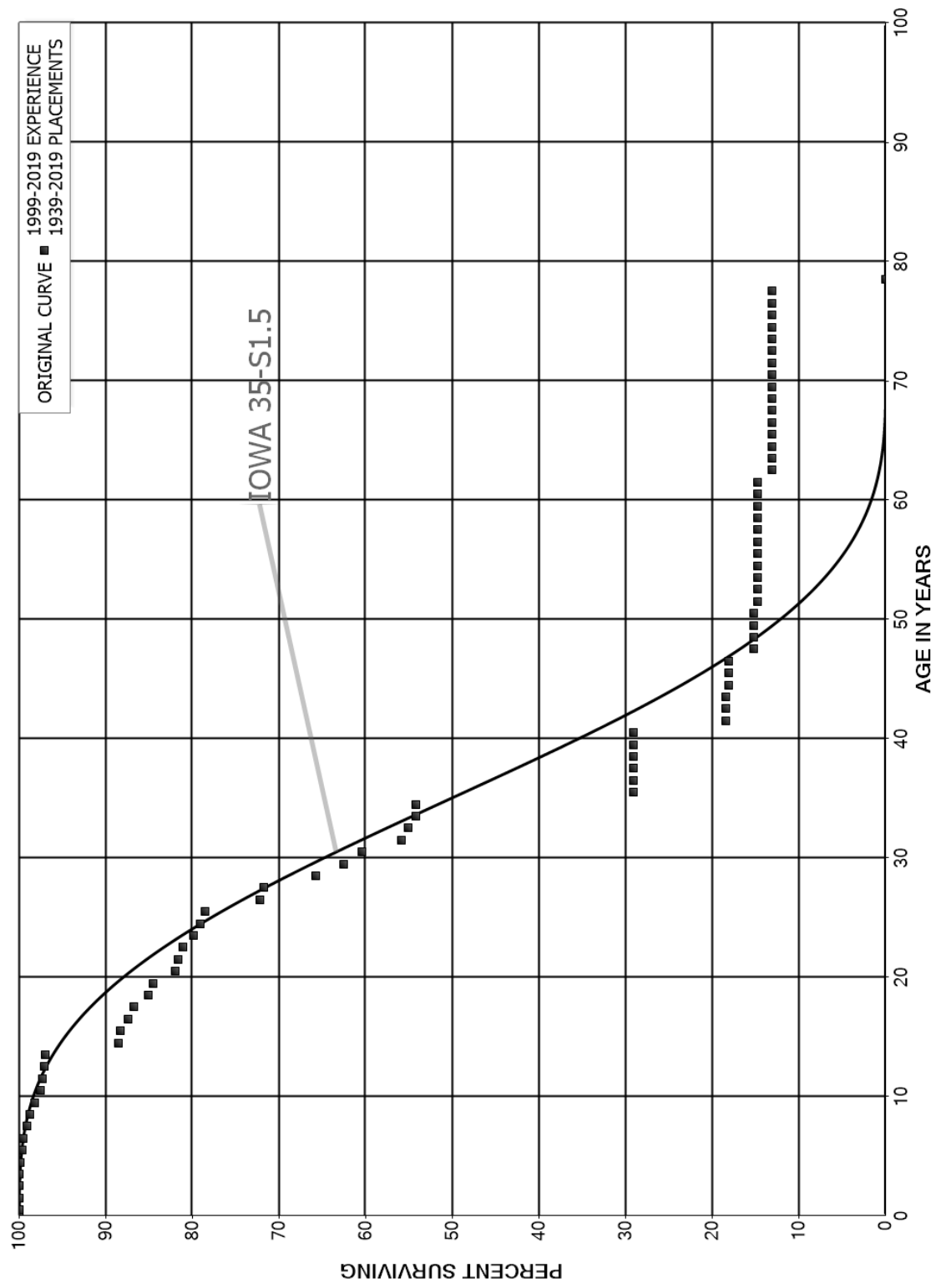
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2019			EXPERIENCE BAND 1999-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	128,004	9,910	0.0774	0.9226	32.14
40.5	140,361	56,891	0.4053	0.5947	29.65
41.5	83,470		0.0000	1.0000	17.63
42.5	83,470	6,122	0.0733	0.9267	17.63
43.5	28,842		0.0000	1.0000	16.34
44.5	28,842		0.0000	1.0000	16.34
45.5	28,842	860	0.0298	0.9702	16.34
46.5	27,983		0.0000	1.0000	15.85
47.5	21,408		0.0000	1.0000	15.85
48.5	5,141		0.0000	1.0000	15.85
49.5	5,141	2,187	0.4255	0.5745	15.85
50.5	2,953	2,953	1.0000		9.11
51.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 380.00 TREATMENT EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019

EXPERIENCE BAND 1999-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	52,484,979		0.0000	1.0000	100.00
0.5	52,338,297		0.0000	1.0000	100.00
1.5	64,377,580	1,853	0.0000	1.0000	100.00
2.5	61,280,085	2,456	0.0000	1.0000	100.00
3.5	56,645,719	97,216	0.0017	0.9983	99.99
4.5	44,542,853	95,360	0.0021	0.9979	99.82
5.5	39,192,994	29,279	0.0007	0.9993	99.61
6.5	37,993,990	195,343	0.0051	0.9949	99.53
7.5	37,038,634	104,008	0.0028	0.9972	99.02
8.5	38,046,057	237,211	0.0062	0.9938	98.74
9.5	28,856,102	179,693	0.0062	0.9938	98.13
10.5	11,015,164	26,343	0.0024	0.9976	97.52
11.5	15,100,040	30,352	0.0020	0.9980	97.28
12.5	16,280,292	28,816	0.0018	0.9982	97.09
13.5	16,807,417	1,468,058	0.0873	0.9127	96.92
14.5	14,676,816	22,218	0.0015	0.9985	88.45
15.5	11,808,330	121,942	0.0103	0.9897	88.32
16.5	11,627,778	92,492	0.0080	0.9920	87.41
17.5	12,550,432	231,211	0.0184	0.9816	86.71
18.5	10,724,551	78,054	0.0073	0.9927	85.11
19.5	10,812,422	322,982	0.0299	0.9701	84.49
20.5	9,468,414	37,906	0.0040	0.9960	81.97
21.5	9,609,732	62,020	0.0065	0.9935	81.64
22.5	9,543,450	153,592	0.0161	0.9839	81.11
23.5	9,334,263	87,607	0.0094	0.9906	79.81
24.5	9,070,811	59,133	0.0065	0.9935	79.06
25.5	8,792,217	707,485	0.0805	0.9195	78.54
26.5	4,703,706	32,521	0.0069	0.9931	72.22
27.5	4,778,474	397,707	0.0832	0.9168	71.72
28.5	6,059,797	298,086	0.0492	0.9508	65.75
29.5	6,184,153	215,062	0.0348	0.9652	62.52
30.5	5,152,304	387,965	0.0753	0.9247	60.35
31.5	5,356,247	72,674	0.0136	0.9864	55.80
32.5	3,421,800	52,448	0.0153	0.9847	55.05
33.5	2,753,091		0.0000	1.0000	54.20
34.5	2,272,767	1,055,181	0.4643	0.5357	54.20
35.5	635,826		0.0000	1.0000	29.04
36.5	779,480		0.0000	1.0000	29.04
37.5	801,627		0.0000	1.0000	29.04
38.5	778,140		0.0000	1.0000	29.04



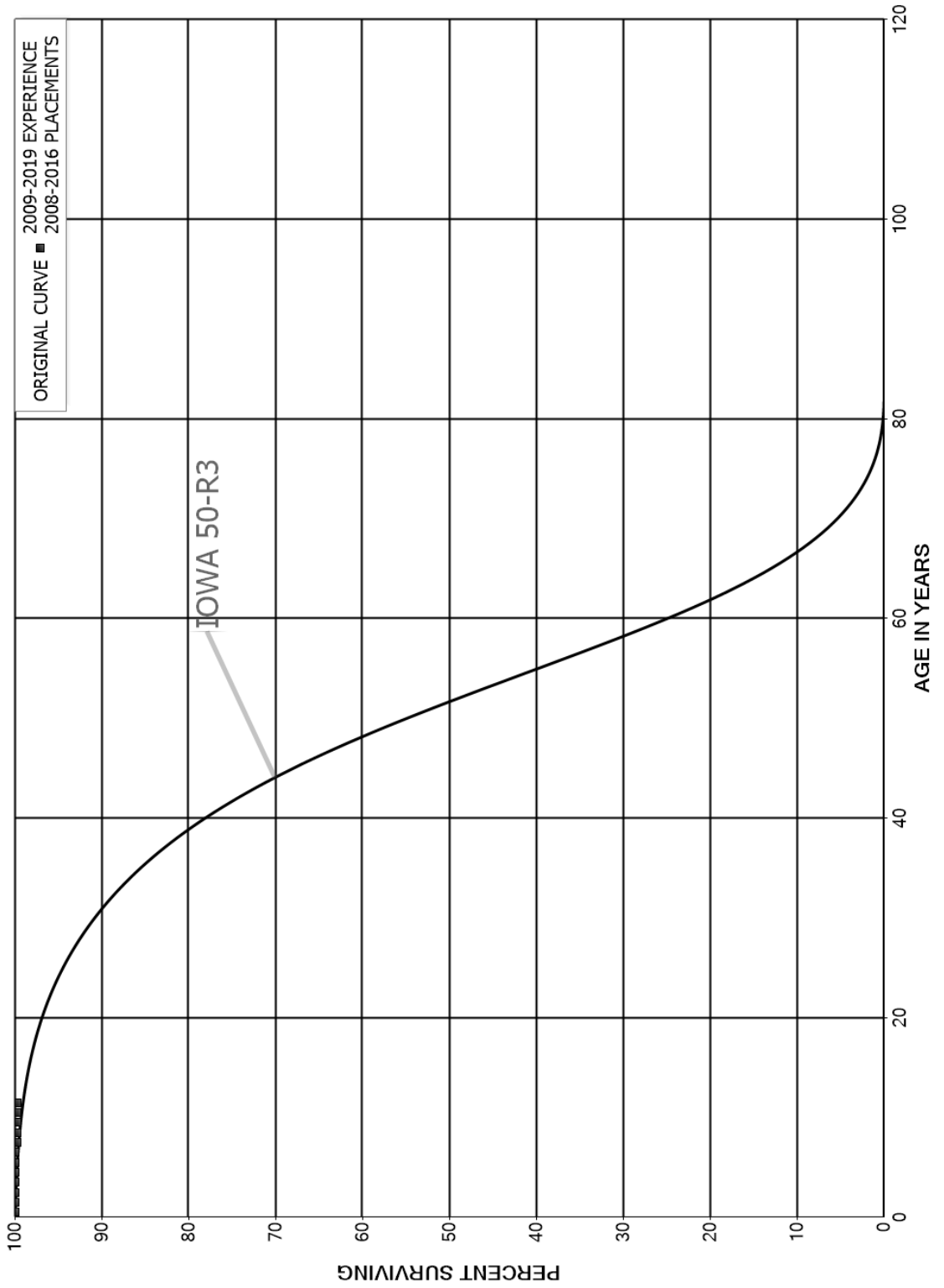
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019			EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	778,140	411	0.0005	0.9995	29.04	
40.5	777,730	285,407	0.3670	0.6330	29.02	
41.5	15,823,498		0.0000	1.0000	18.37	
42.5	15,823,498		0.0000	1.0000	18.37	
43.5	15,823,498	268,317	0.0170	0.9830	18.37	
44.5	515,644		0.0000	1.0000	18.06	
45.5	515,644		0.0000	1.0000	18.06	
46.5	371,038	60,316	0.1626	0.8374	18.06	
47.5	288,575		0.0000	1.0000	15.12	
48.5	288,575		0.0000	1.0000	15.12	
49.5	288,575		0.0000	1.0000	15.12	
50.5	288,575	6,818	0.0236	0.9764	15.12	
51.5	281,757	315	0.0011	0.9989	14.77	
52.5	107,182		0.0000	1.0000	14.75	
53.5	107,182	462	0.0043	0.9957	14.75	
54.5	23,321		0.0000	1.0000	14.69	
55.5	23,321		0.0000	1.0000	14.69	
56.5	298,010		0.0000	1.0000	14.69	
57.5	298,010		0.0000	1.0000	14.69	
58.5	298,010		0.0000	1.0000	14.69	
59.5	25,215		0.0000	1.0000	14.69	
60.5	25,215		0.0000	1.0000	14.69	
61.5	25,215	2,761	0.1095	0.8905	14.69	
62.5	1,894		0.0000	1.0000	13.08	
63.5	1,894		0.0000	1.0000	13.08	
64.5	1,894		0.0000	1.0000	13.08	
65.5	1,894		0.0000	1.0000	13.08	
66.5	1,894		0.0000	1.0000	13.08	
67.5	1,894		0.0000	1.0000	13.08	
68.5	1,894		0.0000	1.0000	13.08	
69.5	1,894		0.0000	1.0000	13.08	
70.5	1,894		0.0000	1.0000	13.08	
71.5	1,894		0.0000	1.0000	13.08	
72.5	1,894		0.0000	1.0000	13.08	
73.5	1,894		0.0000	1.0000	13.08	
74.5	1,894		0.0000	1.0000	13.08	
75.5	1,894		0.0000	1.0000	13.08	
76.5	1,894		0.0000	1.0000	13.08	
77.5	1,894	1,894	1.0000		13.08	
78.5						

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 381.00 PLANT SEWERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



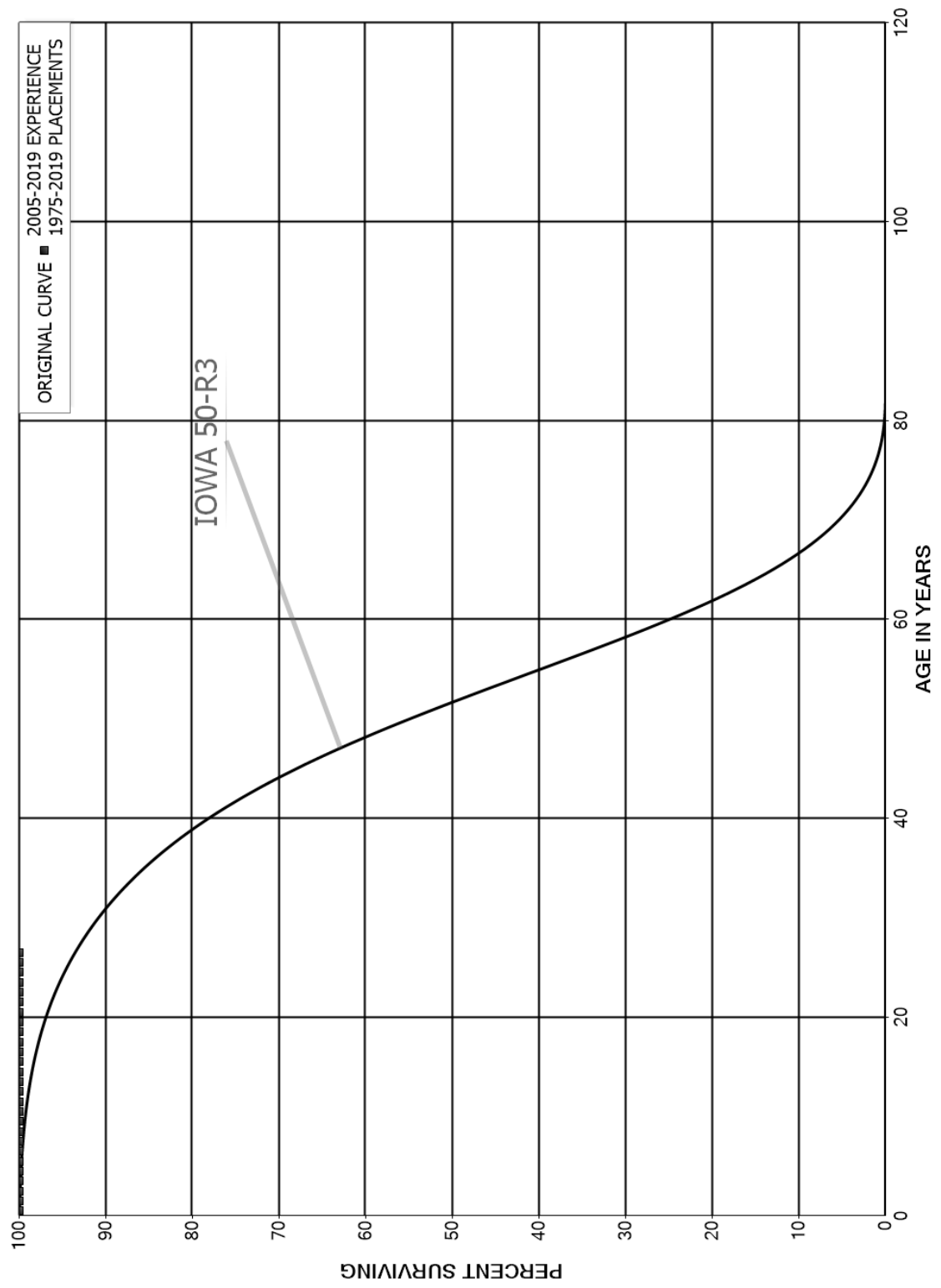
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2016			EXPERIENCE BAND 2009-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,524,134		0.0000	1.0000	100.00
0.5	6,227,961		0.0000	1.0000	100.00
1.5	6,227,961		0.0000	1.0000	100.00
2.5	6,227,961		0.0000	1.0000	100.00
3.5	6,182,721		0.0000	1.0000	100.00
4.5	6,175,263		0.0000	1.0000	100.00
5.5	5,940,945		0.0000	1.0000	100.00
6.5	5,940,945	13,300	0.0022	0.9978	100.00
7.5	5,925,961	2,120	0.0004	0.9996	99.78
8.5	5,917,243		0.0000	1.0000	99.74
9.5	4,729,279		0.0000	1.0000	99.74
10.5	294,412		0.0000	1.0000	99.74
11.5					99.74

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 382.00 OUTFALL SEWER LINES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1975-2019

EXPERIENCE BAND 2005-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,700,716		0.0000	1.0000	100.00
0.5	1,605,061		0.0000	1.0000	100.00
1.5	360,675		0.0000	1.0000	100.00
2.5	355,425		0.0000	1.0000	100.00
3.5	355,425		0.0000	1.0000	100.00
4.5	355,425		0.0000	1.0000	100.00
5.5	255,003		0.0000	1.0000	100.00
6.5	264,243		0.0000	1.0000	100.00
7.5	265,939		0.0000	1.0000	100.00
8.5	265,939		0.0000	1.0000	100.00
9.5	238,111		0.0000	1.0000	100.00
10.5	212,060		0.0000	1.0000	100.00
11.5	244,789	6	0.0000	1.0000	100.00
12.5	244,783		0.0000	1.0000	100.00
13.5	43,666		0.0000	1.0000	100.00
14.5	34,425		0.0000	1.0000	100.00
15.5	32,729		0.0000	1.0000	100.00
16.5	32,729		0.0000	1.0000	100.00
17.5	32,729		0.0000	1.0000	100.00
18.5	32,729		0.0000	1.0000	100.00
19.5	32,729		0.0000	1.0000	100.00
20.5	32,729		0.0000	1.0000	100.00
21.5	202,476		0.0000	1.0000	100.00
22.5	202,476		0.0000	1.0000	100.00
23.5	202,476		0.0000	1.0000	100.00
24.5	202,476		0.0000	1.0000	100.00
25.5	202,476		0.0000	1.0000	100.00
26.5					100.00
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5	4,984		0.0000		
37.5	4,984		0.0000		
38.5	4,984		0.0000		

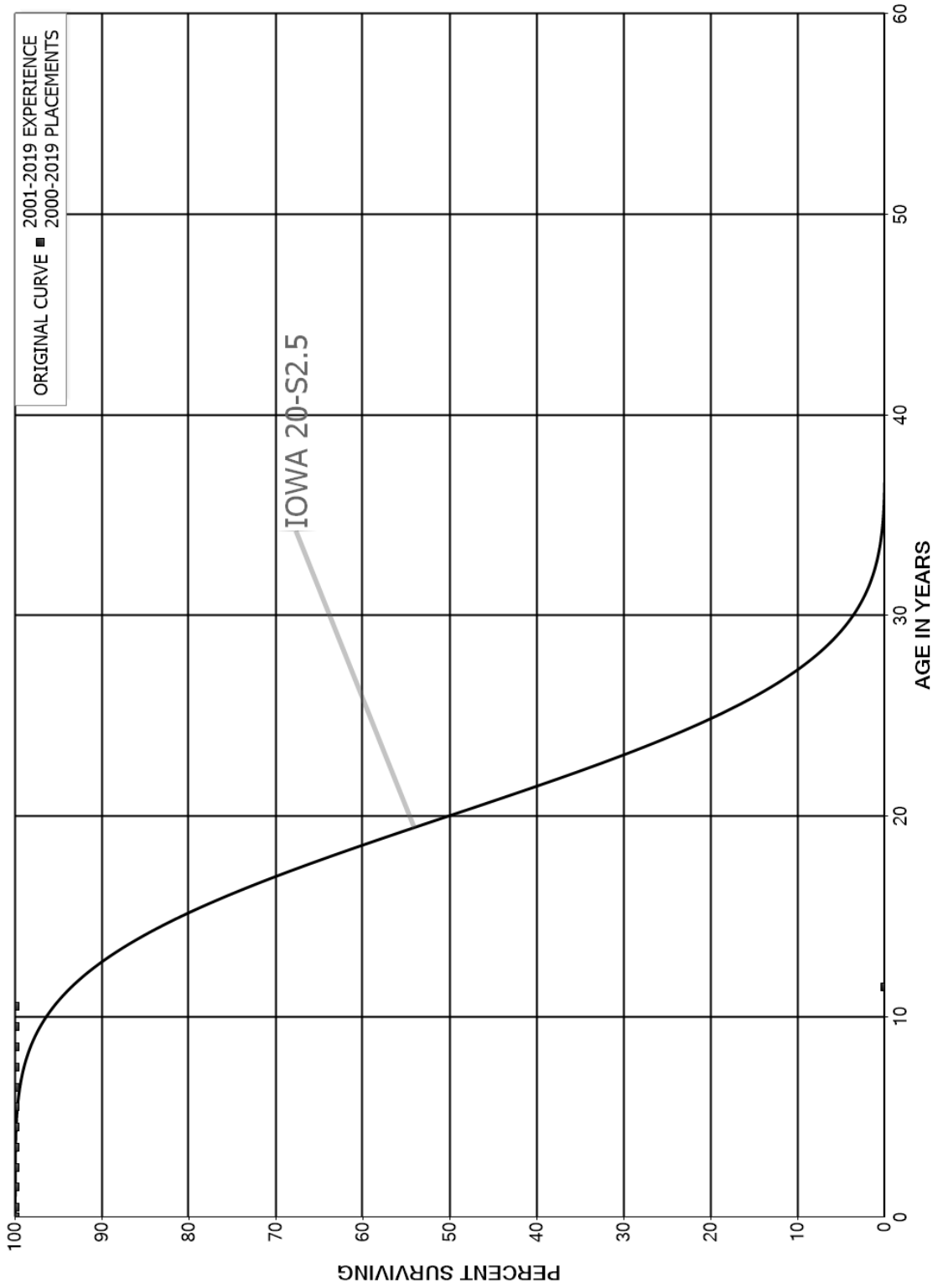
PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1975-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,984		0.0000		
40.5	4,984		0.0000		
41.5	4,984		0.0000		
42.5	4,984		0.0000		
43.5	4,984		0.0000		
44.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS

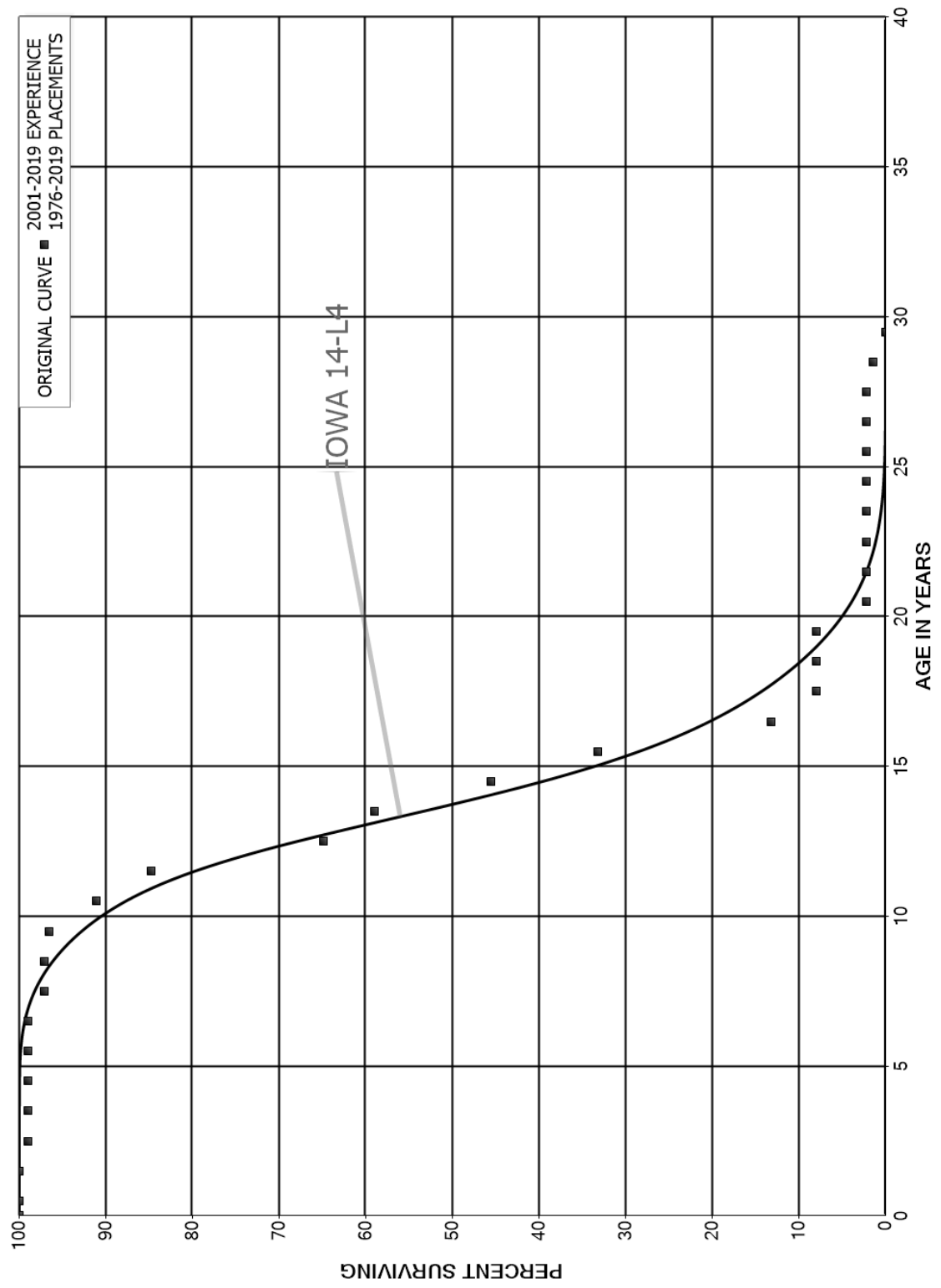
ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2000-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	737,756		0.0000	1.0000	100.00
0.5	437,340		0.0000	1.0000	100.00
1.5	405,165		0.0000	1.0000	100.00
2.5	4,547,918		0.0000	1.0000	100.00
3.5	4,547,918		0.0000	1.0000	100.00
4.5	4,547,918	2,997	0.0007	0.9993	100.00
5.5	4,544,921		0.0000	1.0000	99.93
6.5	393,353		0.0000	1.0000	99.93
7.5	393,353		0.0000	1.0000	99.93
8.5	281,642		0.0000	1.0000	99.93
9.5	8,492		0.0000	1.0000	99.93
10.5	8,492	8,492	1.0000		99.93
11.5					



PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 391.00 TRANSPORTATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



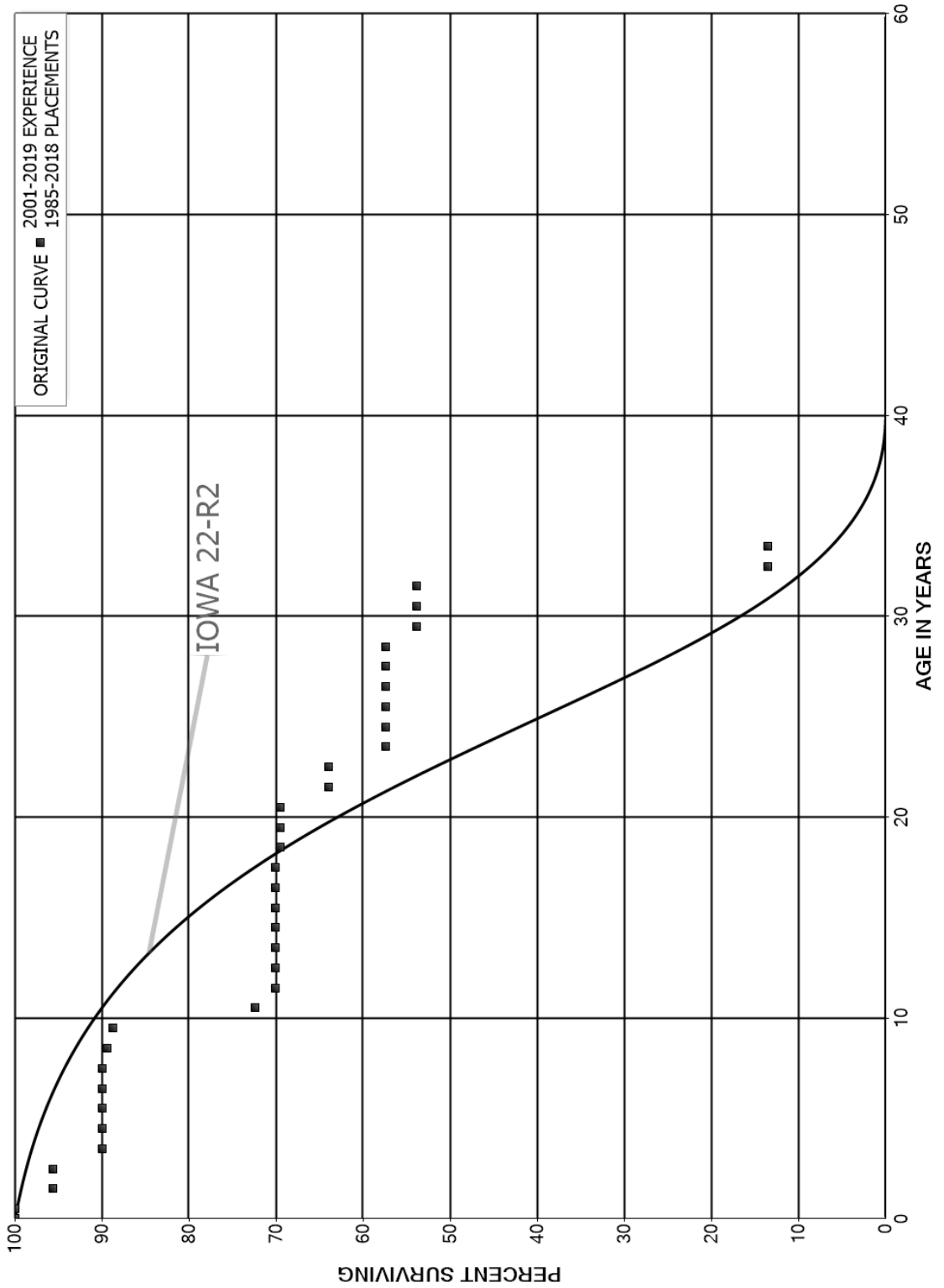
PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2019			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,168,919		0.0000	1.0000	100.00
0.5	3,692,372		0.0000	1.0000	100.00
1.5	1,458,511	14,523	0.0100	0.9900	100.00
2.5	2,332,879		0.0000	1.0000	99.00
3.5	2,514,168		0.0000	1.0000	99.00
4.5	1,930,107		0.0000	1.0000	99.00
5.5	1,664,209		0.0000	1.0000	99.00
6.5	1,677,203	32,676	0.0195	0.9805	99.00
7.5	1,535,566		0.0000	1.0000	97.08
8.5	1,373,777	8,793	0.0064	0.9936	97.08
9.5	1,545,830	87,008	0.0563	0.9437	96.45
10.5	879,899	61,030	0.0694	0.9306	91.03
11.5	743,329	174,600	0.2349	0.7651	84.71
12.5	440,822	40,215	0.0912	0.9088	64.81
13.5	348,542	79,500	0.2281	0.7719	58.90
14.5	276,542	75,000	0.2712	0.7288	45.47
15.5	195,354	117,872	0.6034	0.3966	33.14
16.5	51,900	20,700	0.3988	0.6012	13.14
17.5	31,200		0.0000	1.0000	7.90
18.5	32,855		0.0000	1.0000	7.90
19.5	32,855	23,700	0.7214	0.2786	7.90
20.5	9,155		0.0000	1.0000	2.20
21.5	9,155		0.0000	1.0000	2.20
22.5	9,155		0.0000	1.0000	2.20
23.5	9,155		0.0000	1.0000	2.20
24.5	14,155		0.0000	1.0000	2.20
25.5	14,155		0.0000	1.0000	2.20
26.5	14,155		0.0000	1.0000	2.20
27.5	14,155	5,000	0.3532	0.6468	2.20
28.5	9,155	9,155	1.0000		1.42
29.5					

PENNSYLVANIA-AMERICAN WATER COMPANY  
 ALL WASTEWATER OPERATIONS  
 ACCOUNT 395.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY  
ALL WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2018			EXPERIENCE BAND 2001-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	192,967		0.0000	1.0000	100.00
0.5	192,967	8,551	0.0443	0.9557	100.00
1.5	127,706		0.0000	1.0000	95.57
2.5	255,380	14,864	0.0582	0.9418	95.57
3.5	324,176		0.0000	1.0000	90.01
4.5	885,603		0.0000	1.0000	90.01
5.5	967,489		0.0000	1.0000	90.01
6.5	1,410,131		0.0000	1.0000	90.01
7.5	1,250,710	8,033	0.0064	0.9936	90.01
8.5	871,073	6,988	0.0080	0.9920	89.43
9.5	536,633	98,717	0.1840	0.8160	88.71
10.5	191,853	6,125	0.0319	0.9681	72.39
11.5	137,458		0.0000	1.0000	70.08
12.5	190,308		0.0000	1.0000	70.08
13.5	169,091		0.0000	1.0000	70.08
14.5	169,091		0.0000	1.0000	70.08
15.5	169,587		0.0000	1.0000	70.08
16.5	190,470		0.0000	1.0000	70.08
17.5	117,685	875	0.0074	0.9926	70.08
18.5	116,810		0.0000	1.0000	69.56
19.5	116,810		0.0000	1.0000	69.56
20.5	124,335	9,999	0.0804	0.9196	69.56
21.5	124,336		0.0000	1.0000	63.97
22.5	124,336	12,782	0.1028	0.8972	63.97
23.5	111,554		0.0000	1.0000	57.39
24.5	111,554		0.0000	1.0000	57.39
25.5	111,554		0.0000	1.0000	57.39
26.5	18,021		0.0000	1.0000	57.39
27.5	8,021		0.0000	1.0000	57.39
28.5	8,021	496	0.0618	0.9382	57.39
29.5	30,053		0.0000	1.0000	53.84
30.5	30,053		0.0000	1.0000	53.84
31.5	30,053	22,528	0.7496	0.2504	53.84
32.5	7,525		0.0000	1.0000	13.48
33.5					13.48

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**PART VII. DETAILED DEPRECIATION  
CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST	PCT OF
			(2)	(3)	CUMULATIVE AMOUNT (5)	COL 4 TOTAL (6)
1918	3,025,032	2,674,111	350,921		350,921	0.1
1938	1,110,337	936,729	173,608		524,529	0.1
1945	257,415	208,728	48,687		573,216	0.1
1950	997,609	768,129	229,480		802,696	0.2
1955	16,730,319	12,135,071	4,595,248		5,397,944	1.0
1959	65,307,389	47,134,295	18,173,094		23,571,038	4.6
1960	14,096,868	11,768,309	2,328,559		25,899,597	5.0
1962	11,334,440	7,716,959	3,617,481		29,517,078	5.7
1963	28,427,525	19,297,376	9,130,149		38,647,227	7.5
1965	818,321	562,804	255,517		38,902,744	7.6
1968	2,986,448	2,113,859	872,589		39,775,333	7.7
1970	1,039,164	687,292	351,872		40,127,205	7.8
1972	29,963,817	20,408,080	9,555,737		49,682,942	9.7
1973	920,520	613,579	306,941		49,989,883	9.7
1974	733,433	475,595	257,838		50,247,721	9.8
1975	35,172,896	26,849,776	8,323,120		58,570,841	11.4
1976	36,437,485	20,772,783	15,664,702		74,235,543	14.4
1977	551,339	347,925	203,414		74,438,957	14.5
1978	1,453,094	907,850	545,244		74,984,201	14.6
1979	1,529,490	941,825	587,665		75,571,866	14.7
1980	2,006,858	1,165,204	841,654		76,413,520	14.9
1981	1,194,744	715,828	478,916		76,892,436	14.9
1982	921,610	544,710	376,900		77,269,336	15.0
1983	661,485	383,636	277,849		77,547,185	15.1
1984	982,150	543,950	438,200		77,985,385	15.2
1985	3,503,341	2,013,700	1,489,641		79,475,026	15.4
1986	1,392,939	771,190	621,749		80,096,775	15.6
1987	2,591,929	1,674,542	917,387		81,014,162	15.7
1988	889,055	554,613	334,442		81,348,604	15.8
1989	26,557,975	11,952,416	14,605,559		95,954,163	18.7
1990	4,815,550	2,402,871	2,412,679		98,366,842	19.1
1991	2,004,205	994,585	1,009,620		99,376,462	19.3
1992	3,084,420	1,412,143	1,672,277		101,048,739	19.6
1993	478,669	209,634	269,035		101,317,774	19.7
1994	1,423,759	643,259	780,500		102,098,274	19.8
1995	17,666,140	9,803,577	7,862,563		109,960,837	21.4
1996	8,780,014	4,196,399	4,583,615		114,544,452	22.3
1997	420,757	179,906	240,851		114,785,303	22.3
1998	2,725,720	1,121,713	1,604,007		116,389,310	22.6
1999	13,185,795	4,703,425	8,482,370		124,871,680	24.3
2000	419,599	151,817	267,782		125,139,462	24.3
2001	2,523,060	1,272,222	1,250,838		126,390,300	24.6
2002	496,114	221,506	274,608		126,664,908	24.6
2003	2,226,073	996,213	1,229,860		127,894,768	24.9
2004	7,528,534	3,321,585	4,206,949		132,101,717	25.7

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2005	2,537,446	793,005	1,744,441		133,846,158	26.0
2006	5,370,142	2,031,322	3,338,820		137,184,978	26.7
2007	5,863,688	1,594,980	4,268,708		141,453,686	27.5
2008	4,552,944	1,519,585	3,033,359		144,487,045	28.1
2009	10,668,041	2,945,686	7,722,355		152,209,400	29.6
2010	17,554,135	5,689,239	11,864,896		164,074,296	31.9
2011	4,828,382	1,105,705	3,722,677		167,796,973	32.6
2012	3,422,858	1,429,463	1,993,395		169,790,368	33.0
2013	6,192,576	2,977,839	3,214,737		173,005,105	33.6
2014	29,223,910	7,473,202	21,750,708		194,755,813	37.9
2015	23,993,729	6,943,170	17,050,559		211,806,372	41.2
2016	39,523,885	7,486,581	32,037,304		243,843,676	47.4
2017	15,665,188	2,607,652	13,057,536		256,901,212	49.9
2018	12,354,856	2,299,201	10,055,655		266,956,867	51.9
2019	45,703,656	4,237,628	41,466,026		308,422,895	59.9
2020	54,706,063	5,332,119	49,373,942		357,796,839	69.5
2021	29,921,170	2,239,121	27,682,047		385,478,888	74.9
2022	40,306,717	2,102,529	38,204,188		423,683,077	82.3
2023	17,677,260	381,214	17,296,047		440,979,124	85.7
2024	81,457,250	452,677	81,004,574		521,983,698	101.5
9999	11,879,265-	4,390,175-	7,489,090-		514,494,608	100.0
SUBTOTAL	801,018,067	286,523,462	514,494,601			
NONDEPRECIABLE	4,463,355		4,463,355			
TOTAL	805,481,422	286,523,462	518,957,956			



**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2017	981,626.00	170,410	146,270	835,356	33.32	25,071
2018	1,892,100.26	283,815	243,609	1,648,491	34.00	48,485
2019	1,196,298.28	150,135	128,867	1,067,431	34.84	30,638
2020	172,331.79	17,371	14,910	157,422	35.68	4,412
2021	216,880.38	16,526	14,185	202,695	36.37	5,573
2022	1,938,356.51	99,244	85,185	1,853,172	37.06	50,005
2023	1,848,618.99	47,879	41,097	1,807,522	37.61	48,060
2024	812,632.04	5,363	4,603	808,029	37.77	21,393
	9,058,844.25	790,743	678,726	8,380,118		233,637
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						35.9 2.58

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1960	2,303,082.85	1,827,727	1,976,952	326,131	16.65	19,587
1968	671,326.79	500,004	540,827	130,500	19.19	6,800
1970	60,405.27	44,362	47,984	12,421	19.53	636
1972	432,344.07	310,250	335,580	96,764	20.46	4,729
1990	89,924.53	50,753	54,897	35,028	26.24	1,335
1995	131,932.60	67,338	72,836	59,097	27.82	2,124
1996	513,721.35	256,039	276,943	236,778	28.18	8,402
2000	105,072.37	47,409	51,280	53,792	29.19	1,843
2004	244,354.55	97,253	105,193	139,162	30.25	4,600
2005	52,725.90	20,236	21,888	30,838	30.50	1,011
2006	2,710,094.59	1,000,025	1,081,673	1,628,422	30.78	52,905
2011	7,145.91	2,062	2,230	4,916	32.05	153
2012	7,147.63	1,938	2,096	5,052	32.25	157
2013	148,319.26	37,525	40,589	107,730	32.48	3,317
2014	10,489,746.72	2,454,601	2,655,008	7,834,739	32.74	239,302
2015	40,952.90	8,772	9,488	31,465	33.02	953
2017	762,725.81	132,409	143,220	619,506	33.32	18,593
2018	1,526,953.41	232,708	251,708	1,275,245	33.37	38,215
2019	446,541.64	57,827	62,548	383,994	33.61	11,425
2021	237,069.10	19,416	21,001	216,068	33.63	6,425
2024	40,901.47	303	328	40,573	33.42	1,214
	21,022,488.72	7,168,957	7,754,269	13,268,220		423,726
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.3 2.02

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1960	10,286,772.65	8,163,583	8,663,880	1,622,893	16.65	97,471
1972	12,440,290.40	8,927,152	9,474,243	2,966,047	20.46	144,968
1975	17,615,904.87	12,257,147	13,008,313	4,607,592	21.42	215,107
1985	1,185,464.26	725,860	770,344	415,120	24.69	16,813
1993	12,571.10	6,703	7,114	5,457	27.14	201
1994	100,580.35	52,503	55,721	44,859	27.47	1,633
1995	8,690,119.63	4,435,437	4,707,258	3,982,862	27.82	143,165
1996	2,923,420.02	1,457,033	1,546,326	1,377,094	28.18	48,868
1999	75,064.00	34,717	36,845	38,219	29.05	1,316
2001	234,139.53	102,857	109,160	124,980	29.36	4,257
2003	1,475,890.94	607,477	644,706	831,185	30.02	27,688
2004	364,151.81	144,932	153,814	210,338	30.25	6,953
2006	130,036.76	47,984	50,925	79,112	30.78	2,570
2007	18,738.81	6,626	7,032	11,707	31.08	377
2008	401,705.96	135,616	143,927	257,779	31.39	8,212
2009	16,499.71	5,321	5,647	10,853	31.51	344
2010	12,038,187.30	3,674,055	3,899,215	8,138,972	31.87	255,380
2011	390,432.17	112,679	119,584	270,848	32.05	8,451
2012	280,511.60	76,075	80,737	199,775	32.25	6,195
2013	8,276.37	2,094	2,222	6,054	32.48	186
2014	16,722,845.33	3,913,146	4,152,959	12,569,886	32.74	383,931
2015	5,536,636.41	1,185,948	1,258,628	4,278,008	33.02	129,558
2016	19,726,378.79	3,834,808	4,069,820	15,656,559	33.15	472,294
2017	3,082,373.65	535,100	567,893	2,514,481	33.32	75,465
2018	101,300.93	15,438	16,384	84,917	33.37	2,545
2019	265,000.39	34,318	36,421	228,579	33.61	6,801
2020	1,057,076.41	112,473	119,366	937,710	33.59	27,916
2021	9,192,769.73	752,888	799,028	8,393,742	33.63	249,591
2022	3,929.79	220	233	3,697	33.71	110
2024	15,226,325.64	112,675	119,581	15,106,745	33.42	452,027
9999	2,500,000.00-	921,770-	978,260-	1,521,740-		49,970-
	137,103,395.31	50,551,095	53,649,066	83,454,329		2,740,423

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.5 2.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1991	19,943.82	14,677	13,977	5,967	11.84	504
2002	19,053.44	11,150	10,618	8,435	15.59	541
2004	37,115.59	20,414	19,441	17,675	16.36	1,080
2012	396,359.96	151,727	144,493	251,867	19.35	13,016
2015	420,858.84	128,025	121,922	298,937	20.59	14,519
2020	21,916.13	3,296	3,139	18,777	22.60	831
2021	1,978.37	229	218	1,760	22.97	77
2024	141,904.08	1,462	1,392	140,512	23.96	5,864
	1,059,130.23	330,980	315,200	743,930		36,432
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.4 3.44

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2015	660,421.77	89,157	72,585	587,837	57.67	10,193
2018	120,153.54	10,958	8,921	111,233	59.79	1,860
2019	34,520.65	2,624	2,136	32,385	60.79	533
2020	341,239.44	20,884	17,002	324,237	61.36	5,284
2021	1,868,836.86	86,340	70,292	1,798,545	61.94	29,037
2022	4,553,417.42	141,156	114,920	4,438,497	62.52	70,993
2023	544,669.52	8,551	6,962	537,708	62.69	8,577
2024	13,487,396.38	53,950	43,922	13,443,474	62.64	214,615
	21,610,655.58	413,620	336,740	21,273,916		341,092
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						62.4 1.58

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1918	2,879,240.77	2,624,716	2,528,319	350,922	10.28	34,136
1938	822,872.76	700,594	674,864	148,009	15.01	9,861
1945	203,926.98	165,935	159,841	44,086	18.09	2,437
1950	858,360.15	673,298	648,570	209,790	20.34	10,314
1955	16,610,335.29	12,492,633	12,033,822	4,576,513	22.74	201,254
1959	55,245,732.65	40,218,893	38,741,793	16,503,940	24.29	679,454
1960	1,030,136.33	738,402	711,283	318,853	25.29	12,608
1962	11,334,439.67	8,011,182	7,716,959	3,617,481	25.72	140,649
1963	26,687,156.07	18,558,248	17,876,668	8,810,488	26.72	329,734
1965	634,649.09	430,609	414,794	219,855	27.96	7,863
1968	1,795,080.17	1,176,137	1,132,942	662,138	29.47	22,468
1970	750,252.94	478,061	460,503	289,750	30.75	9,423
1972	15,171,421.33	9,466,967	9,119,279	6,052,142	31.33	193,174
1973	516,087.51	315,846	304,246	211,842	32.33	6,552
1974	457,688.97	276,902	266,732	190,957	32.64	5,850
1975	2,133,970.15	1,265,231	1,218,764	915,206	33.64	27,206
1976	35,248,200.70	20,641,346	19,883,262	15,364,939	33.97	452,309
1977	314,736.68	180,470	173,842	140,895	34.97	4,029
1978	821,148.21	464,606	447,543	373,605	35.30	10,584
1979	866,984.60	483,777	466,010	400,975	35.65	11,248
1980	1,408,489.04	768,472	740,249	668,240	36.65	18,233
1981	666,228.05	358,098	344,946	321,282	37.00	8,683
1982	497,879.64	261,387	251,787	246,093	38.00	6,476
1983	366,320.04	189,241	182,291	184,029	38.37	4,796
1984	636,459.20	323,321	311,447	325,012	38.74	8,390
1985	1,578,123.63	781,645	752,938	825,186	39.74	20,765
1986	743,473.81	361,626	348,345	395,129	40.12	9,849
1987	689,954.00	326,762	314,761	375,193	41.12	9,124
1988	276,301.44	128,314	123,601	152,700	41.52	3,678
1989	24,352,116.12	10,994,980	10,591,173	13,760,943	42.52	323,635
1990	2,854,686.85	1,261,772	1,215,431	1,639,256	42.92	38,193
1991	1,107,279.86	478,677	461,097	646,183	43.34	14,910
1992	2,113,526.40	885,990	853,451	1,260,075	44.34	28,418
1993	359,876.40	147,261	141,853	218,023	44.76	4,871
1994	939,655.42	372,104	358,438	581,217	45.76	12,701
1995	2,283,152.04	880,612	848,270	1,434,882	46.19	31,065
1996	3,458,894.99	1,297,777	1,250,114	2,208,781	46.63	47,368
1997	221,462.38	80,125	77,182	144,280	47.63	3,029
1998	1,453,161.53	510,060	491,327	961,835	48.07	20,009
1999	11,495,641.96	3,908,518	3,764,972	7,730,670	48.53	159,297
2000	302,504.34	98,737	95,111	207,393	49.53	4,187

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2001	542,184.95	170,842	164,568	377,617	49.99	7,554
2002	202,588.74	61,060	58,817	143,772	50.99	2,820
2003	33,556.03	9,725	9,368	24,188	51.46	470
2004	1,866,328.84	518,839	499,784	1,366,545	51.94	26,310
2005	1,346,106.17	355,507	342,450	1,003,656	52.94	18,958
2006	1,131,445.55	285,124	274,652	856,794	53.43	16,036
2007	4,879,419.72	1,169,597	1,126,642	3,752,778	53.92	69,599
2008	2,337,532.53	531,087	511,582	1,825,951	54.42	33,553
2009	9,120,908.11	1,942,753	1,871,402	7,249,506	55.42	130,810
2010	3,732,242.13	747,195	719,753	3,012,489	55.93	53,862
2011	3,662,184.02	685,561	660,383	3,001,801	56.44	53,186
2012	260,057.11	45,250	43,588	216,469	56.97	3,800
2013	435,842.43	69,996	67,425	368,417	57.49	6,408
2014	1,124,072.47	165,239	159,170	964,902	58.03	16,628
2015	16,159.67	2,152	2,073	14,087	58.57	241
2016	12,881,899.37	1,535,522	1,479,128	11,402,771	59.11	192,908
2017	6,830,219.68	717,173	690,834	6,139,386	59.67	102,889
2018	3,902,837.19	353,597	340,611	3,562,226	60.23	59,144
2019	37,701,189.98	2,884,141	2,778,216	34,922,974	60.36	578,578
2020	30,735,403.42	1,893,301	1,823,767	28,911,636	60.94	474,428
2021	11,234,521.73	529,146	509,712	10,724,810	60.69	176,715
2022	11,318,117.24	362,180	348,878	10,969,239	60.50	181,310
2023	10,743,411.36	177,266	170,756	10,572,655	59.61	177,364
2024	30,874,115.67	132,759	127,883	30,746,233	57.55	534,253
9999	8,245,749.14-	3,130,755-	3,015,773-	5,229,976-		115,426-
	410,854,203.13	155,993,589	150,264,489	260,589,714		5,751,228
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.3 1.40



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1918	145,791.55	145,792	145,792			
1938	234,316.62	227,709	208,718	25,599	2.50	10,240
1945	37,159.40	35,521	32,559	4,600	3.64	1,264
1950	93,076.91	87,474	80,179	12,898	4.74	2,721
1955	77,905.46	72,031	66,024	11,881	5.63	2,110
1959	10,061,656.23	9,156,107	8,392,502	1,669,154	6.43	259,588
1960	118,595.45	107,780	98,791	19,804	6.42	3,085
1963	1,740,368.98	1,549,973	1,420,708	319,661	7.49	42,678
1965	111,180.29	98,395	90,189	20,991	7.67	2,737
1968	61,054.47	52,995	48,575	12,479	8.52	1,465
1970	127,354.94	109,347	100,228	27,127	8.89	3,051
1972	1,366,633.03	1,151,252	1,055,239	311,394	9.73	32,003
1973	292,480.81	244,631	224,229	68,252	9.98	6,839
1974	141,465.58	117,416	107,624	33,842	10.24	3,305
1975	418,642.64	344,627	315,886	102,757	10.52	9,768
1976	1,189,284.15	970,456	889,521	299,763	10.82	27,705
1977	132,817.42	107,370	98,416	34,401	11.14	3,088
1978	358,041.54	286,576	262,676	95,366	11.47	8,314
1979	369,432.35	290,928	266,665	102,767	12.14	8,465
1980	338,703.23	263,782	241,783	96,920	12.50	7,754
1981	298,996.08	230,137	210,944	88,052	12.87	6,842
1982	237,580.49	180,609	165,546	72,034	13.25	5,437
1983	164,890.28	123,717	113,399	51,491	13.64	3,775
1984	190,676.75	141,101	129,333	61,344	14.05	4,366
1985	420,339.84	306,554	280,988	139,352	14.48	9,624
1986	358,425.92	257,421	235,953	122,473	14.91	8,214
1987	248,491.50	175,609	160,963	87,528	15.36	5,698
1988	95,521.94	66,025	60,519	35,003	16.08	2,177
1989	1,467,920.90	996,718	913,593	554,328	16.55	33,494
1990	1,021,711.46	680,869	624,086	397,625	17.02	23,362
1991	477,297.70	311,866	285,857	191,441	17.51	10,933
1992	443,937.26	282,699	259,122	184,815	18.25	10,127
1993	106,221.41	66,187	60,667	45,554	18.75	2,430
1994	172,006.43	104,752	96,016	75,990	19.26	3,945
1995	497,751.44	294,470	269,912	227,839	20.02	11,381
1996	763,577.85	440,432	403,701	359,877	20.54	17,521
1997	99,171.62	55,427	50,804	48,368	21.31	2,270
1998	665,537.90	359,923	329,906	335,632	22.08	15,201
1999	376,697.64	197,766	181,273	195,425	22.62	8,639
2001	40,181.12	19,592	17,958	22,223	24.17	919
2004	390,532.32	167,929	153,924	236,608	26.51	8,925

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2005	622,015.06	255,275	233,985	388,030	27.30	14,214
2006	484,949.04	188,548	172,823	312,126	28.30	11,029
2007	261,284.44	96,388	88,349	172,935	29.08	5,947
2008	302,479.32	105,505	96,706	205,773	29.87	6,889
2010	100,493.52	30,811	28,241	72,253	31.66	2,282
2011	258,306.95	73,540	67,407	190,900	32.66	5,845
2012	100,183.16	26,448	24,242	75,941	33.45	2,270
2013	16,185.29	3,917	3,590	12,595	34.45	366
2014	101,858.37	22,409	20,540	81,318	35.45	2,294
2016	19,977.81	3,516	3,223	16,755	37.45	447
2018	20,869.91	2,767	2,536	18,334	39.25	467
2019	2,569,906.48	283,975	260,293	2,309,613	40.25	57,382
2020	1,739,475.69	153,770	140,946	1,598,530	41.25	38,752
2021	987,889.16	65,497	60,035	927,854	42.25	21,961
2022	2,881,785.03	127,375	116,752	2,765,033	43.25	63,931
2023	1,551,076.00	34,279	31,420	1,519,656	44.25	34,343
2024	8,587,015.86	47,229	43,291	8,543,725	45.00	189,861

46,559,179.99    22,401,214    20,545,147    26,014,033    1,089,740

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.9    2.34

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1938	53,147.14	53,147	53,147			
1945	16,328.38	16,328	16,328			
1950	46,171.56	45,442	39,380	6,792	1.19	5,708
1955	42,077.94	40,647	35,225	6,853	2.43	2,820
1960	68,284.23	64,679	56,051	12,233	3.57	3,427
1965	72,491.16	66,721	57,821	14,670	5.10	2,876
1970	101,150.80	90,672	78,577	22,574	6.24	3,618
1972	553,128.40	488,966	423,739	129,389	6.82	18,972
1973	111,951.92	98,204	85,104	26,848	7.14	3,760
1974	134,278.83	116,823	101,239	33,040	7.47	4,423
1975	320,960.89	275,224	238,510	82,451	8.14	10,129
1977	103,784.74	87,314	75,667	28,118	8.87	3,170
1978	273,904.30	228,053	197,631	76,273	9.25	8,246
1979	293,072.58	241,345	209,150	83,923	9.64	8,706
1980	259,665.98	211,368	183,172	76,494	10.05	7,611
1981	229,520.27	184,557	159,938	69,582	10.48	6,640
1982	186,149.60	146,984	127,377	58,773	11.19	5,252
1983	130,274.80	101,484	87,946	42,329	11.63	3,640
1984	155,013.76	119,051	103,170	51,844	12.08	4,292
1985	319,413.20	241,668	209,430	109,983	12.55	8,764
1986	291,039.01	215,660	186,892	104,147	13.28	7,842
1987	202,201.63	147,385	127,724	74,478	13.76	5,413
1988	69,605.70	49,866	43,214	26,392	14.25	1,852
1989	737,937.95	516,557	447,650	290,288	15.00	19,353
1990	823,468.62	565,558	490,114	333,355	15.50	21,507
1991	389,289.29	260,785	225,997	163,292	16.26	10,043
1992	526,956.10	345,683	299,570	227,386	16.78	13,551
1994	65,810.69	41,066	35,588	30,223	18.08	1,672
1995	99,520.22	60,608	52,523	46,997	18.62	2,524
1996	263,637.05	155,757	134,979	128,658	19.39	6,635
1997	86,579.58	49,558	42,947	43,633	20.17	2,163
1998	570,070.72	317,187	274,875	295,196	20.73	14,240
1999	164,467.97	88,402	76,609	87,859	21.51	4,085
2000	12,022.44	6,261	5,426	6,596	22.08	299
2004	187,633.12	83,309	72,196	115,437	25.05	4,608
2005	500,613.58	213,061	184,639	315,975	25.64	12,324
2006	404,875.60	163,975	142,101	262,775	26.44	9,939
2007	228,244.78	87,692	75,994	152,251	27.25	5,587
2008	64,804.97	23,537	20,397	44,408	28.05	1,583
2009	79,411.04	27,278	23,639	55,772	28.67	1,945
2011	170,689.46	51,258	44,420	126,269	30.29	4,169

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2012	79,809.25	22,219	19,255	60,554	31.10	1,947
2013	16,071.32	4,119	3,570	12,501	31.92	392
2014	58,383.29	13,720	11,890	46,493	32.55	1,428
2016	134,320.84	25,467	22,070	112,251	34.19	3,283
2017	244,196.84	40,683	35,256	208,941	35.02	5,966
2018	199,862.89	28,660	24,837	175,026	35.84	4,884
2019	316,808.77	38,017	32,946	283,863	36.67	7,741
2020	725,409.88	70,220	60,853	664,557	37.32	17,807
2021	1,089,725.72	79,441	68,844	1,020,882	38.15	26,760
2022	1,094,270.26	53,619	46,466	1,047,804	38.82	26,991
2023	591,029.28	14,658	12,702	578,327	39.32	14,708
2024	2,924,795.47	18,426	15,968	2,908,827	39.43	73,772
9999	1,133,516.15-	456,403-	396,142-	737,374-		30,148-
	15,750,817.66	6,341,966	5,504,611	10,246,207		418,919
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.5 2.66

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1960	34,668.83	34,669	34,669			
1996	10,667.26	9,857	8,404	2,263	2.30	984
1998	11,518.92	10,482	8,937	2,582	2.57	1,005
2008	91,182.72	71,925	61,321	29,862	4.28	6,977
2010	110,716.42	83,857	71,494	39,222	4.48	8,755
2011	38,771.91	28,579	24,366	14,406	4.64	3,105
2013	175,978.36	120,404	102,653	73,325	5.08	14,434
2015	40,642.36	24,690	21,050	19,592	5.81	3,372
2016	442,654.44	247,178	210,736	231,918	6.33	36,638
2017	160,544.63	80,802	68,889	91,656	6.91	13,264
2018	43,907.33	19,416	16,553	27,354	7.57	3,613
2019	795,450.85	299,487	255,333	540,118	8.28	65,232
2020	73,232.10	22,497	19,180	54,052	9.02	5,992
2022	69,257.60	10,943	9,330	59,928	10.66	5,622
	2,099,193.73	1,064,786	912,915	1,186,279		168,993
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.0 8.05

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1991	10,394.30	8,232	7,657	2,737	8.67	316
1996	810,381.57	594,496	552,993	257,389	10.17	25,309
1997	11,609.29	8,338	7,756	3,853	10.59	364
1998	25,431.42	17,919	16,668	8,763	10.90	804
2001	68,956.72	45,360	42,193	26,764	11.97	2,236
2002	50,755.56	32,605	30,329	20,427	12.25	1,668
2004	376,755.74	228,314	212,375	164,381	13.00	12,645
2005	8,408.52	4,937	4,592	3,817	13.36	286
2006	393,616.87	223,889	208,259	185,358	13.65	13,579
2007	12,527.31	6,857	6,378	6,149	14.06	437
2008	18,645.15	9,815	9,130	9,515	14.40	661
2009	453,561.97	228,595	212,636	240,926	14.76	16,323
2010	691,674.46	332,142	308,954	382,720	15.15	25,262
2011	125,592.03	57,144	53,155	72,437	15.57	4,652
2012	1,539,964.36	661,569	615,383	924,581	15.93	58,040
2013	405,801.76	163,376	151,970	253,832	16.32	15,553
2014	91,129.00	34,082	31,703	59,426	16.74	3,550
2015	3,889,839.77	1,340,828	1,247,221	2,642,619	17.11	154,449
2016	1,222,465.12	383,365	356,601	865,864	17.51	49,450
2017	144,542.87	40,573	37,740	106,803	17.94	5,953
2018	1,338,460.05	330,064	307,022	1,031,438	18.33	56,270
2019	550,799.86	115,943	107,849	442,951	18.75	23,624
2020	1,320,632.37	228,205	212,273	1,108,359	19.15	57,878
2021	318,777.23	42,365	39,407	279,370	19.57	14,275
2022	638,655.92	58,245	54,179	584,477	19.93	29,326
2023	126,220.64	5,932	5,518	120,703	20.28	5,952
2024	2,581,945.62	30,983	28,820	2,553,126	20.54	124,300
	17,227,545.48	5,234,173	4,868,761	12,358,784		703,162
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.6 4.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1960	255,327.29	250,016	226,683	28,644	1.36	21,062
1968	458,986.56	431,815	391,515	67,472	3.52	19,168
1975	14,683,417.87	13,310,518	12,068,303	2,615,115	5.05	517,845
1987	1,451,282.36	1,181,344	1,071,094	380,188	8.45	44,993
1988	447,626.40	360,966	327,279	120,347	8.64	13,929
1990	25,758.59	20,231	18,343	7,416	9.29	798
1994	145,705.78	107,531	97,496	48,210	10.65	4,527
1995	5,078,635.25	3,667,283	3,325,030	1,753,605	11.16	157,133
1996	35,713.95	25,300	22,939	12,775	11.53	1,108
1997	1,933.85	1,342	1,217	717	11.91	60
1999	1,056,630.13	700,017	634,687	421,943	12.74	33,120
2001	1,631,423.82	1,028,123	932,173	699,251	13.50	51,796
2002	196,659.30	120,277	109,052	87,607	13.97	6,271
2003	90,803.57	53,774	48,755	42,049	14.46	2,908
2004	4,006,866.37	2,291,928	2,078,032	1,928,834	14.97	128,847
2006	15,929.39	8,430	7,643	8,286	16.01	518
2007	294,096.92	148,989	135,084	159,013	16.56	9,602
2008	1,125,639.55	543,909	493,148	632,492	17.11	36,966
2009	55,249.83	25,360	22,993	32,257	17.68	1,824
2010	59,518.25	25,831	23,420	36,098	18.26	1,977
2012	120,496.07	45,837	41,559	78,937	19.55	4,038
2013	57,902.31	20,445	18,537	39,365	20.15	1,954
2014	33,842.15	10,965	9,942	23,900	20.86	1,146
2015	11,562,060.57	3,402,714	3,085,153	8,476,908	21.58	392,813
2016	4,132,546.71	1,090,992	989,174	3,143,373	22.30	140,958
2017	2,480,216.71	578,139	524,184	1,956,033	23.03	84,934
2018	1,101,108.35	221,983	201,266	899,842	23.76	37,872
2019	167,380.29	28,287	25,647	141,733	24.59	5,764
2020	9,840,901.15	1,338,363	1,213,460	8,627,441	25.41	339,529
2021	2,375,646.06	243,741	220,994	2,154,652	26.24	82,113
2022	14,101,072.84	967,334	877,056	13,224,017	27.15	487,072
2023	930,294.59	32,002	29,016	901,279	28.07	32,108
2024	4,624,796.34	39,773	36,061	4,588,735	28.82	159,221
	82,645,469.17	32,323,559	29,306,935	53,338,534		2,823,974

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.9 3.42

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1995	874,635.54	504,752	517,355	357,281	21.25	16,813
1999	17,293.00	8,819	9,039	8,254	24.02	344
2002	27,056.54	12,381	12,690	14,367	26.08	551
2003	603,123.96	264,711	271,320	331,804	26.85	12,358
2004	48,787.57	20,491	21,003	27,785	27.62	1,006
2016	5,448.80	972	996	4,453	36.84	121
	1,576,345.41	812,126	832,403	743,942		31,193
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.8 1.98



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2017	12,867.84	2,018	4,247	8,621	37.64	229
2018	176,024.64	23,763	50,011	126,014	38.44	3,278
2019	357.89	40	84	274	39.25	7
	189,250.37	25,821	54,342	134,908		3,514
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						38.4 1.86

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2003	732.57	622	529	204	3.75	54
2013	4,140,223.53	2,349,991	1,999,400	2,140,824	8.38	255,468
2019	38.03	10	9	29	13.25	2
2020	6,201,677.71	1,364,369	1,160,821	5,040,857	14.18	355,491
2022	397,382.52	43,871	37,326	360,057	16.12	22,336
	10,740,054.36	3,758,863	3,198,085	7,541,969		633,351
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.9 5.90

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	7,577.02	7,198	5,451	2,126	1.00	2,126
2008	12,008.00	9,606	7,275	4,733	4.00	1,183
2009	12,846.21	9,635	7,297	5,549	5.00	1,110
2010	44,755.08	31,329	23,727	21,028	6.00	3,505
2011	17,379.55	11,297	8,556	8,824	7.00	1,261
2012	39,909.19	23,946	18,135	21,774	8.00	2,722
2013	4,929.42	2,711	2,053	2,876	9.00	320
2014	23,508.40	11,754	8,902	14,606	10.00	1,461
2015	19,770.58	8,897	6,738	13,033	11.00	1,185
2016	717,221.40	286,889	217,275	499,946	12.00	41,662
2017	200,445.74	70,156	53,133	147,313	13.00	11,332
2018	57,523.48	17,257	13,070	44,453	14.00	3,175
2019	218,312.76	54,578	41,335	176,978	15.00	11,799
2020	417,202.09	83,440	63,193	354,009	16.00	22,126
2021	305,742.77	45,861	34,733	271,010	17.00	15,942
2022	247,326.91	24,733	18,731	228,596	18.00	12,700
2023	204,543.40	10,227	7,745	196,798	19.00	10,358
2024	398,391.85	4,980	3,772	394,620	19.75	19,981
	2,949,393.85	714,494	541,121	2,408,273		163,948
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.7 5.56

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
1995	10,392.93	10,393	10,393			
2001	6,173.70	5,921	6,170	4	0.98	4
2003	21,966.05	20,666	21,535	431	1.32	327
2004	6,008.28	5,588	5,823	185	1.51	123
2006	93,223.72	84,405	87,952	5,272	1.88	2,804
2007	147,736.77	131,855	137,396	10,341	2.05	5,044
2008	145,514.68	127,820	133,192	12,323	2.21	5,576
2009	655,273.42	568,122	591,998	63,275	2.30	27,511
2010	248,771.46	212,103	221,017	27,754	2.42	11,469
2011	90,413.47	75,224	78,385	12,028	2.62	4,591
2012	280,791.01	225,082	234,541	46,250	2.97	15,572
2013	586,483.73	446,431	465,193	121,291	3.45	35,157
2014	553,862.95	393,243	409,769	144,094	4.08	35,317
2015	696,491.65	454,461	473,560	222,932	4.79	46,541
2016	185,432.83	109,480	114,081	71,352	5.55	12,856
2017	177,709.69	92,924	96,829	80,881	6.39	12,657
2018	1,449,302.96	654,795	682,313	766,990	7.28	105,356
2019	840,388.69	318,087	331,455	508,934	8.21	61,990
2021	89,577.43	20,370	21,226	68,351	10.19	6,708
2022	869,888.42	131,875	137,418	732,470	11.19	65,458
2023	602,789.08	45,691	47,611	555,178	12.19	45,544
2024	551,148.31	10,472	10,912	540,236	12.94	41,749
	8,309,341.23	4,145,008	4,318,769	3,990,572		542,354

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.4 6.53

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	6,402.78	1,793	1,617	4,786	18.00	266
2020	100,441.50	16,071	14,498	85,944	21.00	4,093
	106,844.28	17,864	16,115	90,729		4,359
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.8 4.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	5,970.32	5,373	5,294	676	2.00	338
2007	7,829.70	6,655	6,557	1,273	3.00	424
2008	5,161.15	4,129	4,068	1,093	4.00	273
2009	28,227.61	21,171	20,858	7,370	5.00	1,474
2010	23,867.97	16,708	16,461	7,407	6.00	1,234
2011	11,907.00	7,740	7,626	4,281	7.00	612
2012	34,047.65	20,429	20,127	13,921	8.00	1,740
2013	19,113.82	10,513	10,358	8,756	9.00	973
2014	13,575.00	6,788	6,688	6,887	10.00	689
2015	28,072.98	12,633	12,446	15,627	11.00	1,421
2016	36,897.99	14,759	14,541	22,357	12.00	1,863
2017	210,186.54	73,565	72,479	137,708	13.00	10,593
2018	247,854.50	74,356	73,258	174,596	14.00	12,471
2019	188,452.28	47,113	46,417	142,035	15.00	9,469
2020	225,198.10	45,040	44,375	180,823	16.00	11,301
2021	211,300.01	31,695	31,227	180,073	17.00	10,593
2022	627,893.94	62,789	61,861	566,033	18.00	31,446
2023	360,853.73	18,043	17,777	343,077	19.00	18,057
2024	799,336.12	9,992	9,844	789,492	19.75	39,974
	3,085,746.41	489,491	482,262	2,603,484		154,945
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.8 5.02

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	63,682.43	59,437	54,233	9,449	1.00	9,449
2011	7,356.65	6,376	5,818	1,539	2.00	770
2012	727.50	582	531	196	3.00	65
2013	4,573.96	3,354	3,060	1,514	4.00	378
2014	8,402.05	5,601	5,111	3,291	5.00	658
2015	18,226.62	10,936	9,978	8,249	6.00	1,375
2017	9,868.23	4,605	4,202	5,666	8.00	708
2018	16,270.55	6,508	5,938	10,333	9.00	1,148
2019	88,575.86	29,525	26,940	61,636	10.00	6,164
2020	15,147.63	4,039	3,685	11,463	11.00	1,042
2021	14,898.86	2,980	2,719	12,180	12.00	1,015
2022	1,022,807.99	136,371	124,431	898,377	13.00	69,106
2023	53,458.61	3,564	3,252	50,207	14.00	3,586
2024	40,901.49	682	622	40,279	14.75	2,731
	1,364,898.43	274,560	250,520	1,114,378		98,195

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.3 7.19

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
2007	13,810.00	9,461	11,548	2,262	7.81	290
2008	48,270.00	31,820	38,839	9,431	8.27	1,140
2009	246,063.00	155,020	189,216	56,847	8.81	6,453
2010	440,226.19	264,400	322,724	117,502	9.31	12,621
2011	45,902.54	26,077	31,829	14,074	9.88	1,424
2012	282,853.13	151,383	184,776	98,077	10.42	9,412
2013	157,521.76	78,840	96,231	61,291	10.98	5,582
2014	2,683.87	1,245	1,520	1,164	11.55	101
2015	7,815.84	3,334	4,069	3,747	12.10	310
2016	15,995.00	6,193	7,559	8,436	12.66	666
2017	29,847.33	10,342	12,623	17,224	13.20	1,305
2018	44,891.21	13,629	16,636	28,255	13.76	2,053
2020	9,692.97	2,067	2,523	7,170	14.76	486
2021	563,825.38	93,031	113,553	450,272	15.18	29,662
	1,909,398.22	846,842	1,033,646	875,752		71,505

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.2 3.74



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	2,300.20	1,994	1,946	354	2.00	177
2013	15,352.54	11,258	10,988	4,365	4.00	1,091
2015	1,055,779.23	633,468	618,259	437,520	6.00	72,920
2016	2,645.52	1,411	1,377	1,269	7.00	181
2017	232,168.62	108,346	105,745	126,424	8.00	15,803
2018	92,490.12	36,996	36,108	56,382	9.00	6,265
2019	110,810.89	36,937	36,050	74,761	10.00	7,476
2021	820,669.12	164,134	160,193	660,476	12.00	55,040
2022	435,091.64	58,011	56,618	378,474	13.00	29,113
2024	89,227.60	1,487	1,451	87,777	14.75	5,951
	2,856,535.48	1,054,042	1,028,735	1,827,800		194,017

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.4 6.79

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2024

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	99,244.73	46,315	42,491	56,754	8.00	7,094
2018	22,944.61	9,178	8,420	14,525	9.00	1,614
2019	212,822.69	70,940	65,082	147,741	10.00	14,774
2020	1,709,084.63	455,762	418,128	1,290,957	11.00	117,360
2021	391,062.13	78,212	71,754	319,308	12.00	26,609
2022	107,463.52	14,328	13,145	94,319	13.00	7,255
2023	120,295.59	8,020	7,358	112,938	14.00	8,067
2024	276,417.31	4,608	4,227	272,190	14.75	18,454
	2,939,335.21	687,363	630,605	2,308,730		201,227
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.5 6.85

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**PART VIII. EXPERIENCED AND ESTIMATED  
NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
354.30	796,005.52	85,934.54		85,934.54-
354.40	1,080,902.70	67,526.93		67,526.93-
360.10	3,403.50	2,367.85		2,367.85-
361.10	6,619.40	1,430,976.01		1,430,976.01-
361.20		90,279.20		90,279.20-
363.00	3,929.16	52,929.84		52,929.84-
364.00	59,781.23			
371.00	185,795.47	66,936.02		66,936.02-
380.00	1,622,269.11	92,448.13		92,448.13-
382.00		3,306.40		3,306.40-
390.00	130,250.08	9,975.61		9,975.61-
391.00	83,792.82	48,014.34		48,014.34-
393.00	7,573.30	28,436.64		28,436.64-
394.00	19,315.01	5,445.26		5,445.26-
395.00	52,412.61	5,217.77		5,217.77-
396.00		39,091.19		39,091.19-
397.00		4,026.89		4,026.89-
	4,052,049.91	2,032,912.62		2,032,912.62-
2020 TRANSACTION YEAR				
354.20	5,414.90	27,261.65		27,261.65-
354.30	15,012.08			
354.40	5,402.39	3,035.88		3,035.88-
360.10	2,601.63	22,982.08		22,982.08-
361.10	1,935,411.80	1,344,641.10	3,491.13	1,341,149.97-
361.20	855,928.79	81,137.03		81,137.03-
363.00		75,298.32		75,298.32-
364.00		8,901.01		8,901.01-
371.00	208,080.94	24,730.31		24,730.31-
380.00	702,130.50	399,155.43		399,155.43-
390.00	724.38	1,886.85		1,886.85-
391.00	20,099.66			
393.00	68,342.45	7,289.38		7,289.38-
394.00	8,232.73	1,548.07		1,548.07-
395.00		510.16		510.16-
396.00		1,822.13		1,822.13-
397.00		3,318.49		3,318.49-
	3,827,382.25	2,003,517.89	3,491.13	2,000,026.76-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2021 TRANSACTION YEAR				
354.30	1,942.90	7,613.98		7,613.98-
354.40	45,344.71	76,589.11		76,589.11-
360.10	2,808.79	164,970.27		164,970.27-
361.10	1,848,146.44	1,074,276.48		1,074,276.48-
361.20	512,911.70	219,777.95		219,777.95-
363.00	130,642.17	129,688.68		129,688.68-
371.00	60,139.27	51,352.70		51,352.70-
380.00	230,130.31	104,870.48		104,870.48-
390.00		1,482.56		1,482.56-
393.00	33.43	953.49		953.49-
394.00	633.03	1,919.19		1,919.19-
396.00		9,833.75		9,833.75-
397.00		6,698.53		6,698.53-
	2,832,732.75	1,850,027.17		1,850,027.17-
2022 TRANSACTION YEAR				
354.20	128,984.57	30,686.12		30,686.12-
354.30	5,000.83	2,731.90		2,731.90-
354.40	955,038.55	612,785.01		612,785.01-
360.10	6,487.72	232,064.30		232,064.30-
361.10	5,400,909.25	2,044,135.19		2,044,135.19-
361.20	863,890.35	326,964.80		326,964.80-
363.00	108,769.18	108,024.33		108,024.33-
371.00	101,130.80	14,057.96		14,057.96-
380.00	234,196.28	277,412.74		277,412.74-
390.00	99,806.02	12,873.26		12,873.26-
393.00	33,317.01	6,599.32		6,599.32-
394.00	10,743.07	877.73		877.73-
395.00	99,992.04	183.61		183.61-
396.00	17,087.95	1,647.58		1,647.58-
397.00	5,273.39			
	8,070,627.01	3,671,043.85		3,671,043.85-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2023 TRANSACTION YEAR				
354.20	88,613.36	44,958.24		44,958.24-
354.30	4,457.23	1,968.74		1,968.74-
354.40	1,488,688.72	245,634.00		245,634.00-
355.00	15,468.34			
360.10	1,470,140.04	406,108.42		406,108.42-
361.10	3,333,254.41	888,597.83	4,370.75	884,227.08-
361.20	917,251.60	289,877.22		289,877.22-
363.00	295,659.50	296,281.28		296,281.28-
371.00	281,459.89	38,191.07		38,191.07-
380.00	503,986.24	114,189.97		114,189.97-
390.00		6,466.02		6,466.02-
391.00	60,061.21	5,598.73		5,598.73-
393.00		5,920.63		5,920.63-
394.00		9,280.42		9,280.42-
395.00		1,922.08		1,922.08-
	8,459,040.54	2,354,994.65	4,370.75	2,350,623.90-
TOTAL	27,241,832.46	11,912,496.18	7,861.88	11,904,634.30-

**EXHIBIT NO. 11-M - DEPRECIATION STUDY**

**WASTEWATER CSS OPERATIONS**

**AS OF JUNE 30, 2025**

Exhibit No. 11-M  
Witness: J. J. Spanos

# PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

## WASTEWATER CSS OPERATIONS

### 2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF JUNE 30, 2025

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**



Exhibit No. 11-M  
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER CSS OPERATIONS

2025 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO WASTEWATER PLANT  
AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 12, 2023

Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention: Ms. Stacey Gress  
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of June 30, 2025. The results of our study as of June 30, 2024 are presented in our report titled "2024 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of June 30, 2024. The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS  
President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.  
Senior Analyst

JJS:mle

075543.100

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**PART I. RESULTS OF STUDY**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**WASTEWATER CSS OPERATIONS**

**DEPRECIATION STUDY**

**PART I. RESULTS OF STUDY**

**DESCRIPTION OF SUMMARY TABULATIONS**

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of June 30, 2025. Table 1 sets forth the development of the net original cost by account as of June 30, 2025. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of June 30, 2025, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to June 30, 2025. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended June 30, 2025. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2020 through 2024.

**DESCRIPTION OF DETAILED TABULATIONS**

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2020 through 2024, beginning on pages III-2 through III-4.

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF JUNE 30, 2025

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF JUNE 30, 2025 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF JUNE 30, 2025 (6)
<b>DEPRECIABLE PLANT</b>					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	9,755,421.35				9,755,421.35
354.30 STRUCTURES AND IMPROVEMENTS - SPP	21,053,791.97				21,053,791.97
354.40 STRUCTURES AND IMPROVEMENTS - TDP	150,169,252.51		2,500,000.00		147,669,252.51
355.00 POWER GENERATING EQUIPMENT	5,259,130.23				5,259,130.23
360.10 COLLECTION SEWERS - FORCE MAINS	24,889,714.44				24,889,714.44
361.10 COLLECTION SEWERS - GRAVITY MAINS	427,415,299.87		8,378,415.81		419,036,884.06
361.20 MANHOLES	59,326,868.83				59,326,868.83
363.00 SERVICES	19,209,537.99		1,133,516.15		18,076,021.84
364.00 FLOW MEASURING DEVICES	2,099,193.73				2,099,193.73
371.00 PUMPING EQUIPMENT	18,041,430.43				18,041,430.43
380.00 TREATMENT EQUIPMENT	88,898,702.45				88,898,702.45
381.00 PLANT SEWERS	1,576,345.41				1,576,345.41
382.00 OUTFALL SEWER LINES	189,250.37				189,250.37
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT	10,740,054.36				10,740,054.36
390.00 OFFICE FURNITURE AND EQUIPMENT	3,347,253.97				3,347,253.97
391.00 TRANSPORTATION EQUIPMENT	8,379,886.54				8,379,886.54
392.00 STORES EQUIPMENT	106,844.28				106,844.28
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	3,524,789.98				3,524,789.98
394.00 LABORATORY EQUIPMENT	1,401,650.48				1,401,650.48
395.00 POWER OPERATED EQUIPMENT	1,909,398.22				1,909,398.22
396.00 COMMUNICATION EQUIPMENT	2,903,863.89				2,903,863.89
397.00 MISCELLANEOUS EQUIPMENT	3,197,757.35				3,197,757.35
<b>TOTAL DEPRECIABLE PLANT</b>	<b>863,395,438.65</b>	<b>0.00</b>	<b>12,011,931.96</b>	<b>0.00</b>	<b>851,383,506.69</b>
<b>NONDEPRECIABLE PLANT</b>					
353.20 LAND AND LAND RIGHTS - COLLECTION	3,161,743.45				3,161,743.45
353.30 LAND AND LAND RIGHTS - SPP	1,153,570.00				1,153,570.00
353.40 LAND AND LAND RIGHTS - TDP	148,041.59				148,041.59
<b>TOTAL NONDEPRECIABLE PLANT</b>	<b>4,463,355.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4,463,355.04</b>
<b>TOTAL UTILITY PLANT</b>	<b>867,858,793.69</b>	<b>0.00</b>	<b>12,011,931.96</b>	<b>0.00</b>	<b>855,846,861.73</b>

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF JUNE 30, 2025

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) ORIGINAL COST AS OF JUNE 30, 2025	(4) BOOK DEPRECIATION RESERVE	(5) FUTURE ACCRUALS	CALCULATED ANNUAL		(8) COMPOSITE REMAINING LIFE
						(6) ACCRUAL AMOUNT	(7)=(6)/(3) RATE	
<b>DEPRECIABLE PLANT</b>								
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	9,755,421.35	762,913	8,992,508	253,754	2.60	35.4
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	21,053,791.97	8,184,256	12,869,536	413,563	1.96	31.1
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	147,669,252.51	56,715,396	90,953,857	2,969,694	2.01	30.6
355.00	POWER GENERATING EQUIPMENT	35-S0.5	5,259,130.23	357,652	4,901,478	210,757	4.01	23.3
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	24,889,714.44	62,109	24,827,605	388,457	1.60	62.3
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	419,036,884.06	155,183,595	263,853,289	5,794,665	1.38	45.5
361.20	MANHOLES	50-S2.5	59,326,868.83	19,268,258	40,058,611	1,402,469	2.36	28.6
363.00	SERVICES	47-R3	18,076,021.84	5,203,897	12,872,125	507,622	2.81	25.4
364.00	FLOW MEASURING DEVICES	15-L2.5	2,099,193.73	1,083,679	1,015,515	155,103	7.39	6.5
371.00	PUMPING EQUIPMENT	30-S0.5	18,041,430.43	5,448,964	12,592,466	720,875	4.00	17.5
380.00	TREATMENT EQUIPMENT	35-S1.5	88,898,702.45	31,061,063	57,837,639	2,942,431	3.31	19.7
381.00	PLANT SEWERS	50-R3	1,576,345.41	863,615	712,730	30,852	1.96	23.1
382.00	OUTFALL SEWER LINES	50-R3	189,250.37	58,189	131,061	3,487	1.84	37.6
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT	20-S2.5	10,740,054.36	3,831,745	6,908,309	619,092	5.76	11.2
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	3,347,253.97	721,775	2,625,479	179,922	5.38	14.6
391.00	TRANSPORTATION EQUIPMENT	14-L4	8,379,886.54	4,855,626	3,524,261	509,477	6.08	6.9
392.00	STORES EQUIPMENT	25-SQ	106,844.28	20,471	86,373	4,358	4.08	19.8
393.00	TOOLS SHOP AND GARAGE EQUIPMENT	20-SQ	3,524,789.98	654,201	2,870,589	174,754	4.96	16.4
394.00	LABORATORY EQUIPMENT	15-SQ	1,401,650.48	353,232	1,048,418	90,689	6.47	11.6
395.00	POWER OPERATED EQUIPMENT	22-R2	1,909,398.22	1,106,103	803,295	68,230	3.57	11.8
396.00	COMMUNICATION EQUIPMENT	15-SQ	2,903,863.89	1,230,716	1,673,148	195,723	6.74	8.5
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	3,197,757.35	843,210	2,354,547	217,215	6.79	10.8
<b>TOTAL DEPRECIABLE PLANT</b>			<b>851,383,506.69</b>	<b>297,870,665</b>	<b>553,512,839</b>	<b>17,863,189</b>	<b>2.10</b>	
<b>NONDEPRECIABLE PLANT</b>								
353.20	LAND AND LAND RIGHTS - COLLECTION		3,161,743.45					
353.30	LAND AND LAND RIGHTS - SPP		1,153,570.00					
353.40	LAND AND LAND RIGHTS - TDP		148,041.59					
<b>TOTAL NONDEPRECIABLE PLANT</b>			<b>4,463,355.04</b>					
<b>AMORTIZATION OF NET SALVAGE</b>						<b>2,718,072</b>		
<b>TOTAL UTILITY PLANT</b>			<b>855,846,861.73</b>	<b>297,870,665</b>	<b>553,512,839</b>	<b>20,581,261</b>		

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 3. BRINGFORWARD TO JUNE 30, 2025, OF BOOK RESERVE AS OF JUNE 30, 2024

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 6/30/2024 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS AND ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 6/30/2025 (8)
354.20	678,726		269,698		121,249		64,262						762,913
354.30	7,754,269		436,089		5,449		653						8,184,256
354.40	53,649,066		3,070,002		2,760		912						56,715,396
355.00	315,200		42,452										357,652
360.10	336,740		575,896		567,018		283,509						62,109
361.10	150,264,489		7,158,625		1,373,939		865,580						155,183,595
361.20	20,545,147		1,518,548		2,117,755		677,682						19,268,258
363.00	5,504,611		626,896		358,151		569,459						5,203,897
364.00	912,915		170,764										1,083,679
371.00	4,868,761		757,289		141,669		35,418						5,448,964
380.00	29,306,935		3,060,286		1,088,466		217,692						31,061,063
381.00	832,403		31,212										863,615
382.00	54,342		3,847										58,189
389.10	3,198,085		633,660										3,831,745
390.00	541,121		180,654										721,775
391.00	4,318,769		551,223		12,279		2,087						4,855,626
392.00	16,115		4,356										20,471
393.00	482,262		171,939										654,201
394.00	250,520		102,712										353,232
395.00	1,033,646		72,457										1,106,103
396.00	1,028,735		201,981										1,230,716
397.00	630,605		212,605										843,210
<b>TOTAL</b>	<b>286,523,462</b>		<b>19,853,191</b>		<b>5,788,735</b>		<b>2,717,254</b>		<b>0</b>		<b>0</b>		<b>297,870,665</b>



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

ACCOUNT (1)	NET ORIGINALCOST AS OF 6/30/2024 (2)	NET ORIGINALCOST AS OF 6/30/2025 (3)	ACCURAL RATE (4)	AVERAGE ACCRUALS (5)=((2)+(3))/2*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	9,058,844.25	9,755,421.35	2.58	242,775	26,923	269,698
354.30	21,022,488.72	21,053,791.97	2.02	424,967	11,122	436,089
354.40	137,103,395.31	147,669,252.51	2.00	2,851,019	218,983	3,070,002
355.00	1,059,130.23	5,259,130.23	3.44	42,452		42,452
360.10	21,610,655.58	24,889,714.44	1.58	362,343	213,553	575,896
361.10	410,854,203.13	419,036,884.06	1.40	5,801,910	1,356,715	7,158,625
361.20	46,559,179.99	59,326,868.83	2.34	1,245,212	273,336	1,518,548
363.00	15,750,817.66	18,076,021.84	2.66	447,628	179,268	626,896
364.00	2,099,193.73	2,099,193.73	8.05	168,984	1,780	170,764
371.00	17,227,545.48	18,041,430.43	4.08	719,299	37,990	757,289
380.00	82,645,469.17	88,898,702.45	3.42	2,863,154	197,132	3,060,286
381.00	1,576,345.41	1,576,345.41	1.98	31,212		31,212
382.00	189,250.37	189,250.37	1.86	3,516	331	3,847
389.10	10,740,054.36	10,740,054.36	5.90	633,660	0	633,660
390.00	2,949,393.85	3,347,253.97	5.56	175,114	5,540	180,654
391.00	8,309,341.23	8,379,886.54	6.53	544,680	6,543	551,223
392.00	106,844.28	106,844.28	4.08	4,356		4,356
393.00	3,085,746.41	3,524,789.98	5.02	164,942	6,997	171,939
394.00	1,364,898.43	1,401,650.48	7.19	99,442	3,270	102,712
395.00	1,909,398.22	1,909,398.22	3.74	71,412	1,045	72,457
396.00	2,856,535.48	2,903,863.89	6.79	195,411	6,570	201,981
397.00	2,939,335.21	3,197,757.35	6.85	210,199	2,406	212,605
TOTAL	801,018,066.50	851,383,506.69		17,303,687	2,549,504	19,853,191

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2020		2021		2022		PROJECTED 2023		PROJECTED 2024		NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
354.20		27,261.65	0.00	30,686.12	44,958.24		63,421.00				(186,327.01)	(33,265)
354.30		7,613.98	7,613.98	2,731.90	1,968.74		656.00				(12,970.62)	(2,594)
354.40		3,035.88	76,589.11	612,785.01	245,634.00		246,216.00				(1,184,260.00)	(236,852)
360.10		22,982.08	164,970.27	232,064.30	406,108.42		480,906.00				(1,307,031.07)	(261,406)
361.10	3,491.13	1,344,641.10	1,074,276.48	2,044,135.19	4,370.75		1,448,594.00				(6,792,382.72)	(1,358,477)
361.20		81,137.03	219,777.95	328,964.80	289,877.22		807,562.00				(1,725,319.00)	(345,064)
363.00		75,298.32	129,688.68	108,024.33	296,281.28		521,162.00				(1,130,454.61)	(226,091)
364.00		8,901.01									(8,901.01)	(1,780)
371.00		24,730.31	51,352.70	14,057.96	38,191.07		56,295.00				(184,627.04)	(36,925)
380.00		399,155.43	104,870.48	277,412.74	114,189.97		87,613.00				(983,241.62)	(196,648)
390.00		1,886.85	1,482.56	12,873.26	6,466.02		6,218.00				(22,708.69)	(4,542)
391.00					5,598.73						(11,816.73)	(2,363)
393.00		7,289.38	953.49	6,599.32	5,920.63		5,920.63				(20,762.82)	(4,153)
394.00		1,548.07	1,919.19	877.73	9,280.42		9,280.42				(13,625.41)	(2,725)
395.00		510.16		183.61	1,922.08						(2,615.85)	(523)
396.00		1,822.13	9,833.75	1,647.58							(13,303.46)	(2,661)
397.00		3,318.49	6,698.53								(10,017.02)	(2,003)
<b>TOTAL</b>	<b>3,491.13</b>	<b>2,003,517.89</b>	<b>0.00</b>	<b>1,850,027.17</b>	<b>0.00</b>	<b>3,671,043.85</b>	<b>4,370.75</b>	<b>2,354,994.65</b>	<b>0.00</b>	<b>3,718,643.00</b>	<b>(13,590,364.68)</b>	<b>(2,718,072)</b>

\* Column (12) equals the summation of Columns (2) through (11).

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## **PART II. DETAILED DEPRECIATION CALCULATIONS**

**CUMULATIVE DEPRECIATED ORIGINAL COST**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1918	2,791,080	2,496,035	295,045		295,045	0.1
1938	965,696	808,758	156,938		451,983	0.1
1945	232,147	188,240	43,907		495,890	0.1
1950	954,789	745,095	209,694		705,584	0.1
1955	16,575,650	12,299,419	4,276,231		4,981,815	0.9
1959	63,718,687	46,431,322	17,287,365		22,269,180	4.0
1960	14,032,349	11,924,569	2,107,780		24,376,960	4.4
1962	11,263,292	7,792,565	3,470,727		27,847,687	5.0
1963	28,089,427	19,495,788	8,593,639		36,441,326	6.6
1965	795,296	552,331	242,965		36,684,291	6.6
1968	2,941,042	2,128,523	812,519		37,496,810	6.8
1970	1,016,978	679,278	337,700		37,834,510	6.8
1972	29,761,392	20,642,473	9,118,919		46,953,429	8.5
1973	891,408	595,407	296,001		47,249,430	8.5
1974	713,885	461,199	252,686		47,502,116	8.6
1975	34,368,187	26,870,176	7,498,011		55,000,127	9.9
1976	36,237,795	21,072,165	15,165,630		70,165,757	12.7
1977	537,812	339,575	198,237		70,363,994	12.7
1978	1,419,344	883,907	535,437		70,899,431	12.8
1979	1,496,395	920,472	575,923		71,475,354	12.9
1980	1,976,866	1,159,458	817,408		72,292,762	13.1
1981	1,171,808	700,934	470,874		72,763,636	13.1
1982	904,591	536,316	368,275		73,131,911	13.2
1983	650,396	376,981	273,415		73,405,326	13.3
1984	969,494	539,407	430,087		73,835,413	13.3
1985	3,477,490	2,033,199	1,444,291		75,279,704	13.6
1986	1,373,570	761,882	611,688		75,891,392	13.7
1987	2,536,446	1,681,727	854,719		76,746,111	13.9
1988	872,142	556,255	315,887		77,061,998	13.9
1989	26,453,296	12,285,966	14,167,330		91,229,328	16.5
1990	4,772,996	2,401,331	2,371,665		93,600,993	16.9
1991	1,986,170	992,523	993,647		94,594,640	17.1
1992	3,064,657	1,427,480	1,637,177		96,231,817	17.4
1993	476,256	214,044	262,212		96,494,029	17.4
1994	1,415,811	659,699	756,112		97,250,141	17.6
1995	17,559,922	10,104,344	7,455,578		104,705,719	18.9
1996	8,739,139	4,309,659	4,429,480		109,135,199	19.7
1997	418,202	182,346	235,856		109,371,055	19.8
1998	2,711,680	1,134,225	1,577,455		110,948,510	20.0
1999	13,148,486	4,877,219	8,271,267		119,219,777	21.5
2000	419,047	157,979	261,068		119,480,845	21.6
2001	2,501,116	1,320,420	1,180,696		120,661,541	21.8
2002	492,651	230,642	262,009		120,923,550	21.8
2003	2,224,630	1,039,138	1,185,492		122,109,042	22.1
2004	7,480,462	3,478,214	4,002,248		126,111,290	22.8

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
2005	2,531,297	820,172	1,711,125		127,822,415	23.1
2006	5,358,011	2,117,555	3,240,456		131,062,871	23.7
2007	5,852,994	1,677,375	4,175,619		135,238,490	24.4
2008	4,541,537	1,610,825	2,930,712		138,169,202	25.0
2009	10,647,835	3,123,646	7,524,189		145,693,391	26.3
2010	17,540,124	6,072,888	11,467,236		157,160,627	28.4
2011	4,822,393	1,184,480	3,637,913		160,798,540	29.1
2012	3,404,820	1,519,139	1,885,681		162,684,221	29.4
2013	6,187,362	3,307,944	2,879,418		165,563,639	29.9
2014	29,221,610	8,159,516	21,062,094		186,625,733	33.7
2015	23,628,926	7,669,528	15,959,398		202,585,131	36.6
2016	39,497,389	8,429,441	31,067,948		233,653,079	42.2
2017	15,623,069	2,972,633	12,650,436		246,303,515	44.5
2018	12,280,372	2,638,082	9,642,290		255,945,805	46.2
2019	45,649,946	5,074,680	40,575,266		296,521,071	53.6
2020	54,652,783	6,769,766	47,883,017		344,404,088	62.2
2021	29,847,327	2,882,332	26,964,995		371,369,083	67.1
2022	40,197,701	3,027,255	37,170,445		408,539,528	73.8
2023	17,658,694	736,662	16,922,031		425,461,559	76.9
2024	81,372,661	1,633,991	79,738,669		505,200,228	91.3
2025	56,278,613	343,385	55,935,228		561,135,455	101.4
9999	12,011,932-	4,389,315-	7,622,617-		553,512,838	100.0
SUBTOTAL	851,383,507	297,870,665	553,512,839			
NONDEPRECIABLE	4,463,355		4,463,355			
TOTAL	855,846,862	297,870,665	557,976,194			

**NET UTILITY PLANT IN SERVICE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2017	949,345.72	187,591	143,811	805,535	32.49	24,793
2018	1,846,532.89	320,558	245,746	1,600,787	33.32	48,043
2019	1,175,532.20	176,330	135,178	1,040,354	34.00	30,599
2020	170,234.41	21,364	16,378	153,856	34.84	4,416
2021	215,091.34	21,681	16,621	198,470	35.68	5,562
2022	1,927,926.65	146,908	112,623	1,815,304	36.37	49,912
2023	1,842,424.48	94,332	72,317	1,770,107	37.06	47,763
2024	811,026.98	21,006	16,104	794,923	37.61	21,136
2025	817,306.68	5,394	4,135	813,172	37.77	21,530
	9,755,421.35	995,164	762,913	8,992,508		253,754
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						35.4 2.60



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1960	2,297,634.05	1,836,958	2,002,007	295,627	16.30	18,137
1968	671,326.79	505,106	550,489	120,838	18.76	6,441
1970	60,405.27	44,519	48,519	11,886	19.63	606
1972	432,344.07	313,925	342,131	90,213	19.99	4,513
1990	89,924.53	51,617	56,255	33,670	25.98	1,296
1995	131,932.60	68,869	75,057	56,876	27.47	2,070
1996	513,721.35	262,203	285,762	227,959	27.82	8,194
2000	105,072.37	48,596	52,962	52,110	29.05	1,794
2004	244,354.55	100,576	109,613	134,742	30.02	4,488
2005	52,725.90	20,985	22,870	29,856	30.25	987
2006	2,710,094.59	1,040,134	1,133,589	1,576,506	30.50	51,689
2011	7,145.91	2,181	2,377	4,769	31.87	150
2012	7,147.63	2,063	2,248	4,900	32.05	153
2013	148,319.26	40,224	43,838	104,481	32.25	3,240
2014	10,489,746.72	2,653,906	2,892,356	7,597,391	32.48	233,910
2015	40,952.90	9,583	10,444	30,509	32.74	932
2017	762,725.81	148,274	161,596	601,130	33.15	18,134
2018	1,526,953.41	265,079	288,896	1,238,057	33.32	37,157
2019	446,541.64	68,053	74,168	372,374	33.37	11,159
2021	237,069.10	25,224	27,490	209,579	33.59	6,239
2024	40,901.47	1,186	1,293	39,608	33.48	1,183
2025	36,752.05	272	296	36,456	33.42	1,091
	21,053,791.97	7,509,533	8,184,256	12,869,536		413,563

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.1 1.96

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1960	10,284,012.47	8,222,068	8,822,700	1,461,312	16.30	89,651
1972	12,440,290.40	9,032,895	9,692,759	2,747,531	19.99	137,445
1975	17,615,904.87	12,419,213	13,326,453	4,289,452	20.92	205,041
1985	1,185,464.26	734,988	788,680	396,784	24.52	16,182
1993	12,571.10	6,839	7,339	5,232	26.82	195
1994	100,580.35	53,629	57,547	43,033	27.14	1,586
1995	8,690,119.63	4,536,242	4,867,620	3,822,500	27.47	139,152
1996	2,923,420.02	1,492,114	1,601,115	1,322,305	27.82	47,531
1999	75,064.00	35,715	38,324	36,740	28.64	1,283
2001	234,139.53	105,644	113,361	120,779	29.19	4,138
2003	1,475,890.94	626,663	672,442	803,449	29.81	26,952
2004	364,151.81	149,885	160,834	203,318	30.02	6,773
2006	130,036.76	49,908	53,554	76,483	30.50	2,508
2007	18,738.81	6,915	7,420	11,319	30.78	368
2008	401,705.96	142,043	152,419	249,287	31.08	8,021
2009	16,499.71	5,570	5,977	10,523	31.39	335
2010	12,038,187.30	3,882,315	4,165,923	7,872,264	31.51	249,834
2011	390,432.17	119,160	127,865	262,567	31.87	8,239
2012	280,511.60	80,956	86,870	193,642	32.05	6,042
2013	8,276.37	2,245	2,409	5,867	32.25	182
2014	16,722,845.33	4,230,880	4,539,951	12,182,894	32.48	375,089
2015	5,536,636.41	1,295,573	1,390,216	4,146,420	32.74	126,647
2016	19,726,378.79	4,225,390	4,534,060	15,192,319	33.02	460,094
2017	3,082,373.65	599,213	642,986	2,439,388	33.15	73,586
2018	101,300.93	17,586	18,871	82,430	33.32	2,474
2019	265,000.39	40,386	43,336	221,664	33.37	6,643
2020	1,057,076.41	136,891	146,891	910,185	33.61	27,081
2021	9,192,769.73	978,111	1,049,563	8,143,207	33.59	242,430
2022	3,929.79	322	346	3,584	33.63	107
2024	15,226,325.64	441,563	473,820	14,752,506	33.48	440,636
2025	10,568,617.38	78,208	83,921	10,484,696	33.42	313,725
9999	2,500,000.00-	894,809-	960,176-	1,539,824-		50,276-
	147,669,252.51	52,854,321	56,715,396	90,953,857		2,969,694

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.6 2.01

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 355.00 POWER GENERATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0.5						
NET SALVAGE PERCENT.. 0						
1991	19,943.82	14,918	13,277	6,667	11.45	582
2002	19,053.44	11,482	10,219	8,834	15.17	582
2004	37,115.59	21,122	18,798	18,318	15.90	1,152
2012	396,359.96	161,279	143,535	252,825	18.95	13,342
2015	420,858.84	139,725	124,353	296,506	20.12	14,737
2020	21,916.13	4,033	3,589	18,327	22.17	827
2021	1,978.37	298	265	1,713	22.60	76
2024	141,904.08	5,747	5,115	136,789	23.69	5,774
2025	4,200,000.00	43,260	38,501	4,161,499	23.96	173,685
	5,259,130.23	401,864	357,652	4,901,478		210,757
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.3 4.01

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2015	351,620.37	52,743	5,033	346,587	56.67	6,116
2018	103,108.46	10,899	1,040	102,068	59.23	1,723
2019	31,467.25	2,870	274	31,193	59.79	522
2020	322,487.25	24,509	2,339	320,148	60.79	5,266
2021	1,806,727.57	110,572	10,551	1,796,177	61.36	29,273
2022	4,467,299.13	206,389	19,695	4,447,604	61.94	71,805
2023	539,312.41	16,719	1,595	537,717	62.52	8,601
2024	13,425,986.17	210,788	20,116	13,405,870	62.69	213,844
2025	3,841,705.83	15,367	1,466	3,840,240	62.64	61,307
	24,889,714.44	650,856	62,109	24,827,605		398,457
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						62.3 1.60

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1918	2,791,079.88	2,568,352	2,496,035	295,045	9.28	31,794
1938	810,527.01	691,055	671,597	138,930	15.04	9,237
1945	201,565.74	166,090	161,413	40,153	17.09	2,350
1950	850,082.42	675,816	656,787	193,295	19.34	9,995
1955	16,476,584.48	12,571,634	12,217,654	4,258,930	21.74	195,903
1959	54,860,029.51	40,190,458	39,058,813	15,801,217	24.09	655,924
1960	1,023,195.24	744,886	723,912	299,283	24.29	12,321
1962	11,263,291.98	8,018,338	7,792,565	3,470,727	25.50	136,107
1963	26,525,462.19	18,748,197	18,220,303	8,305,159	25.72	322,907
1965	631,066.44	435,436	423,175	207,891	26.96	7,711
1968	1,785,967.53	1,191,062	1,157,525	628,443	28.47	22,074
1970	746,705.19	484,612	470,967	275,738	29.75	9,269
1972	15,104,609.10	9,526,477	9,258,239	5,846,370	31.03	188,410
1973	513,894.47	320,670	311,641	202,253	31.33	6,456
1974	455,812.51	278,957	271,102	184,711	32.33	5,713
1975	2,125,529.36	1,285,945	1,249,737	875,792	32.64	26,832
1976	35,113,711.35	20,818,919	20,232,719	14,880,992	33.64	442,360
1977	313,578.38	183,631	178,460	135,118	33.97	3,978
1978	818,233.72	469,175	455,964	362,270	34.97	10,359
1979	864,017.25	488,861	475,096	388,921	35.30	11,018
1980	1,403,841.06	783,343	761,286	642,555	35.65	18,024
1981	664,108.56	362,338	352,136	311,973	36.65	8,512
1982	496,352.86	266,790	259,278	237,075	37.00	6,407
1983	365,237.44	191,750	186,351	178,886	38.00	4,708
1984	634,646.65	327,858	318,626	316,021	38.37	8,236
1985	1,573,793.48	799,487	776,976	796,817	38.74	20,568
1986	741,508.72	367,269	356,928	384,581	39.74	9,677
1987	688,197.47	334,739	325,314	362,883	40.12	9,045
1988	275,624.02	130,536	126,860	148,764	41.12	3,618
1989	24,294,631.76	11,282,427	10,964,747	13,329,885	41.52	321,047
1990	2,848,199.18	1,285,962	1,249,753	1,598,446	42.52	37,593
1991	1,104,857.78	488,347	474,597	630,261	42.92	14,685
1992	2,109,076.96	911,754	886,082	1,222,995	43.34	28,219
1993	359,147.40	150,555	146,316	212,831	44.34	4,800
1994	937,824.19	383,758	372,953	564,871	44.76	12,620
1995	2,278,874.31	902,434	877,024	1,401,850	45.76	30,635
1996	3,452,662.35	1,331,692	1,294,195	2,158,467	46.19	46,730
1997	221,078.65	82,949	80,613	140,466	46.63	3,012
1998	1,450,740.61	524,878	510,099	940,642	47.63	19,749
1999	11,477,231.73	4,028,508	3,915,077	7,562,155	48.07	157,315
2000	302,038.67	102,693	99,801	202,238	48.53	4,167

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2001	541,382.83	176,707	171,731	369,652	49.53	7,463
2002	202,300.77	63,745	61,950	140,351	49.99	2,808
2003	33,510.20	10,100	9,816	23,694	50.99	465
2004	1,863,880.47	540,153	524,944	1,338,936	51.46	26,019
2005	1,344,410.07	373,746	363,222	981,188	51.94	18,891
2006	1,130,076.41	298,453	290,049	840,027	52.94	15,868
2007	4,873,750.28	1,228,185	1,193,603	3,680,147	53.43	68,878
2008	2,334,924.81	559,681	543,922	1,791,003	53.92	33,216
2009	9,111,140.85	2,070,051	2,011,765	7,099,376	54.42	130,455
2010	3,728,405.88	794,150	771,789	2,956,617	55.42	53,349
2011	3,658,571.19	732,446	711,823	2,946,748	55.93	52,686
2012	259,810.92	48,637	47,268	212,543	56.44	3,766
2013	435,446.53	75,768	73,635	361,812	56.97	6,351
2014	1,123,092.84	180,369	175,290	947,803	57.49	16,486
2015	16,146.16	2,373	2,306	13,840	58.03	238
2016	12,871,568.29	1,714,493	1,666,218	11,205,350	58.57	191,316
2017	6,824,965.87	813,536	790,629	6,034,337	59.11	102,087
2018	3,899,958.31	409,496	397,966	3,501,992	59.67	58,689
2019	37,674,522.28	3,413,312	3,317,204	34,357,318	60.23	570,435
2020	30,714,554.48	2,349,663	2,283,503	28,431,051	60.36	471,025
2021	11,227,214.70	691,596	672,123	10,555,092	60.94	173,205
2022	11,311,060.35	532,751	517,750	10,793,310	60.69	177,843
2023	10,736,989.92	343,584	333,910	10,403,080	60.50	171,952
2024	30,856,427.25	509,131	494,795	30,361,632	59.61	509,338
2025	9,686,570.61	41,652	40,480	9,646,091	57.55	167,612
9999	8,378,415.81-	3,192,709-	3,102,812-	5,275,604-		115,861-
	419,036,884.06	159,679,707	155,183,595	263,853,289		5,794,665
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.5 1.38

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1938	155,169.34	151,197	137,161	18,008	2.29	7,864
1945	29,071.98	27,909	25,318	3,754	3.33	1,127
1950	76,996.29	72,761	66,007	10,989	4.37	2,515
1955	66,958.46	62,338	56,551	10,407	5.19	2,005
1959	8,858,657.27	8,126,932	7,372,509	1,486,148	5.94	250,193
1960	104,982.92	95,534	86,666	18,317	6.43	2,849
1963	1,563,965.12	1,406,005	1,275,485	288,480	6.97	41,389
1965	100,832.73	89,539	81,227	19,606	7.57	2,590
1968	56,078.87	48,906	44,366	11,713	8.36	1,401
1970	117,894.22	101,802	92,352	25,542	8.69	2,939
1972	1,274,451.75	1,080,735	980,410	294,042	9.50	30,952
1973	273,713.23	230,576	209,172	64,541	9.73	6,633
1974	132,840.66	111,108	100,794	32,047	9.98	3,211
1975	394,422.39	327,371	296,981	97,441	10.24	9,516
1976	1,124,084.11	925,346	839,446	284,638	10.52	27,057
1977	125,927.72	102,757	93,218	32,710	10.82	3,023
1978	340,495.78	275,257	249,705	90,791	11.14	8,150
1979	352,360.63	282,029	255,848	96,513	11.47	8,414
1980	323,969.41	255,126	231,443	92,526	12.14	7,622
1981	286,775.49	223,341	202,608	84,167	12.50	6,733
1982	228,475.28	175,857	159,532	68,943	12.87	5,357
1983	158,977.47	120,855	109,636	49,341	13.25	3,724
1984	184,293.73	138,276	125,440	58,854	13.64	4,315
1985	407,235.72	301,354	273,379	133,857	14.05	9,527
1986	348,046.53	253,830	230,267	117,780	14.48	8,134
1987	241,825.49	173,679	157,556	84,269	14.91	5,652
1988	93,154.99	65,833	59,722	33,433	15.36	2,177
1989	1,434,425.18	991,475	899,436	534,989	16.08	33,270
1990	1,000,311.39	679,211	616,160	384,151	16.55	23,212
1991	468,152.66	311,977	283,016	185,137	17.02	10,878
1992	436,184.54	285,003	258,546	177,639	17.51	10,145
1993	104,537.11	66,569	60,389	44,148	18.25	2,419
1994	169,540.06	105,640	95,833	73,707	18.75	3,931
1995	491,324.98	299,217	271,441	219,884	19.26	11,417
1996	754,741.29	446,505	405,056	349,685	20.02	17,467
1997	98,147.86	56,612	51,357	46,791	20.54	2,278
1998	659,440.35	368,561	334,348	325,092	21.31	15,255
1999	373,651.18	202,071	183,313	190,338	22.08	8,620
2001	39,932.34	20,222	18,345	21,587	23.39	923
2004	388,993.81	174,814	158,586	230,408	25.73	8,955
2005	619,938.64	266,574	241,828	378,111	26.51	14,263

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2006	483,589.19	198,465	180,041	303,548	27.30	11,119
2007	260,674.95	101,350	91,942	168,733	28.30	5,962
2008	301,898.48	111,370	101,032	200,866	29.08	6,907
2010	100,367.49	32,820	29,773	70,594	30.87	2,287
2011	258,050.79	79,118	71,773	186,278	31.66	5,884
2012	100,105.89	28,500	25,854	74,252	32.66	2,273
2013	16,175.80	4,270	3,874	12,302	33.45	368
2014	101,813.91	24,639	22,352	79,462	34.45	2,307
2016	19,973.41	3,955	3,588	16,385	36.45	450
2018	20,867.97	3,228	2,928	17,940	38.25	469
2019	2,569,766.21	340,751	309,119	2,260,647	39.25	57,596
2020	1,739,425.24	192,206	174,364	1,565,061	40.25	38,884
2021	987,876.03	87,328	79,221	908,655	41.25	22,028
2022	2,881,770.85	191,061	173,325	2,708,446	42.25	64,105
2023	1,551,074.08	68,557	62,193	1,488,881	43.25	34,425
2024	8,587,015.60	189,773	172,156	8,414,860	44.25	190,166
2025	14,885,443.97	81,870	74,270	14,811,174	45.00	329,137

59,326,868.83    21,239,965    19,268,258    40,058,611    1,402,469

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 28.6    2.36



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1945	1,509.24	1,509	1,509			
1950	27,710.52	27,433	22,301	5,410	0.76	5,410
1955	32,107.39	31,016	25,214	6,893	2.46	2,802
1960	56,827.13	53,929	43,840	12,987	3.49	3,721
1965	63,397.26	58,959	47,929	15,468	4.52	3,422
1970	91,973.22	82,960	67,440	24,533	5.98	4,103
1972	509,697.18	453,834	368,934	140,763	6.52	21,589
1973	103,800.75	91,760	74,594	29,207	6.82	4,283
1974	125,231.36	109,853	89,303	35,928	7.14	5,032
1975	300,992.69	261,864	212,876	88,117	7.47	11,796
1977	98,306.26	83,521	67,897	30,409	8.50	3,578
1978	260,614.13	219,255	178,238	82,376	8.87	9,287
1979	280,016.66	233,142	189,528	90,489	9.25	9,783
1980	249,055.49	205,097	166,729	82,326	9.64	8,540
1981	220,923.98	179,832	146,190	74,734	10.05	7,436
1982	179,762.61	144,547	117,506	62,257	10.48	5,941
1983	126,181.23	99,633	80,994	45,187	11.19	4,038
1984	150,553.43	117,281	95,341	55,212	11.63	4,747
1985	310,996.74	238,845	194,164	116,833	12.08	9,672
1986	284,014.90	214,886	174,687	109,328	12.55	8,711
1987	197,731.81	146,519	119,109	78,623	13.28	5,920
1988	68,196.59	49,708	40,409	27,788	13.76	2,019
1989	724,238.84	518,845	421,783	302,456	14.25	21,225
1990	809,444.62	566,611	460,614	348,831	15.00	23,255
1991	383,204.97	263,185	213,950	169,255	15.50	10,920
1992	519,395.79	347,943	282,852	236,544	16.26	14,548
1994	65,014.84	41,518	33,751	31,264	17.54	1,782
1995	98,415.51	61,411	49,923	48,493	18.08	2,682
1996	260,951.87	158,920	129,190	131,762	18.62	7,076
1997	85,770.93	50,673	41,193	44,578	19.39	2,299
1998	565,192.17	323,516	262,995	302,197	20.17	14,982
1999	163,179.63	90,793	73,808	89,372	20.73	4,311
2000	11,936.43	6,416	5,216	6,720	21.51	312
2004	186,710.83	86,652	70,442	116,269	24.25	4,795
2005	498,384.19	221,283	179,887	318,497	25.05	12,714
2006	403,245.84	171,621	139,516	263,730	25.64	10,286
2007	227,416.38	92,104	74,874	152,542	26.44	5,769
2008	64,593.46	24,817	20,174	44,419	27.25	1,630
2009	79,178.62	28,758	23,378	55,801	28.05	1,989
2011	170,291.30	54,834	44,576	125,715	29.48	4,264
2012	79,643.87	23,917	19,443	60,201	30.29	1,987

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2013	16,041.89	4,466	3,631	12,411	31.10	399
2014	58,288.93	14,939	12,144	46,145	31.92	1,446
2016	134,153.62	28,494	23,164	110,990	33.37	3,326
2017	243,931.60	46,249	37,597	206,335	34.19	6,035
2018	199,674.27	33,266	27,043	172,631	35.02	4,929
2019	316,550.09	45,393	36,901	279,649	35.84	7,803
2020	724,899.69	86,988	70,715	654,185	36.67	17,840
2021	1,089,068.77	105,422	85,700	1,003,369	37.32	26,886
2022	1,093,707.58	79,731	64,816	1,028,892	38.15	26,970
2023	590,771.29	28,948	23,533	567,238	38.82	14,612
2024	2,923,718.21	72,508	58,943	2,864,775	39.32	72,858
2025	2,682,921.39	16,902	13,740	2,669,181	39.43	67,694
9999	1,133,516.15-	401,402-	326,327-	807,189-		31,832-
	18,076,021.84	6,401,104	5,203,897	12,872,125		507,622
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.4 2.81

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1960	34,668.83	34,669	34,669			
1996	10,667.26	9,930	9,162	1,505	2.15	700
1998	11,518.92	10,574	9,756	1,763	2.41	732
2008	91,182.72	73,165	67,506	23,677	4.19	5,651
2010	110,716.42	85,695	79,067	31,649	4.38	7,226
2011	38,771.91	29,366	27,095	11,677	4.48	2,606
2013	175,978.36	125,649	115,931	60,047	4.81	12,484
2015	40,642.36	26,377	24,337	16,305	5.41	3,014
2016	442,654.44	268,913	248,115	194,539	5.81	33,483
2017	160,544.63	89,648	82,715	77,830	6.33	12,295
2018	43,907.33	22,099	20,390	23,517	6.91	3,403
2019	795,450.85	351,748	324,544	470,907	7.57	62,207
2020	73,232.10	27,572	25,439	47,793	8.28	5,772
2022	69,257.60	16,206	14,953	54,305	9.82	5,530
	2,099,193.73	1,171,611	1,083,679	1,015,515		155,103
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.5 7.39

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1991	10,011.06	8,033	7,683	2,328	8.37	278
1996	787,873.83	587,202	561,618	226,256	9.91	22,831
1997	11,301.22	8,291	7,930	3,371	10.17	331
1998	24,787.88	17,803	17,027	7,761	10.59	733
2001	67,451.16	45,489	43,507	23,944	11.59	2,066
2002	49,702.86	32,695	31,271	18,432	11.97	1,540
2004	369,752.73	231,391	221,310	148,443	12.56	11,819
2005	8,260.90	5,006	4,788	3,473	13.00	267
2006	387,114.54	227,275	217,373	169,742	13.36	12,705
2007	12,332.69	7,015	6,709	5,624	13.65	412
2008	18,373.92	10,058	9,620	8,754	14.06	623
2009	447,401.58	235,512	225,251	222,151	14.40	15,427
2010	682,922.09	344,193	329,197	353,725	14.76	23,965
2011	124,122.31	59,604	57,007	67,115	15.15	4,430
2012	1,523,323.31	693,112	662,914	860,409	15.57	55,261
2013	401,778.03	172,604	165,084	236,694	15.93	14,858
2014	90,306.51	36,357	34,773	55,534	16.32	3,403
2015	3,858,012.74	1,442,897	1,380,032	2,477,981	16.74	148,028
2016	1,213,510.20	418,297	400,072	813,438	17.11	47,542
2017	143,603.13	45,034	43,072	100,531	17.51	5,741
2018	1,330,824.88	373,563	357,288	973,537	17.94	54,266
2019	548,108.51	135,164	129,275	418,834	18.33	22,850
2020	1,315,187.66	276,847	264,785	1,050,403	18.75	56,021
2021	317,708.18	54,900	52,508	265,200	19.15	13,849
2022	637,003.28	84,658	80,970	556,033	19.57	28,413
2023	125,988.05	11,490	10,989	114,999	19.93	5,770
2024	2,579,290.76	121,227	115,945	2,463,346	20.28	121,467
2025	955,376.42	11,465	10,966	944,410	20.54	45,979
	18,041,430.43	5,697,182	5,448,964	12,592,466		720,875

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.5 4.00

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1960	231,027.90	226,754	210,775	20,253	1.23	16,466
1968	427,668.66	404,660	376,143	51,526	3.24	15,903
1975	13,931,337.65	12,677,517	11,784,129	2,147,209	4.95	433,780
1987	1,408,691.35	1,161,607	1,079,748	328,943	8.08	40,711
1988	435,166.59	354,226	329,264	105,903	8.45	12,533
1990	25,116.27	19,955	18,549	6,567	9.05	726
1994	142,851.86	107,167	99,615	43,237	10.32	4,190
1995	4,985,421.90	3,679,241	3,419,964	1,565,458	10.65	146,991
1996	35,101.10	25,347	23,561	11,540	11.16	1,034
1997	1,902.90	1,348	1,253	650	11.53	56
1999	1,042,066.79	707,147	657,314	384,753	12.31	31,255
2001	1,612,257.95	1,040,874	967,523	644,735	13.17	48,955
2002	194,537.27	122,597	113,958	80,579	13.50	5,969
2003	89,907.05	54,987	51,112	38,795	13.97	2,777
2004	3,970,818.34	2,351,519	2,185,806	1,785,012	14.46	123,445
2006	15,812.40	8,713	8,099	7,713	15.48	498
2007	292,157.88	154,610	143,715	148,443	16.01	9,272
2008	1,119,016.32	566,894	526,945	592,071	16.56	35,753
2009	54,961.60	26,557	24,686	30,276	17.11	1,769
2010	59,244.98	27,193	25,277	33,968	17.68	1,921
2012	120,080.15	49,017	45,563	74,517	18.85	3,953
2013	57,731.33	21,961	20,413	37,318	19.55	1,909
2014	33,757.75	11,920	11,080	22,678	20.15	1,125
2015	11,538,037.03	3,738,324	3,474,882	8,063,155	20.86	386,537
2016	4,125,519.32	1,214,140	1,128,579	2,996,940	21.58	138,876
2017	2,476,838.53	653,885	607,805	1,869,034	22.30	83,813
2018	1,099,941.28	256,396	238,328	861,613	23.03	37,413
2019	167,247.86	33,717	31,341	135,907	23.76	5,720
2020	9,835,324.86	1,662,170	1,545,036	8,290,289	24.59	337,141
2021	2,374,747.57	322,966	300,206	2,074,542	25.41	81,643
2022	14,097,890.33	1,446,444	1,344,513	12,753,377	26.24	486,028
2023	930,192.23	63,811	59,314	870,878	27.15	32,077
2024	4,624,641.18	159,088	147,877	4,476,764	28.07	159,486
2025	7,341,686.27	63,139	58,690	7,282,996	28.82	252,706
	88,898,702.45	33,415,891	31,061,063	57,837,639		2,942,431

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.7 3.31

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1995	874,635.54	519,534	534,117	340,519	20.51	16,603
1999	17,293.00	9,127	9,383	7,910	23.26	340
2002	27,056.54	12,882	13,244	13,813	25.31	546
2003	603,123.96	275,990	283,737	319,387	26.08	12,246
2004	48,787.57	21,413	22,014	26,774	26.85	997
2016	5,448.80	1,089	1,120	4,329	36.05	120
	1,576,345.41	840,035	863,615	712,730		30,852
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.1 1.96

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2017	12,867.84	2,296	4,462	8,406	36.84	228
2018	176,024.64	27,601	53,634	122,391	37.64	3,252
2019	357.89	48	93	265	38.44	7
	189,250.37	29,945	58,189	131,061		3,487
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.6 1.84

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2003	732.57	632	566	167	3.51	48
2013	4,140,223.53	2,513,944	2,250,897	1,889,327	7.76	243,470
2019	38.03	12	11	27	12.32	2
2020	6,201,677.71	1,699,260	1,521,457	4,680,221	13.25	353,224
2022	397,382.52	65,687	58,814	338,569	15.15	22,348
	10,740,054.36	4,279,535	3,831,745	6,908,309		619,092
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.2 5.76



PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	7,577.02	7,577	7,577			
2008	12,008.00	10,207	8,532	3,476	3.00	1,159
2009	12,846.21	10,277	8,591	4,255	4.00	1,064
2010	44,755.08	33,566	28,059	16,696	5.00	3,339
2011	17,379.55	12,166	10,170	7,210	6.00	1,202
2012	39,909.19	25,941	21,685	18,224	7.00	2,603
2013	4,929.42	2,958	2,473	2,456	8.00	307
2014	23,508.40	12,930	10,808	12,700	9.00	1,411
2015	19,770.58	9,885	8,263	11,508	10.00	1,151
2016	717,221.40	322,750	269,794	447,427	11.00	40,675
2017	200,445.74	80,178	67,023	133,423	12.00	11,119
2018	57,523.48	20,133	16,830	40,693	13.00	3,130
2019	218,312.76	65,494	54,748	163,565	14.00	11,683
2020	417,202.09	104,301	87,188	330,014	15.00	22,001
2021	305,742.77	61,149	51,116	254,627	16.00	15,914
2022	247,326.91	37,099	31,012	216,315	17.00	12,724
2023	204,543.40	20,454	17,098	187,445	18.00	10,414
2024	398,391.85	19,920	16,651	381,741	19.00	20,092
2025	397,860.12	4,973	4,157	393,703	19.75	19,934
	3,347,253.97	861,958	721,775	2,625,479		179,922
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.6 5.38

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
1995	9,197.80	9,198	9,198			
2001	5,952.64	5,757	5,953			
2003	21,465.46	20,401	21,465			
2004	5,896.62	5,548	5,867	30	1.32	23
2006	92,070.74	84,668	89,530	2,541	1.66	1,531
2007	146,283.52	132,445	140,051	6,233	1.88	3,315
2008	144,402.63	128,879	136,280	8,123	2.05	3,962
2009	651,516.27	572,292	605,155	46,361	2.21	20,978
2010	247,747.72	214,797	227,131	20,617	2.30	8,964
2011	90,161.08	76,871	81,285	8,876	2.42	3,668
2012	280,299.69	233,209	246,601	33,699	2.62	12,862
2013	585,899.47	469,657	496,627	89,272	2.97	30,058
2014	553,588.82	421,392	445,590	107,999	3.45	31,304
2015	696,353.44	494,411	522,802	173,551	4.08	42,537
2016	185,422.67	120,988	127,936	57,487	4.79	12,001
2017	177,708.48	104,919	110,944	66,764	5.55	12,030
2018	1,449,302.83	757,840	801,358	647,945	6.39	101,400
2019	840,388.69	379,688	401,491	438,898	7.28	60,288
2021	89,577.43	27,160	28,720	60,857	9.19	6,622
2022	869,888.42	197,813	209,172	660,716	10.19	64,840
2023	602,789.08	91,383	96,630	506,159	11.19	45,233
2024	551,148.31	41,777	44,176	506,972	12.19	41,589
2025	82,824.73	1,574	1,664	81,161	12.94	6,272
	8,379,886.54	4,592,667	4,855,626	3,524,261		509,477

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.9 6.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	6,402.78	2,049	1,895	4,508	17.00	265
2020	100,441.50	20,088	18,576	81,866	20.00	4,093
	106,844.28	22,137	20,471	86,373		4,358
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.8 4.08

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	5,970.32	5,672	5,804	166	1.00	166
2007	7,829.70	7,047	7,212	618	2.00	309
2008	5,161.15	4,387	4,489	672	3.00	224
2009	28,227.61	22,582	23,109	5,119	4.00	1,280
2010	23,867.97	17,901	18,319	5,549	5.00	1,110
2011	11,907.00	8,335	8,530	3,377	6.00	563
2012	34,047.65	22,131	22,648	11,400	7.00	1,629
2013	19,113.82	11,468	11,736	7,378	8.00	922
2014	13,575.00	7,466	7,640	5,935	9.00	659
2015	28,072.98	14,036	14,364	13,709	10.00	1,371
2016	36,897.99	16,604	16,992	19,906	11.00	1,810
2017	210,186.54	84,075	86,038	124,149	12.00	10,346
2018	247,854.50	86,749	88,775	159,080	13.00	12,237
2019	188,452.28	56,536	57,856	130,596	14.00	9,328
2020	225,198.10	56,300	57,615	167,583	15.00	11,172
2021	211,300.01	42,260	43,247	168,053	16.00	10,503
2022	627,893.94	94,184	96,383	531,511	17.00	31,265
2023	360,853.73	36,085	36,928	323,926	18.00	17,996
2024	799,336.12	39,967	40,900	758,436	19.00	39,918
2025	439,043.57	5,488	5,616	433,428	19.75	21,946
	3,524,789.98	639,273	654,201	2,870,589		174,754

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.4 4.96

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	63,682.43	63,682	63,682			
2011	7,356.65	6,866	6,587	770	1.00	770
2012	727.50	631	605	122	2.00	61
2013	4,573.96	3,659	3,510	1,064	3.00	355
2014	8,402.05	6,161	5,911	2,491	4.00	623
2015	18,226.62	12,151	11,658	6,569	5.00	1,314
2017	9,868.23	5,263	5,049	4,819	7.00	688
2018	16,270.55	7,593	7,285	8,986	8.00	1,123
2019	88,575.86	35,430	33,991	54,585	9.00	6,065
2020	15,147.63	5,049	4,844	10,304	10.00	1,030
2021	14,898.86	3,973	3,812	11,087	11.00	1,008
2022	1,022,807.99	204,562	196,255	826,553	12.00	68,879
2023	53,458.61	7,128	6,839	46,620	13.00	3,586
2024	40,901.49	2,727	2,616	38,285	14.00	2,735
2025	36,752.05	613	588	36,164	14.75	2,452
	1,401,650.48	365,488	353,232	1,048,418		90,689

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.6 6.47

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
2007	13,810.00	9,819	11,849	1,961	7.32	268
2008	48,270.00	33,070	39,906	8,364	7.81	1,071
2009	246,063.00	162,205	195,734	50,329	8.27	6,086
2010	440,226.19	277,342	334,671	105,555	8.81	11,981
2011	45,902.54	27,569	33,268	12,635	9.31	1,357
2012	282,853.13	160,689	193,905	88,948	9.88	9,003
2013	157,521.76	84,306	101,733	55,789	10.42	5,354
2014	2,683.87	1,343	1,621	1,063	10.98	97
2015	7,815.84	3,627	4,377	3,439	11.55	298
2016	15,995.00	6,823	8,233	7,762	12.10	641
2017	29,847.33	11,557	13,946	15,901	12.66	1,256
2018	44,891.21	15,555	18,770	26,121	13.20	1,979
2020	9,692.97	2,515	3,035	6,658	14.27	467
2021	563,825.38	120,208	145,055	418,770	14.76	28,372
	1,909,398.22	916,628	1,106,103	803,295		68,230

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.8 3.57

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2011	2,300.20	2,147	2,124	176	1.00	176
2013	15,352.54	12,282	12,153	3,200	3.00	1,067
2015	1,055,779.23	703,856	696,461	359,318	5.00	71,864
2016	2,645.52	1,587	1,570	1,076	6.00	179
2017	232,168.62	123,822	122,521	109,648	7.00	15,664
2018	92,490.12	43,162	42,709	49,781	8.00	6,223
2019	110,810.89	44,324	43,858	66,953	9.00	7,439
2021	820,669.12	218,848	216,549	604,120	11.00	54,920
2022	435,091.64	87,018	86,104	348,988	12.00	29,082
2024	89,227.60	5,949	5,886	83,342	14.00	5,953
2025	47,328.41	789	781	46,547	14.75	3,156
	2,903,863.89	1,243,784	1,230,716	1,673,148		195,723
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.5 6.74

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF JUNE 30, 2025

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	99,244.73	52,930	50,544	48,701	7.00	6,957
2018	22,944.61	10,708	10,225	12,720	8.00	1,590
2019	212,822.69	85,129	81,292	131,531	9.00	14,615
2020	1,709,084.63	569,689	544,012	1,165,073	10.00	116,507
2021	391,062.13	104,285	99,585	291,477	11.00	26,498
2022	107,463.52	21,493	20,524	86,940	12.00	7,245
2023	120,295.59	16,039	15,316	104,980	13.00	8,075
2024	276,417.31	18,429	17,598	258,819	14.00	18,487
2025	258,422.14	4,308	4,114	254,308	14.75	17,241
	3,197,757.35	883,010	843,210	2,354,547		217,215
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.8 6.79



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**PART III. EXPERIENCED AND ESTIMATED NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
354.20	5,414.90	27,261.65		27,261.65-
354.30	15,012.08			
354.40	5,402.39	3,035.88		3,035.88-
360.10	2,601.63	22,982.08		22,982.08-
361.10	1,935,411.80	1,344,641.10	3,491.13	1,341,149.97-
361.20	855,928.79	81,137.03		81,137.03-
363.00		75,298.32		75,298.32-
364.00		8,901.01		8,901.01-
371.00	208,080.94	24,730.31		24,730.31-
380.00	702,130.50	399,155.43		399,155.43-
390.00	724.38	1,886.85		1,886.85-
391.00	20,099.66			
393.00	68,342.45	7,289.38		7,289.38-
394.00	8,232.73	1,548.07		1,548.07-
395.00		510.16		510.16-
396.00		1,822.13		1,822.13-
397.00		3,318.49		3,318.49-
	3,827,382.25	2,003,517.89	3,491.13	2,000,026.76-
2021 TRANSACTION YEAR				
354.30	1,942.90	7,613.98		7,613.98-
354.40	45,344.71	76,589.11		76,589.11-
360.10	2,808.79	164,970.27		164,970.27-
361.10	1,848,146.44	1,074,276.48		1,074,276.48-
361.20	512,911.70	219,777.95		219,777.95-
363.00	130,642.17	129,688.68		129,688.68-
371.00	60,139.27	51,352.70		51,352.70-
380.00	230,130.31	104,870.48		104,870.48-
390.00		1,482.56		1,482.56-
393.00	33.43	953.49		953.49-
394.00	633.03	1,919.19		1,919.19-
396.00		9,833.75		9,833.75-
397.00		6,698.53		6,698.53-
	2,832,732.75	1,850,027.17		1,850,027.17-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
354.20	128,984.57	30,686.12		30,686.12-
354.30	5,000.83	2,731.90		2,731.90-
354.40	955,038.55	612,785.01		612,785.01-
360.10	6,487.72	232,064.30		232,064.30-
361.10	5,400,909.25	2,044,135.19		2,044,135.19-
361.20	863,890.35	326,964.80		326,964.80-
363.00	108,769.18	108,024.33		108,024.33-
371.00	101,130.80	14,057.96		14,057.96-
380.00	234,196.28	277,412.74		277,412.74-
390.00	99,806.02	12,873.26		12,873.26-
393.00	33,317.01	6,599.32		6,599.32-
394.00	10,743.07	877.73		877.73-
395.00	99,992.04	183.61		183.61-
396.00	17,087.95	1,647.58		1,647.58-
397.00	5,273.39			
	8,070,627.01	3,671,043.85		3,671,043.85-
2023 TRANSACTION YEAR				
354.20	88,613.36	44,958.24		44,958.24-
354.30	4,457.23	1,968.74		1,968.74-
354.40	1,488,688.72	245,634.00		245,634.00-
355.00	15,468.34			
360.10	1,470,140.04	406,108.42		406,108.42-
361.10	3,333,254.41	888,597.83	4,370.75	884,227.08-
361.20	917,251.60	289,877.22		289,877.22-
363.00	295,659.50	296,281.28		296,281.28-
371.00	281,459.89	38,191.07		38,191.07-
380.00	503,986.24	114,189.97		114,189.97-
390.00		6,466.02		6,466.02-
391.00	60,061.21	5,598.73		5,598.73-
393.00		5,920.63		5,920.63-
394.00		9,280.42		9,280.42-
395.00		1,922.08		1,922.08-
	8,459,040.54	2,354,994.65	4,370.75	2,350,623.90-

PENNSYLVANIA-AMERICAN WATER COMPANY  
WASTEWATER CSS OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED  
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2024 TRANSACTION YEAR				
354.20	121,249.37	63,421.00		63,421.00-
354.30	5,448.80	656.00		656.00-
354.40	2,760.18	246,216.00		246,216.00-
360.10	567,018.34	480,906.00		480,906.00-
361.10	1,373,938.82	1,448,594.00		1,448,594.00-
361.20	2,117,755.13	807,562.00		807,562.00-
363.00	358,150.54	521,162.00		521,162.00-
371.00	141,668.50	56,295.00		56,295.00-
380.00	1,088,465.98	87,613.00		87,613.00-
391.00	12,279.42	6,218.00		6,218.00-
	5,788,735.08	3,718,643.00		3,718,643.00-
TOTAL	28,978,517.63	13,598,226.56	7,861.88	13,590,364.68-

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**STATEMENT NO. 12  
DIRECT TESTIMONY OF CONSTANCE E. HEPPESTALL**

**EXHIBIT NO. 12-A  
WATER OPERATIONS  
COST OF SERVICE AS OF JUNE 30, 2025**

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DIRECT TESTIMONY OF  
CONSTANCE E. HEPPENSTALL**

**ON BEHALF OF PENNSYLVANIA-AMERICAN WATER COMPANY**

**CONCERNING**

**COST OF SERVICE ALLOCATION**

**DOCKET NOS.  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DATE: November 8, 2023**

**DIRECT TESTIMONY OF  
CONSTANCE E. HEPPESTALL**

1 **Q. Please state your name and address.**

2 A. My name is Constance E. Heppenstall. My business address is 1010 Adams  
3 Avenue, Audubon, PA 19403.

4 **Q. By whom are you employed?**

5 A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC.

6 **Q. Please describe your position with Gannett Fleming Valuation and Rate  
7 Consultants, LLC, and briefly state your general duties and responsibilities.**

8 A. My title is Senior Project Manager. My duties and responsibilities include the  
9 preparation of accounting and financial data for revenue requirement, the allocation  
10 of cost of service to customer classifications, and the design of customer rates in  
11 support of public utility rate filings.

12 **Q. Have you presented testimony in rate proceedings before a regulatory agency?**

13 A. Yes. I have testified before the Pennsylvania Public Utility Commission  
14 (“Commission” or “PUC”), the Kentucky Public Service Commission, the Arizona  
15 Corporation Commission, the Missouri Public Service Commission, the Virginia  
16 State Corporation Commission, the Hawaii Public Utility Commission, the West  
17 Virginia Public Service Commission, the New Jersey Board of Public Utilities, the  
18 Indiana Utility Regulatory Commission, the Public Utilities Commission of Ohio,  
19 the Nevada Public Utility Commission, and the California Public Utility  
20 Commission concerning revenue requirements, cost of service allocation, rate design

1 and revenue requirements. A list of cases in which I have testified is attached to my  
2 testimony.

3 **Q. What is your educational background?**

4 A. I have a Bachelor of Arts degree from the University of Virginia, Charlottesville,  
5 Virginia and a Master of Science in Industrial Administration from the Carnegie-  
6 Mellon University Tepper School of Business, Pittsburgh, Pennsylvania.

7 **Q. Would you please describe your professional affiliations?**

8 A. I am a member of the American Water Works Association (“AWWA”), the  
9 Pennsylvania Municipal Authorities Association and the National Association of  
10 Water Companies.

11 **Q. Briefly describe your work experience.**

12 A. I joined the Valuation and Rate Division of Gannett Fleming (formerly Gannett  
13 Fleming, Inc.) in August 2006, as a Rate Analyst. Prior to my employment at  
14 Gannett Fleming, I was a Vice President of PriMuni, LLP where I developed  
15 financial analyses to test proprietary software to ensure its pricing accuracy in  
16 accordance with securities industry conventions. From 1987 to 2001, I was  
17 employed by Commonwealth Securities and Investments, Inc. as a public finance  
18 professional where I created and implemented financial models for public finance  
19 clients to create debt structures to meet clients’ needs. From 1986 to 1987, I was a  
20 public finance associate with Mellon Capital Markets.

21 **Q. What is the purpose of your testimony in this proceeding?**

22 A. The purpose of my testimony is to explain the cost of service allocation studies  
23 conducted under my direction and supervision for Pennsylvania-American Water



1 Company (“PAWC” or the “Company”) and to describe the results produced by  
2 those studies.

3 **Q. What revenue requirement data did you use to prepare PAWC’s cost of service**  
4 **studies?**

5 A. The cost of service studies (“COSS”) I performed are based on data from PAWC’s  
6 separate revenue requirement studies for the following operations: (1) Water  
7 Operations; (2) Wastewater (“WW”) Sanitary Sewer System (“SSS”) General  
8 Operations; (3) WW SSS Butler Area Operations; (4) WW SSS Brentwood  
9 Operations; and (5) Wastewater Combined Sewer System (“CSS”) Operations. The  
10 Company’s revenue requirements for each of those operations are developed in  
11 PAWC Exhibit 3-A, which is sponsored by PAWC witness Ashley E. Everette and  
12 discussed in her direct testimony.

13 **Q. Have you prepared exhibits presenting the results of your studies?**

14 A. Yes. The exhibits identified below accompany my testimony and are described in  
15 detail further in my testimony.

Exhibit Number	Type of Study	Operation	Rate Zones
12-A Confidential (Pgs. A35- A37)	Cost of Service	Water Operations	Water Zones 1-5
12-B	Cost of Service	WW SSS General Operations	Wastewater Zones 1, 2, 5, 7, 8 and 9
12-C	Cost of Service	Wastewater CSS Operations	Wastewater Zones 3, 4 and 6
12-D	Cost of Service	WW SSS Brentwood Operations	Acquisition
12-E	Cost of Service	WW Butler Area Operations	Acquisition

16

1 **Q. Is the Company presenting separate cost of service and rate design studies for**  
2 **CSS and SSS wastewater operations?**

3 A. Yes. A CSS collects and conveys a wastewater stream that consists of flows of  
4 sewage from homes and businesses, infiltration and in-flow (“I&I”) and storm water.  
5 As explained by Ms. Everette in PAWC Statement No. 1, as part of the settlement of  
6 PAWC’s last base rate case approved by the Commission at Docket Nos. R-2022-  
7 3031672 and R-2022-3031673 (the “2022 Rate Case Settlement”), the Company  
8 agreed to provide in its next base rate filing a separate revenue requirement study for  
9 CSS systems it owns and a cost of service study that separately identifies all storm  
10 water costs for CSS operations. Accordingly, I prepared a separate cost of service  
11 study to identify the cost of collecting, treating, and disposing of storm water in the  
12 CSS wastewater systems PAWC acquired from the Municipal Authority of the City  
13 of Scranton in 2016, the Municipal Authority of the City of McKeesport in 2017,  
14 and the Borough of Kane Authority in 2020.

15 **Q. Why is the Company presenting separate cost of service studies for PAWC’s**  
16 **Butler Area and Brentwood wastewater operations?**

17 A. PAWC currently has applications pending before the Commission to acquire the  
18 wastewater assets of the Butler Area Sewer Authority (“BASA”) and the Borough of  
19 Brentwood under Section 1329 of the Public Utility Code (“Code”), 66 Pa. C.S.  
20 § 1329. The Company anticipates a Commission decision in both matters prior to the  
21 close of the record in this rate case. On August 14, 2023, PAWC filed a unanimous  
22 settlement of all issues with the active parties in the BASA acquisition proceeding,  
23 which includes a settlement term requiring the Company to submit a separate cost of

1 service study in this proceeding . I prepared a separate cost of service study for the  
2 SSS wastewater system currently owned and operated by the Brentwood Borough,  
3 which PAWC expects to obtain PUC approval to acquire in 2024, consistent with the  
4 proposed settlement for the BASA acquisition and past practice for systems acquired  
5 pursuant to Section 1329. Company witness Christopher Abruzzo provides a  
6 detailed description of these pending acquisitions in his direct testimony.

7 **COST OF SERVICE ALLOCATION – WATER OPERATIONS**

8 **Q. Please describe the revenue requirements included in the cost of service study**  
9 **for PAWC’s water operations being presented in this case.**

10 A. The cost of service study for Water Operations prepared for this case is based upon  
11 the Company’s revenue requirement for the fully projected future test year  
12 (“FPFTY”) ending June 30, 2025, including a portion of the revenue requirement of  
13 PAWC’s wastewater operations, as authorized by Section 1311(c) of the Code. The  
14 development of the revenue requirements for Water Operations, including the  
15 revenue requirement allocated to Water Operations from the Company’s Wastewater  
16 Operations, is explained by Ms. Everette in PAWC Statement No. 1.

17 Using the total revenue requirement for the FPFTY developed by the  
18 Company in the manner described by Ms. Everette, I prepared the cost of service  
19 study set forth in Exhibit No. 12-A (Water Operations). The cost of service study  
20 presented in Exhibit No. 12-A allocates among customer classes: (1) the entire  
21 revenue requirement of the Company’s Water Operations; and (2) the portion of the  
22 revenue requirement of the Company’s Wastewater Operations that will not be  
23 recovered from wastewater customers under the Company’s proposed wastewater

1 rates, which I will refer to, collectively, as the cost of service or total revenue  
2 requirement for the FPFTY.

3 **Q. Briefly describe the purpose of your cost of water service allocation study.**

4 A. The study applies generally accepted cost of service principles and procedures to  
5 allocate the total revenue requirement to the residential, commercial, industrial,  
6 public, other water utilities, private fire protection and public fire protection  
7 classifications. The results of the cost of service study indicate the relative cost  
8 responsibilities of each class of customers. The allocated cost of service is one of  
9 several criteria that are appropriately considered in designing customer rates to  
10 produce the required revenues.

11 **Q. Have you prepared exhibits that set forth the results of your study?**

12 A. Yes. As I previously noted, Exhibit No. 12-A sets forth the results of my allocation  
13 of the pro forma cost of service for Water Operations as of June 30, 2025.

14 **Q. Please describe the method of cost allocation that was used in your study.**

15 A. For Exhibit No. 12-A, the base-extra capacity method, as described in the 2017  
16 (seventh edition) and prior editions of the Water Rates Manual published by  
17 AWWA, was used to allocate the pro forma costs that comprise the total revenue  
18 requirement. It is a recognized method for allocating the cost of providing water  
19 service to customer classifications in proportion to each classification's use of the  
20 commodity, facilities, and services of a water utility and has been accepted by this  
21 Commission for that purpose. Indeed, it is the method that was used in the  
22 Company's prior rate cases, including its last base rate case at Docket No. R-2022-

1 3031672, and has been accepted by the Commission for use by the Company and  
2 other water utilities in the Commonwealth.

3 **Q. Is the base-extra capacity method described in Exhibit No. 12-A?**

4 A. Yes. It is described on pages 3 and 4 of the exhibit.

5 **Q. Please describe the procedure followed in the cost allocation studies.**

6 A. Each identified category of cost in the pro forma cost of service was allocated to the  
7 customer classifications using appropriate allocation factors. This allocation is  
8 presented in Schedule D of Exhibit No. 12-A. The categories of cost, which consist  
9 of operation and maintenance expenses, depreciation expense, taxes and income  
10 available for return, are identified in columns 1 and 2 of Schedule D. The costs in  
11 each category, shown in column 4, are allocated to the several customer  
12 classifications based on allocation factors referenced in column 3. The development  
13 of the allocation factors is presented in Schedule E of each exhibit.

14 I will use some of the larger cost items to illustrate the principles and  
15 considerations used in the cost allocation methodology. Purchased water, purchased  
16 electric power and treatment chemicals are examples of costs that tend to vary with  
17 the amount of water consumed and are, therefore, considered base costs. These costs  
18 are allocated to the several customer classifications in direct proportion to the  
19 average daily consumption of those classifications using Factor 1. The development  
20 of Factor 1 is shown in Schedule E of Exhibit No. 12-A.

21 Other source of supply, water treatment and transmission costs are associated  
22 with meeting usage requirements more than the average. This means that these costs  
23 are incurred generally to meet maximum day requirements. Costs of this nature

1 were allocated to customer classifications partially as base costs (i.e., in proportion  
2 to average daily consumption, pursuant to Factor 1), partially as maximum day extra  
3 capacity costs (i.e., in proportion to maximum day extra capacity, pursuant to Factor  
4 2) and, for certain pumping stations and transmission mains, partially as fire  
5 protection costs (i.e., pursuant to Factor 3). Factors 2 and 3 are developed in  
6 Schedule E of Exhibit No. 12-A.

7 Costs associated with storage facilities and the capital costs of distribution  
8 mains were allocated partly based on average consumption and partly based on  
9 maximum hour extra demand, including the demand for fire protection service,  
10 because these facilities are designed to meet maximum hour and fire demand  
11 requirements. The development of Factor 4, which is used for these allocations, is  
12 shown in Schedule E of Exhibit No. 12-A. Fire demand costs were allocated to  
13 public and private fire protection service and to general service in proportion to the  
14 relative potential demands on the system from hydrants and fire services and from  
15 commercial service lines sized to provide both fire protection and general service.

16 Costs associated with pumping facilities and the operation and maintenance  
17 of mains were allocated on the combined bases of maximum day and maximum hour  
18 extra capacity because these facilities serve both functions. The relative weightings  
19 of Factor 3 (maximum day) and Factor 4 (maximum hour) for pumping facilities and  
20 the operation and maintenance of mains were based on the functional use of pumps  
21 and footage of mains, respectively, serving maximum day and maximum hour  
22 functions. The weighted factors, identified as Factor 5, Factor 5A and Factor 8, are  
23 developed on Schedule E of Exhibit No. 12-A.

1                   Costs associated with meters and services were allocated to customer  
2                   classifications in proportion to the capital costs of the sizes and quantities of meters  
3                   and services serving each classification. The factors for allocating the cost of meters  
4                   and services, identified as Factor 10 and Factor 11, are developed on Schedule E of  
5                   Exhibit No. 12-A.

6                   The costs of customer accounting, billing and collections were allocated  
7                   based on the number of customers for each customer classification. The costs of  
8                   meter reading were allocated based on the pro forma number of meters by  
9                   classification. These factors, identified as Factor 14 and Factor 15, are developed on  
10                  Schedule E of Exhibit No. 12-A. Bad debt expense, except for bad debt expenses  
11                  related to the Company's Arrearage Management Program, was allocated based on  
12                  the average net write-offs for 2020, 2021 and 2022 (Factor 22). The bad debt  
13                  expense related to the Company's Arrearage Management Program was directly  
14                  assigned to the Residential class.

15                  Administrative and general costs (except those that are directly assignable to  
16                  the Residential class, such as Customer Assistance Program costs) were allocated  
17                  based on allocated direct costs excluding those costs that require little administrative  
18                  and general expense, such as purchased water, power, chemicals, and waste disposal.  
19                  The factor for this allocation is identified as Factor 16.

20                  Annual depreciation accruals were allocated based on the function of the  
21                  facilities in each plant account to which depreciation expense is recorded. The  
22                  original cost less accrued depreciation of utility plant in service was also allocated  
23                  based on the function of the plant recorded in each account for the purpose of

1 developing Factor 19, which is used to allocate items such as return and income  
2 taxes.

3 **Q. What was the source of the total cost of service data set forth in column 4 of**  
4 **Schedule D of Exhibit No. 12-A?**

5 A. The pro forma costs of service were furnished by the Company and are the same as  
6 those set forth in PAWC Exhibit No. 3-A for Water Operations.

7 **Q. Refer to Schedule E of Exhibit No. 12-A and explain the source of the system**  
8 **maximum day and maximum hour ratios used in the development of Factors 2,**  
9 **3 and 4.**

10 A. The ratios were based on a review of experienced Company data. The maximum  
11 day ratio of 1.4 times the average day approximates the ratio of maximum daily  
12 send-out experienced by the Company in 1988, 1995, 1996, 1999 and 2003. The  
13 maximum hour ratio of 2.1 times the average hour approximates the results of an  
14 analysis that was performed to determine the peak hour consumption experienced by  
15 the Company's three largest operating districts.

16 **Q. These maximum day and maximum hour ratios were recorded 20 years ago.**  
17 **Why are you using these ratios rather than more recent ones?**

18 A. A water system must be designed to meet the highest peak demand that potentially  
19 could be experienced – not just the highest peak demand that was experienced within  
20 a recent historical period. Peak demands can vary based on contingencies that do not  
21 reoccur on a regular or predictable basis. The facilities needed to produce and  
22 distribute water have a long lead-time to design and construct and have a  
23 correspondingly long service life. Given those inherent characteristics of water



1 utility facilities, responsible waterworks practice necessitates building a system that  
2 can meet peak demands whenever they may occur because the system cannot be  
3 expanded (or contracted) to meet only those demands that appear within a limited  
4 historical study period, such as a ten-year look-back. Additionally, the water usage  
5 on the maximum days in areas within the Company's overall water operations are  
6 often more than 1.4 times the average usage for that year. Given PAWC's obligation  
7 to furnish safe and reliable service, the Company must be prepared to meet  
8 customers' peak demands whenever they occur and, therefore, it is not reasonable to  
9 ignore the maximum day ratios that the Company has actually experienced.

10 **Q. Does the AWWA M1 Manual, Seventh Edition, address system wide maximum**  
11 **day demand factors for use in the base extra capacity method?**

12 A. The AWWA M1 Manual does not directly prescribe specific a system wide  
13 maximum day factor. However, Appendix A to the manual addresses the diversity  
14 ratio, which is calculated using the system wide peaking factor. Specifically, the  
15 diversity ratio is the non-coincident peaking factor divided by the system peaking  
16 factor. In Appendix A, the manual recommends that a reasonable diversity ratio  
17 should be between 1.1 and 1.4. The 1.4 system wide maximum day demand factor  
18 employed in the Water COSS produces a diversity factor that is reasonable based on  
19 the range recommended in the AWWA manual.

20 **Q. Please explain the calculation of a diversity ratio using the Company's system**  
21 **wide maximum day factor.**

22 A. The Company's non-coincident peaking factor (the dividend, which is divided by the  
23 system wide maximum day factor to derive the diversity factor) is calculated based

1 on the non-coincident maximum day volumes found on Schedule E, in Exhibit 12-A.  
2 The total average daily consumption (in 100 gallons) shown in this schedule totals  
3 1,169,719. The maximum day extra capacity (in 100 gallons) totals 1,126,999. The  
4 factors (column 3) that produce this amount were obtained from a demand study  
5 completed by the Company from January 2013 through October 2015. If these  
6 volumes of average day and maximum day extra capacity are added together, the  
7 sum equals the non-coincident maximum day volume (in 100 gallons) of 2,296,718.  
8 The ratio of the non-coincident peak volume (in 100 gallons) of 2,296,718 to  
9 average day volume (in 100 gallons) of 1,169,719 equals 1.96. This non-coincident  
10 ratio is then divided by the system wide peaking factor (coincident peaking factor) to  
11 develop the diversity ratio. The Company's system wide peaking factor of 1.4  
12 produces a diversity factor of 1.41 (1.97/1.40), which is reasonable based on the  
13 recommended range of diversity ratios set forth in the AWWA Manual. In short,  
14 calculating the diversity ratios using the system wide maximum day factors of  
15 PAWC, fully supports the reasonableness of the system wide maximum day factor  
16 used in the COSS.

17 **Q. Are the system maximum day and maximum hour ratios the same as those used**  
18 **in studies presented on behalf of the Company in prior proceedings before this**  
19 **Commission?**

20 A. Yes, they are.

21 **Q. Are the customer class extra capacity factors the same as those used in the**  
22 **most recent prior study for the Company?**

1 A. Yes, the extra capacity factors used in Exhibit No. 12-A reflect the results of  
2 PAWC's most recent customer class demand study submitted in the Company's  
3 2017 base rate case. A detailed explanation of the methods and procedures used, the  
4 sampling techniques, the areas and customers monitored, the results of the  
5 monitoring during the 2013-2015 period, and the conclusions from the study results  
6 are described in the text of the study provided in Appendix A of Exhibit No. 12-A.

7 **Q. For Exhibit No. 12-A, did you make any adjustments to the cost allocation**  
8 **study?**

9 A. Yes, four adjustments were made to the study. I will describe each adjustment and  
10 explain why it was made.

11 **Q. Please explain the first adjustment.**

12 A. The first adjustment was made to exclude the volume of contract sales under Riders  
13 DIS (Demand Industrial Sales) and DRS (Demand Resale Sales) in developing the  
14 allocation factors for the industrial classification and the sales for resale – Group A  
15 classification. As a result, costs are allocated only to the non-Rider DIS and non-  
16 Rider DRS customers. Correspondingly, the revenues received from those contract  
17 sales were deducted from the total cost of service and from each of the classes of  
18 service, as shown on Schedule D of Exhibit No. 12-A.

19 **Q. Why did you make this adjustment?**

20 A. This adjustment was made to provide a more meaningful comparison of allocated  
21 costs and revenues. Including contract sales would inappropriately reduce the  
22 relative rate of return for the applicable class because revenues from the contract  
23 sales reflect contract rates that, to address competitive situations and avoid loss of

1 load (or gain incremental load), are lower than the non-Rider DIS and non-Rider  
2 DRS rates. By excluding contract sales, as I have done, the resulting cost of service  
3 and revenues properly reflect the costs and the rates for non-contract customers. The  
4 Commission, in approving Riders DIS and DRS, found that those riders create  
5 benefits for all the Company's customers by preserving or attracting incremental  
6 sales that, because of competitive forces, could not otherwise be made. Accordingly,  
7 the revenues derived from Rider DIS and Rider DRS customers are reflected as  
8 deductions from all classes' cost of service.

9 **Q. Please describe the second adjustment.**

10 A. The second adjustment excludes from the extra capacity portion of Factors 2, 3 and 4  
11 the curtailment volumes associated with service provided under the Company's  
12 industrial curtailment rate schedule. This adjustment properly accounts for the fact  
13 that curtailment volumes are interruptible and that a customer, to be eligible for this  
14 service, is required to meet certain minimum load factor requirements and have  
15 sufficient on-site storage capacity to meet its demands during periods of curtailment  
16 or interruption. This adjustment reflects the fact that a customer on this rate does not  
17 impose extra-capacity demand costs.

18 **Q. Are the volumes associated with curtailment service included in the base**  
19 **portion of Factors 2, 3 and 4 in Exhibit No. 12-A?**

20 A. Yes, they are.

21 **Q. Please describe the third adjustment.**

22 A. The third adjustment reallocates the unrecovered portion of public fire protection  
23 costs to the residential, commercial, industrial and public classifications. This was

1 done to comply with Section 1328 of the Code, which provides that public fire  
2 hydrant rates may only recover 25% of the cost of public fire protection service and  
3 that the unrecovered portion should be recovered in the fixed charges of other  
4 customer classifications.

5 **Q. How did you allocate the unrecovered portion of public fire service costs in**  
6 **Exhibit No. 12-A?**

7 A. Consistent with the statutory requirement that these costs are to be recovered in fixed  
8 charges, I allocated the unrecovered public fire costs using Factor 21, which is based  
9 on the meter equivalents of the residential, commercial, industrial and public  
10 classifications.

11 **Q. Please describe the fourth adjustment.**

12 A. The fourth adjustment to the water cost of service study in Exhibit No. 12-A  
13 allocates a portion of the Company's total wastewater cost of service to the  
14 Company's water operations. The wastewater cost of service allocated to Water  
15 Operations is the cost of wastewater service less the revenues the Company's  
16 proposed wastewater rates are expected to produce.

17 **Q. What is the total amount of wastewater revenue requirement allocated to the**  
18 **Company's Water Operations?**

19 A. As shown in column 3 of Schedule A of Exhibit No. 12-A, the wastewater cost of  
20 service allocated to the cost of service for PAWC's Water Operations totals  
21 \$71,087,394.

22 **Q. How are the Wastewater Operations revenue requirements allocated to the**  
23 **customer classes in Exhibit No. 12-A?**

1 A. The wastewater operations revenue requirements are allocated to the customer  
2 classes in Exhibit No. 12-A in the manner described in the direct testimony of  
3 Company Witness Charles Rea.

4 **Q. Have you summarized the results of your cost allocation study in Exhibit No.**  
5 **12-A?**

6 A. Yes. In Exhibit No. 12-A, the results for the combined water and wastewater  
7 operations are summarized in columns 2, 3 and 4 of Schedule A. Column 5 presents  
8 each customer classification's cost responsibility as a percent of the total cost.

9 **Q. Have you compared these cost responsibilities with the proportionate revenue**  
10 **under existing rates for each customer classification in Exhibit 12-A?**

11 A. Yes. Allocated cost responsibilities can be compared to the percentage revenue  
12 under present rates, as shown on Schedule A. The percentage cost responsibilities  
13 (relative cost of service) can be compared to the percentage of pro forma revenues  
14 (relative revenues) under proposed rates, as shown on Schedule A in Exhibit  
15 No. 12-A.

16 **COST OF SERVICE ALLOCATION – WASTEWATER SSS OPERATIONS**

17 **Q. Please describe the overall cost of service allocation studies for the Company's**  
18 **Wastewater SSS Operations.**

19 A. The cost of service allocation study for the Company's Wastewater SSS General  
20 Operations includes the combined wastewater revenue requirements for PAWC's  
21 Wastewater Rate Zones 1, 2, 5, 7, 8 and 9. As previously noted, I performed  
22 separate cost of service allocation studies for the Company's WW SSS Butler Area  
23 Operations and WW SSS Brentwood Operations.

1           The purpose of each of those studies was to allocate the total cost of service,  
2           which is the total revenue requirement, to the several customer classifications. In the  
3           studies, the total costs were allocated to the residential, non-residential, large  
4           industrial, and bulk use customer classifications in accordance with generally  
5           accepted cost of service principles and procedures.

6           For the purposes of cost allocation in the Wastewater SSS General  
7           Operations study presented in Exhibit No. 12-B, small industrial customers are  
8           included in the non-residential class, which also includes commercial and public  
9           customers. In Exhibit No. 12-B, two large industrial customers are included in the  
10          large industrial class. The bulk user class also includes the Veterans Administration  
11          Hospital, which is served from the Coatesville system. Finally, in accordance with  
12          Paragraph 41 of the 2022 Rate Case Settlement, Exhibit 12-B includes a separate  
13          class for municipal and utility wastewater systems (“York Bulk Customers”)<sup>1</sup> that  
14          have entered into Wastewater Treatment and Conveyance Agreements (“Bulk  
15          Agreements”) to treat their wastewater flows at the York treatment plant.

16          In Exhibits No. 12-D and 12-E costs were allocated to the residential and  
17          non-residential classes.

18      **Q. In its 2022 rate case, did PAWC include the cost of providing service to the**  
19      **York Bulk Customers in the cost-of-service study for its York WW SSS**  
20      **operations?**

---

<sup>1</sup> The York Bulk Customers consist of The York Water Company, which is the owner of the former West York Borough Collection System; Springettsbury Township; North York Borough; York Township; Manchester Township; West Manchester Township; and Spring Garden Township.

1 A. No. Only retail customers that receive wastewater collection, conveyance and  
2 treatment service were identified as separate classes (residential and non-residential)  
3 for purposes of allocating the total system cost of service among customer classes.  
4 The York Bulk Customers have competitive alternatives to service from PAWC that  
5 were discussed in detail by PAWC witness Bernard D. Grundusky in Statement No.  
6 7-R submitted on August 19, 2022 at Docket Nos. R-2022-3031672 and R-2022-  
7 3031673. Therefore, prices above those negotiated extensively and at arm's length  
8 in the Bulk Agreements would result in the loss of the York Bulk Customers as a  
9 revenue source. Accordingly, in the Company's last rate case, compensation  
10 received under the Bulk Agreements was treated as incremental revenue and, as  
11 such, was used to reduce the cost of service of the retail customers that were  
12 reflected as separate classes in the cost-of-service study.

13 **Q. Is the cost of furnishing service to the York Bulk Customers shown in Exhibit**  
14 **12-B subsidized by other wastewater customers?**

15 A. No. As explained by Company witness Bruce W. Aiton in PAWC Statement No. 3,  
16 the York Bulk Customers continue to have competitive options for bulk treatment  
17 and the negotiated contract rate is necessary to maintain the York Bulk Customers  
18 on the York wastewater system. Retail customers benefit from the contribution that  
19 bulk service revenues provide to offset the fixed costs that otherwise would be borne  
20 entirely by retail customers. In that regard, as shown in Table 1 below, the total  
21 variable cost to furnish wastewater service in the WW SSS General Operations is  
22 \$7,710,415 or \$0.157 per 100 gallons.



1

**Table 1**

<b>VARIABLE COSTS</b>	<u>Total Costs</u>
615.3 Purchased Power	\$ 3,234,166
618.3 Chemicals	\$ 1,810,725
675.4 Misc. Operating Expense - Waste Disposal	\$ 2,572,562
615.5 Purchased Power	\$ 92,962
<b>TOTAL VARIABLE COSTS</b>	<b>\$ 7,710,415</b>
Total Flow (100 gallons)*	49,167,101
Total Variable Cost per 100 gallon usage	\$ 0.157

2

\* Source: Exhibit 10-B.

3

By comparison, the Bulk Agreements impose rates of s \$0.2737 per 100 gallons for

4

Springettsbury Township and \$0.4123 per 100 gallons for the other five York Bulk

5

Customers during the FPFTY. As such, the revenues from the York Bulk Customers,

6

or Bulk User – Contract customers, cover the variable costs of bulk treatment service

7

and provide a meaningful contribution to the total fixed costs incurred to furnish

8

wastewater service to retail customers in the Company’s WW SSS General

9

Operations.

10

**Q. Have you prepared exhibits presenting the results of your studies?**

11

A. Yes. The results of my allocations of the pro forma cost of service as of June 30,

12

2025 are presented in Exhibit Nos. 12-B (Wastewater SSS General Operations),

13

12-D (WW SSS Brentwood Operations), and 12-E (WW SSS Butler Area

14

Operations).

15

**Q. Please describe the method of cost allocation that was used in your studies**

16

**presented in Exhibit Nos. 12-B, 12-D and 12-E.**

1 A. I used the functional cost allocation methodology described in “Financing and  
2 Charges for Wastewater Systems”, Manual of Practice No. 27, published by the  
3 Water Environment Federation (“Manual of Practice No. 27”). This method  
4 allocates the cost of providing wastewater service to customer classifications in  
5 proportion to each classification’s use of the service provider’s facilities and  
6 services. Costs are assigned to cost components using predominant operational  
7 purposes as cost-causative factors. The functional cost method is generally accepted  
8 as a sound method for allocating the cost of wastewater service.

9 **Q. What procedures did you use to apply the cost allocation methodology for**  
10 **wastewater operations?**

11 A. Each element of the cost of service is allocated to customer classifications according  
12 to the functional categories of flow, I&I, customer facilities and customer  
13 accounting. Except for certain depreciation and rate base items that are directly  
14 assigned to the Bulk User/VA Hospital class in Exhibit No. 12-B, the functional  
15 costs are allocated to customer classifications based on the amount of flow  
16 contributed to the system, the amount of I&I allocated to each class, and the number  
17 and relative size of customers.

18 **Q. What costs have you directly assigned to the Bulk User/VA Hospital class for**  
19 **the Company’s Wastewater SSS General Operations in Exhibit No. 12-B?**

20 A. I have directly assigned certain components of rate base and annual depreciation  
21 expense related to wastewater treatment, gravity mains, and manholes based on the  
22 result of the allocation in the 2010 Coatesville cost of service study in Docket R-  
23 2010-2166212 (“Prior Cost of Service Study”). This study allocated Coatesville

1 Wastewater System capital costs to their bulk users in accordance with the design-  
2 basis methodology described in Manual of Practice No. 27 and the I&I study  
3 submitted in compliance with the terms of the settlement at Docket No. R-2008-  
4 2032689. Pursuant to the terms of that settlement, the Company conducted a  
5 comprehensive study to determine the current and future flow volumes for each  
6 classification and the volume of I&I in the system as it relates to direct and bulk  
7 customers. The study was submitted with the Company's wastewater base rate filing  
8 at Docket No. R-2010-2166212 and was used in determining the cost of service for  
9 the bulk user class in that case. In this case, it is appropriate to continue to allocate  
10 certain capital costs related to treatment and mains to the remaining bulk users in the  
11 Coatesville area in Exhibit No. 12-B based on the Prior Cost of Service Study and  
12 I&I study.

13 **Q. What is the basis for the volumes used to allocate costs to customer**  
14 **classifications in Factor 1?**

15 A. Factor 1 is used to allocate costs related to wastewater treatment. In Factor 1, for the  
16 residential and non-residential classes, the flows were based on pro forma water  
17 usage billing determinants multiplied by a factor of 88%, consistent with the  
18 Coatesville I&I study, which determined that 88% of water use is returned to the  
19 sewer system. I then added average daily I&I in column 3 of Schedule E. In Exhibit  
20 No. 12-B, using the Company's flow records, it was determined that 32.9% of the  
21 average daily flow was from I&I. Using the Company's flow and certain  
22 assumptions, it was determined that 62.5% and 32.9% of the average daily flow was  
23 from I&I for WW SSS Butler Area Operations and WW SSS Brentwood Operations,

1 respectively. Except for the bulk user classes for WW SSS General Operations, 1/3  
2 of I&I was allocated to the customer classes based on average daily flow and 2/3  
3 was allocated based on service equivalents. The I&I allocated to the bulk user/VA  
4 Hospital class and the Bulk Users – Contract classes in Exhibit No. 12-B was based  
5 on 25% of the ratio of I&I to customer flow of 32.9%, as the flows from bulk users  
6 already contain I&I from their own collection systems.

7 **Q. Please give a similar description of Factor 2 for Exhibit Nos. 12-B, 12-C, and**  
8 **12-D.**

9 A. Factor 2 is used to allocate costs related to collection. This factor was calculated in a  
10 similar manner as Factor 1. However, based on Company records, maximum day  
11 volumes were found to be 3.0 times total average flow for PAWC's WW SSS  
12 General Operations and this ratio was used for all areas. Except for the bulk use  
13 classes for PAWC's WW SSS General Operations, 1/3 of I&I was allocated to the  
14 customer classes based on average daily flow and 2/3 was allocated based on service  
15 equivalents. The I&I allocated to the Bulk User/VA Hospital class in Exhibit No. 12-  
16 B was based on 25% of the ratio of I&I to customer flow. The Bulk User – Contract  
17 class was not allocated any costs related to the collection system.

18 **Q. Please explain the factors used to allocate capital costs.**

19 A. Factors 3 and 3A are similar to Factors 1 and 2 except that Factors 3 and 3A exclude  
20 the Bulk User/VA Hospital class in Exhibit No. 12-B because assets for these  
21 customers have been directly assigned. Factors 3 and 3A are not used in Exhibit  
22 Nos. 12-C and 12-D as these areas do not have bulk customers who have specific  
23 allocations related to a wastewater treatment plant.

1 **Q. Please explain the remaining cost allocation factors.**

2 A. Factors 4 and 5 were used to allocate customer facilities and customer accounting  
3 costs. These factors were based on the number and relative size of the customers.

4 Factor 6 is a composite factor used to allocate employee pension and benefit  
5 expenses and payroll taxes. Factor 6 is based on the allocation of direct labor  
6 expense.

7 Factors 7 and 8 are based on the allocation of plant in service and rate base,  
8 respectively. Factor 7 allocates other rate base elements and Factor 8 is used to  
9 allocate return and taxes.

10 Factor 9 is based on the total cost of service and is used to allocate regulatory  
11 commission expense and other revenues.

12 Factor 10 is used to allocate administrative and general expenses and is based  
13 on the allocation of all other operating expenses exclusive of power, chemicals and  
14 waste disposal. Factor 11 allocates cash working capital and is based on the  
15 allocation of all operating expenses.

16 **Q. Please explain the procedure for allocating costs to the several customer  
17 classifications.**

18 A. The items of cost, which include operation and maintenance expenses, depreciation  
19 expense, taxes and income available for return, are identified in column 1 of  
20 Schedule D in Exhibit Nos. 12-B, 12-D and 12-E. The cost of each item, shown in  
21 column 3, is allocated to the several customer classifications based on allocation  
22 factors referenced in column 2. The development of the allocation factors is  
23 presented in Schedule E of each exhibit.

1 **Q. What was the source of the total cost of service data set forth in column 3 of**  
2 **Schedule D of Exhibit Nos. 12-B, 12-C and 12-D?**

3 A. The pro forma costs of service were furnished by the Company and are the same as  
4 those set forth in Exhibit No. 3-A. The pro forma cost of service in Exhibit Nos.  
5 12-B, 12-C and 12-D was reduced by the \$31,962,411, \$1,565,232 and \$21,552,699  
6 in revenue requirement, respectively, that is proposed to be recovered in water rates.

7 **Q. Have you summarized the results of your cost allocation studies for the**  
8 **Company's SSS Wastewater Operations?**

9 A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A of Exhibit  
10 Nos. 12-B, 12-D and 12-E. Column 2 sets forth the total allocated pro forma cost of  
11 service as of June 30, 2025, for each customer classification identified in column 1.  
12 Column 3 presents each customer classification's cost responsibility as a percent of  
13 the total cost.

14 **Q. Have you compared these cost responsibilities with the proportionate revenue**  
15 **under existing rates for each customer classification?**

16 A. Yes. A comparison of the allocated cost responsibilities and the percentage revenue  
17 under existing rates can be made by comparing columns 3 and 5 of Schedule A of  
18 Exhibit Nos. 12-B, 12-D and 12-E. A similar comparison of the percentage cost  
19 responsibilities (relative cost of service) and the percentage of pro forma revenues  
20 (relative revenues) under proposed rates can be made by comparing columns 3 and 7  
21 of Schedule A of each exhibit. The rate of return by customer classification under  
22 present and proposed rates is set forth on Schedules B and C, respectively.

1            **COST OF SERVICE ALLOCATION – WASTEWATER CSS OPERATIONS**

2            **Q.     Please describe the cost of service allocation for the Company’s Wastewater**  
3            **CSS Operations.**

4            A.     The cost of service allocation study is based on the revenue requirements developed  
5            by the Company in Exhibit 3-A for its Wastewater CSS Operations. The study  
6            allocated the combined cost of service of the Scranton, McKeesport and Kane  
7            operations to residential, non-residential, industrial, bulk, and stormwater  
8            classifications.

9            **Q.     Have you prepared an exhibit presenting the results of your study?**

10          A.     Yes. The results of my allocation of the pro forma cost of service as of June 30,  
11          2025 is shown in Exhibit No. 12-C.

12          **Q.     Please describe the method of cost allocation that was used in your study.**

13          A.     For this study, I also used the functional cost allocation methodology described in  
14          Manual of Practice No. 27. I modified the allocation method to determine the  
15          incremental cost related to handling stormwater for a CSS and combined sewer  
16          overflows (“CSO”).

17          **Q.     What procedures did you use to apply the cost allocation methodology for**  
18          **Wastewater CSS Operations?**

19          A.     Each element of the cost of service is allocated to customer classifications according  
20          to the functional categories of sanitary flow (including normal I&I), stormwater  
21          introduced from surface sources, customer facilities and customer accounting.  
22          Except for certain operating costs, depreciation, and rate base items that are directly  
23          assigned to either the sanitary system or to the stormwater function, the functional

1 costs are allocated to customer classifications based on the amount of flow  
2 contributed to the system, the amount of I&I allocated to each class, the volume of  
3 stormwater, and the number and relative size of customers.

4 **Q. What costs have you directly assigned to the sanitary sewer classifications?**

5 A. I directly assigned rate base items and annual depreciation expense associated with  
6 pumping stations, wastewater treatment structures and equipment, gravity mains, and  
7 manholes to the sanitary sewer classes (residential, non-residential and large  
8 industrial). The wastewater collection systems in the Scranton operating district are  
9 not entirely a combined system. Approximately 63% of the collection system is  
10 combined sewers and the remaining 37% comprises sanitary sewers only.

11 Therefore, for gravity mains, after assigning specific stormwater assets to the  
12 stormwater class described below, I allocated 37% of the remaining costs of gravity  
13 mains to the sanitary classes, and I allocated 63% on a combined system basis. The  
14 cost of manholes in Account 361.2 were allocated in the same manner. For the  
15 McKeesport operating district, the collection system is a combined system except for  
16 the Port Vue area where approximately 25% is combined sewers and 75% is sanitary  
17 only. For the Kane operating district, the collection system inside the Borough is a  
18 combined system and the collection system outside the Borough is sanitary only.  
19 The collection system assets allocated to sanitary only, allocated on a combined  
20 system basis and directly assigned to stormwater for each CSS operating district  
21 were aggregated and used to allocate the combined investment to customer  
22 classifications.



1 For pumping system assets, the Froude Avenue pumping station in the  
2 Scranton operating district serves only sanitary sewers and, therefore, its cost was  
3 assigned solely to the sanitary classifications. The remaining pumping stations were  
4 allocated on a combined system basis.

5 For the wastewater treatment plants, a detailed analysis of the structures  
6 account and the equipment account was performed to identify the portions of the  
7 plants specifically related to secondary sanitary treatment. The portions of the plants  
8 thus identified were allocated to the sanitary classifications.

9 The remaining portions of the wastewater treatment structures and equipment  
10 accounts in the Scranton operating district, sized to handle 60 mgd of flow, were  
11 assigned 41.67% (25 mgd) to the sanitary classes and 58.33% (35 mgd) to  
12 stormwater. For the McKeesport operating district, the wastewater treatment plant  
13 costs were assigned based on the capacity of the McKeesport wastewater treatment  
14 plant (the largest treatment plant). This plant is sized to handle 56 mgd of combined  
15 flow, and 35.71% (20 mgd) was assigned to the sanitary classes and 64.29%  
16 (36 mgd) to stormwater. The Kinzua and Pine Street wastewater treatment plants in  
17 the Kane operating district are each sized for 1.5 mgd or a total of 3.0 mgd of  
18 combined flow. This capacity was assigned 66.67% (2 mgd) to the sanitary classes  
19 and 33.33% (1 mgd) to stormwater.

20 **Q. What costs have you directly assigned to the stormwater classification?**

21 A. I directly assigned approximately 10.9% of collection operating labor to stormwater  
22 for seven collection system employees who are specifically tasked with operating  
23 and maintaining the CSO assets within the collection systems. In addition to the

1 pumping stations and portions of the treatment plant related to stormwater that I  
2 previously discussed, I also identified rate base items and associated annual  
3 depreciation expense for specific CSO assets within Account 361.10, Gravity Mains.  
4 These assets include catch basins, CSO outfalls, regulator chambers, diversion  
5 manholes, culverts, detention basins, and biofiltration catch basin systems. The  
6 costs of these assets were directly assigned to the stormwater classification.

7 **Q. What other costs were directly assigned to the stormwater function?**

8 A. For Account 391, Transportation Equipment, the cost of one vactor truck and the  
9 cost of a street sweeper in Scranton, as well as vactor truck assets in McKeesport and  
10 Kane were allocated directly to stormwater.

11 **Q. What is the basis for the volumes used to allocate costs to customer  
12 classifications for operating and maintenance expenses?**

13 A. Factors 1 and 2 are used to allocate operation and maintenance costs related to  
14 wastewater collection and treatment. For Factor 1, for the residential, non-  
15 residential, industrial, and bulk classes, the flows were based on pro forma water  
16 usage billing determinants multiplied by a factor of 88%, consistent with the  
17 Coatesville I&I study. I then added average daily I&I in column 3 of Schedule E.  
18 Using Company flow records for Wastewater SSS, it was determined that 32.9% of  
19 the average daily flow was from I&I. One-third of the I&I was allocated to the  
20 customer classes based on average daily flow and 2/3 was allocated based on service  
21 equivalents using Factor 1A.

22 Factor 2 is based on average daily sanitary flows from Factor 1 plus average  
23 daily stormwater flow. The total wastewater flow (sanitary and stormwater for

1 Scranton, McKeesport and Kane combined) is based on the experienced average  
2 daily total flow for 2022 of 25.4 mgd.

3 **Q. Please explain the factors used to allocate the capital costs.**

4 A. Factors 3 and 4 are similar to Factors 1 and 2 except that Factors 3 and 4 include  
5 peak flows. For Factor 3, the total peak sanitary flow is based on 47 mgd, (sum of  
6 Scranton at 25 mgd, McKeesport at 20 mgd and Kane at 2 mgd) which reflects  
7 additional I&I under peak conditions. For Factor 4, the total peak wastewater flow  
8 capacity is based on 1,190 mgd, with the addition of 72 mgd of peak stormwater  
9 flow, (sum of Scranton at 35 mgd, McKeesport at 36 mgd and Kane at 1 mgd).

10 **Q. Please explain the remaining cost allocation factors.**

11 A. Factors 5 and 6 were used to allocate customer facilities and customer accounting  
12 costs. These factors were based on the number and relative size of the customers.

13 Factor 7 is a composite factor used to allocate employee pension and benefit  
14 expenses and payroll taxes. Factor 7 is based on the allocation of direct labor  
15 expense.

16 Factors 8 and 9 are based on the allocation of plant in service and rate base,  
17 respectively. Factor 8 allocates other rate base elements, and Factor 9 is used to  
18 allocate return and taxes.

19 Factor 10 is based on the total cost of service and is used to allocate  
20 regulatory commission expense and other revenues. Factor 10A is based on the total  
21 cost of service with stormwater costs reallocated to the sanitary classes and is used to  
22 allocate the portion of the CSS wastewater cost of service to be recovered through  
23 water rates.

1 Factor 11 is used to allocate administrative and general expenses and is based  
2 on the allocation of all other operating expenses exclusive of power, chemicals and  
3 waste disposal. Factor 12 allocates cash working capital and is based on the  
4 allocation of all operating expenses.

5 **Q. Please explain the procedure for allocating costs to the several customer**  
6 **classifications.**

7 A. The items of cost, which include operation and maintenance expenses, depreciation  
8 expense, taxes and income available for return, are identified in column 1 of  
9 Schedule D. The cost of each item, shown in column 3, is allocated to the several  
10 customer classifications based on allocation factors referenced in column 2. The  
11 development of the allocation factors is presented in Schedule E of the exhibit.

12 **Q. What was the source of the total cost of service data set forth in column 3 of**  
13 **Schedule D of Exhibit No. 12-C?**

14 A. The pro forma cost of service was furnished by the Company and are the same as  
15 those set forth in Exhibit No. 3-A. This pro forma cost of service was reduced by  
16 \$16,007,052, which is the amount the Company proposes to recover in water rates.  
17 The revenues under proposed rates for the WW CSS Operations are sufficient to  
18 recover the remaining revenue requirement.

19 **Q. Have you summarized the results of your cost allocation studies for the**  
20 **Company's Wastewater CSS Operations?**

21 A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A of Exhibit  
22 No. 12-C. Column 2 sets forth the total allocated pro forma cost of service as of  
23 June 30, 2025 for each customer classification identified in column 1. Column 3

1 presents each customer classification's cost responsibility as a percent of the total  
2 cost. The total cost of service associated with stormwater for the combined systems  
3 is \$41,027,181, as shown in column 7 of Schedule D. This cost was reallocated to  
4 the sanitary classes based on Factor 1A.

5 **Q. Have you compared these cost responsibilities with the proportionate revenue**  
6 **under existing rates for each customer classification?**

7 A. Yes. A comparison of the allocated cost responsibilities and the percentage revenue  
8 under existing rates can be made by comparing columns 3 and 5 of Schedule A of  
9 Exhibit No. 12-C. A similar comparison of the percentage cost responsibilities  
10 (relative cost of service) and the percentage of pro forma revenues (relative  
11 revenues) under proposed rates can be made by comparing columns 3 and 7 of  
12 Schedule A of Exhibit No. 12-C. The rate of return by customer classification under  
13 present and proposed rates is set forth on Schedules B and C.

14 **CONCLUSION**

15 **Q. Does this complete your direct testimony at this time?**

16 A. Yes, it does.

CONSTANCE E. HEPPENSTALL – LIST OF CASES TESTIFIED

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
1.	2010	AZ CC	W-01303A-09-0343 and SW-01303A-09-0343	Arizona American Water Company	Rate Consolidation
2.	2010	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Revenue requirements Cost of Service/Revenue requirements
3.	2012	PA PUC	R-2012-2311725	Hanover Borough	Revenue requirements
4.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Revenue requirements
5.	2013	PA PUC	R-2013-2350509	City of DuBois – Bureau of Water	Revenue requirements
6.	2013	PA PUC	R-2013-2390244	City of Bethlehem – Bureau of Water	Revenue requirements
7.	2014	PA PUC	R-2014-2418872	City of Lancaster – Bureau of Water	Revenue requirements Revenue and Revenue requirements
8.	2014	PA PUC	R-2014-2428304	Hanover Borough	Cost of Service
9.	2015	KY PSC	Case No.2015-000143	Northern Kentucky Water District	Cost of Service/Revenue requirements
10.	2016	PA PUC	R-2016-2554150	City of DuBois – Bureau of Water	Cost of Service/Rate Design
11.	2016	AZ CC	WS-01303A-16-0145	EPCOR Water Arizona, Inc.	Cost of Service/Rate Design
12.	2017	MO PSC	WR-2017-0285	Missouri-American Water Company	Cost of Service/Rate Design
13.	2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
14.	2017	VA SCC	PUR-2017-00082	Aqua Virginia, Inc	Cost of Service
15.	2017	AZ CC	WS-01303A-17-0257	EPCOR Water Arizona, Inc	Cost of Service/Rate Design
16.	2017	HI PUC	2017-0446	Hana Water Systems, LLC – North	Cost of Service/Rate Design
17.	2017	HI PUC	2017-0447	Hana Water Systems, LLC – South	Cost of Service/Rate Design
18.	2018	PA PUC	2018-200208	SUEZ Water Pennsylvania	Revenue requirements
19.	2018	KY PSC	2018-00208	Water Service Corp of KY	Cost of Service/Rate Design
20.	2018	WV PSC	18-0573-W-42t	West Virginia American Water Co.	Cost of Service
21.	2018	IN IRC	50208	Indiana American Water Company	Cost of Service/Demand Study
22.	2018	KY PSC	2018-00291	Northern Kentucky Water District	Cost of Service/Rate Design
23.	2018	KY PSC	2018-0358	Kentucky American Water	Cost of Service/Rate Design
24.	2019	PA PUC	R-2019-3006904	Newtown Artesian Water Co.	Revenue Reqmts./Rate Design Revenue requirements./Cost of Service/Rates
25.	2019	PA PUC	R-2019-3010955	City of Lancaster – Sewer Fund	Cost of Service
26.	2020	PA PUC	R-2020-3017206	Philadelphia Gas Works	Cost of Service/Rate Design
27.	2020	PA PUC	R-2020-3019369	Pennsylvania American Water Co.	Cost of Service/Rate Design
28.	2020	PA PUC	R-2020-3019371	Pennsylvania American Water Co.	Revenue requirements./Cost of Service/Rates
29.	2020	PA PUC	R-2020-3020256	City of Bethlehem	Rate Design
30.	2020	CA PUC	A2101003	San Jose Water Company	Cost of Service
31.	2020	VA SCC	PUR-2020-00106	Aqua Virginia, Inc.	Cost of Service
32.	2021	PUCO	21-0595-WW-AIR	Aqua Ohio, Inc	Cost of Service
33.	2021	PUCO	21-0596-ST-AIR	Aqua Ohio, Inc	Cost of Service
34.	2021	PA PUC	R-2021-3026116	Hanover Borough	Cost of Service Revenue requirements./Cost of Service/Rates
35.	2021	NJ BPU	WR21071007	Atlantic City Sewerage Co.	Cost of Service/Rate Design
36.	2021	PA PUC	R-2021-3027385	Aqua Pennsylvania	Cost of Service/Rate Design
37.	2021	PA PUC	R-2021-3027386	Aqua Pennsylvania	Cost of Service/Rate Design
38.	2021	PA PUC	R-2021-3026682	City of Lancaster – Bureau of Water	Cost of Service/Rate Design
39.	2021	NV PUC	21-12025	Great Basin Water Company	Cost of Service/Rate Design
40.	2022	PA PUC	R-2021-3030218	UGI Utilities, Inc. – Gas Division	Cost of Service
41.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Rev. Req./Rate Design
42.	2022	PA PUC	R-2022-30316732	Pennsylvania American Water	Cost of Service

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
43.	2022	PA PUC	R-2022-3031340	York Water Company	Cost of Service/Rate Design
44.	2022	PA PUC	R-2022-3032806	York Water Company	Cost of Service/Rate Design
45.	2022	KY PSC	2022-00161	Northern Kentucky Water District	Cost of Service/Rate Design
46.	2022	PUCO	22-1094-WW-AIR	Aqua Ohio Inc.	Cost of Service
47.	2022	PUCO	22-1096-ST-AIR	Aqua Ohio Inc.	Cost of Service
48.	2023	PA PUC	R-2023-3037933	Philadelphia Gas Works	Cost of Service
49.	2023	NJBPU	WR23050292	Middlesex Water Company	Cost of Service/Rate Design

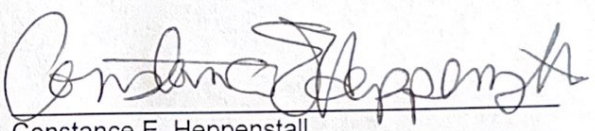
BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
	:	
	:	
	:	DOCKET NOS. R-2023-3043189 (WATER)
v.	:	R-2023-3043190 (WASTEWATER)
	:	
PENNSYLVANIA-AMERICAN WATER COMPANY	:	

VERIFICATION

I, **Constance E. Heppenstall**, hereby state that the facts set forth in the pre-marked Statement No. 12 and accompanying exhibits, if any, are true and correct to the best of my knowledge, information, and belief. I understand that this verification is made subject to the provisions and penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: November 8, 2023

  
Constance E. Heppenstall



**EXHIBIT NO. 12-A - WATER OPERATIONS**

**COST OF SERVICE**

**AS OF JUNE 30, 2025**

PENNSYLVANIA AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER OPERATIONS  
WATER COST OF SERVICE  
ALLOCATION STUDY  
AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
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October 31, 2023

Pennsylvania American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention: Ashely E. Everette  
Senior Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have conducted a cost of service allocation study based on pro forma revenue requirements estimated for the test year ended June 30, 2025.

The attached report presents the results of the allocation study, as well as supporting schedules which set forth the detailed cost allocation calculations. Schedule A presents a comparison of the cost of service by customer classification with the pro forma revenues produced by each classification under present and proposed rates.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, appearing to read "C. Heppenstall".

CONSTANCE E. HEPPENSTALL  
Senior Project Manager, Rate Studies

A handwritten signature in blue ink, appearing to read "G. Herbert".

GREGORY R. HERBERT  
Analyst, Rate Studies

CEH:mle  
075543.200

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PART I. INTRODUCTION

PENNSYLVANIA AMERICAN WATER COMPANY  
WATER COST OF SERVICE ALLOCATION STUDY  
AS OF JUNE 30, 2025

PART I. INTRODUCTION

PLAN OF REPORT

The report sets forth the results of the cost of service allocation study for the water operations based on pro forma costs as of June 30, 2025, or the fully forecasted future test year (FFTY), for Pennsylvania American Water Company. Part I, Introduction, contains statements with respect to the basis of the study, the procedures employed, and a summary of the results of the study. Schedule A summarizes the cost allocation for the water and wastewater operations and total revenues under present and proposed rates. Part II, Cost of Service by Customer Classification - Water Operations, presents detailed schedules of the allocation of costs to customer classifications, as well as the basis for the allocations for the FFTY. Schedule A in Part II summarizes the water cost allocation and the revenues produced under present and proposed rates.

BASIS OF STUDY

The purpose of the cost allocation study was to determine the relative cost of service responsibilities of the several customer classifications based on considerations of quantity of water consumed, variability of rate of consumption, and costs associated with customer metering, billing and accounting. The allocation study incorporated generally- accepted principles and procedures for allocating the several categories of

cost to customer classifications in proportion to each classification's use of facilities, commodities and services required in providing water service.

## ALLOCATION PROCEDURES

The allocation study was based on the Base-Extra Capacity Method for allocating costs to customer classifications. The method is described in the 2017 and prior editions of the Water Rates Manual published by the American Water Works Association. The four basic categories of cost responsibility are base, extra capacity, customer, and fire protection costs. The following discussion presents a brief description of these costs and the manner in which they were allocated.

Base Costs are costs that tend to vary with the quantity of water used, plus costs associated with supplying, treating, pumping, and distributing water to customers under average load conditions, without the elements necessary to meet peak demands. Base costs were allocated to customer classifications on the basis of average daily usage.

Extra Capacity Costs are costs associated with meeting usage requirements in excess of the average. They include operating and capital costs for additional plant and system capacity beyond that required for average use. The extra capacity costs in this study are subdivided into costs necessary to meet maximum day extra demand and costs to meet maximum hour extra demand. The extra capacity costs were allocated to customer classifications on the bases of each classification's maximum day and hour usage in excess of average usage.

Customer Costs are costs associated with serving customers regardless of their usage or demand characteristics. Customer costs include the operating and capital costs related to meters and services, meter reading costs, and billing and collecting costs. The

customer costs were allocated on the bases of the capital cost of meters and services, the man-hours required to read meters and the number of customers.

Fire Protection Costs are costs associated with providing the facilities to meet the potential peak demand of fire protection service. Fire Protection costs are subdivided into costs to meet Public Fire Protection and Private Fire Protection demands. The extra capacity costs assigned to fire protection service were allocated to Public and Private Fire Protection and Commercial General Service on the basis of the total relative demands of the hydrants, fire service lines, and commercial service lines sized to provide fire protection, as well as general service.

## RESULTS OF STUDY

The results for the cost of service allocation study is set forth on the following pages. The data summarized in Schedule A, Comparison of Pro Forma Cost of Service with Revenues Under Present and Proposed Rates for the Twelve Months Ended June 30, 2025, constitute the principal results of the cost allocation studies and subsequent rate design.

The water operations cost of service by customer classification is shown in column 2 of Schedule A and are developed in Schedule D, Allocation of Cost of Service to Customer Classifications water operations. The allocation of the total cost of service to the several customer classifications was performed by applying the allocation factors referenced in column 2 of Schedule D to the cost of service set forth in column 3. The bases for the allocation factors are presented in Schedule E. The other cost of service shown in column 3 includes wastewater cost of service not recovered by wastewater rates.



Schedule F presents the calculation of the firm standby service and interruptible standby service commodity-demand rates based on the unit costs of service by function for the water operation.

Schedule G sets forth the average day, maximum day system sendout, and maximum day ratios.

PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
COMPARISON OF PRO FORMA COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Customer Classification (1)	Cost of Service (2)	Pro Forma Cost of Service, as of June 30, 2025		Pro Forma Revenues Under Present Rates		Pro Forma Revenues Under Proposed Rates		Proposed Increase	
		Allocation of Other COS* (3)	Total Amount (4)	Amount (6)	Percent of Total (7)	Amount (8)	Percent of Total (9)	Amount (10)	Percent Increase (11)
Residential	\$ 603,126,055	\$ 46,505,573	\$ 649,631,628	\$ 528,290,043	65.5%	\$ 657,085,231	65.4%	\$ 128,795,188	24.4%
Commercial	232,115,036	18,320,153	250,435,189	202,779,636	25.1%	254,604,000	25.3%	51,824,364	25.6%
Industrial	45,115,631	3,939,176	49,054,807	37,580,738	4.7%	48,143,784	4.8%	10,563,046	28.1%
Public (Municipal)	35,175,459	1,635,240	36,810,699	22,559,539	2.8%	26,209,929	2.6%	3,650,390	16.2%
Other Water Utilities - Group A	11,335		11,335	51,822	0.0%	53,666	0.0%	1,844	3.6%
Other Water Utilities - Group B	624,708		624,708	202,436	0.0%	277,021	0.0%	74,585	36.8%
Private Fire Protection	5,777,625	341,990	6,119,615	5,301,032	0.7%	6,304,285	0.6%	1,003,253	18.9%
Public Fire Protection	11,847,471	-	11,847,471	9,519,368	1.2%	11,847,068	1.2%	2,327,700	24.5%
<b>Total Sales of Water</b>	<b>\$ 933,793,321</b>	<b>\$ 70,742,132</b>	<b>\$ 1,004,535,453</b>	<b>\$ 806,284,614</b>	<b>100.0%</b>	<b>\$ 1,004,524,984</b>	<b>100.0%</b>	<b>\$ 198,240,370</b>	<b>24.6%</b>
Other Water Revenues	\$ 10,675,369	345,262	11,020,631	10,034,383		11,031,091		996,708	9.9%
Contract Sales - Industrial	4,482,099		4,482,099	4,482,099		4,482,099		-	0.0%
Contract Sales - Resale	3,316,086		3,316,086	3,316,086		3,316,086		0	0.0%
<b>Total</b>	<b>\$ 952,266,876</b>	<b>\$ 71,087,394</b>	<b>\$ 1,023,354,270</b>	<b>\$ 824,117,182</b>		<b>\$ 1,023,354,261</b>		<b>\$ 199,237,079</b>	<b>24.2%</b>

\* Includes unrecovered Wastewater Cost of Service.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PRESENT RATES

ITEM (1)	COST OF SERVICE (2)	RESIDENTIAL (3)			COMMERCIAL (4)		INDUSTRIAL (5)		PUBLIC (6)		OTHER WATER UTILITIES GROUP A (7)		GROUP B (8)		FIRE PROTECTION PRIVATE (9)		PUBLIC (10)
1. REVENUES FROM SALES	\$ 806,284,614	\$ 528,290,043	\$ 202,779,636	\$ 37,580,738	\$ 22,559,539	\$ 51,822	\$ 202,436	\$ 5,301,032	\$ 9,519,368								
2. OTHER REVENUES	17,832,568	13,501,986	2,891,704	519,001	355,177	2,759	16,078	105,591	440,272								
3. TOTAL OPERATING REVENUES	824,117,182	541,792,028	205,671,340	38,099,739	22,914,716	54,581	218,515	5,406,623	9,959,640								
4. LESS: OPERATING EXPENSES (INCLUDES REALLOCATION OF FIRE & WW ALLOC.)	481,923,142	331,036,728	115,355,909	22,445,241	19,795,847	7,602	283,188	2,468,428	(9,469,802)								
5. RETURN AND INCOME TAXES	342,194,041	210,755,301	90,315,431	15,654,498	3,118,868	46,978	(64,674)	2,938,196	19,429,442								
6. LESS: TAXABLE EXCLUSIONS (FACTOR 19)	98,323,965	58,739,863	24,993,708	4,887,348	3,176,352	1,456	75,780	716,948	5,732,509								
7. TAXABLE INCOME	243,870,076	152,015,437	65,321,723	10,767,150	(57,484)	45,522	(140,454)	2,221,247	13,696,933								
8. LESS: INCOME TAXES (TAX. INC.)	46,982,378	29,286,278	12,584,446	2,074,327	(11,074)	8,770	(27,059)	427,931	2,638,760								
9. NET RETURN (Line 5 - Line 8)	295,211,663	181,469,023	77,730,985	13,580,171	3,129,943	38,208	(37,615)	2,510,265	16,790,682								
10. ORIGINAL COSTS MEASURE OF VALUE	4,704,067,662	2,810,263,927	1,195,762,346	233,823,123	151,964,746	69,679	3,625,490	34,300,616	274,257,735								
11. RATE OF RETURN, PERCENT	6.28	6.46	6.50	5.81	2.06	54.84	(1.04)	7.32	6.12								
12. RELATIVE RATE OF RETURN	1.00	1.03	1.04	0.93	0.33	8.74	(0.17)	1.17	0.98								

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PROPOSED RATES

ITEM (1)	COST OF SERVICE (2)	RESIDENTIAL (3)			COMMERCIAL (4)			INDUSTRIAL (5)			PUBLIC (6)		OTHER WATER UTILITIES GROUP A (7)		GROUP B (8)		FIRE PROTECTION PRIVATE (9)		PUBLIC (10)
1. REVENUES FROM SALES	\$ 1,004,524,984	\$ 657,085,231	\$ 254,604,000	\$ 48,143,784	\$ 26,209,929	\$ 53,666	\$ 277,021	\$ 6,304,285	\$ 11,847,068										
2. OTHER REVENUES	18,818,816	14,252,615	3,063,351	553,172	367,246	3,164	17,765	112,627	448,876										
3. TOTAL OPERATING REVENUES	1,023,343,801	671,337,846	257,667,351	48,696,956	26,577,175	56,830	294,786	6,416,913	12,295,944										
4. LESS: OPERATING EXPENSES (INCLUDES REALLOCATION OF FIRE & WW ALLOC.)	555,327,535	384,151,129	134,596,300	26,365,071	22,073,383	7,574	282,073	2,820,133	(14,988,128)										
5. RETURN AND INCOME TAXES	468,016,266	287,186,717	123,071,050	22,331,866	4,503,792	49,256	12,713	3,596,780	27,264,072										
6. LESS: TAXABLE EXCLUSIONS (FACTOR 19)	98,315,014	58,761,526	24,976,939	4,882,471	3,172,907	1,455	75,707	716,757	5,727,253										
7. TAXABLE INCOME	369,701,252	228,425,192	98,094,111	17,449,415	1,330,885	47,802	(62,993)	2,880,022	21,536,819										
8. LESS: INCOME TAXES (TAX. INC.)	81,352,374	50,264,725	21,585,507	3,839,725	292,860	10,519	(13,862)	633,746	4,739,155										
9. NET RETURN (Line 5 - Line 8)	388,663,892	236,921,993	101,485,544	18,492,160	4,210,932	38,738	26,575	2,963,034	22,524,917										
10. ORIGINAL COSTS MEASURE OF VALUE	4,704,067,662	2,811,556,261	1,195,068,862	233,611,050	151,813,718	69,606	3,622,334	34,294,610	274,031,221										
11. RATE OF RETURN, PERCENT	8.22	8.43	8.49	7.92	2.77	55.65	0.73	8.64	8.22										
12. RELATIVE RATE OF RETURN	1.00	1.03	1.03	0.96	0.34	6.77	0.09	1.05	1.00										

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
ALLOCATION OF COST OF SERVICE TO CUSTOMER CLASSIFICATIONS  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Account Number (1)	Account Description (2)	Factor Ref. (3)	Cost of Service (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
<b>OPERATION AND MAINTENANCE EXPENSES</b>											
<b>Source of Supply Expenses</b>											
<b>----Operation----</b>											
601.1	Salaries and Wages	2	\$ 200,585	\$ 115,551	\$ 61,758	\$ 14,673	\$ 7,200	\$ 3	\$ 209	\$ 200	\$ 991
610.1	Purchased Water	1	3,099,741	1,762,200	914,845	262,507	133,427	53	949	4,319	21,441
615.1	Purchased Power	1	2,955,902	1,680,428	872,393	250,326	127,236	50	905	4,118	20,446
616.1	Purchased Fuel	1	67,006	38,093	19,776	5,675	2,884	1	21	93	463
618.1	Chemicals	1	-	-	-	-	-	-	-	-	-
620.1	Materials and Supplies	2	27,006	15,557	8,315	1,976	969	0	28	27	133
631.1	Contract Services-Engineering	2	267,118	153,878	82,243	19,540	9,588	4	278	266	1,320
633.1	Contract Services-Legal	2	-	-	-	-	-	-	-	-	-
636.1	Contract Services-Other	2	596,009	343,342	183,506	43,600	21,394	8	621	593	2,945
641.1	Rental of Building	2	-	-	-	-	-	-	-	-	-
642.1	Rental of Equipment	2	284	164	87	21	10	0	0	0	1
650.1	Transportation	2	117	67	36	9	4	0	0	0	1
675.1	Miscellaneous Expenses	2	1,674,987	964,906	515,714	122,530	60,123	24	1,746	1,667	8,276
	Total Operation		8,888,755	5,074,190	2,658,673	720,856	362,836	143	4,757	11,284	56,017
<b>----Maintenance----</b>											
601.2	Salaries and Wages	2	218,630	125,946	67,314	15,993	7,848	3	228	218	1,080
620.2	Materials and Supplies	2	19,714	11,357	6,070	1,442	708	0	21	20	97
636.2	Contract Services	2	-	-	-	-	-	-	-	-	-
631.2	Contract Services - Engineering	2	174,594	100,578	53,756	12,772	6,267	2	182	174	863
636.2	Contract Services - Other	2	323,184	186,176	99,505	23,642	11,601	5	337	322	1,597
650.1	Transportation	2	-	-	-	-	-	-	-	-	-
675.2	Misc. Maintenance Expense	2	17,886	10,304	5,507	1,308	642	0	19	18	88
	Total Maintenance		754,008	434,361	232,152	55,158	27,065	11	786	750	3,725
	Total Source of Supply Expenses		\$ 9,642,763	\$ 5,508,550	\$ 2,890,825	\$ 776,014	\$ 389,901	\$ 154	\$ 5,543	\$ 12,034	\$ 59,743
<b>Water Treatment Expenses</b>											
<b>----Operation----</b>											
601.3	Salaries and Wages	5A	\$ 1,269,892	\$ 708,557	\$ 369,703	\$ 105,551	\$ 437,917	\$ -	\$ -	\$ 12,887	\$ 73,194
	Power and Pumping and Other Dept Exp	2	12,200,015	7,028,051	3,756,276	892,463	437,917	173	12,716	12,142	60,277
615.3	Purification and Laboratory	1	12,368,422	7,031,439	3,650,365	1,047,443	532,394	210	3,785	17,233	85,553
618.3	Chemicals	1	23,183,305	13,179,693	6,842,224	1,963,322	997,916	393	7,095	32,301	160,360
620.3	Materials and Supplies	6	882,144	506,670	270,210	65,360	28,679	11	833	1,639	8,741
631.3	Contract Services-Engineering	6	82,454	47,358	25,257	6,109	2,681	1	78	153	817

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
ALLOCATION OF COST OF SERVICE TO CUSTOMER CLASSIFICATIONS  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Account Number (1)	Account Description (2)	Factor Ref. (3)	Cost of Service (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
635.3	Contract Services -Testing	6	289,335	166,183	88,626	21,437	9,407	4	273	538	2,867
636.3	Contract Services -Other	6	1,503,192	863,377	460,444	111,375	48,870	19	1,419	2,793	14,895
641.3	Rental of Building	6	640	368	196	47	21	0	0	1	6
642.3	Rental of Equipment	6	13,718	4,202	7,879	1,016	446	0	13	25	136
650.3	Transportation	6	206,827	118,794	63,353	15,324	6,724	3	195	384	2,049
675.3	Miscellaneous Expenses - Waste Disposal	1	2,797,872	1,590,588	825,752	236,943	120,433	47	856	3,898	19,353
	Other	6	4,130,968	2,372,673	1,265,960	306,072	134,301	53	3,900	7,676	40,933
	Total Operation		58,928,784	33,621,630	17,621,970	4,772,464	2,319,788	914	31,164	91,672	469,182
	-----Maintenance-----										
601.4	Salaries and Wages	5A	527,026	294,063	153,433	43,805	-	-	-	5,348	30,377
	Power and Pumping	2	2,429,797	1,399,731	748,113	177,746	87,217	34	2,533	2,418	12,005
620.4	Purification and Laboratory	7	911,734	522,280	277,991	68,315	26,893	11	781	2,395	13,088
631.4	Materials and Supplies	7	164,513	94,240	50,161	12,327	4,853	2	141	432	2,358
636.4	Contract Services - Engineering	7	1,073,816	615,127	327,410	80,460	31,674	12	920	2,621	15,382
638.4	Contract Services - Other	7	3,461	1,983	1,055	259	102	0	3	9	50
650.4	Transportation	7	105,382	59,910	31,102	8,924	4,536	2	32	147	729
675.4	Miscellaneous Expenses - Waste Disposal	1	5,215,729	2,987,333	1,589,265	391,837	155,276	61	4,409	13,570	73,978
	Total Maintenance		64,144,513	36,608,964	19,211,234	5,164,300	2,475,064	975	35,574	105,242	543,160
	Total Water Treatment Expenses										
	-----Transmission & Distribution Expenses-----										
601.5	Salaries and Wages	12	3,375,637	2,046,393	865,993	145,573	142,000	73	2,673	30,073	142,858
	Supervision & Other Dept. Exps.	8	3,149,402	1,789,680	902,810	166,242	93,081	41	3,054	29,162	165,332
	Mains	4	133,618	76,776	37,823	6,156	3,698	2	128	1,352	7,683
	Storage Facilities	10	546,371	382,671	87,728	3,474	89,221	42	51	3,184	-
	Miscellaneous Meter Expense	11	258,807	229,238	20,433	430	5,975	3	5	2,723	-
	Services on Customer Premises	11	901,229	512,348	265,985	76,322	38,793	15	276	1,256	6,234
615.5	Purchased Power	12	1,214,988	736,555	311,695	52,396	51,110	26	962	10,824	51,419
620.5	Materials and Supplies	12	5,638	3,418	1,446	243	237	0	4	50	239
631.5	Contract Services -Engineering	12	429,983	260,666	110,309	18,543	18,088	9	340	3,831	18,197
636.5	Contract Services -Other	12	27,852	16,885	7,145	1,201	1,172	1	22	248	1,179
641.5	Rental of Building	12	5,965	3,816	1,530	267	251	0	5	53	252
642.5	Rental of Equipment	12	74,136	44,943	19,019	3,197	3,119	2	59	660	3,137
650.5	Transportation	12	1,652,735	1,001,928	423,996	71,274	69,524	36	1,309	14,724	69,944
675.5	Miscellaneous Expenses	12									
	Total Operation		11,776,360	7,105,117	3,055,913	545,308	496,269	250	8,888	98,141	466,474

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
ALLOCATION OF COST OF SERVICE TO CUSTOMER CLASSIFICATIONS  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Account Number (1)	Account Description (2)	Factor Ref. (3)	Cost of Service (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
<b>-----Maintenance-----</b>											
601.6	Salaries and Wages	13	111,343	68,226	19,247	2,926	3,104	2	53	934	16,852
	Supervision and Engineering	4	27,436	15,764	7,766	1,264	759	0	26	278	1,578
	Structures and Improvements	8	1,384,063	786,508	396,757	73,058	40,906	18	1,342	12,816	72,658
	Mains	11	1,014,442	898,540	80,092	1,686	23,419	13	18	10,874	-
	Services	10	129,536	90,725	20,799	824	16,411	10	12	755	-
	Meters	4	-	-	-	-	-	-	-	-	-
	Storage Facilities	9	368,275	-	-	-	-	-	-	-	368,275
	Fire Hydrants	13	6,408,562	3,926,866	1,107,814	168,407	178,629	91	3,066	53,750	969,938
620.6	Other	13	6,408,562	3,926,866	1,107,814	168,407	178,629	91	3,066	53,750	969,938
636.6	Materials and Supplies	13	968,088	593,199	167,348	25,440	26,984	14	463	8,120	146,520
637.6	Contract Services	13	1,372,991	841,305	237,342	36,080	38,270	19	657	11,516	207,803
650.6	Contract Services - Engineering	13	226,727	138,928	39,193	5,958	6,320	3	108	1,902	34,315
	Transportation	13	137,640	84,339	23,793	3,617	3,837	2	66	1,154	20,832
675.6	Miscellaneous Expenses	13	3,711,716	2,274,366	641,625	97,538	103,459	53	1,776	31,131	561,769
	Total Maintenance		15,860,818	9,718,766	2,741,776	416,797	442,097	225	7,588	133,028	2,400,540
	Total Transmission and Distribution Expenses		\$ 27,637,178	\$ 16,823,883	\$ 5,797,689	\$ 962,105	\$ 938,367	\$ 475	\$ 16,475	\$ 231,169	\$ 2,867,014
<b>Customer Accounting Expenses</b>											
601.7	Salaries and Wages	15	3,456,790	3,215,166	220,177	2,626	18,336	18	27	440	-
	Meter Reading and Other Expense	10	1,944,280	1,361,747	312,184	12,362	246,327	150	180	11,329	-
620.7	Meter Services	14	43,775	40,473	2,772	33	231	0	0	243	24
636.7	Materials and Supplies	14	155,868	144,107	9,869	118	822	1	1	865	84
642.7	Contract Services-Other	14	1,862	1,722	118	1	10	0	0	10	1
650.7	Rental of Equipment	14	367	339	23	0	2	0	0	2	0
670.7	Transportation	22	13,646,543	12,374,302	1,186,980	29,322	7,353	-	-	48,586	-
675.7	Bad Debt	14	2,744,294	2,537,257	173,754	2,072	14,470	-	-	15,224	-
	Miscellaneous Expenses	14	-	-	-	-	-	-	-	-	-
	Total Customer Accounting Expenses		21,993,776	19,675,113	1,905,876	46,534	287,550	183	231	76,699	1,590
<b>Administrative and General Expenses</b>											
601.8	Salaries and Wages	16	25,658,773	17,369,955	5,393,582	1,019,739	702,301	334	14,454	119,103	1,039,306
603.8	Salaries of Officers	17	-	-	-	-	-	-	-	-	-
604.8	Employees Pension and Benefits	17	10,560,035	6,831,685	2,383,636	465,165	339,603	165	6,644	50,473	482,665
615.8	Purchased Power	16	112,113	75,896	23,567	4,456	3,089	1	63	520	4,541



PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
ALLOCATION OF COST OF SERVICE TO CUSTOMER CLASSIFICATIONS  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Account Number (1)	Account Description (2)	Factor Ref. (3)	Cost of Service (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
621	Materials and Supplies	16	513,543	347,648	107,949	20,409	14,056	7	289	2,384	20,801
631.8	Contract Services-Engineering	16	150,100	101,612	31,552	5,965	4,108	2	85	697	6,060
632.8	Contract Services-Accounting	16	646,641	437,750	135,927	25,699	17,699	8	364	3,002	26,192
633.8	Contract Services-Legal	16	1,126,427	762,546	236,780	44,767	30,831	15	635	5,229	45,626
634.8	Contract Services-Management										
	Customer Related	14	15,164,933	14,020,854	960,161	11,450	79,959	78	119	84,128	8,183
	Employee Related	17	9,909,922	6,411,102	2,236,891	436,528	318,696	154	6,235	47,366	452,950
	Water Quality Related	2	705,977	406,691	217,364	51,644	25,341	10	736	703	3,488
	Other	16	35,167,807	23,807,187	7,392,421	1,397,649	962,571	458	19,810	163,242	1,424,469
636.8	Contract Services-Other	16	1,819,225	1,231,542	382,409	72,300	49,794	24	1,025	8,444	73,688
641.8	Rental of Buildings	16	62,740	42,472	13,188	2,493	1,717	1	35	291	2,541
642.8	Rental of Equipment	16	(2,065)	(1,396)	(434)	(82)	(57)	(0)	(1)	(10)	(84)
650.8	Transportation	16	4,620,464	3,127,868	971,241	183,628	126,466	60	2,603	21,447	187,151
656.8	Insurance-Vehicles	16	235,390	159,349	49,480	6,443	6,443	3	133	1,093	9,534
657.8	Insurance-General Liability	16	10,453,060	7,076,300	2,197,277	415,429	266,109	136	5,888	48,521	423,400
658.8	Insurance-Workers Comp	17	780,043	504,639	176,073	34,361	25,086	12	34,491	3,728	35,653
659.8	Insurance-Other	16	3,496,763	2,367,167	735,034	138,969	95,709	46	1,970	16,231	141,696
660.8	Advertising	14	-	-	-	-	-	-	-	-	-
666.8	Amortization of Rate Case Exp.	20	970,923	603,708	233,841	46,312	31,612	15	655	6,004	48,776
667.8	Regulatory Commission	20	47,541	29,560	11,450	2,268	1,548	1	32	294	2,388
675.8	Miscellaneous Expenses	16	12,713,029	8,606,208	2,672,332	505,245	347,966	166	7,161	59,011	514,940
	Total Administrative and General Expenses		134,913,384	94,320,342	26,561,718	4,893,749	3,470,627	1,696	69,425	641,901	4,953,925
	<b>Total Operation &amp; Maintenance Expenses</b>		<b>\$ 258,331,614</b>	<b>\$ 172,936,852</b>	<b>\$ 56,367,343</b>	<b>\$ 11,842,702</b>	<b>\$ 7,561,509</b>	<b>\$ 3,483</b>	<b>\$ 127,248</b>	<b>\$ 1,067,046</b>	<b>\$ 8,425,432</b>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
ALLOCATION OF COST OF SERVICE TO CUSTOMER CLASSIFICATIONS  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Account Number (1)	Account Description (2)	Factor Ref. (3)	Cost of Service (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
303.00	Comprehensive Planning Studies/Waste Handling	18	\$ 1,178,127	\$ 703,556	\$ 299,677	\$ 58,678	\$ 37,896	\$ 17	\$ 905	\$ 8,620	\$ 68,777
304.15	Other Water Source Structures	2	3,745,952	2,157,927	1,153,345	274,026	134,480	55	3,904	3,728	18,508
304.20	Power and Pumping Structures	5A	3,106,325	1,733,226	904,342	904,342	500,000	126	9,291	8,871	179,041
304.30	Purification Buildings	1	8,913,742	5,134,931	2,744,462	652,063	319,957	16	290	1,322	44,041
304.36	Waste Handling & Treatment Structures	1	948,564	539,258	279,955	80,331	40,831	-	-	-	6,561
304.39	Purification Buildings - Tank Painting	2	-	-	-	-	-	-	-	-	-
304.61	Office Buildings	16	1,889,962	1,279,428	397,278	75,111	51,730	23	1,065	8,773	76,553
304.62	Stores, Shop and Garage Bldgs.	16	1,745,446	1,181,597	366,900	69,368	47,774	25	983	8,102	70,699
304.63	Misc. Structures and Improvements	16	392,677	265,826	82,542	15,606	10,748	221	221	1,823	15,905
305.00	Collecting & Impounding Reservoirs	1	4,023,018	2,287,083	1,187,337	340,697	173,169	68	1,231	5,605	27,827
306.00	Lake, River and Other Intakes	2	455,533	262,418	133,265	33,323	16,351	6	475	453	2,251
307.00	Wells and Springs	2	435,165	250,685	140,983	31,833	15,620	6	454	433	2,150
310.00	Power Generation Equipment	5A	770,558	429,946	224,332	64,047	-	-	-	7,820	44,413
311.00	Pumping Equipment-Other	2	2,871,600	1,606,626	837,480	178,281	92,334	38	2,829	23,165	130,847
311.52	Pumping Equipment-Source of Supply	2	420,058	241,982	129,332	30,728	15,078	6	438	416	2,075
311.53	Pumping Equipment-Water Treatment	2	1,216,638	700,867	374,592	89,000	43,671	17	1,268	1,211	6,011
311.54	Pumping Equipment-Transmission and Distribution	8	191,739	108,958	54,964	10,121	5,667	2	186	1,775	10,066
320.00	Purification System	2	17,333,296	9,985,175	5,336,768	1,267,975	622,176	245	18,066	17,250	85,640
330.00	Dist. Reservoirs and Standpipes	4	8,944,120	5,139,218	2,531,773	412,089	247,567	114	8,572	90,517	514,269
331.00	Mains and Accessories	4	-	-	-	-	-	-	-	-	-
331.00	10-inch and Over	3	27,095,143	14,954,823	8,018,264	1,899,050	931,834	367	27,058	190,760	1,072,988
333.00	Under 10-inch	4	43,364,501	24,916,887	12,275,000	1,997,962	1,200,299	554	41,562	438,863	2,493,373
334.00	Services	11	16,565,411	14,672,787	1,307,866	27,529	382,415	214	299	174,301	-
335.00	Meters	10	18,171,666	12,727,187	2,917,740	115,542	2,302,223	1,405	1,686	105,884	-
335.00	Fire Hydrants	9	4,850,117	-	-	-	-	-	-	-	4,850,117
340.00	Office Furniture	16	571,595	386,947	120,152	22,716	15,645	7	322	2,653	23,152
340.00	Computers and Peripheral Equipment	16	5,229,815	3,540,374	1,099,329	207,845	143,144	68	2,946	24,276	211,833
340.00	Other Office Equipment	16	1,210	819	254	48	33	0	1	6	49
340.00	Computer Software	16	27,153,874	18,382,077	5,707,858	1,079,157	743,223	354	15,296	126,043	1,099,865
341.00	Transportation Equipment	16	3,878,620	2,625,669	815,302	154,145	106,161	51	2,185	18,004	157,103
342.00	Stores Equipment	16	29,174	19,750	6,132	1,159	799	0	16	135	1,182
343.00	Tools and work Equipment	16	2,953,131	1,999,151	620,761	117,364	80,830	38	1,684	13,708	119,616
344.00	Laboratory Equipment	2	214,331	123,469	65,991	15,679	7,693	3	223	213	1,059
345.00	Power Operated Equipment	16	83,342	56,419	17,519	3,312	2,281	1	47	387	3,376
346.00	Communication Equipment	16	1,843,473	1,247,957	387,506	73,264	50,457	24	1,038	8,557	74,670
347.00	Miscellaneous Equipment	16	2,033,724	1,376,749	427,497	80,825	55,665	27	1,146	9,440	82,376
348.00	Other Tangible Equipment	16	606,125	410,322	127,410	24,089	16,590	8	341	2,814	24,551
348.00	Citizens Acquisition CIAC and CAC	4A	(427,974)	(238,795)	(124,595)	(35,572)	-	-	-	(4,343)	(24,667)
	<b>Total Depreciation Expense</b>		\$ 212,799,798	\$ 131,211,298	\$ 50,969,305	\$ 9,725,587	\$ 7,914,319	\$ 3,890	\$ 146,010	\$ 1,333,111	\$ 11,496,277

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
ALLOCATION OF COST OF SERVICE TO CUSTOMER CLASSIFICATIONS  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Account Number (1)	Account Description (2)	Factor Ref. (3)	Cost of Service (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
	<b>Amortizations</b>										
19			\$ (2,099,462)	\$ (1,254,819)	\$ (533,369)	\$ (104,262)	\$ (67,756)	\$ (31)	\$ (1,617)	\$ (15,306)	\$ (122,302)
	<b>Taxes, Other Than Income</b>										
19	Local Property and Miscellaneous		\$ 2,073,365	\$ 1,239,222	\$ 526,739	\$ 102,966	\$ 66,913	\$ 31	\$ 1,597	\$ 15,116	\$ 120,782
17	Federal and State Payroll Taxes		5,033,998	3,256,663	1,136,286	221,745	161,890	78	3,167	24,061	230,088
19	State Capital Stock Tax										
20	PUC and OCA Assessments		5,974,096	3,714,621	1,438,825	284,959	194,509	91	4,031	36,942	300,119
19	Public Utility Realty Taxes		2,125,732	1,271,118	540,296	105,617	68,636	31	1,638	15,505	123,891
	Total Taxes Other Than Income Taxes		\$ 15,208,191	\$ 9,481,644	\$ 3,642,145	\$ 715,287	\$ 491,948	\$ 232	\$ 10,432	\$ 91,624	\$ 774,879
	Total O&M, Depreciation, Amort, and Taxes Other than Inc.		484,240,141	312,374,975	110,445,424	22,179,314	15,900,020	7,574	282,073	2,476,474	20,574,286
19	<b>Federal and State Income Taxes</b>		\$ 81,352,374	\$ 48,623,190	\$ 20,667,579	\$ 4,040,081	\$ 2,625,474	\$ 1,204	\$ 62,645	\$ 593,093	\$ 4,739,109
19	<b>Utility Operating Income Available for Return</b>		386,674,361	231,109,924	98,234,660	19,202,828	12,479,088	5,722	297,756	2,819,017	22,525,366
	<b>Total Cost of Service - Water</b>		\$ 952,266,876	\$ 592,108,089	\$ 229,347,663	\$ 45,422,223	\$ 31,004,582	\$ 14,499	\$ 642,473	\$ 5,888,584	\$ 47,838,762
469	Other Water Revenues - Intercompany Rent	20	(288,615)	(179,457)	(69,511)	(13,767)	(9,397)	(4)	(195)	(1,785)	(14,499)
470	Other Water Revenues - Late Payment Fees	23	(4,733,381)	(4,011,576)	(526,982)	(106,567)	(44,494)	(3,004)	(11,734)	(29,082)	-
471	Other Water Revenues - Misc. Service Revenues	14	(4,857,120)	(4,490,667)	(307,526)	(3,667)	(25,610)	(25)	(38)	(26,945)	(2,621)
472	Other Water Revenues - Rents from Other Properties	20	(796,254)	(495,101)	(191,773)	(37,981)	(25,925)	(12)	(537)	(4,924)	(40,001)
	Revenue from Contract Sales	20	(7,798,185)	(4,848,816)	(1,878,145)	(371,966)	(253,899)	(119)	(5,261)	(48,222)	(391,755)
	Unrecovered Public Fire	9	(35,542,414)	-	-	-	-	-	-	-	(35,542,414)
	Reallocate Unrecovered Public Fire	21	35,542,414	25,043,607	5,741,310	227,355	4,530,142	-	-	-	-
	<b>Total Cost of Service Related to Sales of Water</b>		\$ 933,793,321	\$ 603,126,055	\$ 232,115,036	\$ 45,115,631	\$ 35,175,459	\$ 11,335	\$ 624,708	\$ 5,777,625	\$ 11,847,471
	Wastewater Allocation	DA	71,087,394	46,732,547	18,409,566	3,958,401	1,643,221	-	-	343,659	-
	Total Allocation		71,087,394	46,732,547	18,409,566	3,958,401	1,643,221	-	-	343,659	-
	<b>Total Cost of Service Including WW Alloc.</b>		\$ 1,004,880,715	\$ 649,858,602	\$ 250,524,601	\$ 49,074,033	\$ 36,818,680	\$ 11,335	\$ 624,708	\$ 6,121,285	\$ 11,847,471

-10,675,369.00

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.

Factors are based on the pro forma future test year average daily consumption for each customer classification.

Customer Classification <u>(1)</u>	Average Daily Consumption, 100 Gallons <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	670,557	0.5685
Commercial	348,119	0.2951
Industrial	99,890	0.0847
Public	50,772	0.0430
Other Water Utilities A	20	0.0000
Other Water Utilities B	361	0.0003
Private Fire Protection	1,643	0.0014
Public Fire Protection	<u>8,159</u>	<u>0.0069</u>
 Total	 <u><u>1,179,521</u></u>	 <u><u>1.0000</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.

(Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

Customer Classification (1)	Average Daily Consumption		Maximum Day Extra Capacity		Allocation Factor (6)=(3)+(5)
	Allocation Factor 1 (2)	Weighted Factor (3)=(2)x 0.7143	Allocation Factor (4)	Weighted Factor (5)=(4)x 0.2857	
Residential	0.5685	0.4061	0.5950	0.1700	0.5761
Commercial	0.2951	0.2108	0.3398	0.0971	0.3079
Industrial	0.0847	0.0605	0.0443	0.0127	0.0732
Public	0.0430	0.0307	0.0180	0.0051	0.0359
Other Water Utilities A	0.0000	0.0000	0.0000	0.0000	0.0000
Other Water Utilities B	0.0003	0.0002	0.0029	0.0008	0.0010
Private Fire Protection	0.0014	0.0010			0.0010
Public Fire Protection	0.0069	0.0049			0.0049
<b>Total</b>	<b>1.0000</b>	<b>0.7143</b>	<b>1.0000</b>	<b>0.2857</b>	<b>1.0000</b>

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and column 5 weightings are presented on the following page.  
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PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

Customer Classification	Average Daily Consumption, 100 Gallons	Maximum Day Extra Capacity		
		Factor*	Rate of Flow, 100 Gallons Per Day	Allocation Factor
(1)	(2)	(3)	(4)	(5)
Residential	670,557	1.0	670,557	0.5950
Commercial	348,119	1.1	382,931	0.3398
Industrial	99,890	0.5	49,945	0.0443
Public	50,772	0.4	20,309	0.0180
Other Water Utilities A	20	0.4	8	0.0000
Other Water Utilities B	361	9.0	3,249	0.0029
Total	<u>1,169,719</u>		<u>1,126,999</u>	<u>1.0000</u>

The weighting of the factors is based on the maximum day ratio of 1.4,  
based on a review of maximum day ratios experienced by the company. (See Schedule G)

	Maximum Day Ratio	Weight
Average Day	1.0	0.7143
Maximum Day Extra Capacity	<u>0.4</u>	<u>0.2857</u>
Total	<u>1.4</u>	<u>1.0000</u>

\* Ratio of maximum day to average day minus 1.0.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

Customer Classification	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		Allocation Factor	
	(1)	(2)	(3)=(2) X	(4)	(5)=(4) X	(6)		(7)=(6) X
Residential	0.5685	0.3891	0.6844	0.5950	0.1629	0.0224	0.0009	0.5519
Commercial	0.2951	0.2020	0.6844	0.3398	0.0930	0.0224	0.0009	0.2959
Industrial	0.0847	0.0580	0.6844	0.0443	0.0121			0.0701
Public	0.0430	0.0295	0.6844	0.0180	0.0049			0.0344
Other Water Utilities A	0.0000	0.0000	0.6844	0.0000	0.0000			0.0000
Other Water Utilities B	0.0003	0.0002	0.6844	0.0029	0.0008			0.0010
Private Fire Protection	0.0014	0.0010	0.6844			0.1453	0.0061	0.0070
Public Fire Protection	0.0069	0.0047	0.6844			0.8323	0.0349	0.0396
<b>Total</b>	<b>1.0000</b>	<b>0.6844</b>	<b>0.6844</b>	<b>1.0000</b>	<b>0.2737</b>	<b>1.0000</b>	<b>0.0419</b>	<b>1.0000</b>

The basis for the column 3, column 5 and column 7 weightings are presented on the following page.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.4 and the average pumpage for the year ended 12/31/2022. The system demand for fire protection is 20,000 gpm, for 10 hours.

	<u>Ratio</u>	<u>Rate of Flow, (GPD)</u>	<u>Weight</u>
Average Day	1.0	196,045,066	0.6844
Maximum Day Extra Capacity	<u>0.4</u>	<u>78,418,026</u>	<u>0.2737</u>
Subtotal	1.4	274,463,092	0.9581
Fire Protection		<u>12,000,000</u>	<u>0.0419</u>
Total		<u><u>286,463,092</u></u>	<u><u>1.0000</u></u>

The allocation factors in column 6 on the preceding page are based on the relative potential fire demands of General Service and Public and Private Fire Protection Service.



PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and fire protection demand for each customer classification.

Customer Classification	Average Hourly Consumption			Maximum Hour Extra Capacity			Fire Protection			Allocation Factor (9)=(4)+(6)+(8)
	100 Gals. (2)	Allocation Factor (3)	Weighted Factor (4)=(3) X 0.4451	Allocation Factor (5)	Weighted Factor (6)=(5) X 0.4896	Allocation Factor (7)	Weighted Factor (8)=(7) X 0.0654	Allocation Factor (9)=(4)+(6)+(8)		
Residential	27,939.9	0.5685	0.2530	0.6569	0.3216			0.5746		
Commercial	14,505.0	0.2951	0.1314	0.3069	0.1503	0.0224	0.0015	0.2831		
Industrial	4,162.1	0.0847	0.0377	0.0171	0.0084			0.0461		
Public	2,115.5	0.0430	0.0192	0.0174	0.0085			0.0277		
Other Water Utilities A	0.8	0.0000	0.0000	0.0000	0.0000			0.0000		
Other Water Utilities B	15.0	0.0003	0.0001	0.0017	0.0008			0.0010		
Private Fire Protection	68.5	0.0014	0.0006			0.1453	0.0095	0.0101		
Public Fire Protection	340.0	0.0069	0.0031			0.8323	0.0544	0.0575		
<b>Total</b>	<b>49,146.7</b>	<b>1.0000</b>	<b>0.4451</b>	<b>1.0000</b>	<b>0.4896</b>	<b>1.0000</b>	<b>0.0654</b>	<b>1.0000</b>		

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4A. ALLOCATION OF CITIZENS ACQUISITION CONTRIBUTIONS

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and fire protection demand for each customer classification.

Customer Classification	Average Hourly Consumption			Maximum Hour Extra Capacity			Fire Protection			Allocation Factor (9)=(4)+(6)+(8)
	100 Gals. (2)	Allocation Factor (3)	Weighted Factor (4)=(3) X 0.4451	Allocation Factor (5)	Weighted Factor (6)=(5) X 0.4896	Allocation Factor (7)	Weighted Factor (8)=(7) X 0.0654	Allocation Factor (9)=(4)+(6)+(8)		
Residential	27,939.9	0.5943	0.2645	0.5995	0.2935			0.5580		
Commercial	14,505.0	0.3085	0.1373	0.3112	0.1524	0.0224	0.0015	0.2911		
Industrial	4,162.1	0.0885	0.0394	0.0893	0.0437			0.0831		
Public	0.0	0.0000	0.0000		0.0000			0.0000		
Other Water Utilities A	0.0	0.0000	0.0000		0.0000			0.0000		
Other Water Utilities B	0.0	0.0000	0.0000		0.0000			0.0000		
Private Fire Protection	68.5	0.0015	0.0006			0.1453	0.0095	0.0101		
Public Fire Protection	340.0	0.0072	0.0032			0.8323	0.0544	0.0576		
<b>Total</b>	<b>47,015.4</b>	<b>1.0000</b>	<b>0.4451</b>	<b>1.0000</b>	<b>0.4896</b>	<b>1.0000</b>	<b>0.0654</b>	<b>1.0000</b>		

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.1, and the average pumpage for the year ended 12/31/2022. The system demand for fire protection is 20,000 gpm.

	<u>Ratio</u>	<u>Rate of Flow, (GPM)</u>	<u>Weight</u>
Average Hour	1.0	136,142	0.4451
Maximum Hour Extra Capacity	<u>1.1</u>	<u>149,756</u>	<u>0.4896</u>
Subtotal	2.1	285,898	0.9346
Fire Protection		<u>20,000</u>	<u>0.0654</u>
Total		<u><u>305,898</u></u>	<u><u>1.0000</u></u>

The allocation factors in column 7 of Factor 4 are based on the relative potential fire demands of General Service and Public and Private Fire Protection Service..

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4 AND 4A. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

Customer Classification	Average Hourly Consumption 100 Gals.	Factor*	Maximum Hour Extra Capacity		
			Rate, 100 Gals. Per Hour	Factor 4 Allocation Factor	Factor 4A Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)	(5)
Residential	27,939.9	4.0	111,759.5	0.6569	0.5995
Commercial	14,505.0	3.6	52,217.9	0.3069	0.3112
Industrial	4,162.1	0.7	2,913.5	0.0171	0.0893
Public	2,115.5	1.4	2,961.7	0.0174	
Other Water Utilities A	0.8	2.2	1.8	0.0000	
Other Water Utilities B	15.0	19.0	285.8	0.0017	
Total	<u>48,738.3</u>		<u>170,140.1</u>	<u>1.0000</u>	<u>1.0000</u>

\* Ratio Of Maximum Hour To Average Hour Minus 1.0.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH POWER AND PUMPING EQUIPMENT OTHER

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows.

Customer Classification	Maximum Daily Consumption		Maximum Hourly Consumption		Allocation Factor (6)=(3)+5
	Allocation Factor 3 (2)	Weighted Factor (3)=(2)x 0.6667	Allocation Factor 4 (4)	Weighted Factor (5)=(4)x 0.3333	
Residential	0.5519	0.3680	0.5746	0.1915	0.5595
Commercial	0.2959	0.1973	0.2831	0.0943	0.2916
Industrial	0.0701	0.0467	0.0461	0.0154	0.0621
Public	0.0344	0.0229	0.0277	0.0092	0.0322
Other Water Utilities A	0.0000	0.0000	0.0000	0.0000	0.0000
Other Water Utilities B	0.0010	0.0007	0.0010	0.0003	0.0010
Private Fire Protection	0.0070	0.0047	0.0101	0.0034	0.0081
Public Fire Protection	0.0396	0.0264	0.0575	0.0192	0.0456
<b>Total</b>	<b>1.0000</b>	<b>0.6667</b>	<b>1.0000</b>	<b>0.3333</b>	<b>1.0000</b>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5A. ALLOCATION OF COSTS ASSOCIATED WITH POWER AND PUMPING FACILITIES.

Factors are based on the a composite of rate base costs related to pumping equipment.

Customer Classification	Account 311 Net Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	\$ 52,711,106	0.5651
Commercial	27,662,589	0.2966
Industrial	6,080,204	0.0652
Public	3,099,139	0.0332
Other Water Utilities A	1,264	0.0000
Other Water Utilities B	93,520	0.0010
Private Fire Protection	548,596	0.0059
Public Fire Protection	<u>3,079,436</u>	<u>0.0330</u>
Total	<u><u>\$ 93,275,852</u></u>	<u><u>1.0000</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 6. ALLOCATION OF WATER TREATMENT OPERATION EXPENSES.

Factors are based on the allocation of water treatment operation salaries and wages, as follows:

Customer Classification (1)	Water Treatment Operation Salaries and Wages (2)	Allocation Factor (3)
Residential	\$ 7,736,608	0.5744
Commercial	4,125,979	0.3063
Industrial	998,014	0.0741
Public	437,917	0.0325
Other Water Utilities A	173	0.0000
Other Water Utilities B	12,716	0.0009
Private Fire Protection	25,029	0.0019
Public Fire Protection	133,471	0.0099
Total	<u>\$ 13,469,907</u>	<u>1.0000</u>

FACTOR 7. ALLOCATION OF WATER TREATMENT MAINTENANCE EXPENSES.

Factors are based on the allocation of water treatment maintenance salaries and wages, as follows:

Customer Classification (1)	Water Treatment Maintenance Salaries and Wages (2)	Allocation Factor (3)
Residential	\$ 1,693,794	0.5728
Commercial	901,546	0.3049
Industrial	221,551	0.0749
Public	87,217	0.0295
Other Water Utilities A	34	0.0000
Other Water Utilities B	2,533	0.0009
Private Fire Protection	7,767	0.0026
Public Fire Protection	42,382	0.0143
Total	<u>\$ 2,956,823</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH MAINS.

Factors are based on the weighting of the maximum daily consumption, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

Customer Classification	10-inch and Larger		Under 10-inch		Allocation Factor (6)=(3)+(5)
	Allocation Factor 3 (2)	Weighted Factor (3)=(2)x 0.2795	Allocation Factor 4 (4)	Weighted Factor (5)=(4)x 0.7205	
Residential	0.5519	0.1543	0.5746	0.4140	0.5683
Commercial	0.2959	0.0827	0.2831	0.2040	0.2867
Industrial	0.0701	0.0196	0.0461	0.0332	0.0528
Public	0.0344	0.0096	0.0277	0.0199	0.0296
Other Water Utilities A	0.0000	0.0000	0.0000	0.0000	0.0000
Other Water Utilities B	0.0010	0.0003	0.0010	0.0007	0.0010
Private Fire Protection	0.0070	0.0020	0.0101	0.0073	0.0093
Public Fire Protection	0.0396	0.0111	0.0575	0.0414	0.0525
<b>Total</b>	<b>1.0000</b>	<b>0.2795</b>	<b>1.0000</b>	<b>0.7205</b>	<b>1.0000</b>

The weighting of the factors is based on the length of transmission mains and distribution mains, as follows:

	Length of Mains (Feet)	Weight
10-inch and Larger	15,222,531	0.2795
Under 10-inch	39,245,693	0.7205
<b>Total</b>	<b>54,468,224</b>	<b>1.0000</b>



PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

These costs are assigned directly to Public Fire Protection.

Customer Classification	Allocation Factor
(1)	(2)
Public Fire Protection	1.0000

FACTOR 10. ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	724,799	0.70039
Commercial	166,162	0.16057
Industrial	6,580	0.00636
Public	131,109	0.12669
Other Water Utilities A	80	0.00008
Other Water Utilities B	96	0.00009
Private Fire Protection	6,030	0.00583
Total	1,034,856	1.00000

FACTOR 11. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the second of the following pages, and summarized below.

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	686,494	0.88575
Commercial	61,191	0.07895
Industrial	1,288	0.00166
Public	17,892	0.02309
Other Water Utilities A	10	0.00001
Other Water Utilities B	14	0.00002
Private Fire Protection	8,155	0.01052
Total	775,044	1.00000

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

Meter Size (1)	5/8" Dollar Equivalent (2)	Residential		Commercial		Industrial		Public		Other Water Utilities A		Other Water Utilities B		Private Fire Protection		Total	
		Number of Meters (3)	Weighting (4)=(2)X(3)	Number of Meters (5)	Weighting (6)=(2)X(5)	Number of Meters (7)	Weighting (8)=(2)X(7)	Number of Meters (9)	Weighting (10)=(2)X(9)	Number of Meters (11)	Weighting (12)=(2)X(11)	Number of Meters (13)	Weighting (14)=(2)X(13)	Number of Meters (15)	Weighting (16)=(2)X(15)	Number of Meters (17)	Weighting (18)
5/8	1.0	675,824	675,824	29,903	29,903	51	51	56	56	0	0	0	0	0	0	705,834	705,834
3/4	1.5	1,036	1,576	1,777	2,703	11	17	451	685	0	0	0	0	0	0	3,274	4,981
1	2.0	23,467	45,827	6,969	13,609	86	168	85	167	0	0	0	0	15	29	30,623	59,800
1-1/2	2.2	329	726	1,406	3,105	44	98	584	1,289	0	0	0	0	3	7	2,365	5,225
2	3.0	130	389	3,878	11,577	164	491	29	86	1	3	2	6	22	66	4,227	12,618
3	8.2	0	0	119	974	15	123	150	1,225	0	0	0	0	11	90	295	2,412
4	20.3	13	269	1,685	34,220	75	1,530	207	4,213	1	20	3	60	58	1,178	2,043	41,490
6	29.6	6	188	1,646	48,721	71	2,087	54	1,597	2	57	1	30	105	3,109	1,884	55,789
8	33.0	0	0	544	17,972	44	1,447	8	275	0	0	0	0	33	1,090	629	20,784
10	51.2	0	0	66	3,378	11	568	2,372	121,516	0	0	0	0	9	461	2458	125,923
Total		700,806	724,799	47,992	166,162	572	6,580	3,997	131,109	4	80	6	96	256	6,030	753,633	1,034,856

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

Service Size (1)	3/4" Dollar Equivalent (2)	Residential		Commercial		Industrial		Public		Other Water Utilities A		Other Water Utilities B		Private Fire Protection		Total	
		Number of Services (3)	Weighting (4)=(2)X(3)	Number of Services (5)	Weighting (6)=(2)X(5)	Number of Services (7)	Weighting (8)=(2)X(7)	Number of Services (9)	Weighting (10)=(2)X(9)	Number of Services (11)	Weighting (12)=(2)X(11)	Number of Services (13)	Weighting (14)=(2)X(13)	Number of Services (15)	Weighting (16)=(2)X(15)	Number of Services (17)	Weighting (18)
3/4 & 1"	1.00	685,597 *	685,597	38,075 **	38,075	148	148	592	592	0	0	0	0	104	104	724,516	724,516
1-1/2"	1.43	329	471	1,406	2,015	44	63	584	837	0	0	0	0	3	4	2,365	3,390
2"	2.56	130	333	3,878	9,916	164	420	29	74	1	3	2	5	87	222	4,292	10,973
3"	2.27	0	0	119	270	15	34	150	340	0	0	0	0	26	59	310	703
4"	1.99	13	26	1,685	3,347	75	150	207	412	1	2	3	6	379	753	2,364	4,696
6"	2.80	13	37	1,646	4,606	71	197	54	151	2	5	1	3	1,257	3,518	3,043	8,517
8"	4.66	6	30	544	2,533	44	204	8	39	0	0	0	0	625	2,909	1,228	5,715
10"	6.51	0	0	66	429	11	72	2,372	15,447	0	0	0	0	61	397	2,510	16,345
12"	12.63	0	0	0	0	0	0	0	0	0	0	0	0	15	189	15	189
Total		686,088	686,494	47,418	61,191	572	1,288	3,997	17,892	4	10	6	14	2,557	8,155	740,642	775,044

\* Reduced by 14,731 service lines.

\*\* Reduced by 574 service lines.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 12. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND OTHER OPERATION DEPARTMENT EXPENSES.

The factors are based on the allocation of Transmission and Distribution Operation Salaries and Wages, as follows:

Customer Classification (1)	Transmission & Distribution Operation Salaries & Wages (2)	Allocation Factor (3)
Residential	\$ 2,478,365	0.6062
Commercial	1,048,794	0.2565
Industrial	176,302	0.0431
Public	171,975	0.0421
Other Water Utilities A	88	0.0000
Other Water Utilities B	3,237	0.0008
Private Fire Protection	36,421	0.0089
Public Fire Protection	173,014	0.0423
Total	<u>\$ 4,088,197</u>	<u>1.0000</u>

FACTOR 13. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING AND OTHER MAINTENANCE DEPARTMENT EXPENSES.

The factors are based on the allocation of Transmission and Distribution Maintenance Salaries and Wages, as follows:

Customer Classification (1)	Transmission & Distribution Maintenance Salaries & Wages (2)	Allocation Factor (3)
Residential	\$ 1,791,538	0.6128
Commercial	505,414	0.1729
Industrial	76,832	0.0263
Public	81,495	0.0279
Other Water Utilities A	41	0.0000
Other Water Utilities B	1,399	0.0005
Private Fire Protection	24,522	0.0084
Public Fire Protection	442,511	0.1514
Total	<u>\$ 2,923,752</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 14. ALLOCATION OF CUSTOMER ACCOUNTING, BILLING AND COLLECTING COSTS.

Factors are based on the pro forma number of customers, as follows:

Customer Classification	Proforma Number of Customers	Allocation Factor
(1)	(2)	(3)
Residential	700,806	0.92456
Commercial	47,992	0.06331
Industrial	572	0.00076
Public	3,997	0.00527
Other Water Utilities A	4	0.00001
Other Water Utilities B	6	0.00001
Private Fire Protection	4,205	0.00555
Public Fire Protection	409	0.00054
Total	757,991	1.00000

FACTOR 15. ALLOCATION OF METER READING COSTS.

Factors are based on the number of meters by class.

Customer Classification	Pro Forma Number of Meters	Allocation Factor
(1)	(2)	(3)
Residential	700,806	0.93010
Commercial	47,992	0.06369
Industrial	572	0.00076
Public	3,997	0.00530
Other Water Utilities A	4	0.00001
Other Water Utilities B	6	0.00001
Private Fire Protection	96	0.00013
Total	753,473	1.00000

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 16. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES.

The factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, fuel, chemicals and waste disposal expenses.

Customer Classification (1)	Operation & Maintenance Expenses (2)	Allocation Factor (3)
Residential	\$ 52,761,810	0.6770
Commercial	16,383,183	0.2102
Industrial	3,097,490	0.0397
Public	2,133,263	0.0274
Other Water Utilities A	1,016	0.0000
Other Water Utilities B	43,904	0.0006
Private Fire Protection	361,778	0.0046
Public Fire Protection	3,156,927	0.0405
<b>Total</b>	<b>\$ 77,939,371</b>	<b>1.0000</b>

FACTOR 16A. ALLOCATION OF CASH WORKING CAPITAL - EXPENSES

The functions are based on the allocation of all other operation and maintenance expenses excluding regulatory commission expense.

Customer Classification (1)	Operation & Maintenance Expenses (2)	Allocation Factor (3)
Residential	\$ 172,303,583	0.6696
Commercial	56,122,052	0.2181
Industrial	11,794,122	0.0458
Public	7,528,349	0.0293
Other Water Utilities A	3,468	0.0000
Other Water Utilities B	126,560	0.0005
Private Fire Protection	1,060,748	0.0041
Public Fire Protection	8,374,268	0.0325
<b>Total</b>	<b>\$ 257,313,150</b>	<b>1.0000</b>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 17. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

The factors are based on the allocation of direct salaries and wages as follows:

Customer Classification <u>(1)</u>	Salaries and Wages <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$ 41,930,154	0.6469
Commercial	14,629,803	0.2257
Industrial	2,854,998	0.0440
Public	2,084,350	0.0322
Other Water Utilities A	1,010	0.0000
Other Water Utilities B	40,775	0.0006
Private Fire Protection	309,785	0.0048
Public Fire Protection	2,962,403	0.0457
<b>Total</b>	<b><u>\$64,813,278</u></b>	<b><u>1.0000</u></b>

FACTOR 18. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS, OTHER INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

The factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification <u>(1)</u>	Original Cost Less Depreciation <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$ 3,432,738,540	0.5972
Commercial	1,462,162,634	0.2544
Industrial	286,299,847	0.0498
Public	184,897,249	0.0322
Other Water Utilities A	84,772	0.0000
Other Water Utilities B	4,417,572	0.0008
Private Fire Protection	42,058,847	0.0073
Public Fire Protection	335,573,279	0.0584
<b>Total</b>	<b><u>\$ 5,748,232,741</u></b>	<b><u>1.0000</u></b>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 19. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

The factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below:

Customer Classification <u>(1)</u>	Original Cost Measure of Value <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$ 2,811,556,261	0.5977
Commercial	1,195,068,862	0.2541
Industrial	233,611,050	0.0497
Public	151,813,718	0.0323
Other Water Utilities A	69,606	0.0000
Other Water Utilities B	3,622,334	0.0008
Private Fire Protection	34,294,610	0.0073
Public Fire Protection	274,031,221	0.0583
Total	<u>\$ 4,704,067,662</u>	<u>1.0000</u>

FACTOR 20. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification <u>(1)</u>	Total Cost of Service <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$ 587,760,200	0.6218
Commercial	227,663,548	0.2408
Industrial	45,088,685	0.0477
Public	30,776,913	0.0326
Other Water Utilities A	14,393	0.0000
Other Water Utilities B	637,756	0.0007
Private Fire Protection	5,845,343	0.0062
Public Fire Protection	47,487,479	0.0502
Total	<u>\$ 945,274,316</u>	<u>1.0000</u>



PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
FACTOR 19. ORIGINAL COSTS MEASURE OF VALUE RATE BASE ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account Number (1)	Account Description (2)	Factor Ref. (3)	Rate Base (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
<b>Nondepreciable Plant</b>											
301.00	Organization	18	\$ 766,405	\$ 457,663	\$ 194,948	\$ 38,172	\$ 24,652	\$ 11	\$ 589	\$ 5,608	\$ 44,742
302.00	Franchises and Consents	18	2,404,599	1,435,982	611,651	119,765	77,346	35	1,848	17,594	140,377
303.00	Other Intangible Plant	18	15,572	9,299	3,961	776	501	0	12	114	909
303.20	Power and Pumping Land	5	6,211,287	3,475,141	1,811,474	385,623	199,718	83	6,120	50,106	283,023
303.30	Purification Land	2	2,621,562	1,510,201	807,156	191,774	103,700	37	2,732	2,609	12,953
303.40	Transmission and Distribution Land	8	3,511,859	1,995,651	1,006,713	185,374	104,903	46	3,405	32,518	184,359
303.50	Distr. Reservoir & Standpipe Land	4	9,311,882	5,350,531	2,635,874	429,033	257,746	119	8,925	94,239	535,415
303.61	Office Land	16	3,221,900	2,181,096	677,257	128,046	88,186	42	1,815	14,955	130,503
	Total Nondepreciable Plant		28,065,066	16,415,584	7,749,034	1,478,562	846,044	373	25,446	217,743	1,332,280
<b>Depreciable Plant</b>											
303.14	Water Rights - Hiernia Dam	1	-	11,676	6,062	1,739	884	0	6	-	142
303.35	Waste Handling & Treatment Land	18	3,115,074	1,860,285	782,373	155,151	100,189	46	2,394	22,792	181,853
304	Comprehensive Planning Studies	2	94,059,449	54,164,737	28,960,070	6,860,682	3,376,247	1,330	96,037	93,610	464,725
304.15	Other Water Source Structures	5A	90,970,487	50,758,496	26,484,178	7,561,287	-	-	-	923,208	5,243,319
304.20	Power and Pumping Structures	2	239,896,737	138,197,085	73,862,078	17,549,067	8,611,051	3,392	250,042	238,749	1,185,272
304.30	Purification Buildings	1	17,997,648	10,231,650	5,311,751	1,524,165	774,701	305	5,508	25,076	124,491
304.36	Waste Handling & Treatment Structures	1	800,021	454,811	236,115	67,751	34,437	14	245	1,115	5,534
304.38	Waste Handling & Treatment Structure f	1	3	2	1	0	0	0	0	0	0
304.39	Purification Buildings - Tank Painting	2	35,062,074	23,735,610	7,370,195	1,393,447	959,677	457	19,751	162,751	1,420,186
304.61	Office Buildings	16	52,474,009	35,522,768	11,030,257	2,085,438	1,436,255	684	29,559	243,573	2,125,455
304.62	Stores, Shop and Garage Bldgs.	16	8,657,967	5,861,094	1,819,941	344,088	236,975	113	4,877	40,188	350,690
304.63	Misc. Structures and Improvements	1	190,494,212	108,295,825	56,221,670	16,132,365	8,195,744	3,230	58,302	265,416	1,317,660
305.00	Collecting & Impounding Reservoirs	2	11,757,582	6,773,179	3,620,055	860,098	422,036	166	12,265	11,701	58,091
306.00	Lake, River and Other Intakes	2	12,617,354	7,268,467	3,884,771	922,992	462,898	178	13,151	12,557	62,339
307.00	Wells and Springs	2	19,789,937	11,042,124	5,761,431	1,644,900	1,921,578	794	58,879	200,837	1,140,644
310.00	Power Generation Equipment	5A	59,761,520	33,435,860	17,428,985	3,710,244	341,147	-	9,906	462,091	2,723,088
311.20	Pumping Equipment Other	5	9,504,071	5,475,001	2,926,219	695,247	341,147	134	9,906	9,459	46,957
311.52	Pumping Equipment Source of Supply	2	19,998,915	11,520,756	6,157,489	1,462,972	717,858	283	20,845	19,903	98,810
311.53	Pumping Equipment Water Treatment	2	4,011,346	2,279,489	1,149,896	211,740	118,556	52	3,890	37,143	210,560
311.54	Pumping Equipment T&D	8	338,264,962	194,863,974	104,148,783	24,744,958	12,141,961	4,763	352,571	336,647	1,671,286
320.00	Purification System	2	177,762,982	102,141,153	50,318,593	8,190,195	4,920,354	2,272	170,376	1,799,019	10,221,020
330.00	Distr. Reservoirs and Standpipes	4									
331.00	Mains and Accessories	3	1,235,446,568	681,889,157	365,605,610	86,590,241	42,488,467	16,737	1,233,753	8,697,991	48,924,613
	10-inch and Over	4	1,977,274,089	1,136,125,494	559,698,364	91,100,302	54,729,548	25,273	1,895,107	20,010,652	113,689,349
333.00	Services	11	585,027,992	518,187,621	46,188,923	972,224	13,505,454	7,548	10,568	6,155,655	-

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
FACTOR 19. ORIGINAL COSTS MEASURE OF VALUE RATE BASE ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account Number	Account Description	Factor Ref.	Rate Base (4)	Residential (5)	Commercial (6)	Industrial (7)	Other Public Authority (8)	Other Water Utilities Group A (9)	Other Water Utilities Group B (10)	Private Fire Protection (11)	Public Fire Protection (12)
334.00	Meters	10	177,143,764	124,069,071	28,443,148	1,126,346	22,442,873	13,694	16,433	1,032,199	-
335.00	Fire Hydrants	9	134,055,984	-	-	-	-	-	-	-	134,055,984
340.00	Office Furniture	16	7,539,734	5,104,096	1,584,884	299,646	206,369	98	4,247	34,998	305,396
340.00	Computers and Peripheral Equipment	16	13,575,902	9,190,338	2,853,712	539,538	371,583	177	7,647	63,017	549,891
340.00	Other Office Equipment	16	4,840	3,276	1,017	192	132	0	3	22	196
340.00	Computer Software	16	54,871,993	37,146,126	11,534,324	2,180,739	1,501,890	715	30,910	254,704	2,222,585
341.00	Transportation Equipment	16	46,148,895	31,240,941	9,700,692	1,834,063	1,263,132	601	25,906	214,214	1,869,257
342.00	Stores Equipment	16	341,161	230,952	71,713	13,589	9,358	4	192	1,584	13,619
343.00	Tools and work Equipment	2	39,229,301	26,556,695	8,246,164	1,559,063	1,073,737	511	22,098	182,094	1,588,979
344.00	Laboratory Equipment	16	1,398,923	805,876	430,716	102,335	50,214	20	1,458	1,392	6,912
345.00	Power Operated Equipment	16	736,581	498,636	154,832	29,273	20,161	10	415	3,419	29,835
346.00	Communication Equipment	16	16,333,483	11,057,109	3,433,367	649,130	447,060	213	9,201	75,817	661,566
347.00	Miscellaneous Equipment	16	36,500,736	24,709,526	7,672,608	1,450,623	999,054	476	20,561	169,429	1,478,459
348.00	Other Tangible Equipment	16	13,822,490	9,357,268	2,905,545	549,338	378,333	180	7,786	64,161	559,879
	Total Depreciable Plant		5,726,469,325	3,420,086,185	1,456,016,534	285,135,149	184,253,904	84,492	4,396,969	41,887,211	334,608,881
	Total Utility Plant in Service (Net)		5,754,534,391	3,436,501,770	1,463,765,568	286,613,711	185,099,948	84,865	4,422,415	42,104,955	335,941,160
	<b>Other Rate Base Elements</b>										
18	Materials and Supplies	18	21,781,099	13,007,270	5,540,400	1,084,842	700,609	321	16,739	159,369	1,271,548
16A	Cash Working Capital - Expenses	16A	23,164,070	15,511,264	5,052,269	1,061,741	677,724	312	11,393	95,492	753,876
18	Cash Working Capital - Interest	18	(8,352,730)	(4,988,096)	(2,124,662)	(416,021)	(268,673)	(123)	(6,419)	(61,116)	(487,620)
18	Accrued and Prepaid Taxes	18	1,694,560	1,011,960	431,041	84,400	54,507	25	1,302	12,399	98,926
4	Extension Deposits in Suspense	4	(20,895)	(12,006)	(5,915)	(963)	(578)	(0)	(211)	(211)	(1,201)
18	Unamortized Investment Tax Credit	18	(213,324)	(127,393)	(54,263)	(10,625)	(6,862)	(3)	(164)	(1,561)	(12,454)
18	Deferred Taxes	18	(1,082,382,243)	(646,378,706)	(275,322,665)	(53,909,764)	(34,815,831)	(15,962)	(831,821)	(7,919,608)	(63,187,866)
4A	Citizens Acquisition C/JAC & CAC	4A	(17,729,494)	(9,892,466)	(5,161,576)	(1,473,640)	(48,519)	-	-	(179,927)	(1,021,885)
18	Tax Cost and Jobs Act- Stub Period	18	(1,508,401)	(900,789)	(383,698)	(75,128)	(48,519)	(22)	(1,159)	(11,037)	(88,058)
18	Other Additions	18	327,057	185,312	83,193	16,280	10,520	5	251	2,393	19,093
18	Other Deductions	18	(431,508)	(237,669)	(109,762)	(21,492)	(13,860)	(6)	(332)	(3,157)	(25,191)
18	Acquisition Adjustments	18	13,205,080	7,885,830	3,358,941	657,700	424,754	195	10,148	96,619	770,893
	Total Other Rate Base Elements		(1,050,466,729)	(624,945,508)	(268,696,706)	(53,002,661)	(33,286,230)	(15,260)	(800,081)	(7,810,345)	(61,909,939)
	<b>Total Original Cost Rate Base</b>		4,704,067,662	2,811,556,261	1,195,068,862	233,611,050	151,813,718	69,606	3,622,334	34,294,610	274,031,221



PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 23. ALLOCATION OF LATE PAYMENT FEES.

Factors based on collection of Late Payment fees by class.

Customer Classification (1)	Late Payment Fees (2)	Allocation Factor (3)
Residential	\$ 3,745,571	0.8475
Commercial	492,038	0.1113
Industrial	99,500	0.0225
Public	41,488	0.0094
Other Water Utilities A	2,805	0.0006
Other Water Utilities B	10,956	0.0025
Private Fire Protection	27,154	0.0061
Public Fire Protection	-	0.0000
Total	<u>\$ 4,419,511</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS  
CALCULATION OF COMMODITY/DEMAND RATES FOR STANDBY SERVICE  
UNDER PROPOSED LEVEL OF REVENUE

**Firm Standby Service:**

Description	Cost of Service		Units Hundred Gals.	Cost Per Unit
	Annual	Per Month		
Total Base Costs	\$ 470,121,284			
Less: Variable Costs	<u>45,100,913</u>		426,947,484	\$ 0.1056 Per Hundred Gallons
Fixed Base Costs	425,020,371	35,418,364	1,169,719 Avg Day	30.2794 Per Hundred of Avg. Day
Max Day Extra Capacity	107,050,621	8,920,885	2,296,718 Peak Day	3.8842 Per Hundred of Peak Day
Max Hour Extra Capacity	146,569,287	12,214,107	265,837 Peak Hour	45.9459 Per Hundred of Peak Hour

**Interruptible Standby Service:**

Description	Cost of Service		Units Hundred Gals.	Cost Per Unit
	Annual	Per Month		
Fixed Base Costs	\$ 425,020,371			
Less: Depreciation Return and Taxes	<u>317,426,498</u>			
Total	107,593,873	8,966,156	1,169,719 Avg Day	\$ 7.6652 Per Hundred of Avg. Day
Max Day Extra Capacity	107,050,621			
Less: Depreciation Return and Taxes	<u>75,183,796</u>			
Total	31,866,825	2,655,569	2,296,718 Peak Day	1.1562 Per Hundred of Peak Day
Max Hour Extra Capacity	146,569,287			
Less: Depreciation Return and Taxes	<u>120,450,094</u>			
Total	26,119,193	2,176,599	265,837 Peak Hour	8.1876 Per Hundred of Peak Hour
Depreciation, Return & Taxes for Base, Max Day and Max Hour	513,060,388			
Plus: Variable Costs	45,100,913			
Total	558,161,301		426,947,484	1.3073 Per Hundred Gallons

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

SUMMARY OF AVERAGE AND MAXIMUM DAY SYSTEM SENDOUT AND MAXIMUM DAY RATIOS

Year	Average Daily Sendout (MGD)	Maximum Day Sendout (MGD)	Ratio, Maximum to Average
1987	153.4	207.7	1.35
1988	152.7	209.1	1.37
1989	144.8	188.6	1.30
1990	144.9	192.5	1.33
1991	145.1	192.3	1.32
1992	141.5	181.4	1.28
1993	138.7	184.3	1.33
1994	149.4	202.1	1.35
1995	144.1	198.5	1.38
1996	211.4	290.9	1.38
1997	220.3	297.7	1.35
1998	212.2	279.6	1.32
1999	199.1	275.0	1.38
2000	207.5	263.6	1.27
2001	200.5	249.5	1.24
2002	210.4	259.6	1.23
2003	199.8	273.7	1.37
2004	218.1	279.7	1.28
2005	215.3	268.2	1.25
2006	210.1	259.8	1.24
2007	220.9	266.6	1.21
2008	212.4	254.3	1.20
2009	206.0	267.8	1.30
2010	205.8	262.4	1.28
2011	202.3	240.0	1.19
2012	194.0	236.3	1.22
2013	192.7	221.3	1.15
2014	195.7	222.7	1.14
2015	194.7	226.7	1.16
2016	190.7	214.0	1.12
2017	184.8	207.3	1.12
2018	192.2	220.3	1.15
2019	193.7	215.8	1.11
2020	189.7	222.1	1.17
2021	196.0	219.1	1.12
2022	196.0	221.3	1.13

APPENDIX A

PENNSYLVANIA AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- a. A description of the allocation methods used. A comparison of the allocated cost of service by class with the present and proposed revenues. A cost of service schedule showing the Rate of Return produced by present and proposed rates by class of service.

RESPONSE

A description of the methods used for the cost of service study is provided on Exhibit 12-A and in PAWC Statement No. 12. A comparison of the allocated cost of service by class with the present and proposed revenues is provided on Schedule A of Exhibit 12-A. Schedules B and C showing the rate of return produced by present and proposed rates by customer classification are provided in Exhibit 12-A.



PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- b. Indicate if the method used for establishing the allocation factors in the Cost of Service Study deviates from the previous study submitted in the last rate case. If yes, indicate which allocation factors were changed and discuss the reason for the changes.

RESPONSE

The methods used for establishing the allocation factors in the cost of service study have not deviated from the previous study submitted in the last case.

PENNSYLVANIA AMERICAN WATER COMPANY  
 RESPONSES TO RATE STRUCTURE  
 AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- c. Supply the average day, the maximum day and the maximum hour deliveries to the system adjusted for storage for the test year and two prior years. Also provide workpapers, analyses, comparative data or other documentation supporting the estimated maximum day and peak hour demands by customer class reflected in the Company's cost of service study.

## RESPONSE

Refer to Schedule G of Exhibit 12-A for the average day and maximum day system deliveries for the years 1987 through 2021. Support for the system maximum hour ratio is provided below and on the attached schedules.

The peak hour consumption analysis in support of the 2.1 system peak hour ratio is attached and summarized below.

Analyses were made to determine hourly water consumption during 1988 peak periods of sendout for PAWC's three largest operating districts, as follows:

Pittsburgh	July 5, 6 and 7, 1988
Riverton	July 6 and 7, 1988
Norristown	July 6, 7 and 8, 1988

These dates had the greatest sendouts experienced in recent years.

PENNSYLVANIA AMERICAN WATER COMPANY  
 RESPONSES TO RATE STRUCTURE  
 AND COST OF SERVICE FILING REQUIREMENTS

RS1c., cont.

Recording charts or other hourly logs of total production were read to derive total hourly delivery to each of the districts. Recording charts for storage reservoirs were read to derive hourly draw or fill from each reservoir. The total hourly delivery plus hourly draw less hourly fill equals hourly consumption.

District	Average M.G.D.	Max Hour M.G.D.	Max Hour Ratio
Pittsburgh	69.28	140.88	2.03
Riverton	10.16	26.17	2.58
Norristown	12.68	22.53	1.78
Total	92.12	189.58	2.06

The attachments set forth the hourly deliveries, storage draws and fills and hourly consumption for the several days and districts which support the above amounts.

Support for the customer class demand factors is provided on the attached pages, Customer Class Demand Study, which was included in the Company's 2017 Rate Case that was filed on April 28, 2017 (Docket No. R-2017-2595853).

Witness: P. R. Herbert

PENNSYLVANIA AMERICAN WATER COMPANY

Hershey, Pennsylvania

CUSTOMER CLASS DEMAND STUDY

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Harrisburg, Pennsylvania



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February 27, 2017

Pennsylvania American Water Company  
800 West Hersheypark Drive  
Hershey, PA 17033-2400

Attention John Cox  
Manager of Rates and Regulations

Gentlemen:

Pursuant to your request, we have prepared a customer class demand study. The study was conducted to provide a basis for the selection of class maximum day and hour demand ratios for use in the cost of service allocation study.

The attached report presents a description of the methods and procedures used, the usage data for each monitored customer, and the detailed calculations of maximum day and hour ratios by classification. The results of the study are presented on page I-9 of the report.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in black ink that reads "Paul R. Herbert".

PAUL R. HERBERT  
President

A handwritten signature in black ink that reads "Constance E. Heppenstall".

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**PART I. INTRODUCTION**

## **PLAN OF REPORT**

The report sets forth the results of the customer class demand study conducted during the period of January 2013 through October 2015 for Pennsylvania American Water Company (Company). The study is organized into three parts. Part I, Introduction, contains statements with respect to the basis and purpose of the study, a description of the methods and procedures used, and a summary of the study results. Part II, Maximum Day and Hour Ratios, describes the calculations of the maximum day and maximum hour ratios for each customer class using the observed demand data. Part III, Daily and Hourly Usage Data, provides the daily usage for each monitored location and the hourly usage for selected days during the study period. Unless noted otherwise, all residential usage units are gallons and non-residential units are hundred gallons.

## **BASIS OF STUDY**

Pursuant to the Joint Petition for Settlement at Docket No. R-2011-2232243, approved by the Commission's Final Order entered November 10, 2011, the Joint Petitioners agreed that the Company would prepare and submit a study on the feasibility and costs of conducting a customer class demand study including the timetable required to complete such a study. In February 2012, the Company submitted the required Feasibility Study to the Joint Petitioners for their review and comment. The Feasibility Study outlined the scope of the proposed demand study, the facilities and equipment that would be required, and an estimate of the total costs. Subsequent to a meeting of the Joint Petitioners to discuss the Feasibility Study, the parties decided to move forward with the Demand Study.

## **PURPOSE OF STUDY**

In the Base Extra-Capacity method of cost allocation, as described in AWWA Manual M1 - Principles of Water Rates, Fees, and Charges, the extra capacity portion of the water system is allocated to customer classifications based on the non-coincident demands of each classification. The non-coincident demand is the sum of the peaks for each class regardless of the day or hour such peaks may occur. The purpose of a customer class demand study is to establish a basis for selecting maximum day and maximum hour ratios for each customer classification. The ratios will be used for allocating maximum day and hour extra capacity costs in the cost of service allocation study prepared for the Company's rate filing. The results of the cost of service allocation study are used as a guide for designing the proposed rate structure.

## METHOD AND PROCEDURES

### Overview

The customers were selected for the study with the objective of obtaining a representative sample of customers in each class. Originally, customer usage was to be monitored for one year, with an extension possible if the weather was deemed insufficiently dry to capture typical peak water use behaviors. In order to determine whether to extend the study in subsequent years, the Palmer Drought Severity Index (PDSI) was used. The National Oceanic and Atmospheric Administration publishes the PDSI, among other measures of drought conditions. The PDSI is a long term measure that is used in determining the severity of droughts. The decision criterion for applying the PDSI to the demand study was that, if there was not at least one summer month (June-August) in which the PDSI was less than 1.0, the study would continue. As shown by the presence of green shading in Table 1-1 below, this threshold was met in the first study year for all but two climate divisions and had been met by August 2014 for all climate divisions. Since neither 2013 nor 2014 had remarkably dry summers, it was deemed worthwhile to continue monitoring through a third summer.

**Table 1-1**  
**Palmer (Long Term) Drought Severity Index for Summer 2013, 2014 , and 2015**

Climate Division	2013			2014			2015		
	June	July	August	June	July	August	June	July	August
1 Poconos	1.29	1.11	1.17	-0.30	-0.18	-0.25	-0.93	-0.94	-1.13
2 East Central Mountains	1.02	0.96	1.08	0.96	-0.19	0.94	1.13	1.36	0.98
3 Southeastern Piedmon	1.48	1.84	2.11	2.61	2.67	-0.29	1.45	1.38	0.76
4 Lower Susquehanna	0.46	0.54	0.77	2.20	2.15	2.19	1.92	1.84	1.34
5 Middle Susquehanna	-0.70	-0.68	-1.05	0.46	0.71	1.35	1.59	1.75	1.37
6 Upper Susquehanna	0.58	1.01	0.86	0.60	0.44	0.79	1.12	1.31	-0.29
7 Central Mountains	0.45	0.62	-0.46	1.03	1.24	2.01	1.66	2.25	1.72
8 South central Mountain	0.43	-0.16	-0.10	1.04	1.24	1.38	1.80	1.89	1.14
9 SW Plateau	0.76	1.69	2.54	1.98	2.05	2.44	2.07	1.85	0.95
10 NW Plateau	0.71	1.01	-0.13	1.77	2.04	2.56	1.51	-0.16	-0.72

Source: National Oceanic and Atmospheric Administration at <http://www.ncdc.noaa.gov/cag/time-series/us>

#### Legend

	Greater than Threshold
	Within threshold for acceptability of usage data (less than 1)

Table 1-2 below displays the values for a short-term soil moisture index, the Palmer Moisture Anomaly or “Z” index. This index better reflects the immediate term weather conditions that influence water use for lawn and garden watering. The blue shading indicates relatively moist months and the light orange shading relatively dry months. The table displays that the driest months in general were experienced in late summer of 2015.

**Table 1-2**  
**Palmer (Short Term) Moisture Anomaly Index for Summer 2013, 2014 , and 2015**

Cimate Division	2013			2014			2015		
	June	July	August	June	July	August	June	July	August
1 Poconos	3.87	-0.15	0.52	-0.41	0.25	-0.36	3.71	-0.32	-0.88
2 East Central Mountains	3.06	0.12	0.67	0.49	1.04	-0.44	3.41	1.05	-0.74
3 Southeastern Piedmont	4.46	1.53	1.38	0.23	0.99	-1.05	4.19	0.13	-1.23
4 Lower Susquehanna	1.39	0.38	0.88	0.72	0.52	0.82	5.75	0.36	-0.94
5 Middle Susquehanna	1.26	-0.14	-1.28	0.29	0.91	2.29	4.77	0.95	-0.60
6 Upper Susquehanna	1.59	1.48	-0.14	-0.52	-0.29	1.08	3.37	0.89	-0.90
7 Central Mountains	1.33	0.64	-1.40	1.21	0.94	3.33	4.96	2.27	-0.89
8 South Central Mountains	1.30	-0.47	0.13	2.61	0.90	0.72	5.36	0.79	-1.69
9 SW Plateau	2.29	3.01	3.06	1.71	0.81	1.66	6.21	-0.02	-2.13
10 NW Plateau	2.12	1.13	-0.41	3.84	1.34	2.11	4.56	-0.47	-1.72

Source: National Oceanic and Atmospheric Administration at <http://www.ncdc.noaa.gov/cag/time-series/us>

Legend

	Moderately to extremely moist (greater than 1.00)
	Near normal (between 1 and negative 1.24)
	Moderately to very dry (negative 1.25 and lower)

Residential Sample

The source of the usage data for the residential sample is the Company’s SCADA information system. The SCADA information system continuously monitors flows through a pump or valve and relays the information to a central location. Some of these monitored pumps or valves serve a closed loop of customers, allowing the data to be used to measure daily and hourly flows for the *group* of residential customers consuming water that passes through that pump or valve.

In order to make the results of the customer demand study representative, residential customers are categorized by housing density to insure that each type of residential user is included. Residential peak demands are primarily influenced by income, lawn size and the amount of precipitation and evapotranspiration. Housing density is used to categorize monitoring points because it represents a measure of both income level and lawn size. The residential monitoring points are located throughout the Company's service area, as indicated in the locator map in Attachment A. The residential class sample consists of approximately 2,500 customers from the following ten SCADA monitoring points that serve a closed loop of exclusively or predominantly residential customers.

System	Housing Density	Residential Customers
Shire Oaks	Low	306
Linnwood	Low	93
Sandy Ridge	Low	31
Sutton Hills	Low	76
Thornburgh and Rosslyn	Medium	649
Winter Road	Medium	212
Ridge Road	Medium	62
Silver	Medium	347
North Strabane	High	106
Millview	High	660
Total		2,542

### Commercial Sample

Because the Company serves a large and diverse set of commercial customers, statistical stratified sampling techniques were applied to the design of the commercial sample. The sample design for this report was based on the recommendations of Dr. Berwood Yost, Director of the Floyd Institute's Center for Opinion and Research at Franklin and Marshall College. The sampling used consumption records available for the most recent twelve month period prior to sample design. The customer consumption records were stratified by consumption level into nine strata, using generally accepted statistical techniques for determining strata boundaries. Strata numbers six through nine encompass customers that consume less than 37,000 gallons per year (3,075 gallons per month). The total 2011 consumption by these customers accounted for approximately two percent of total commercial consumption. Because the consumption within these strata is too small to have an impact on the ratio estimates, the customers in these strata were not included in the sampling.

For the five study strata, simple random sampling was used to draw a sample within each stratum. The sampling approach and sample sizes are designed such that each stratum sample yields a reasonable estimate of the consumption for the population of customers within the stratum. This approach of stratification by size, which is common in large populations with skewed distributions, achieves desired precision levels with smaller sample sizes than can be achieved with simple random sampling from the entire population. The total number of customers and the minimum required and actual sample sizes for each stratum are shown in Table 1-3 below. The stratum boundaries and number of customers monitored in each stratum are for the time period when the sample was drawn. The proportion of all commercial customers in each stratum is fixed for the study period by the stratification design; the stratum boundaries vary slightly from year to year as the consumption totals for each customer change. The monitored customers are placed in the stratum for each year based on how their consumption for the year compares to the stratum boundaries for the year. For this reason the number of monitoring points in each stratum varies slightly from year to year.

The commercial customer sample includes monitoring points in each of the Company's six service regions and a broad variety of types including but not limited to apartments, mobile home parks, nursing homes, hotels, office buildings, golf courses, medical facilities, health clubs, stores, restaurants, and private schools.



**Table 1-3  
Commercial Sample Design**

Stratum	Stratum Lower Boundary (1,000 gallons / year)	Number of Customers	Recommended Sample Size	Customers Monitored
1	13,587	94	13	17
2	3,101	597	18	21
3	708	2,790	19	25
4	162	8,163	19	22
5	37	16,053	17	21
Total		27,697	86	106

Monitoring data results support the accuracy of the sample design and selection. The total commercial consumption estimated from the sample varied from the actual total billed consumption for the class by no more than seven percent. This performance exceeds the target used to determine the minimum sample size, which was set in order to produce a 95% likelihood of being within twenty percent of the actual population amount.

#### Industrial and Public Samples

Both the industrial and public customer classes are characterized by the concentration of consumption among a small number of very large customers. This concentration allows for the production of reasonably reliable estimates with relatively modest sample sizes. The industrial sample included 29 monitoring points representing 25 customer accounts. The consumption at these monitoring points constituted 42% to 44% of total industrial class consumption in the three study years. The public sample included 32 customers, which accounted for 50% to 57% of total public class consumption in the three study years.

#### Sales for Resale Sample

The study included all six sales for resale customers and a total of nine monitoring points, with one customer having four different meter locations.

### Data Collection and Processing Procedures

SCADA monitoring data for residential customers was processed by Company staff on a monthly basis. Hourly flows were estimated by averaging the flows reported for fifteen minute intervals. For systems which included a storage tank, the change in tank level was used to calculate flows into and out of the tank and used in determining net flows to customers for each hour. Because the tank level change and average hourly flow data do not line up precisely, sometimes the net flow calculated after the tank adjustment can appear to indicate a negative flow or an extreme high hour. Another adjustment was made for Thornburgh and Rosslyn, a residential system with two significant non-residential customers. The usage of the large customers was monitored with data logging devices and deducted from the flows for the SCADA monitoring point to yield a net flow for the remaining customers.

Radio read data logging devices were installed on the non-residential sample customers. The device attaches to a customer's meter head and records hourly usage for a fixed period of time, which is then periodically read by a mobile device. The majority of the data logging devices were the "Hot Rod" sold by Mueller/Hersey. The Mueller Hot Rod can store approximately five months of data. Most of the remaining devices were "e-coders" by Neptune, which store data for approximately three months. Several non-residential customers had been fitted with Sensus r900i meters, which have built-in data logging capability, but only keep approximately 31 days of data. Regardless of the device used, Company personnel were on a monthly schedule to download the monitoring data. The accuracy of the data was verified by comparing the logged data to consumption recorded by meter reading for billing purposes.

The hourly and daily monitoring data for each location and customer are summarized in spreadsheet format for each customer class, where each sampled customer's data is in a column, with each day (hour) on a different row. Part III of this report contains the spreadsheets with the daily monitoring data along with hourly data for the day on which the maximum hour occurs. For each day (hour), a consumption per sampled customer is calculated. This amount per average customer is the sum of each customer's consumption divided by the number of customers reporting that day. The *average* customer is calculated because technical difficulties with the data logging equipment or anomalous events at the customer locations can result in the absence of data on any given day for one or several customers. Having a missing data point would result in the simple sum of usage representing an underestimate of the total for that day. As a result, a potential maximum day might be missed.

For sales for resale customers, a total consumption is calculated, because all of the customers are monitored. Use of a total rather than average is advised in this case because the high variance in customer size means that occasional missing datapoints can significantly alter the calculated average and produce false peaks.

#### Identifying Peaks and Calculating Maximum Day and Hour Ratios

The maximum day (hour) is the highest day (hour) of consumption in the class or stratum as a whole for the year. It is the peak that occurs in the calculated average usage per customer in the stratum or class. The maximum day ratios were calculated for each customer and for the class by dividing the peak day consumption by the annual average consumption per day. Maximum hour ratios were calculated similarly, using hourly peaks and annual hourly averages. For the residential monitoring stations, the annual average usages were calculated from the SCADA monitoring station data. For the non-residential customers, the annual average usages were determined from the billing records over a twelve-month period.

## RESULTS OF STUDY

A description and results of the calculations of the maximum day and hour ratios for each customer classification are provided in Part II of the report. Part III contains the detailed tables of monitoring data for each customer and residential SCADA monitoring area. A summary of the resulting calculated ratios for the samples is shown in the Table I-4 below and Figure I-1 on the following page. The selected ratios for use in the Company's future cost of service allocation study are summarized in Table 1-5 below.

**Table I-4**  
**Ratio Results from Study Samples**

	Maximum Day Ratios			Maximum Hour Ratios		
	2013	2014	2015	2013	2014	2015
Residential	1.79	1.72	1.98	5.68	5.29	6.17
Commercial	2.12	1.96	1.63	4.61	4.02	3.95
Industrial	1.46	1.27	1.23	1.72	1.56	1.64
Public	1.32	1.33	1.36	1.82	1.88	2.41
Sales for Resale	1.36	1.19	1.38	3.42	5.06	2.68

**Table I-5**  
**Summary of Maximum Day and Hour Ratios**

Customer Classification	Maximum Day Ratio	Maximum Hour Ratio
Residential	2.0	5.0
Commercial	2.1	4.6
Industrial	1.5	1.7
Public	1.4	2.4
Sales for Resale	1.4	3.2

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- d. Explain thoroughly the methodology employed if the Company distinguishes between transmission and distribution mains in its allocation of costs.

## RESPONSE

For cost allocation purposes, mains that are 10-inch and larger are considered to be transmission mains and are allocated using Factor 3, which is based on average and maximum day extra capacity demands plus the daily requirement for fire demand. Mains sized under 10-inch are considered distribution mains and are allocated using Factor 4, which is based on average and maximum hour extra capacity demands plus the hourly requirement for fire demands.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- e. Provide a detailed explanation of how storage is utilized to meet base, maximum day and maximum hour demands.

#### RESPONSE

Storage facilities have been considered to be adequate if the effective volume of the facility, or groups of facilities acting together, provided sufficient volume during peak hour demands and to meet equalization needs on the maximum day and provide a fire protection reserve. The effective volume of storage is that quantity, which can be used from the tank while maintaining adequate system pressures under the domestic, and fire flow conditions for distribution mains. The equalization volume is that quantity of water needed to allow production plant or booster station output rates to be constant and equal to the daily demand on the maximum day of the year. The use of equalization storage enables a reasonably constant rate of treatment plant operation and thereby promotes overall system efficiency and economy. Existing storage capacity has also been analyzed on a case-by-case basis to determine its contribution to overall system reliability. Where appropriate recommendations are made if additional storage will significantly improve a system's reliability (e.g., its ability to maintain service to its customers during an emergency, such as a spill or power outage.)

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 RESPONSES TO RATE STRUCTURE  
 AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- f. Provide workpapers, calculations and supporting documentation which develop the equivalent meters and equivalent service weights reflected in the Company's cost of service study.

RESPONSE

The 5/8-inch dollar equivalent was developed using actual installation costs by meter size, provided by the Company for the years 2011-2022, as follows:

<u>Meter Size</u>	Actual Installation Cost <u>2011-2022</u>	5/8-Inch Dollar <u>Equivalent</u>
5/8"	\$ 190.27	1.0
3/4"	289.45	1.5
1"	372.56	2.0
1-1/2"	420.36	2.2
2"	567.97	3.0
3"	1,556.79	8.2
4"	3,864.30	20.3
6"	5,633.17	29.6
8"	6,282.93	33.0
10"	9,745.75	51.2

PENNSYLVANIA AMERICAN WATER COMPANY  
 RESPONSES TO RATE STRUCTURE  
 AND COST OF SERVICE FILING REQUIREMENTS

RS1f., cont.

The 3/4-inch dollar equivalent was developed using the actual installation costs by size, for the years 2011-2022, provided by the Company, as follows:

<u>Service Size</u>	Actual Installation Cost <u>2011-2022</u>	1-Inch <u>Equivalent</u>
3/4" & 1"	\$2,186.38	1.00
1-1/2"	3,135.14	1.43
2"	5,589.98	2.56
4"	4,343.38	1.99
6"	6,119.45	2.80
8"	25,508.47	11.67
10"	14,235.83	6.51
12"	27,619.60	12.63



## PENNSYLVANIA AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- g. Provide all workpapers and supporting documentation for the fire flow requirement and duration utilized in the cost of service study.

## RESPONSE

The source for the estimated fire protection demand of 20,000 gpm is published fire flow criteria for the population served. The 20,000 gpm estimate is the maximum fire flow requirement generally accepted by published authorities, regardless of population size. This maximum has been established by the National Board of Fire Underwriters (now the American Insurance Association).

General fire-fighting requirements, based on population established by the National Board of Fire Underwriters, are as follows:

- a) For populations of 200,00 or less,  $Q = 1020 \sqrt{P} (1 - 0.01\sqrt{P})$ , where Q is the fire draft in gpm and P is the population in thousands.
- b) For populations in excess of 200,00, Q = 12,000 gpm plus 2,000 to 8,000 gpm for a potential second fire.

Inasmuch as PAWC serves a population in excess of 1.5 million, the maximum fire flow of 12,000 gpm would apply. Also, in consideration of the population being well over 200,000, the maximum of the additional allowance to provide for a second fire was selected for a maximum fire flow of 20,000 gpm.

The foregoing requirements were published in Volume I, "Water and Wastewater Engineering," by Fair, Geyer & Okon, published in 1966 by John Wiley & Sons, Inc.

The required fire flow duration is ten hours.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- h. Provide a breakdown of the number and size of private fire services according to the general water service class of customer.

RESPONSE

Please refer to Filing Requirement Section II, Question OR-10a.

PENNSYLVANIA AMERICAN WATER COMPANY  
 RESPONSES TO RATE STRUCTURE  
 AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- i. Provide a calculation of the Company's base cost of water per unit of consumption.

RESPONSE

The calculation of the base cost of water per hundred gallons is as follows:

Base Cost of Water (See attached Functional Allocation)	\$435,187,477
Pro Forma Water Consumption (Hundred Gallons)	426,947,484
Base Cost per Hundred Gallons	\$1.0193

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- j. Provide a detailed cost analysis that supports the Company's customer charges, by meter size, showing all direct and indirect costs included.

RESPONSE

Please refer to the attached schedules for the year ended June 30, 2025.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

CALCULATION OF THE 5/8-INCH CUSTOMER COSTS PER MONTH  
INCLUDING THE UNRECOVERED PUBLIC FIRE COSTS

<u>Cost Function</u>	<u>Cost of Service</u>	<u>Number of Units</u>	<u>Unit Cost Per Month</u>
Meters	47,201,009	1,028,826 5/8 Equivalents	\$ 3.82
Services	85,268,741	766,889 3/4 Equivalents	9.27
Billing/Collecting	65,383,374	9,040,521 Bills	7.23
Meter Reading	<u>12,928,261</u>	9,040,521 Bills	<u>1.43</u>
Subtotal	210,781,385		21.75
Unrecovered Public Fire	<u>35,542,414</u>	1,028,826 5/8 Equivalents	2.88
Total	<u><u>246,323,799</u></u>		<u><u>\$ 24.63</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

CALCULATION OF THE 5/8-INCH CUSTOMER COSTS PER MONTH  
INCLUDING THE UNRECOVERED PUBLIC FIRE COSTS

<u>Cost Function</u>	<u>Cost of Service*</u>	<u>Number of Units</u>	<u>Unit Cost Per Month</u>
Meters	41,480,864	1,028,826 5/8 Equivalents	\$ 3.36
Services	79,498,685	766,889 3/4 Equivalents	8.64
Billing/Collecting	34,210,530	9,040,521 Bills	3.78
Meter Reading	<u>5,876,272</u>	9,040,521 Bills	<u>0.65</u>
Subtotal	161,066,352		16.43
Unrecovered Public Fire	<u>35,542,414</u>	1,028,826 5/8 Equivalents	2.88
Total	<u><u>196,608,766</u></u>		<u><u>\$ 19.31</u></u>

\* Includes only direct customer costs as shown on the attached schedules.

PENNSYLVANIA AMERICAN WATER COMPANY - WATER OPERATIONS

ANALYSIS OF DIRECT CUSTOMER COSTS

Description	Meters	Services	Billing & Collecting	Meter Reading
<b>Operation and Maintenance Expenses</b>				
T&D Supervision - Operation	\$ 448,511	\$ 211,449	\$ -	\$ -
Miscellaneous Meter Expense	543,187	-	-	-
Services on Customer Premises	-	256,084	-	-
T&D Supervision - Maintenance	4,904	38,226	-	-
Services Maintenance	-	1,003,768	-	-
Meter Maintenance	128,781	-	-	-
Customer Accounting Expenses	1,932,951	-	16,526,188	3,456,350
Management Fees - Customer	-	-	15,072,622	-
Employee Pension and Benefits	762,651	932,593	885,251	748,288
Transportation Expense	241,341	362,704	978,396	204,625
Worker's Compensation	56,335	68,888	65,391	55,274
Advertising Expense	-	-	-	-
Office Rents	(40,052)	(72,355)	(59,578)	(10,970)
Other Rev. Billing and Collecting	(14,518)	(26,226)	(21,595)	(3,976)
Other Rev. Customer Related	-	-	(4,827,554)	-
<b>Subtotal</b>	<b>4,064,091</b>	<b>2,775,131</b>	<b>28,619,121</b>	<b>4,449,591</b>
<b>Depreciation Expense</b>				
Meters	18,065,782	-	-	-
Services	-	16,391,110	-	-
Office Buildings	98,718	148,361	400,205	83,700
Office Furniture & Equipment	29,856	44,870	121,037	25,314
Transportation Equipment	202,592	304,470	821,308	171,772
<b>Subtotal</b>	<b>18,396,948</b>	<b>16,888,811</b>	<b>1,342,550</b>	<b>280,786</b>
<b>Taxes Other Than Income</b>				
Payroll Taxes	363,558	444,570	422,001	356,711
Assessments	300,504	542,861	446,996	82,307
<b>Subtotal</b>	<b>664,062</b>	<b>987,431</b>	<b>868,997</b>	<b>439,018</b>
<b>Rate Base</b>				
Meters	176,111,565	-	-	-
Services	-	578,872,337	-	-
Office Land/Buildings	1,999,688	3,005,274	8,106,735	1,695,474
Office Furniture and Equipment	3,969,316	5,965,373	16,091,611	3,365,460
Transportation Equipment	2,410,496	3,622,666	9,772,153	2,043,785
<b>Subtotal</b>	<b>184,491,065</b>	<b>591,465,650</b>	<b>33,970,499</b>	<b>7,104,719</b>
<b>Return and Income Taxes</b>	<b>18,355,763</b>	<b>58,847,312</b>	<b>3,379,862</b>	<b>706,877</b>
<b>Total Direct Customer Costs</b>	<b>\$ 41,480,864</b>	<b>\$ 79,498,685</b>	<b>\$ 34,210,530</b>	<b>\$ 5,876,272</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS2. Provide a listing of negotiated special rate contracts which includes a comparison of revenues under special rate contracts and under tariff rates. Provide the cost of service treatment of any deficiency in revenues resulting from the negotiated special rate contracts.

RESPONSE

See attached redacted schedules, as well as Confidential Volume 6d for the following customers.

Industrial

Demand Base Industrial Service 1  
Demand Base Industrial Service 2  
Demand Base Industrial Service 3

Other Water Utilities

Demand Base Resale Service 1  
Demand Base Resale Service 2  
Demand Base Resale Service 3  
Demand Base Resale Service 4  
Demand Base Resale Service 5  
Demand Base Resale Service 6  
Demand Base Resale Service 7  
Demand Base Resale Service 8



PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS

APPLICATION OF CONTRACT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS

Rate Block 100 Gallons (1)	Number Of Bills (2)	Total Consumption (3)	2025 Present Rate (4)	2025 Present Revenue (5)	2025 Proposed Rate (6)	2025 Proposed Revenue (7)
<b>DEMAND BASE INDUSTRIAL SERVICE 1</b>						
<b>TARIFF RATES</b>						
Customer Charge						
2	48					
8	48					
First Block (First 160)						
Second Block (Next 5,840)						
Third Block (Over 6,000)						
Total		96				
<b>CONTRACT RATES</b>						
Monthly Demand Charge	12					
All Usage						
Total Contract Rates						
Tariff Less Contract Revenues						
<b>DEMAND BASE INDUSTRIAL SERVICE 2</b>						
<b>TARIFF RATES</b>						
Customer Charge						
1	12					
2	144					
4	12					
6	24					
8	12					
10	24					
First Block (First 160)						
Second Block (Next 5,840)						
Third Block (Over 6,000)						
Total		228				
<b>CONTRACT RATES</b>						
Monthly Demand Charge	-					
All Usage						
Total						
Tariff Less Contract Revenues						
<b>DEMAND BASE INDUSTRIAL SERVICE 3</b>						
<b>TARIFF RATES</b>						
Customer Charge						
5/8	24					
1 1/2	24					
2	48					
6	60					
8	12					
First Block (First 160)						
Second Block (Next 5,840)						
Third Block (Over 6,000)						
Total		168				
<b>CONTRACT RATES</b>						
Monthly Demand Charge	-					
All Usage						
Total						
Tariff Less Contract Revenues						

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS

APPLICATION OF CONTRACT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS

Rate Block 100 Gallons (1)	Number Of Bills (2)	Total Consumption (3)	2025 Present Rate (4)	2025 Present Revenue (5)	2025 Proposed Rate (6)	2025 Proposed Revenue (7)
<b><u>DEMAND BASE RESALE SERVICE 1</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
6	12					
All Usage						
Total	12					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge 1	12					
Commodity Charge						
Total	12					
Tariff Less Contract Revenues						
<b><u>DEMAND BASE RESALE SERVICE 2</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
6	12					
8	24					
All Usage						
Total	36					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	-					
Commodity Charge						
Total						
Tariff Less Contract Revenues						
<b><u>DEMAND BASE RESALE SERVICE 3</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
4	12					
All Usage						
Total	12					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	-					
Commodity Charge						
Total						
Tariff Less Contract Revenues						
<b><u>DEMAND BASE RESALE SERVICE 4</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
4	12					
First Block						
Total	12					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	-					
Commodity Charge						
Total						
Tariff Less Contract Revenues						

PENNSYLVANIA-AMERICAN WATER COMPANY - WATER OPERATIONS

APPLICATION OF CONTRACT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS

Rate Block 100 Gallons (1)	Number Of Bills (2)	Total Consumption (3)	2025 Present Rate (4)	2025 Present Revenue (5)	2025 Proposed Rate (6)	2025 Proposed Revenue (7)
<b><u>DEMAND BASE RESALE SERVICE 5</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
4	12					
First Block						
Total	12					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	12					
Commodity Charge						
Total	12					
Tariff Less Contract Revenues						
<b><u>DEMAND BASE RESALE SERVICE 6</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
6	12					
First Block						
Total	12					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	-					
Commodity Charge						
Total						
Tariff Less Contract Revenues						
<b><u>DEMAND BASE RESALE SERVICE 7</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
First Block						
Total	-					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	12					
Commodity Charge						
Total	\$ 12					
Tariff Less Contract Revenues						
<b><u>DEMAND BASE RESALE SERVICE 8</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge						
First Block						
Total	-					
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge	12					
Commodity Charge						
Total	\$ 12					
Tariff Less Contract Revenues						
Total Industrial Contract - Zone 1						
Total OWU Contract - Zone 1						

\*PAWC does not have meter size or number of meters available for DRS-7 or DRS-8.

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**EXHIBITS NO. 12-B, 12-C, 12-D, 12-E  
WASTEWATER SSS GENERAL OPERATIONS, BASA WASTEWATER OPERATIONS,  
BRENTWOOD WASTEWATER OPERATIONS,  
WASTEWATER CSS OPERATIONS  
COST OF SERVICE AS OF JUNE 30, 2025**

**EXHIBIT NO. 12-B -**

**WASTEWATER SSS GENERAL OPERATIONS**

**COST OF SERVICE**

**AS OF JUNE 30, 2025**

PENNSYLVANIA AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SANITARY SEWER SYSTEM OPERATIONS

WASTEWATER COST OF SERVICE

ALLOCATION STUDY

AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

October 31, 2023

Pennsylvania American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055

Attention Ashley E. Everette  
Senior Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have conducted a cost of service allocation study based on pro forma revenue requirements estimated for the test year ended June 30, 2025.

The attached report presents the results of the allocation study, as well as supporting schedules which set forth the detailed cost allocation calculations. Schedule A presents a comparison of the cost of service by customer classification with the pro forma revenues produced by each classification under present and proposed rates.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink, appearing to read "C. Heppenstall".

CONSTANCE E. HEPPENSTALL  
Senior Project Manager, Rate Studies

A handwritten signature in blue ink, appearing to read "G. R. Herbert".

GREGORY R. HERBERT  
Analyst, Rate Studies

CEH:mle  
075543.200

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PART I. INTRODUCTION

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER SANITARY SEWER SYSTEM  
GENERAL OPERATIONS

COST OF SERVICE ALLOCATION STUDY AS OF  
JUNE 30, 2025

PART I. INTRODUCTION

PLAN OF REPORT

The report sets forth the results of the cost of service allocation study for the Wastewater Sanitary Sewer System General Operations (WW SSS Operations) based on pro forma costs as of June 30, 2025, for Pennsylvania-American Water Company. Part I, Introduction, contains statements with respect to the basis of the study, the procedures employed, and a summary of the results of the study. Schedule A summarizes the cost allocation for the WW SSS Operations and total revenues under present and proposed rates. Part II, Cost of Service by Customer Classification, presents detailed schedules of the allocation of costs to customer classifications, as well as the basis for the allocations.

BASIS OF STUDY

The method used for the allocation of wastewater cost of service incorporates the functional cost allocation methodology described in the text "Financing and Charges for Wastewater Systems," Manual of Practice No. 27, published by the Water Environment Federation. This method is recognized for allocating the cost of providing wastewater service to customer classifications in proportion to the classifications' use of the commodity, facilities, and services. It is generally accepted as a sound method for allocating the cost of wastewater service. Under the functional cost method, costs are assigned to cost components using

predominant operational purposes as cost-causative factors.

Each element of the cost of service is allocated to customer classifications according to the functional categories. The cost functions are flow, infiltration and inflow (I&I), customer facilities and customer accounting. The functional costs are allocated to customer classifications based on the amount of flow contributed to the system, the amount of I&I allocated to each class, and the number and relative size of customers.

The results for the allocation of WW SSS Operations cost of service are summarized on Schedule A, column 2. The cost allocation results can be compared with revenues under present and proposed rates in columns 4 and 6 of Schedule A. The proposed increase and percentage increase in revenues are shown in columns 8 and 9.

The cost of service by customer classification is developed in Schedule D. The allocation factors referenced in column 2 are applied to the costs by account in column 3. The allocation factors are set forth in Schedule E.

PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Customer Classification (1)	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount (2)	Percent (3)	Amount (4)	Percent (5)	Amount (6)	Percent (7)	Amount (8)	Percent Increase (9)
Residential	\$ 48,365,379	52.5%	\$ 62,061,414	67.3%	\$ 60,277,357	65.5%	\$ (1,784,057)	-2.9%
Non-Residential	18,171,446	19.7%	19,828,485	21.5%	20,704,933	22.5%	876,448	4.4%
Large Industrial	908,443	1.0%	903,713	1.0%	1,299,305	1.4%	395,592	43.8%
Bulk Users/VA Hospital	2,171,473	2.4%	2,019,421	2.2%	2,076,363	2.3%	56,942	2.8%
Bulk Users - Contract	22,443,808	24.4%	7,425,108	8.0%	7,702,598	8.4%	277,490	3.7%
Total Sales	92,060,549	100.0%	92,238,141	100.0%	92,060,556	100.0%	(177,585)	-0.2%
Other Revenues	1,406,017		1,397,685		1,406,017		8,332	0.6%
IPP Surcharge	1,835,040		1,835,040		1,835,040		0	
COS Recovered from Water Rates	31,962,411		-		31,962,411		31,962,411	
Total	\$ 127,264,017		\$ 95,470,866		\$ 127,264,024		\$ 31,793,158	33.3%

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PRESENT RATES

ITEM (1)	COST OF SERVICE (2)		RESIDENTIAL (3)		NON-RESIDENTIAL (4)		LARGE INDUSTRIAL (5)		BULK USERS/ VA HOSP (6)	
1. REVENUES FROM SALES	92,238,141		62,061,414	19,828,485	903,713	2,019,421				
2. OTHER REVENUES	3,232,725		1,867,151	738,505	41,434	52,456				
3. TOTAL OPERATING REVENUES	95,470,866		63,928,565	20,566,990	945,147	2,071,877				
4. LESS: OPERATING EXPENSES (RECOVERED FROM WATER)	56,633,668		31,616,044	11,766,945	611,418	1,123,232				
5. RETURN AND INCOME TAXES	38,837,198		32,312,520	8,800,045	333,729	948,645				
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	13,962,886		7,015,533	2,689,122	132,254	2,157,540				
7. TAXABLE INCOME	24,874,312		25,296,987	6,110,922	201,475	(1,208,896)				
8. LESS: INCOME TAXES (TAX. INC.)	9,971,223		10,140,659	2,449,650	80,764	(484,603)				
9. NET RETURN (Line 5 - Line 8)	28,865,975		22,171,862	6,350,394	252,965	1,433,248				
10. ORIGINAL COSTS MEASURE OF VALUE	755,893,693		379,792,346	145,578,120	7,159,719	116,800,437				
11. RATE OF RETURN, PERCENT	3.82		5.84	4.36	3.53	1.23				
12. RELATIVE RATE OF RETURN	1.00		1.53	1.14	0.93	0.32				

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PROPOSED RATES

ITEM (1)	COST OF SERVICE (2)	RESIDENTIAL (3)	NON-RESIDENTIAL (4)	LARGE INDUSTRIAL (5)	BULK USERS/ VA HOSP (6)
1. REVENUES FROM SALES	92,060,556	60,277,357	20,704,933	1,299,305	2,076,363
2. OTHER REVENUES	3,241,057	1,873,585	740,515	41,320	52,456
3. TOTAL OPERATING REVENUES	95,301,613	62,150,942	21,445,448	1,340,625	2,128,819
4. LESS: OPERATING EXPENSES (RECOVERED FROM WATER)	25,246,699	9,244,354	3,210,740	177,913	1,120,758
5. RETURN AND INCOME TAXES	70,054,913	52,906,588	18,234,708	1,162,713	1,008,061
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	13,960,609	7,018,850	2,688,268	132,152	2,155,109
7. TAXABLE INCOME	56,094,304	45,887,738	15,546,440	1,030,561	(1,147,048)
8. LESS: INCOME TAXES (TAX. INC.)	18,498,056	15,132,266	5,126,704	339,845	(378,259)
9. NET RETURN (Line 5 - Line 8)	51,556,857	37,774,322	13,108,004	822,868	1,386,320
10. ORIGINAL COSTS MEASURE OF VALUE	755,774,950	379,974,179	145,532,755	7,154,195	116,669,492
11. RATE OF RETURN, PERCENT	6.82	9.94	9.01	11.50	1.19
12. RELATIVE RATE OF RETURN	1.00	1.46	1.32	1.69	0.17

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Large Industrial (6)	Bulk/V/A Hospital (7)	Bulk - Contract (8)
<b>OPERATION AND MAINTENANCE EXPENSES</b>							
<b>SEWAGE TREATMENT</b>							
601.3 Salary and Wages	1	\$ 3,023,499	\$ 1,426,561	\$ 595,330	\$ 36,688	\$ 86,429	\$ 878,491
601.4 Salary and Wages	1	226,565	106,899	44,611	2,749	6,477	65,829
604.3 Employee Benefits	1	225	106	44	3	6	65
615.3 Purchased Power	1	3,234,166	1,525,959	636,810	39,244	92,452	939,702
618.3 Chemicals	1	1,810,725	854,345	356,534	21,972	51,761	526,114
620.3 Materials and Supplies - Operation	1	911,627	430,128	179,500	11,062	26,060	264,877
631.3 Contractual Services - Engineering	1	11,497	5,425	2,264	140	329	3,341
635.3 Contract Services Test	1	336,086	158,574	66,176	4,078	9,607	97,651
636.3 Contract Services - Operation	1	1,054,403	497,493	207,613	12,794	30,141	306,362
641.3-642.3 Rental of Buildings and Equipment	1	(8,355)	(3,942)	(1,645)	(101)	(239)	(2,428)
650.3 Transportation	1	21,621	10,201	4,257	262	618	6,282
620.4 Materials and Supplies - Maintenance	1	58,189	27,455	11,457	706	1,663	16,907
631.4-636.4 Contract Services - Maintenance	1	55,494	26,183	10,927	673	1,586	16,124
650.4 Transportation	1	-	-	-	-	-	-
675.4 Misc. Operating Expense - Waste Disposal	1	2,572,562	1,213,798	506,540	31,216	73,539	747,469
675.3-4 Misc. Operating Expense	1	2,018,277	952,272	397,401	24,490	57,694	586,419
<b>TOTAL SEWAGE TREATMENT EXPENSE</b>		<b>\$ 15,326,581</b>	<b>\$ 7,231,456</b>	<b>\$ 3,017,818</b>	<b>\$ 185,975</b>	<b>\$ 438,124</b>	<b>\$ 4,453,207</b>



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Large Industrial (6)	Bulk/V/A Hospital (7)	Bulk - Contract (8)
<b>COLLECTION</b>							
601.1 Salary and Wages	2	\$ -	-	\$ -	-	\$ -	-
601.5 Salary and Wages	2	336,184	240,956	87,653	3,521	4,054	-
601.6 Salary and Wages	2	249,834	179,065	65,139	2,617	3,012	-
615.5 Purchased Power	2	92,962	66,629	24,238	974	1,121	-
615.1 Purchased Power	2	-	-	-	-	-	-
620.5 Materials and Supplies	2	15,075	10,805	3,931	158	182	-
636.5 Contract Services	2	47,222	33,846	12,312	495	569	-
641.5-642.5 Rental of Buildings and Equipment	2	40,700	29,171	10,612	426	491	-
675.1 Miscellaneous Operating Expense	2	-	-	-	-	-	-
675.5 Miscellaneous Operating Expense	3	-	-	-	-	-	-
<b>TOTAL COLLECTION EXPENSE OPERATION</b>		<b>781,977</b>	<b>560,472</b>	<b>203,885</b>	<b>8,191</b>	<b>9,429</b>	<b>-</b>
<b>620.6 Materials and Supplies</b>							
636.6 Contract Services	2	125,874	90,219	32,819	1,319	1,518	-
650.6 Transportation	2	131,144	93,995	34,193	1,374	1,581	-
675.6 Miscellaneous Maintenance Expense	2	-	-	-	-	-	-
675.5&6 Miscellaneous Operating Expense	2	125,429	89,900	32,703	1,314	1,512	-
<b>TOTAL T &amp; D EXPENSE - MAINTENANCE</b>		<b>382,447</b>	<b>274,114</b>	<b>99,716</b>	<b>4,006</b>	<b>4,611</b>	<b>-</b>
<b>TOTAL COLLECTION EXPENSE</b>							
		\$ 1,164,423	\$ 834,585	\$ 303,601	\$ 12,197	\$ 14,040	\$ -
<b>CUSTOMER ACCOUNTS</b>							
601.7 Salary and Wages	5	3,303	2,948	353	0	1	1
641.7 Rental of Building	5	18,000	16,065	1,925	1	6	3
670.7 Bad Debts	5	1,696,295	1,513,958	181,384	81	586	285
675.7 Miscellaneous Expense	5	84,053	75,018	8,988	4	29	14
<b>TOTAL CUSTOMER ACCOUNTING EXPENSE</b>		\$ 1,801,650	\$ 1,607,989	\$ 192,650	\$ 86	\$ 623	\$ 303

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Large Industrial (6)	Bulk/V/A Hospital (7)	Bulk - Contract (8)
<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>							
601.8 Salaries and Wages	10	\$ 1,076,942	\$ 611,966	\$ 202,515	\$ 10,671	\$ 23,805	\$ 227,985
603.8 Salaries of Officers	10	-	-	-	-	-	-
604.8 Employee Pension & Benefits	6	1,463,981	764,815	296,470	16,749	36,859	349,089
615.8 Purchased Power	10	107,349	61,000	20,187	1,064	2,373	22,725
620.8 Materials and Supplies	10	9,769	5,551	1,837	97	216	2,068
631.8 Contractual Services	10	14,445	8,208	2,716	143	319	3,058
632.8 Contractual Services - Legal	10	115,507	65,636	21,721	1,144	2,553	24,452
634.8 Contractual Services - Management							
Customer Related	5	487,535	435,129	52,132	23	169	82
Employee Related	6	318,593	166,440	64,518	3,645	8,021	75,969
Lab Testing	1	22,696	10,709	4,469	275	649	6,595
Other	10	1,130,604	642,460	212,606	11,202	24,991	239,345
636.8 Contractual Services	10	12,226	6,947	2,299	121	270	2,588
642.8 Rental of Equipment	10	-	-	-	-	-	-
650.8 Transportation	10	154,433	87,756	29,040	1,530	3,414	32,693
656.8 Insurance Vehicles	10	32,669	18,564	6,143	324	722	6,916
657.8 Insurance	10	1,453,593	825,997	273,342	14,403	32,131	307,721
658.8 Advertising	10	139,443	79,238	26,222	1,382	3,082	29,520
659.8 Workers Compensation	6	485,302	253,532	98,278	5,552	12,218	115,721
666.8 Amortization of Rate Case	9	76,393	43,895	16,516	830	1,337	13,814
675.8 Miscellaneous Expense	10	989,005	561,997	185,978	9,799	21,861	209,369
<b>TOTAL A &amp; G EXPENSE</b>		<b>\$ 8,090,486</b>	<b>\$ 4,649,841</b>	<b>\$ 1,516,989</b>	<b>\$ 78,954</b>	<b>\$ 174,991</b>	<b>\$ 1,669,710</b>
<b>Total Operation &amp; Maintenance Expenses</b>		<b>\$ 26,383,140</b>	<b>\$ 14,323,872</b>	<b>\$ 5,031,057</b>	<b>\$ 277,212</b>	<b>\$ 627,778</b>	<b>\$ 6,123,221</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Large Industrial (6)	Bulk/V/A Hospital (7)	Bulk - Contract (8)
<b>DEPRECIATION EXPENSE</b>							
354.20 Structures and Improvements - Collection	2	\$ 306,681	\$ 219,810	\$ 79,961	\$ 3,212	\$ 3,698	\$ -
354.30 Structures and Improvements -Pumping	2	435,157	311,893	113,459	4,558	5,247	-
354.40 Structures and Improvements - Treatment	3	6,728,371	3,241,514	1,352,743	83,364	54,592	1,996,159
354.40 Structures and Improvements - Treatment - Bulk	DA	124,544				124,544	-
354.70 Structures and Improvements - General	2	528,271	378,631	137,736	5,534	6,370	-
355.00 Power Generation Equipment	2	197,036	141,223	51,373	2,064	2,376	-
360.10 Force Mains	3	1,044,283	503,102	209,954	12,939	8,473	309,816
361.10 Gravity Mains	3A	4,305,155	3,112,763	1,132,344	45,492	14,556	-
361.20 Manholes	3A	26,858				26,858	-
361.20 Manholes - Bulk	DA	1,851,538	1,338,720	486,992	19,565	6,260	-
363.00 Service Laterals	DA	185				185	-
364.00 Flow Measuring Devices	4	1,867,929	1,420,493	425,466	1,888	13,388	6,694
365.00 Flow Measuring Devices - Installations	2	51,836	37,153	13,515	543	625	-
370.00 Receiving Wells	2	8,174	5,859	2,131	86	99	-
371.00 Pumping Equipment	2	16,143	11,570	4,209	169	195	-
380.00 Treatment Equipment	2	1,266,314	907,614	330,167	13,264	15,269	-
380.00 Treatment Equipment - Bulk	3	7,189,190	3,463,522	1,445,390	89,073	58,331	2,132,873
381.00 Plant Sewers	DA	59,827				59,827	-
382.00 Outfall Sewers	1	148,466	70,050	29,233	1,802	4,244	43,137
389.00 Other Plant and Misc. Equip. - Intangible	1	61,464	29,000	12,102	746	1,757	17,859
390.00 Office Furniture and Equipment	10	204,555	116,237	38,466	2,027	4,522	43,304
391.00 Transportation Equipment	10	80,935	45,991	15,219	802	1,789	17,134
392.00 Stores Equipment	10	277,526	157,703	52,188	2,750	6,135	58,751
393.00 Tools, Shop and Garage Equipment	10	4,301	2,444	809	43	95	911
394.00 Laboratory Equipment	10	71,873	40,841	13,515	712	1,589	15,215
395.00 Power Operated Equipment	1	58,132	27,428	11,446	705	1,662	16,891
396.00 Communication Equipment	10	107,639	61,165	20,241	1,067	2,379	22,787
397.00 Miscellaneous Equipment	10	280,271	159,262	52,704	2,777	6,195	59,332
398.00 Miscellaneous Equipment	10	178,874	101,644	33,637	1,772	3,954	37,867
	10	594	338	112	6	13	126
<b>Total Depreciation Expense</b>		<b>\$ 27,482,122</b>	<b>\$ 15,905,972</b>	<b>\$ 6,065,113</b>	<b>\$ 296,958</b>	<b>\$ 435,225</b>	<b>\$ 4,778,855</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Large Industrial (6)	Bulk/V/A Hospital (7)	Bulk - Contract (8)
<b>Amortization Expense</b>	8	\$ (75,633)	\$ (44,259)	\$ (16,951)	\$ (833)	\$ (1,191)	\$ (12,398)
<b>Taxes Other Than Income</b>							
685100 Utility Reg Assessment Fee	9	\$ 800,253	\$ 459,822	\$ 173,018	\$ 8,694	\$ 14,008	\$ 144,711
685200 Property Taxes	8	2,227,703	1,303,603	499,289	24,544	35,080	365,186
685320 Payroll Taxes	6	391,525	204,541	79,287	4,479	9,857	93,360
<b>Total Taxes, Other Than Income</b>		\$ 3,419,481	\$ 1,967,967	\$ 751,594	\$ 37,717	\$ 58,946	\$ 603,257
<b>Total Operating Expense</b>		\$ 57,209,110	\$ 32,153,551	\$ 11,830,813	\$ 611,054	\$ 1,120,758	\$ 11,492,934
4091 Income Taxes	8	\$ 18,498,056	\$ 10,824,661	\$ 4,145,920	\$ 203,808	\$ 291,293	\$ 3,032,374
<b>Utility Income Available for Return</b>	8	\$ 51,556,851	\$ 30,169,950	\$ 11,555,301	\$ 568,043	\$ 811,878	\$ 8,451,680
<b>Total Cost of Service</b>		\$ 127,264,017	\$ 73,148,161	\$ 27,532,034	\$ 1,382,905	\$ 2,223,930	\$ 22,976,987
<b>Less: Other Revenues</b>	9A	\$ 1,406,017	\$ 1,007,769	\$ 379,194	\$ 19,054	\$ -	\$ -
<b>Less: IPP Surcharge</b>	1	1,835,040	865,817	361,321	22,267	52,456	533,179
<b>Less: Cost of Service Recovered from Water Rates</b>	9A	31,962,411	22,909,197	8,620,073	433,142	-	-
<b>Total Cost of Service Related to Sales of Wastewater Services</b>		\$ 92,060,549	\$ 48,365,379	\$ 18,171,446	\$ 908,443	\$ 2,171,473	\$ 22,443,808

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

**FACTOR 1. ALLOCATION OF COSTS ASSOCIATED WITH WASTEWATER TREATMENT**

Factors are based on the pro forma test year average daily consumption for each customer classification with adjustments. The detail regarding calculation of adjusted flows can be found on the following page.

Classification (1)	Total Adjusted Average Daily Customer Flow 100 gallons (a) (2)	I&I Gallons Per Day 100 gallons (b) (3)	Total I&I		Allocation Factor (7)
			And Average Flow (4)=(2)+(3)	Factor (6)	
Residential	51,566	27,607	79,173	0.4718	0.6651
Non-Residential	23,467	9,573	33,040	0.1969	0.2775
Large Industrial	1,730	306	2,036	0.0121	0.0171
Bulk Users/VA Hospital	4,432	365 (c)	4,797	0.0286	0.0403
Bulk Users - Contract	45,048	3,708 (c)	48,756	0.2906	
<b>Total</b>	<b>126,243</b>	<b>41,559</b>	<b>167,802</b>	<b>1.0000</b>	

(a) Customer Flow.

(b) Allocation based on Factor 1A for Residential, Non-Residential and Large Industrial.

(c) Equal to 25% of total I&I portion.

**FACTOR 1A. ALLOCATION OF INFILTRATION AND INFLOW BY CUSTOMER CLASS.**

Factors are based on a 1/3-2/3 weighting of flow and number of customers, as follows:

Customer Classification (1)	Total Adjusted Average Daily Flow 100 gallons (2)	Average Daily Flow Factor (3)	Average Daily Flow Weight (4)=(3) x 0.3333	Number of Service Equivalents (5)	Number of Customers Factor (6)	Number of Customers Weight (7)=(6) x 0.6667	Allocation Factor (8)=(4)+(7)
Non-Residential	23,467	0.3057	0.1019	11,123	0.2302	0.1535	0.2554
Large Industrial	1,730	0.0225	0.0075	49	0.0010	0.0007	0.0082
<b>Total</b>	<b>76,763</b>	<b>1.0000</b>	<b>0.3333</b>	<b>48,309</b>	<b>0.9999</b>	<b>0.6666</b>	<b>0.9999</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH THE COLLECTION SYSTEM

Factors are based on peak daily flow for each customer classification.

Customer Classification (1)	Ave. Flow Consumption, 100 gpd (2)	Peak I&I Flow 100 gallons (a) (3)	Total Peak I&I And Average (4)=(2)+(3)	Allocation Factor (5)
Residential	51,566	276,938	328,504	0.7167
Non-Residential	23,467	96,035	119,502	0.2607
Large Industrial	1,730	3,071	4,801	0.0105
Bulk Users/VA Hospital	4,432	1,094 (b)	5,526	0.0121
Bulk Users - Contract	0	0	-	0.0000
<b>Total</b>	<b>81,195</b>	<b>377,138</b>	<b>458,333</b>	<b>1.0000</b>

(a) Allocation based on Factor 1A.

(b) Equal to 25% of total I&I percentage.

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 3. ALLOCATION OF CAPITAL COSTS ASSOCIATED WITH PROJECTED AVERAGE DAILY FLOW INCLUDING INFILTRATION AND INFLOW EXCLUDING COATESVILLE BULK USERS

Factors are based on the projected average daily consumption for each customer classification.

Classification (1)	Total Average Daily Flow 100 gallons (2)	Direct I&I Gallons Per Day 100 gallons (a) (3)	Total Direct I&I And Average (4)=(2)+(3)	Allocation Factor (7)
	Residential	51,566	27,607	79,173
Non-Residential	23,467	9,573	33,040	0.2011
Large Industrial	1,730	306	2,036	0.0124
Bulk Users Excl. Coatesville	1,232	101	1,333	0.0081
Bulk Users - Contract	45,048	3,708	48,756	0.2967
Total	123,043	41,296	164,339	1.0000

(a) Allocation based on Factor 1A.

(b) Allocated based on Column 4

FACTOR 3A. ALLOCATION OF CAPITAL COSTS ASSOCIATED WITH PROJECTED MAXIMUM DAILY FLOW INCLUDING INFILTRATION AND INFLOW EXCLUDING COATESVILLE BULK USERS

Factors are based on the projected average daily consumption for each customer classification.

Classification (1)	Ave. Flow Consumption, 100 gpd (2)	Direct I&I Peak I&I Flow 100 gallons (a) (3)	Total Peak I&I And Average (4)=(2)+(3)	Allocation Factor (7)
	Residential	51,566	276,938	328,504
Non-Residential	23,467	96,035	119,502	0.2630
Large Industrial	1,730	3,071	4,801	0.0106
Bulk Users Excl. Coatesville	1,232	304	1,536	0.0034
Bulk Users - Contract	-	-	-	-
Total	77,995	376,348	454,343	1.0000

(a) Allocation based on Factor 1A.

(b) Allocated based on Column 4

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS

FACTOR 1. ALLOCATION OF COSTS ASSOCIATED WITH AVERAGE DAILY FLOW INCLUDING INFILTRATION AND INFLOW (CONT.)

Classification (1)	Annual Flow 100 gallons (2)	Average Daily Flow 100 gallons (3)=(2)/365	Average Daily Unmetered Flow 100 gallons (4)	Total Average Daily Flow 100 gallons (3)+(4)=(5)	Water Sales Adjustment Per I&I Study (6)	Average Daily Adjusted Water sales 100 gallons (7)
Residential	19,261,924	52,772	5,826	58,598	0.8800	51,566
Non-Residential	8,923,428	24,448	2,220	26,668	0.8800	23,467
Large Industrial Bulk Users	631,588	1,730		1,730	1.0000	1,730
Bulk Users/VA Hospital	1,167,943	3,200		3,200	1.0000	3,200
Bulk User - Other	510,916	1,400		1,400	0.8800	1,232
Bulk User - Contract	18,684,743	51,191		51,191	0.8800	45,048
Total Bulk Users	20,363,601	55,791		55,791		49,480
Total	49,180,541	134,741	8,046	142,787		126,243



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER FACILITIES.

Factors are based on the estimated relative cost of customer facilities, as follows:

Customer Classification (1)	Number of Customers (2)	Service Equiv. Ratio (a) (3)	Service Equivalents (2)X(3)=(4)	Allocation Factor (5)
Residential	37,137	1.0	37,137	0.7605
Non-Residential	4,449	2.5	11,123	0.2278
Large Industrial	2	25.0	49	0.0010
Bulk Customers/VA	14	25.0	350	0.0072
Bulk Users - Contract	7	25.0	175	0.0036
Total	<u>41,609</u>		<u>48,834</u>	<u>1.0000</u>

(a) Based on ratio by class for Coatesville service area.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH BILLING AND COLLECTING.

Factors are based on the number of customers.

Customer Classification (1)	Number of Customers (2)	Allocation Factor (3)
Residential	37,137	0.89251
Non-Residential	4,449	0.10693
Large Industrial	2	0.00005
Bulk Customers/VA	14	0.00035
Bulk Users - Contract	7	0.00017
Total	<u>41,609</u>	<u>1.00000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 6. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	\$ 2,568,395	0.5224
Non-Residential	995,601	0.2025
Large Industrial	56,246	0.0114
Bulk Users/VA Hospital	123,778	0.0252
Bulk Users - Contract	<u>1,172,306</u>	<u>0.2385</u>
Total	<u>\$ 4,916,327</u>	<u>1.0000</u>

FACTOR 7. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	\$ 411,965,527	0.5853
Non-Residential	157,827,596	0.2242
Large Industrial	7,755,838	0.0110
Bulk Users/VA Hospital	11,063,728	0.0157
Bulk Users - Contract	<u>115,211,790</u>	<u>0.1637</u>
Total	<u>\$ 703,824,480</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 8. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	\$ 379,974,179	0.5852
Non-Residential	145,532,755	0.2241
Large Industrial	7,154,195	0.0110
Bulk Users/VA Hospital	10,225,164	0.0157
Bulk Users - Contract	<u>106,444,329</u>	<u>0.1639</u>
Total	<u>\$ 649,330,621</u>	<u>1.0000</u>

FACTOR 9. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$ 71,385,100	0.5746
Non-Residential	26,860,162	0.2162
Large Industrial	1,349,670	0.0109
Bulk Users/VA Hospital	2,174,695	0.0175
Bulk Users - Contract	<u>22,465,674</u>	<u>0.1808</u>
Total	<u>\$ 124,235,301</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)		Non-Residential (5)		Large Industrial (6)		Bulk/V/A Hospital (7)		Bulk - Contract (8)
			\$		\$		\$		\$		
<b>RATE BASE</b>											
352.00 Franchises	7	\$ 221,140	\$ 129,438	\$ 49,589	\$ 2,437	\$ 3,476	\$ 36,199				
353.20 Land and Land Rights - Collection	2	3,611,014	2,588,148	941,502	37,825	43,540	-				
353.30 Land and Land Rights - Pumping	2	953,051	683,087	248,490	9,983	11,491	-				
353.40 Land and Land Rights - Treatment	3	10,757,369	5,182,557	2,162,775	133,282	87,282	3,191,473				
354.40 Land and Land Rights - Treatment - Bulk User	DA	180,167				180,167	-				
354.20 Structures and Improvements - Collection	2	9,257,960	6,635,523	2,413,834	96,976	111,627	-				
354.30 Structures and Improvements - Pumping	2	12,975,165	9,299,782	3,383,024	135,913	156,447	-				
354.40 Structures and Improvements - Treatment	3	178,593,404	86,040,592	35,906,299	2,212,748	1,449,058	52,984,707				
354.40 Structures and Improvements - Treatment - Bulk	DA	3,310,181				3,310,181	-				
354.70 Structures and Improvements - General	2	8,844,490	6,339,174	2,306,030	92,644	106,642	-				
355.00 Power Generation Equipment	2	3,795,967	2,720,710	989,725	39,762	45,770	-				
360.10 Force Mains	3	44,055,119	21,224,348	8,857,305	545,837	357,451	13,070,178				
361.10 Gravity Mains	3A	185,176,934	133,888,770	48,705,323	1,956,731	626,109	-				
361.10 Gravity Mains - Bulk	DA	1,158,572				1,158,572	-				
361.20 Manholes	3A	29,690,250	21,466,988	7,809,143	313,731	100,387	-				
361.20 Manholes - Bulk	DA	3,735				3,735	-				
363.00 Service Laterals	4	30,363,053	23,090,019	6,915,918	30,694	217,615	108,807				
364.00 Flow Measuring Devices	2	240,267	172,208	62,645	2,517	2,897	-				
365.00 Flow Measuring Devices - Installations	2	29,703	21,289	7,744	311	358	-				
370.00 Receiving Wells	2	596,803	427,751	155,605	6,251	7,196	-				
371.00 Pumping Equipment	2	19,996,897	14,332,517	5,213,805	209,464	241,111	-				
380.00 Treatment Equipment	3	136,477,542	65,750,516	27,438,883	1,690,938	1,107,341	40,489,863				
380.00 Treatment Equipment - Bulk	DA	1,191,483				1,191,483	-				
381.00 Plant Sewers	1	4,665,176	2,201,144	918,577	56,608	133,358	1,355,488				
382.00 Outfall Sewer Lines	1	2,423,145	1,143,299	477,119	29,403	69,268	704,056				
389.00 Other Plant and Misc. Equip. - Intangible	10	3,271,432	1,858,974	615,179	32,414	72,313	692,551				
390.00 Office Furniture and Equipment	10	1,049,106	596,149	197,280	10,395	23,190	222,092				
391.00 Transportation Equipment	10	2,735,161	1,554,241	514,336	27,101	60,459	579,025				

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025 ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Large Industrial (6)	Bulk/V/A Hospital (7)	Bulk - Contract (8)
392.00 Stores Equipment	10	63,283	35,960	11,900	627	1,399	13,397
393.00 Tools, Shop and Garage Equipment	10	1,059,761	602,203	199,284	10,500	23,425	224,348
394.00 Laboratory Equipment	1	390,333	184,169	76,857	4,736	11,158	113,413
395.00 Power Operated Equipment	10	1,504,869	855,134	282,984	14,911	33,264	318,576
396.00 Communication Equipment	10	3,136,445	1,782,268	589,796	31,077	69,329	663,975
397.00 Miscellaneous Equipment	10	2,266,643	1,288,008	426,233	22,459	50,103	479,841
398.00 Other Tangible Plant	7	11,280	6,602	2,529	124	177	1,846
<b>TOTAL SEWER UTILITY PLANT IN SERVICE</b>		<b>\$ 704,056,899</b>	<b>\$ 412,101,568</b>	<b>\$ 157,879,715</b>	<b>\$ 7,758,399</b>	<b>\$ 11,067,382</b>	<b>\$ 115,249,835</b>
<b>Other Rate Base Items:</b>							
Cash Working Capital - Expenses	11	\$ 2,230,011	\$ 1,210,507	\$ 425,080	\$ 23,429	\$ 53,103	\$ 517,892
Cash Working Capital - - Int and Div	7	(1,186,070)	(694,236)	(265,968)	(13,070)	(18,644)	(194,152)
Materials and Supplies	7	439,941	257,508	98,654	4,848	6,916	72,016
Tax Cut and Jobs Act - Stub Period	7	(84,324)	(49,357)	(18,909)	(929)	(1,326)	(13,803)
Acquisition Adjustment	7	3,749,235	2,194,518	840,739	41,315	58,936	613,727
Deferred, Accrued and Prepaid Taxes	7	(59,875,071)	(35,046,330)	(13,426,556)	(659,797)	(941,203)	(9,801,185)
<b>Total Other Rate Base Elements</b>		<b>\$ (54,726,278)</b>	<b>\$ (32,127,389)</b>	<b>\$ (12,346,959)</b>	<b>\$ (604,205)</b>	<b>\$ (842,218)</b>	<b>\$ (8,805,507)</b>
<b>Total Original Cost Measure of Value</b>		<b>\$ 649,330,621</b>	<b>\$ 379,974,179</b>	<b>\$ 145,532,755</b>	<b>\$ 7,154,195</b>	<b>\$ 10,225,164</b>	<b>\$ 106,444,329</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 9A. ALLOCATION OF REVENUE FROM WATER RATES

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$ 71,385,100	0.7168
Non-Residential	26,860,162	0.2697
Large Industrial	1,349,670	0.0136
Bulk Users/VA Hospital	-	0.0000
Bulk Users - Contract	-	0.0000
 Total	 \$ 99,594,932	 1.000

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 10. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 6,013,300	0.5682
Non-Residential	1,989,947	0.1880
Large Industrial	104,853	0.0099
Bulk Users/VA Hospital	233,914	0.0221
Bulk Users - Contract	<u>2,240,225</u>	<u>0.2117</u>
 Total	 <u>\$ 10,582,239</u>	 <u>1.0000</u>

FACTOR 11. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation of operation and maintenance expenses including purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 14,279,977	0.5428
Commercial	5,014,541	0.1906
Large Industrial	276,382	0.0105
Other Public Authority	626,441	0.0238
Bulk Users - Contract	<u>6,109,407</u>	<u>0.2322</u>
 Total	 <u>\$ 26,306,747</u>	 <u>1.0000</u>

APPENDIX A



PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- a. A description of the allocation methods used. A comparison of the allocated cost of service by class with the present and proposed revenues. A cost of service schedule showing the Rate of Return produced by present and proposed rates by class of service.

RESPONSE

A description of the methods used for the cost of service study is provided in Exhibit 12-B and in PAWC Statement No. 12. A comparison of the allocated cost of service by class with the present and proposed revenues is provided on Schedule A of Exhibit 12-B.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- b. Indicate if the method used for establishing the allocation factors in the Cost of Service Study deviates from the previous study submitted in the last rate case. If yes, indicate which allocation factors were changed and discuss the reason for the changes.

RESPONSE

The methods used for establishing the allocation factors in the cost of service study have not deviated from the previous study submitted in the last case.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- c. Supply the average day, the maximum day and the maximum hour deliveries to the system adjusted for storage for the test year and two prior years. Also provide workpapers, analyses, comparative data or other documentation supporting the estimated maximum day and peak hour demands by customer class reflected in the Company's cost of service study.

RESPONSE

Not applicable.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- d. Explain thoroughly the methodology employed if the Company distinguishes between transmission and distribution mains in its allocation of costs.

RESPONSE

Not applicable.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- e. Provide a detailed explanation of how storage is utilized to meet base, maximum day and maximum hour demands.

RESPONSE

There is no storage for this system.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- f. Provide workpapers, calculations and supporting documentation which develop the equivalent meters and equivalent service weights reflected in the Company's cost of service study.

RESPONSE

There are no meter or service equivalents calculated for this study.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- g. Provide all workpapers and supporting documentation for the fire flow requirement and duration utilized in the cost of service study.

RESPONSE

Because this is a wastewater operation, there is no fire flow requirements.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

- RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
- h. Provide a breakdown of the number and size of private fire services according to the general water service class of customer.

RESPONSE

Not applicable.



PENNSYLVANIA AMERICAN WATER COMPANY  
 RESPONSES TO RATE STRUCTURE  
 AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- i Provide a calculation of the Company's base cost of water per unit of consumption.

RESPONSE

The calculation of the average flow cost per hundred gallons is as follows:

Total Flow Cost	\$59,529,129
Pro Forma Usage (Hundred Gallons) (Includes Estimated Unmetered)	46,078,695
Flow Cost per Hundred Gallons	\$1.2919

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

- j. Provide a detailed cost analysis that supports the Company's customer charges, by meter size, showing all direct and indirect costs included.

RESPONSE

Please refer to the attached schedules.

PENNSYLVANIA AMERICAN WATER  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS

CALCULATION OF CUSTOMER COST PER MONTH

		<u>Per Month</u>
(1) Cost Related to Customer Facilities	\$ 3,696,032	
(2) Service Equivalents X 12	586,012	
(3) Cost per Bill - Meter related		\$ 6.31
(4) Cost Related to Customer Accounting	\$ 2,793,994	
(5) Number of Bills	499,313	
(6) Cost per Bill		\$ 5.60
(7) Cost Related to I&I	\$ 26,041,395	
(8) Percentage of I&I Cost to to be recoverd in Customer Charge	66.67%	
(9) Net Cost Related to I&I to be recovered in Customer Charge	\$ 17,361,798	
(10) Service Equivalents X 12	586,012	
(11) Cost per Bill - I&I Related		\$ 29.63
(12) Total Customer Costs (3)+(6)+(11)		\$ 41.53

PENNSYLVANIA AMERICAN WATER  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS

CALCULATION OF DIRECT CUSTOMER COST PER MONTH

		<u>Per Month</u>
(1) Cost Related to Customer Facilities	\$ 5,175,167	
(2) Service Equivalents X 12	586,012	
(3) Cost per Bill - Meter related		\$ 8.83
(4) Cost Related to Customer Accounting	\$ 2,516,498	
(5) Number of Bills	499,313	
(6) Cost per Bill		\$ 5.04
(7) Cost Related to I&I	\$ 26,041,395	
(8) Percentage of I&I Cost to to be recoverd in Customer Charge	66.67%	
(9) Net Cost Related to I&I to be recovered in Customer Charge	\$ 17,361,798	
(10) Service Equivalents X 12	586,012	
(11) Cost per Bill - I&I Related		\$ 29.63
(12) Total Customer Costs (3)+(6)+(11)		\$ 43.50

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SANITARY SEWER SYSTEM GENERAL OPERATIONS  
ANALYSIS OF DIRECT CUSTOMER COSTS

Description	Customer Facilities	Billing & Collecting
Operation and Maintenance Expenses		
Customer Accounting Expenses		1,801,650
Management Fees - Customer		487,535
Employee Pension and Benefits		55,582
Transportation Expense		26,293
Worker's Compensation		18,425
Other Rev.		(42,685)
Subtotal	-	2,346,800
Depreciation Expense		
Service Laterals	1,867,929	
Office Furniture & Equipment		13,779
Transportation Equipment		47,249
Subtotal	1,867,929	61,029
Taxes Other Than Income		
Payroll Taxes	-	14,865
Assessments	31,432	24,295
Subtotal	31,432	39,160
Rate Base		
Service Laterals	30,363,053	
Office Furniture and Equipment	-	178,613
Transportation Equipment	-	465,667
Subtotal	30,363,053	644,280
Return and Income Taxes	3,275,806	69,510
Total Direct Customer Costs	\$ 5,175,167	\$ 2,516,498
Plus I&I Costs	26,041,395	
2/3 of I&I Costs	17,360,930	

RS2.

PENNSYLVANIA AMERICAN WATER COMPANY  
RESPONSES TO RATE STRUCTURE  
AND COST OF SERVICE FILING REQUIREMENTS

RS2. Provide a listing of negotiated special rate contracts which includes a comparison of revenues under special rate contracts and under tariff rates. Provide the cost of service treatment of any deficiency in revenues resulting from the negotiated special rate contracts.

RESPONSE

See attached schedule.

PENNSYLVANIA AMERICAN WATER COMPANY - WASTEWATER SSS OPERATIONS

APPLICATION OF CONTRACT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS

Rate Block 100 Gallons (1)	Number Of Bills (2)	Total Consumption (3)	2025 Present Rate (4)	2025 Present Revenue (5)	2025 Proposed Rate (6)	2025 Proposed Revenue (7)
<b><u>CONTRACT BULK WASTEWATER</u></b>						
<b><u>TARIFF RATES</u></b>						
Customer Charge	84		\$415.00 *	\$ 34,860	\$430.00 *	\$ 36,120
First Block		<u>18,684,743</u>	1.4500	<u>27,092,877</u>	1.4900	<u>27,840,267</u>
Total	84	18,684,743		27,127,737		27,876,387
<b><u>CONTRACT RATES</u></b>						
Monthly Demand Charge						
Commodity Charge 1		18,676,652	0.3932	7,343,660	0.4123	7,700,384
Commodity Charge 2		<u>8,091</u>	0.2611	<u>2,113</u>	0.2737	<u>2,214</u>
Total	\$ -	18,684,743		\$ 7,345,772		\$ 7,702,598
Tariff Less Contract Revenues				\$ 19,781,965		\$ 20,173,789

**EXHIBIT NO. 12-C -  
WASTEWATER CSS OPERATIONS  
COST OF SERVICE  
AS OF JUNE 30, 2025**



Exhibit 12-C  
Witness: C. Heppenstall

PENNSYLVANIA AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER COMBINED SEWER SYSTEM  
OPERATIONS

WASTEWATER COST OF SERVICE

ALLOCATION STUDY

AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Customer Classification (1)	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount (Schedule D) (2)	Percent (3)	Amount (4)	Percent (5)	Amount (6)	Percent (7)	Amount (8)	Percent Increase (9)
Residential	\$ 43,847,878	56.4%	46,175,290	59.2%	46,347,482	59.6%	172,192	0.4%
Non-Residential	24,376,668	31.4%	21,188,954	27.2%	20,866,854	26.8%	(322,100)	-1.5%
Industrial	3,729,314	4.8%	2,268,788	2.9%	2,267,854	2.9%	(934)	0.0%
Bulk	5,782,065	7.4%	8,329,819	10.7%	8,253,737	10.6%	(76,082)	-0.9%
Total Sales	77,735,924	100.0%	77,962,851	100.0%	77,735,927	100.0%	(226,924)	-0.3%
COS Recovered from Water	16,007,052		-		16,007,052		16,007,052	0.0%
Other Revenues, IPP Surcharge	673,366		673,371		673,366		(4)	0.0%
Total	\$ 94,416,343		\$ 78,636,222		\$ 94,416,346		\$ (226,928)	-0.3%

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PRESENT RATES

Item (1)	Cost of Service (2)	Residential (3)	Non-Residential (4)	Industrial (5)	Bulk (6)
1. Revenues From Sales	\$ 77,962,851	\$ 46,175,290	\$ 21,188,954	\$ 2,268,788	\$ 8,329,819
2. Other Revenues	673,371	398,819	183,011	19,596	71,945
3. Total Operating Revenues	78,636,222	46,574,109	21,371,965	2,288,384	8,401,764
4. Less: Operating Expenses (Net of costs recovered from water)	44,166,687	24,902,672	13,726,281	2,043,889	3,493,845
5. Return and Income Taxes	34,469,535	21,671,438	7,645,683	244,495	4,907,919
6. Less: Taxable Exclusions - Allocated on Rate Base	10,518,592	5,915,352	3,335,379	523,668	744,194
7. Taxable Income	23,950,943	15,756,086	4,310,304	(279,172)	4,163,726
8. Less: Income Taxes (Based on Taxable Income, Line 7.)	6,890,625	4,532,985	1,240,064	(80,317)	1,197,893
9. Net Return (Line 5 - Line 8)	27,578,910	17,138,452	6,405,620	324,812	3,710,026
10. Original Cost Measure of Value	489,236,860	275,132,663	155,133,902	24,356,633	34,613,662
11. Rate Of Return, Percent	5.64	6.23	4.13	1.33	10.72
12. Relative Rate of Return	1.00	1.11	0.73	0.24	1.90

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PROPOSED RATES

Item (1)	Cost of Service (2)	Residential (3)	Non-Residential (4)	Industrial (5)	Bulk (6)
1. Revenues From Sales	\$ 77,735,927	\$ 46,347,482	\$ 20,866,854	\$ 2,267,854	\$ 8,253,737
2. Other Revenues	673,366	401,473	180,753	19,645	71,496
3. Total Operating Revenues	78,409,294	46,748,955	21,047,607	2,287,499	8,325,233
4. Less: Operating Expenses (Net of costs recovered from water)	28,445,249	16,116,472	8,750,310	1,275,508	2,302,958
5. Return and Income Taxes	49,964,045	30,632,482	12,297,297	1,011,990	6,022,275
6. Less: Taxable Exclusions - Allocated on Rate Base	10,517,462	5,916,542	3,334,010	523,305	743,605
7. Taxable Income	39,446,583	24,715,941	8,963,287	488,685	5,278,670
8. Less: Income Taxes (Based on Taxable Income, Line 7.)	11,122,810	6,969,189	2,527,391	137,795	1,488,434
9. Net Return (Line 5 - Line 8)	38,841,235	23,663,293	9,769,906	874,195	4,533,841
10. Original Cost Measure of Value	489,184,281	275,187,995	155,070,239	24,339,786	34,586,260
11. Rate Of Return, Percent	7.94	8.60	6.30	3.59	13.11
12. Relative Rate of Return	1.00	1.08	0.79	0.45	1.65

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COST OF SERVICE ALLOCATED TO CUSTOMER CLASSES FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Industrial (6)	Bulk (7)	CSO Stormwater (8)
<b>OPERATION AND MAINTENANCE EXPENSES</b>							
<b>SEWAGE TREATMENT</b>							
601.3	2	\$ 2,482,147	\$ 584,044	\$ 357,790	\$ 48,740	\$ 134,775	\$ 1,356,797
601.4	2	771,951	181,639	111,273	15,158	41,915	421,966
615.3	2	1,408,498	331,417	203,028	27,658	76,478	769,917
618.3	1	2,105,466	1,092,714	669,405	91,190	252,156	0
620.3	2	74,486	17,526	10,737	1,463	4,044	40,716
635.3	2	127,573	30,018	18,389	2,505	6,927	69,734
636.3	2	240,739	56,645	34,701	4,727	13,072	131,593
641.3	2	-	0	0	0	0	0
642.3	2	-	0	0	0	0	0
650.3	2	1,519	357	219	30	82	830
620.4	2	46,243	10,881	6,666	908	2,511	25,277
636.4	2	275,818	64,899	39,758	5,416	14,976	150,768
650.4	2	9,182	2,161	1,324	180	499	5,019
675.4	2	71,964	16,933	10,373	1,413	3,907	39,337
675.3	1	1,344,100	697,573	427,339	58,215	160,973	0
675.3	2	910,989	214,354	131,315	17,889	49,465	497,967
<b>TOTAL SEWAGE TREATMENT EXPENSE</b>		<b>9,870,675</b>	<b>3,301,162</b>	<b>2,022,316</b>	<b>275,492</b>	<b>761,781</b>	<b>3,509,923</b>
<b>COLLECTION EXPENSES</b>							
601.5	2	663,570	156,137	95,651	13,030	36,030	362,722
601.6	2	1,391,526	327,423	200,582	27,324	75,557	760,639
601.6	DA	170,889					170,889
615.5	2	44,450	10,459	6,407	873	2,414	24,297
620.5	2	199,330	46,902	28,732	3,914	10,823	108,958
636.5	2	152,132	35,796	21,929	2,987	8,260	83,159
641.5	2	0	0	0	0	0	0
642.5	2	2,449	576	353	48	133	1,339
650.5	2	8,934	2,102	1,288	175	485	4,884
<b>TOTAL COLLECTION EXPENSE OPERATION</b>		<b>2,633,280</b>	<b>579,396</b>	<b>354,942</b>	<b>48,352</b>	<b>133,702</b>	<b>1,516,887</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COST OF SERVICE ALLOCATED TO CUSTOMER CLASSES FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Industrial (6)	Bulk (7)	CSO Stormwater (8)
620.6	2	2,948	694	425	58	160	1,611
636.6	2	57,069	13,428	8,226	1,121	3,099	31,195
675.6	2	191,298	45,012	27,575	3,756	10,387	104,568
675.5	2	226,927	53,395	32,710	4,456	12,322	124,043
<b>TOTAL COLLECTION - MAINTENANCE</b>		<b>478,242</b>	<b>112,529</b>	<b>68,936</b>	<b>9,391</b>	<b>25,967</b>	<b>261,418</b>
<b>TOTAL COLLECTION EXPENSE</b>		<b>3,111,522</b>	<b>691,925</b>	<b>423,878</b>	<b>57,743</b>	<b>159,670</b>	<b>1,778,305</b>
<b>CUSTOMER ACCOUNTS</b>							
601.7	6	0	0	0	0	0	0
670.7	6	1,261,022	1,023,257	215,409	3,847	18,510	0
675.7	6	67,837	55,047	11,588	207	996	0
<b>TOTAL CUSTOMER ACCOUNTING EXPENSE</b>		<b>1,328,859</b>	<b>1,078,304</b>	<b>226,997</b>	<b>4,054</b>	<b>19,505</b>	<b>0</b>
<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>							
601.8	11	1,252,873	391,397	182,036	21,220	59,782	598,438
603.8	11	0	0	0	0	0	0
604.8	7	1,763,620	429,747	248,142	32,866	91,170	961,694
615.8	11	262,460	81,992	38,134	4,445	12,523	125,365
620.8	11	5,402	1,688	785	91	258	2,580
631.8	11	0	0	0	0	0	0
632.8	11	(2,844)	(888)	(413)	(48)	(136)	(1,358)
636.8	11	1,089,017	340,209	158,229	18,445	51,963	520,172
641.8	11	13,934	4,353	2,025	236	665	6,656
642.8	11	42	13	6	1	2	20
650.8	11	670,840	209,570	97,470	11,362	32,010	320,428
657.8	11	1,338,943	418,286	194,541	22,678	63,889	639,549
658.8	7	95,317	23,226	13,411	1,776	4,927	51,976
666.8	10	98,964	31,226	17,263	2,538	4,599	43,338
675.8	11	724,477	226,327	105,263	12,271	34,569	346,048
<b>TOTAL A &amp; G EXPENSE</b>		<b>7,313,044</b>	<b>2,157,145</b>	<b>1,056,892</b>	<b>127,881</b>	<b>356,221</b>	<b>3,614,906</b>
<b>Total Operation &amp; Maintenance Expenses</b>		<b>21,624,101</b>	<b>7,228,536</b>	<b>3,730,083</b>	<b>465,170</b>	<b>1,297,177</b>	<b>8,903,134</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COST OF SERVICE ALLOCATED TO CUSTOMER CLASSES FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Industrial (6)	Bulk (7)	CSO Stormwater (8)
<b>DEPRECIATION EXPENSE</b>							
354.20 Structures and Improvements - Collection	4	287,019	62,977	36,026	5,567	8,790	173,659
354.30 Structures and Improvements - Pumping							
Froude Ave - Sanitary Only	3	5,970	3,317	1,897	293	463	0
Combined System	4	410,187	90,003	51,486	7,956	12,562	248,180
354.40 Structures and Improvements - Treatment							
Sewage Treatment	3	2,786,521	1,548,054	885,562	136,843	216,062	0
CSO Stormwater	DA	420,025					420,025
355.00 Power Generation Equipment	4	210,757	46,244	26,454	4,088	6,454	127,517
360.10 Force Mains	4	659,863	144,787	82,825	12,799	20,208	399,245
361.10 Gravity Mains							
Gravity Mains - Sanitary Only	3	875,551	486,413	278,252	42,997	67,889	0
Gravity Mains - Combined Sewers	4	5,096,050	1,118,171	639,649	98,843	156,063	3,083,324
CSO Assets	DA	1,181,543					1,181,543
361.20 Manholes							
Sanitary Only	3	213,899	118,832	67,978	10,504	16,585	0
Combined System	4	1,244,979	273,172	156,268	24,148	38,127	753,265
CSO Stormwater	DA	288,654					288,654
362.00 Service Lines - CSO	DA	80,838					80,838
363.00 Service Laterals	5	652,875	394,032	207,372	37,031	14,441	0
364.00 Flow Measuring Devices	4	156,883	34,423	19,692	3,043	4,804	94,921
371.00 Pumping Equipment	4	757,800	166,276	95,118	14,698	23,207	458,501
380.00 Treatment Equipment							
Sewage Treatment	3	2,851,187	1,583,979	906,113	140,018	221,076	0
CSO Stormwater	DA	287,892					287,892
381.00 Plant Sewers	4	30,852	6,770	3,872	598	945	18,667
382.00 Outfall Sewer Lines	DA	3,487					3,487
389.10 Other Plant and Misc. Equip. - Intangible	11	619,092	193,404	89,951	10,486	29,540	295,711
389.60 Other Plant and Misc. Equipment - CPS	11	0	0	0	0	0	0
390.00 Office Furniture and Equipment	11	184,464	57,627	26,802	3,124	8,802	88,110
391.00 Transportation Equipment	11	368,608	115,153	53,557	6,243	17,588	176,067
391.00 Transportation Equipment - CSO Related	DA	62,930					62,930
392.00 Stores Equipment	11	4,358	1,361	633	74	208	2,082
393.00 Tools, Shop and Garage Equipment	11	178,907	55,891	25,994	3,030	8,537	85,455
394.00 Laboratory Equipment	1	93,414	48,481	29,700	4,046	11,188	0
395.00 Power Operated Equipment	11	68,753	21,478	9,989	1,164	3,281	32,840
396.00 Communication Equipment	11	198,384	61,975	28,824	3,360	9,466	94,759
397.00 Miscellaneous Equipment	11	219,218	68,484	31,851	3,713	10,460	104,710
<b>Total Depreciation Expense</b>		<b>20,500,960</b>	<b>6,701,302</b>	<b>3,755,865</b>	<b>574,666</b>	<b>906,747</b>	<b>8,562,379</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COST OF SERVICE ALLOCATED TO CUSTOMER CLASSES FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Industrial (6)	Bulk (7)	CSO Stormwater (8)
<b>Amortization Expense</b>	9	(3,943)	(1,198)	(679)	(105)	(164)	(1,798)
<b>Taxes Other Than Income</b>							
685100 Utility Reg Assessment Fee	10	597,985	188,680	104,313	15,333	27,791	261,868
685200 Property Taxes	9	1,198,060	363,971	206,190	31,752	49,847	546,299
685320 Payroll Taxes	7	535,138	130,399	75,294	9,973	27,664	291,808
<b>Total Taxes, Other Than Income</b>		2,331,183	683,049	385,798	57,058	105,301	1,099,976
<b>Total Operating Expense</b>		44,452,301	14,611,690	7,871,068	1,096,789	2,309,061	18,563,692
4091 Income Taxes	9	11,122,810	3,379,113	1,914,276	294,789	462,778	5,071,854
<b>Utility Income Available for Return</b>	9	38,841,232	11,799,977	6,684,718	1,029,414	1,616,037	17,711,086
<b>Total Cost of Service</b>		94,416,343	29,790,780	16,470,061	2,420,992	4,387,877	41,346,632
<b>Less: Other Revenues</b>	10	447,326	141,143	78,032	11,470	20,789	195,892
<b>Less: IPP Surcharge</b>	2	226,040	53,187	32,583	4,439	12,273	123,559
<b>Total Cost of Service Related to Sales of Wastewater Services</b>		93,742,976	29,596,451	16,359,447	2,405,084	4,354,814	41,027,181
Reallocation of CSO Stormwater Costs	1A	0	23,280,396	13,036,762	2,092,154	2,617,869	(41,027,181)
Less: Cost of Service Recovered from Water Rates	10A	(16,007,052)	(9,028,969)	(5,019,540)	(767,924)	(1,190,618)	0
<b>Total</b>		\$ 77,735,924	\$ 43,847,878	\$ 24,376,668	\$ 3,729,314	\$ 5,782,065	\$ -



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTORS 1 and 2. ALLOCATION OF COSTS ASSOCIATED WITH AVERAGE DAILY FLOWS.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Classification (1)	Total		I&I Average Day 100 gallons (b) (3)	Total		Allocation Factor 1 (5)	Total		Allocation Factor 2 (8)
	Average Daily Customer Flow 100 gallons (a) (2)	Average Daily Sanitary Flow (4)=(2)+(3)		Average Day CSO 100 gallons (6)	Average Day Wastewater Flow (7)=(4)+(6)				
Residential	38,324	59,854	21,530	59,854	0.5190	59,854	0.2353		
Non-Residential	24,610	36,667	12,057	36,667	0.3179	36,667	0.1441		
Industrial	3,060	4,995	1,935	4,995	0.0433	4,995	0.0196		
Bulk	11,391	13,812	2,421	13,812	0.1198	13,812	0.0543		
Stormwater CSO	-	-	-	-	-	139,047	0.5466		
<b>Total</b>	<b>77,385</b>	<b>115,328</b>	<b>37,943</b>	<b>115,328</b>	<b>1.0000</b>	<b>254,375</b>	<b>1.0000</b>		

(a) Customer water usage from bill analysis, adjusted to reflect 88% returned to sewer system. See below.

(b) Allocation based on Factor 1A for Residential, Non-Residential and Industrial.

Classification (1)	Annual Usage 100 gallons (2)		Average Day 100 gallons (3)=(2)/365		Percent to Sewer System (6)		Adjusted Average Day 100 gallons (7)	
	Residential	15,895,672	43,550	88.0%	38,324			
Non-Residential	10,207,424	27,966	88.0%	24,610				
Industrial	1,269,373	3,478	88.0%	3,060				
Bulk	4,724,512	12,944	88.0%	11,391				
<b>Total</b>	<b>32,096,981</b>	<b>87,937</b>		<b>77,385</b>				

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1A. ALLOCATION OF INFILTRATION AND INFLOW BY CUSTOMER CLASS.

Factors are based on a 1/3-2/3 weighting of flow and number of customers, as follows:

Customer Classification (1)	Total Average Daily Flow 100 gallons (2)	Average Daily Flow		Service Equivalents (Factor 5)		Allocation Factor 1A (8)=(4)+(7)
		Factor (3)	Weight (4)=(3) x 0.3333	Number (5)	Factor (6)	
Residential	38,324	0.4952	0.1651	31,124	0.6035	0.5674
Non-Residential	24,610	0.3180	0.1060	16,380	0.3176	0.3178
Industrial	3,060	0.0395	0.0132	2,925	0.0567	0.0510
Bulk	11,391	0.1472	0.0491	1,141	0.0221	0.0638
<b>Total</b>	<b>77,385</b>	<b>1.0000</b>	<b>0.3333</b>	<b>51,570</b>	<b>1.0000</b>	<b>1.0000</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTORS 3 and 4. ALLOCATION OF CAPITAL COSTS ASSOCIATED WITH PEAK DAILY FLOW.

Factors are based on the peak daily flow for each customer classification.

Classification (1)	Total		I&I Peak Day 100 gallons (b) (3)	Total		Peak Day CSO 100 gallons (6)	Total	
	Average Daily Customer Flow 100 gallons (a) (2)	Sanitary Peak Flow (4)=(2)+(3)		Sanitary Peak Flow (4)=(2)+(3)	Allocation Factor 3 (5)		Peak Day Wastewater Flow (7)=(4)+(6)	Allocation Factor 4 (8)
Residential	38,324	261,109	222,785	261,109	0.5556	261,109	0.2194	
Non-Residential	24,610	149,367	124,757	149,367	0.3178	149,367	0.1255	
Industrial	3,060	23,081	20,021	23,081	0.0491	23,081	0.0194	
Bulk	11,391	36,443	25,052	36,443	0.0775	36,443	0.0306	
Stormwater CSO	-	-	-	-	-	720,000	0.6050	
<b>Total</b>	<b>77,385</b>	<b>470,000</b>	<b>392,615</b>	<b>470,000</b>	<b>1.0000</b>	<b>1,190,000</b>	<b>1.0000</b>	

(a) See Factor 1.

(b) Allocated based on Factor 1A

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER FACILITIES.

Factors are based on the estimated relative cost of customer facilities, as follows:

Customer Classification (1)	Number of Customers (2)	Service Equiv. Ratio (3)	Service Equivalents (2)X(3)=(4)	Allocation Factor (5)
Residential	31,124	1.0	31,124	0.6035
Non-Residential	6,552	2.5	16,380	0.3176
Industrial	117	25.0	2,925	0.0567
Bulk	563	*	1,141 *	0.0221
Stormwater CSO	-	-	-	-
Total	<u>38,356</u>		<u>51,570</u>	<u>1.0000</u>

\* Based on 514 aggregated residential customers and 49 Bulk customers at 25.0 service equivalent ratio.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH BILLING AND COLLECTING.

Factors are based on the number of customers.

Customer Classification (1)	Number of Customers (2)	Allocation Factor (3)
Residential	31,124	0.8115
Non-Residential	6,552	0.1708
Industrial	117	0.0031
Bulk	563	0.0147
Stormwater CSO	-	-
Total	<u>38,356</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 7. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

<u>Customer Classification</u> (1)	<u>Direct Labor Expense</u> (2)	<u>Allocation Factor</u> (3)
Residential	\$ 1,640,640	0.2437
Non-Residential	947,331	0.1407
Industrial	125,473	0.0186
Bulk	348,059	0.0517
Stormwater CSO	<u>3,671,452</u>	<u>0.5453</u>
Total	<u>\$ 6,732,956</u>	<u>1.0000</u>

FACTOR 8. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

<u>Customer Classification</u> (1)	<u>Original Cost Less Depreciation</u> (2)	<u>Allocation Factor</u> (3)
Residential	\$ 169,478,961	0.3037
Non-Residential	96,029,295	0.1721
Industrial	14,793,737	0.0265
Bulk	23,194,565	0.0416
Stormwater CSO	<u>254,479,640</u>	<u>0.4561</u>
Total	<u>\$ 557,976,198</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 9. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification <u>(1)</u>	Original Cost Measure of Value <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$ 148,614,323	0.3038
Non-Residential	84,190,398	0.1721
Industrial	12,964,909	0.0265
Bulk	20,353,116	0.0416
Stormwater CSO	<u>223,061,535</u>	<u>0.4560</u>
Total	<u><u>\$ 489,184,281</u></u>	<u><u>1.0000</u></u>

FACTOR 10 and 10A. ALLOCATION OF REGULATORY COMMISSION EXPENSES,  
ASSESSMENTS, OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification <u>(1)</u>	Total Cost of Service <u>(2)</u>	Allocation Factor 10 <u>(3)</u>	Total Cost of Service with Stormwater Reallocated <u>(4)</u>	Allocation Factor 10A <u>(5)</u>
Residential	\$ 29,570,875	0.3155	\$ 52,876,847	0.5641
Non-Residential	16,348,485	0.1744	29,396,208	0.3136
Industrial	2,403,121	0.0256	4,497,238	0.0480
Bulk	4,355,487	0.0465	6,972,683	0.0744
Stormwater CSO	<u>41,041,425</u>	<u>0.4379</u>	<u>-</u>	<u>-</u>
Total	<u><u>\$ 93,719,394</u></u>	<u><u>1.0000</u></u>	<u><u>\$ 93,742,976</u></u>	<u><u>1.0000</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COST OF SERVICE ALLOCATED TO CUSTOMER CLASSES FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Industrial (6)	Bulk (7)	CSO Stormwater (8)
<b><u>RATE BASE</u></b>							
353.20 Land and Land Rights - Collection	4	3,161,743	693,747	396,857	61,325	96,826	1,912,988
353.30 Land and Land Rights - Pumping	4	1,153,570	253,115	144,794	22,375	35,327	697,958
353.40 Land and Land Rights - Treatment	3	148,042	82,245	47,048	7,270	11,479	0
354.20 Structures and Improvements - Collection	4	8,992,508	1,973,129	1,128,726	174,418	275,390	5,440,845
354.30 Structures and Improvements - Pumping							
Froude Ave - Sanitary Only	3	184,625	102,569	58,674	9,067	14,316	0
Combined System	4	12,684,911	2,783,313	1,592,191	246,036	388,468	7,674,904
354.40 Structures and Improvements - Treatment							
Sewage Treatment	3	79,039,824	43,910,627	25,119,025	3,881,553	6,128,620	0
CSO Stormwater	DA	11,914,032					11,914,032
355.00 Power Generation Equipment	4	4,901,478	1,075,478	615,226	95,069	150,105	2,965,600
360.10 Force Mains	4	24,827,605	5,447,653	3,116,324	481,554	760,331	15,021,744
361.10 Gravity Mains							
Gravity Mains - Sanitary Only	3	32,295,855	17,941,984	10,263,692	1,586,011	2,504,168	0
Gravity Mains - Combined Sewers	4	187,974,648	41,245,241	23,594,294	3,645,941	5,756,611	113,732,560
CSO Assets	DA	43,582,785					43,582,785
361.20 Manholes							
Sanitary Only	3	4,903,207	2,723,980	1,558,250	240,791	380,187	0
Combined System	4	28,538,600	6,261,916	3,582,122	553,532	873,978	17,267,052
CSO Stormwater	DA	6,616,806					6,616,806
363.00 Services - CSO	DA	3,326,663					3,326,663
363.00 Service Laterals	5	9,545,462	5,761,002	3,031,912	541,413	211,136	0
364.00 Flow Measuring Devices	4	1,015,515	222,823	127,466	19,697	31,100	614,429
371.00 Pumping Equipment	4	12,592,466	2,763,029	1,580,587	244,242	385,637	7,618,971
380.00 Treatment Equipment							
Sewage Treatment	3	52,533,226	29,184,869	16,695,171	2,579,845	4,073,341	0
CSO Stormwater	DA	5,304,413					5,304,413
381.00 Plant Sewers	4	712,730	156,387	89,461	13,824	21,827	431,232
382.00 Outfall Sewer Lines	DA	131,061					131,061

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS  
COST OF SERVICE ALLOCATED TO CUSTOMER CLASSES FOR THE TWELVE MONTHS ENDING JUNE 30, 2025

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)	Industrial (6)	Bulk (7)	CSO Stormwater (8)
389.10 Other Plant and Misc. Equip. - Intangible	11	6,908,309	2,158,155	1,003,742	117,007	329,635	3,299,771
389.60 Other Plant and Misc. Equipment - CPS	11	0	0	0	0	0	0
390.00 Office Furniture and Equipment	11	2,625,479	820,199	381,468	44,468	125,277	1,254,067
391.00 Transportation Equipment	11	3,010,332	940,427	437,386	50,986	143,640	1,437,893
391.00 Transportation Equipment - CSO Related	DA	513,929					513,929
392.00 Stores Equipment	11	86,373	26,983	12,550	1,463	4,121	41,256
393.00 Tools, Shop and Garage Equipment	11	2,870,589	896,772	417,082	48,619	136,972	1,371,144
394.00 Laboratory Equipment	1	1,048,418	544,118	333,331	45,408	125,561	0
395.00 Power Operated Equipment	11	803,295	250,949	116,715	13,605	38,330	383,696
396.00 Communication Equipment	11	1,673,148	522,691	243,100	28,338	79,835	799,183
397.00 Miscellaneous Equipment	11	2,354,547	735,560	342,104	39,879	112,349	1,124,655
<b>TOTAL SEWER UTILITY PLANT IN SERVICE</b>		<b>557,976,198</b>	<b>169,478,961</b>	<b>96,029,295</b>	<b>14,793,737</b>	<b>23,194,565</b>	<b>254,479,640</b>
<b>Other Rate Base Items:</b>							
Cash Working Capital	12	986,424	329,743	170,155	21,220	59,173	406,133
Materials and Supplies	8	176,374	53,572	30,354	4,676	7,332	80,440
Accrued and Prepaid Taxes	8	245,310	74,510	42,219	6,504	10,197	111,880
Acquisition Adjustments	8	3,686,015	1,119,585	634,374	97,728	153,224	1,681,104
Tax Cuts and Jobs Act -Stub Period	8	(64,842)	(19,695)	(11,159)	(1,719)	(2,695)	(29,573)
Deferred, Accrued and Prepaid Taxes	8	(73,821,198)	(22,422,354)	(12,704,839)	(1,957,236)	(3,068,680)	(33,668,088)
Total Other Rate Base Elements		(68,791,917)	(20,864,639)	(11,838,897)	(1,828,828)	(2,841,449)	(31,418,104)
<b>Total Original Cost Measure of Value</b>		<b>\$ 489,184,281</b>	<b>\$ 148,614,323</b>	<b>\$ 84,190,398</b>	<b>\$12,964,909</b>	<b>\$ 20,353,116</b>	<b>\$ 223,061,535</b>



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER COMBINED SEWER SYSTEM OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 11. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 2,939,228	0.3124
Non-Residential	1,367,012	0.1453
Industrial	159,353	0.0169
Bulk	448,935	0.0477
Stormwater CSO	4,494,014	0.4777
Total	<u>\$ 9,408,543</u>	<u>1.0000</u>

FACTOR 12. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation of operation and maintenance expenses including purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 7,228,536	0.3343
Commercial	3,730,083	0.1725
Industrial	465,170	0.0215
Bulk	1,297,177	0.0600
Stormwater CSO	8,903,134	0.4117
Total	<u>\$ 21,624,101</u>	<u>1.0000</u>

**EXHIBIT NO. 12-D -**

**BRENTWOOD**

**WASTEWATER OPERATIONS**

**COST OF SERVICE**

**AS OF JUNE 30, 2025**

Exhibit 12-D  
Witness: C. Heppenstall

PENNSYLVANIA AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SANITARY SEWER SYSTEM  
BRENTWOOD OPERATIONS

WASTEWATER COST OF SERVICE

ALLOCATION STUDY

AS OF JUNE 30, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Customer Classification (1)	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount (Schedule B) (2)	Percent (3)	Amount (4)	Percent (5)	Amount (6)	Percent (7)	Amount (8)	Percent Increase (9)
Residential	\$ 1,754,328	80.4%	\$ 1,434,460	79.0%	\$ 1,713,458	78.5%	\$ 278,998	19.4%
Non-Residential	428,295	19.6%	380,607	21.0%	469,166	21.5%	88,559	23.3%
Total Sales	2,182,624	100.0%	1,815,067	100.0%	2,182,624	100.0%	367,557	20.3%
Other Revenues	10,972		9,124		10,972		1,848	20.3%
COS Recovered from Water Rates	1,565,232		-		1,565,232		1,565,232	
Total	\$ 3,758,828		\$ 1,824,191		\$ 3,758,828		\$ 1,934,637	106.1%

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PRESENT RATES

ITEM	COST OF SERVICE		RESIDENTIAL	NON-RESIDENTIAL
	(1)	(2)	(3)	(4)
1. REVENUES FROM SALES		1,815,067	1,434,460	380,607
2. OTHER REVENUES		9,124	7,406	1,718
3. TOTAL OPERATING REVENUES		1,824,191	1,441,866	382,325
4. LESS: OPERATING EXPENSES (NET OF COST OF SERVICE RECOVERED FROM WATER)		1,380,385	1,126,019	254,366
5. RETURN AND INCOME TAXES		443,807	315,847	127,959
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE		474,298	377,122	97,176
7. TAXABLE INCOME		(30,491)	(61,275)	30,784
8. LESS: INCOME TAXES (TAX. INC.)		73,480	147,665	(74,185)
9. NET RETURN (Line 5 - Line 8)		370,327	168,182	202,144
10. ORIGINAL COSTS MEASURE OF VALUE		22,053,946	17,535,472	4,518,474
11. RATE OF RETURN, PERCENT		1.68	0.96	4.47
12. RELATIVE RATE OF RETURN		1.00	0.57	2.66

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PROPOSED RATES

ITEM (1)	COST OF SERVICE (2)	RESIDENTIAL (3)	NON-RESIDENTIAL (4)
1. REVENUES FROM SALES	2,182,624	1,713,458	469,166
2. OTHER REVENUES	10,972	8,824	2,148
3. TOTAL OPERATING REVENUES	2,193,596	1,722,282	471,314
4. LESS: OPERATING EXPENSES (NET OF COST OF SERVICE RECOVERED FROM WATER)	(149,830)	(100,248)	(49,582)
5. RETURN AND INCOME TAXES	2,343,426	1,822,530	520,897
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	474,160	377,033	97,127
7. TAXABLE INCOME	1,869,266	1,445,496	423,770
8. LESS: INCOME TAXES (TAX. INC.)	592,343	458,057	134,286
9. NET RETURN (Line 5 - Line 8)	1,751,083	1,364,473	386,610
10. ORIGINAL COSTS MEASURE OF VALUE	22,053,946	17,536,432	4,517,514
11. RATE OF RETURN, PERCENT	7.94	7.78	8.56
12. RELATIVE RATE OF RETURN	1.00	0.98	1.08

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>OPERATION AND MAINTENANCE EXPENSES</b>				
<b>SEWAGE TREATMENT</b>				
601.3 Salary and Wages	1	\$ 76,876	\$ 60,873	\$ 16,004
636.3 Contract Services - Operation	1	151,404	119,885	31,519
<b>TOTAL SEWAGE TREATMENT EXPENSE</b>		<b>228,280</b>	<b>180,757</b>	<b>47,523</b>
<b>COLLECTION</b>				
620.6 Materials and Supplies	2	56,530	45,309	11,221
636.6 Contract Services	2	-	-	-
675.6 Miscellaneous Maintenance Expense	2	18,297	14,665	3,632
675.5 Miscellaneous Operating Expense	2	-	-	-
<b>TOTAL T &amp; D EXPENSE - MAINTENANCE</b>		<b>74,826</b>	<b>59,974</b>	<b>14,852</b>
<b>TOTAL COLLECTION EXPENSE</b>		<b>74,826</b>	<b>59,974</b>	<b>14,852</b>
<b>CUSTOMER ACCOUNTS</b>				
601.7 Salary and Wages	5	-	-	-
670.7 Bad Debts	5	86,156	80,108	6,049
675.7 Miscellaneous Expense	5	8,863	8,240	622
<b>TOTAL CUSTOMER ACCOUNTING EXPENSE</b>		<b>95,019</b>	<b>88,348</b>	<b>6,671</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>				
604.8 Employee Pension & Benefits	6	21,731	17,207	4,524
634.8 Contractual Services - Management				
Customer Related	5	87,965	81,789	6,176
Employee Related	6	57,483	45,515	11,968
Lab Testing	1	4,095	3,243	852
Other	10	203,992	168,614	35,378
641.8 Rental of Building	10	12,318	10,181	2,136
650.8 Transportation	10	3,551	2,935	616
657.8 Insurance	10	25,387	20,984	4,403
666.8 Amortization of Rate Case	9	5,370	4,319	1,051
675.8 Miscellaneous Expense	10	4,619	3,818	801
<b>TOTAL A &amp; G EXPENSE</b>		<u>426,512</u>	<u>358,606</u>	<u>67,906</u>
<b>Total Operation &amp; Maintenance Expenses</b>				
		824,637	687,685	136,952
<b>DEPRECIATION EXPENSE</b>				
361.10 Gravity Mains	3	332,847	263,556	69,291
361.20 Manholes	3	71,605	56,698	14,907
363.00 Service Laterals	4	43,767	36,817	6,950
390.00 Office Furniture and Equipment	10	233	193	40
391.00 Transportation Equipment	10	4,357	3,601	756
393.00 Tool Shop	10	2,580	2,133	447
<b>Total Depreciation Expense</b>		<u>455,389</u>	<u>362,998</u>	<u>92,391</u>



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>Amortization Expense</b>	8	70,194	55,816	14,378
<b>Taxes Other Than Income</b>				
685100 Utility Reg Assessment Fee	9	23,830	19,164	4,666
685200 Property Taxes	8	35,268	28,044	7,224
685320 Payroll Taxes	6	6,084	4,817	1,267
<b>Total Taxes, Other Than Income</b>		65,182	52,025	13,157
<b>Total Operating Expense</b>		1,415,402	1,158,523	256,878
4091 Income Taxes	8	592,343	471,008	121,335
<b>Utility Income Available for Return</b>	8	1,751,083	1,392,392	358,691
<b>Total Cost of Service</b>		3,758,828	3,021,924	736,904
<b>Less: Misc Revenues</b>	9	10,972	8,824	2,148
<b>Less: Cost of Service Recovered from Water Rates</b>	9A	1,565,232	1,258,771	306,461
<b>Total Cost of Service Related to Sales of Wastewater Services</b>		2,182,624	1,754,328	428,295

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

**FACTOR 1. ALLOCATION OF COSTS ASSOCIATED WITH WASTEWATER TREATMENT**

Factors are based on the pro forma test year average daily consumption for each customer classification with adjustments. The detail regarding calculation of adjusted flows can be found on the following page.

Classification (1)	Total Adjusted Average Daily Customer Flow 100 gallons (a) (2)	I&I		Allocation Factor (7)
		Gallons Per Day 100 gallons (b) (3)	Total I&I And Average Flow (4)=(2)+(3)	
Residential	3,592	5,032	8,625	0.7918
Non-Residential	1,123	1,144	2,268	0.2082
<b>Total</b>	<b>4,716</b>	<b>6,177</b>	<b>10,892</b>	<b>1.0000</b>

(a) Customer Flow.

(b) Allocation based on Factor 1A for Residential, Non-Residential and Large Industrial.

**FACTOR 1A. ALLOCATION OF INFILTRATION AND INFLOW BY CUSTOMER CLASS.**

Factors are based on a 1/3-2/3 weighting of flow and number of customers, as follows:

Customer Classification (1)	Total Adjusted Average Daily Flow 100 gallons (2)	Average Daily Flow		Number of Customers		Allocation Factor (8)=(4)+(7)
		Factor (3)	Weight (4)=(3) x 0.3333	Factor (6)	Weight (7)=(6) x 0.6667	
Residential	3,592	0.7618	0.2539	0.8412	0.5608	0.8147
Non-Residential	1,123	0.2382	0.0794	0.1588	0.1059	0.1853
<b>Total</b>	<b>4,716</b>	<b>1.0000</b>	<b>0.3333</b>	<b>1.0000</b>	<b>0.6667</b>	<b>1.0000</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH THE COLLECTION SYSTEM**

Factors are based on peak daily flow for each customer classification.

Customer Classification (1)	Ave. Flow Consumption, 100 gpd (2)	Peak I&I Flow 100 gallons (a) (3)	Total Peak I&I And Average (4)=(2)+(3)	Allocation Factor (5)
Residential	3,592	11,526	15,119	0.8015
Non-Residential	1,123	2,621	3,744	0.1985
<b>Total</b>	<b>4,716</b>	<b>14,147</b>	<b>18,863</b>	<b>1.0000</b>

(a) Allocation based on Factor 1A.

**FACTOR 3. ALLOCATION OF CAPITAL COSTS ASSOCIATED WITH PROJECTED AVERAGE DAILY FLOW INCLUDING INFILTRATION AND INFLOW**

Factors are based on the projected average daily consumption for each customer classification.

Classification (1)	Total Average Daily Flow 100 gallons (2)	Direct I&I Gallons Per Day 100 gallons (a) (3)	Total Direct I&I And Average (4)=(2)+(3)	Allocation Factor (7)
Residential	3,592	5,032	8,625	0.7918
Non-Residential	1,123	1,144	2,268	0.2082
<b>Total</b>	<b>4,716</b>	<b>6,177</b>	<b>10,892</b>	<b>1.0000</b>

(a) Allocation based on Factor 1A.

FACTOR 3A. NOT USED IN THIS ALLOCATION

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER FACILITIES.

Factors are based on the estimated relative cost of customer facilities, as follows:

<u>Customer Classification</u> (1)	<u>Number of Customers</u> (2)	<u>Service Equiv. Ratio (a)</u> (3)	<u>Service Equivalents</u> (2)X(3)=(4)	<u>Allocation Factor</u> (5)
Residential	44,340	1.0	44,340	0.8412
Non-Residential	3,348	2.5	8,370	0.1588
	<hr/>		<hr/>	
Total	<u><u>47,688</u></u>		<u><u>52,710</u></u>	<u><u>1.0000</u></u>

(a) Based on ratio by class for Coatesville service area.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH BILLING AND COLLECTING.

Factors are based on the number of customers.

<u>Customer Classification</u> (1)	<u>Number of Customers</u> (2)	<u>Allocation Factor</u> (3)
Residential	44,340	0.9298
Non-Residential	3,348	0.0702
	<hr/>	
Total	<u><u>47,688</u></u>	<u><u>1.0000</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 6. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	\$ 60,873	0.7918
Non-Residential	16,004	0.2082
	<hr/>	<hr/>
Total	<u>\$ 76,876</u>	<u>1.0000</u>

FACTOR 7. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	\$ 17,739,721	0.7951
Non-Residential	4,572,039	0.2049
	<hr/>	<hr/>
Total	<u>\$ 22,311,759</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 8. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	\$ 17,536,432	0.7952
Non-Residential	4,517,514	0.2048
	<hr/>	<hr/>
Total	<u>\$ 22,053,946</u>	<u>1.0000</u>

FACTOR 9. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$ 2,914,581	0.8042
Non-Residential	709,584	0.1958
	<hr/>	<hr/>
Total	<u>\$ 3,624,165</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>RATE BASE</b>				
353.20 Land and Land Rights - Collection	2	\$ 32,371	\$ 25,946	\$ 6,425
361.10 Gravity Mains	3	18,903,539	14,968,255	3,935,284
361.20 Manholes	3	1,873,075	1,483,144	389,931
363.00 Service Laterals	4	1,381,977	1,162,528	219,449
390.00 Office Furniture and Equipment	10	4,716	3,898	818
391.00 Transportation Equipment	10	64,167	53,039	11,128
393.00 Tool Shop	10	51,915	42,911	9,004
<b>TOTAL SEWER UTILITY PLANT IN SERVICE</b>		<b>\$ 22,311,759</b>	<b>\$ 17,739,721</b>	<b>\$ 4,572,039</b>
<b>Other Rate Base Items:</b>				
Cash Working Capital - Expenses	11	\$ 43,531	\$ 36,310	\$ 7,221
Cash Working Capital - Int and Div	7	(40,313)	(32,053)	(8,260)
Materials and Supplies	7	31,673	25,183	6,490
Acquisition Adjustment	7	637,591	506,949	130,642
Deferred, Accrued and Prepaid Taxes	7	(930,295)	(739,678)	(190,617)
<b>Total Other Rate Base Elements</b>		<b>\$ (257,813)</b>	<b>\$ (203,289)</b>	<b>\$ (54,524)</b>
<b>Total Original Cost Measure of Value</b>		<b>\$ 22,053,946</b>	<b>\$ 17,536,432</b>	<b>\$ 4,517,514</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 9A. ALLOCATION OF REVENUE FROM WATER RATES

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$ 2,914,581	0.8042
Non-Residential	709,584	0.1958
	<hr/>	<hr/>
Total	<u>\$ 3,624,165</u>	<u>1.000</u>



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BRENTWOOD OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 10. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 329,079	0.8266
Non-Residential	69,046	0.1734
	<hr/>	<hr/>
Total	<u>\$ 398,125</u>	<u>1.0000</u>

FACTOR 11. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation of operation and maintenance expenses including purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 683,366	0.8341
Commercial	135,901	0.1659
	<hr/>	<hr/>
Total	<u>\$ 819,267</u>	<u>1.0000</u>

**EXHIBIT NO. 12-E -**

**BUTLER AREA**  
**WASTEWATER OPERATIONS**

**COST OF SERVICE**

**AS OF JUNE 30, 2025**

PENNSYLVANIA AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SANITARY SEWER SYSTEM  
BUTLER AREA OPERATIONS

WASTEWATER COST OF SERVICE

ALLOCATION STUDY

AS OF JUNE 30, 2025

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TWELVE MONTHS ENDED JUNE 30, 2025

Customer Classification (1)	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount (Schedule B) (2)	Percent (3)	Amount (4)	Percent (5)	Amount (6)	Percent (7)	Amount (8)	Percent Increase (9)
Residential	\$ 13,126,573	79.6%	\$ 8,694,030	73.8%	\$ 12,170,706	73.8%	\$ 3,476,676	40.0%
Non-Residential	3,365,035	20.4%	3,085,655	26.2%	4,320,902	26.2%	1,235,247	40.0%
Total Sales	16,491,608	100.0%	11,779,685	100.0%	16,491,608	100.0%	4,711,923	40.0%
Other Revenues	91,403		67,716		91,403		23,687	35.0%
COS Recovered from Water Rates	21,552,699		-		21,552,699		21,552,699	
Total	\$ 38,135,710		\$ 11,847,401		\$ 38,135,710		\$ 26,288,309	221.9%

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PRESENT RATES

ITEM (1)	COST OF SERVICE (2)	RESIDENTIAL (3)	NON-RESIDENTIAL (4)
1. REVENUES FROM SALES	11,779,685	8,694,030	3,085,655
2. OTHER REVENUES	67,716	53,917	13,799
3. TOTAL OPERATING REVENUES	11,847,401	8,747,947	3,099,454
4. LESS: OPERATING EXPENSES (NET OF COST OF SERVICE RECOVERED FROM WATER)	12,667,768	10,081,330	2,586,438
5. RETURN AND INCOME TAXES	(820,367)	(1,333,383)	513,016
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	4,979,926	3,948,822	1,031,104
7. TAXABLE INCOME	(5,800,293)	(5,282,205)	(518,088)
8. LESS: INCOME TAXES (TAX. INC.)	(442,348)	(402,837)	(39,511)
9. NET RETURN (Line 5 - Line 8)	(378,019)	(930,546)	552,527
10. ORIGINAL COSTS MEASURE OF VALUE	231,536,917	183,596,709	47,940,207
11. RATE OF RETURN, PERCENT	(0.16)	(0.51)	1.15
12. RELATIVE RATE OF RETURN	1.00	3.10	(7.06)

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION  
UNDER PROPOSED RATES

ITEM (1)	COST OF SERVICE (2)	RESIDENTIAL (3)	NON-RESIDENTIAL (4)
1. REVENUES FROM SALES	16,491,608	12,170,706	4,320,902
2. OTHER REVENUES	91,403	72,763	18,640
3. TOTAL OPERATING REVENUES	16,583,011	12,243,469	4,339,542
4. LESS: OPERATING EXPENSES (NET OF COST OF SERVICE RECOVERED FROM WATER)	(8,409,122)	(6,632,579)	(1,776,544)
5. RETURN AND INCOME TAXES	24,992,133	18,876,047	6,116,086
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	4,978,043	3,950,208	1,027,835
7. TAXABLE INCOME	20,014,090	14,925,839	5,088,251
8. LESS: INCOME TAXES (TAX. INC.)	6,608,102	4,928,102	1,680,000
9. NET RETURN (Line 5 - Line 8)	18,384,031	13,947,946	4,436,085
10. ORIGINAL COSTS MEASURE OF VALUE	231,536,917	183,730,629	47,806,288
11. RATE OF RETURN, PERCENT	7.94	7.59	9.28
12. RELATIVE RATE OF RETURN	1.00	0.96	1.17

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>OPERATION AND MAINTENANCE EXPENSES</b>				
<b>SEWAGE TREATMENT</b>				
601.3 Salary and Wages	1	\$ 2,407,470	\$ 1,874,225	\$ 533,246
615.3 Purchased Power	1	368,561	286,926	81,635
618.3 Chemicals	1	221,550	172,478	49,072
636.3 Contract Services - Operation	1	106,594	82,984	23,610
675.3 Misc. Operating Expense - Waste Disposal	1	59,515	46,333	13,182
675.4 Misc. Operating Expense	1	225,485	175,541	49,944
		3,389,176	2,638,486	750,690
<b>TOTAL SEWAGE TREATMENT EXPENSE</b>				
<b>COLLECTION</b>				
615.5 Purchased Power	2	10,594	8,544	2,050
		10,594	8,544	2,050
<b>TOTAL T &amp; D EXPENSE OPERATION</b>				

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
620.6 Materials and Supplies	2	194,254	156,669	37,585
675.6 Miscellaneous Maintenance Expense	2	171,872	138,618	33,255
<b>TOTAL T &amp; D EXPENSE - MAINTENANCE</b>		<b>366,127</b>	<b>295,287</b>	<b>70,840</b>
<b>TOTAL COLLECTION EXPENSE</b>		<b>376,721</b>	<b>303,831</b>	<b>72,890</b>
<b>CUSTOMER ACCOUNTS</b>				
670.7 Bad Debts	5	500,900	465,990	34,910
675.7 Miscellaneous Expense	5	33,099	30,793	2,307
<b>TOTAL CUSTOMER ACCOUNTING EXPENSE</b>		<b>533,999</b>	<b>496,783</b>	<b>37,217</b>
<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>				
604.8 Employee Pension & Benefits	6	682,879	531,621	151,258
634.8 Contractual Services - Management				
Customer Related	5	326,604	303,841	22,762
Employee Related	6	213,428	166,153	47,274
Lab Testing	1	15,204	11,837	3,368
Other	10	757,401	608,642	148,759
650.8 Transportation	10	58,011	46,617	11,394
657.8 Insurance	10	445,104	357,683	87,421
666.8 Amortization of Rate Case	9	20,057	15,967	4,090
675.8 Miscellaneous Expense	10	90,755	72,930	17,825
<b>TOTAL A &amp; G EXPENSE</b>		<b>2,609,443</b>	<b>2,115,292</b>	<b>494,151</b>
<b>Total Operation &amp; Maintenance Expenses</b>		<b>6,909,339</b>	<b>5,554,391</b>	<b>1,354,948</b>



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>DEPRECIATION EXPENSE</b>				
354.20 Structures and Improvements - Collection	2	219,504	177,033	42,471
354.30 Structures and Improvements - Pumping	2	844,486	681,091	163,395
354.40 Structures and Improvements - Treatment	3	197,414	153,688	43,726
354.70 Structures and Improvements - General	10	468,983	376,872	92,111
355.00 Power Generation Equipment	2	51,060	41,181	9,879
360.10 Force Mains	3	122,746	95,558	27,188
361.10 Gravity Mains	3	1,480,629	1,152,675	327,954
361.20 Manholes	3	7,251	5,645	1,606
363.00 Service Laterals	4	293,397	272,949	20,448
364.00 Flow Measuring Devices	2	13,855	11,174	2,681
371.00 Pumping Equipment	2	403,139	325,138	78,001
380.00 Treatment Equipment	3	874,088	680,481	193,607
382.00 Outfall Sewer Lines	1	1,497	1,165	332
390.00 Office Furniture and Equipment	10	5,037	4,048	989
391.00 Transportation Equipment	10	28,999	23,303	5,696
393.00 Tools, Shop and Garage Equipment	10	7,139	5,737	1,402
395.00 Power Operated Equipment	10	26,899	21,616	5,283
396.00 Communication Equipment	10	45,629	36,667	8,962
<b>Total Depreciation Expense</b>		<b>5,091,752</b>	<b>4,066,020</b>	<b>1,025,731</b>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b>Amortization Expense</b>	8	120,264	95,433	24,831
<b>Taxes Other Than Income</b>				
685100 Utility Reg Assessment Fee	9	241,765	192,460	49,305
685200 Property Taxes	8	589,414	467,716	121,698
685320 Payroll Taxes	6	191,043	148,727	42,316
<b>Total Taxes, Other Than Income</b>		1,022,222	808,903	213,319
<b>Total Operating Expense</b>		13,143,577	10,524,747	2,618,829
4091 Income Taxes	8	6,608,102	5,243,703	1,364,399
<b>Utility Income Available for Return</b>	8	18,384,031	14,588,212	3,795,819
<b>Total Cost of Service</b>		38,135,710	30,356,662	7,779,048
<b>Less: Misc Revenues</b>	9	91,403	72,763	18,640
<b>Less: Cost of Service Recovered from Water Rates</b>	9A	21,552,699	17,157,326	4,395,373
<b>Total Cost of Service Related to Sales of Wastewater Services</b>		16,491,608	13,126,573	3,365,035

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS ASSOCIATED WITH WASTEWATER TREATMENT

Factors are based on the pro forma test year average daily consumption for each customer classification with adjustments. The detail regarding calculation of adjusted flows can be found on the following page.

Classification (1)	Total Adjusted Average Daily Customer Flow 100 gallons (a) (2)	I&I Gallons Per Day 100 gallons (b) (3)	Total I&I And Average Flow (4)=(2)+(3)	Allocation Factor (7)
Residential	14,112	34,875	48,987	0.7785
Non-Residential	7,295	6,643	13,937	0.2215
Total	21,407	41,518	62,924	1.0000

(a) Customer Flow.

(b) Allocation based on Factor 1A for Residential, Non-Residential and Large Industrial.

FACTOR 1A. ALLOCATION OF INFILTRATION AND INFLOW BY CUSTOMER CLASS.

Factors are based on a 1/3-2/3 weighting of flow and number of customers, as follows:

Customer Classification (1)	Total Adjusted Average Daily Flow 100 gallons (2)	Average Daily Flow Factor (3)	Weight (4)=(3) x 0.3333	Number of Service Equivalents (5)	Number of Customers Factor (6)	Weight (7)=(6) x 0.6667	Allocation Factor (8)=(4)+(7)
Residential	14,112	0.6592	0.2197	171,216	0.9304	0.6203	0.8400
Non-Residential	7,295	0.3408	0.1136	12,816	0.0696	0.0464	0.1600
Total	21,407	1.0000	0.3333	184,032	1.0000	0.6667	1.0000

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH THE COLLECTION SYSTEM**

Factors are based on peak daily flow for each customer classification.

Customer Classification (1)	Ave. Flow Consumption, 100 gpd (2)	Peak I&I Flow 100 gallons (a) (3)	Total Peak I&I And Average (4)=(2)+(3)	Allocation Factor (5)
Residential	14,112	79,097	93,209	0.8065
Non-Residential	7,295	15,067	22,361	0.1935
<b>Total</b>	<b>21,407</b>	<b>94,163</b>	<b>115,570</b>	<b>1.0000</b>

(a) Allocation based on Factor 1A.

**FACTOR 3. ALLOCATION OF CAPITAL COSTS ASSOCIATED WITH PROJECTED AVERAGE DAILY FLOW INCLUDING INFILTRATION AND INFLOW**

Factors are based on the projected average daily consumption for each customer classification.

Customer Classification (1)	Total Average Daily Flow 100 gallons (2)	I&I Gallons Per Day 100 gallons (a) (3)	Total Direct I&I And Average (4)=(2)+(3)	Allocation Factor (7)
Residential	14,112	34,875	48,987	0.7785
Non-Residential	7,295	6,643	13,937	0.2215
<b>Total</b>	<b>21,407</b>	<b>41,518</b>	<b>62,924</b>	<b>1.0000</b>

(a) Allocation based on Factor 1A.

FACTOR 3A. NOT USED IN THIS ALLOCATION

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER FACILITIES.

Factors are based on the estimated relative cost of customer facilities, as follows:

Customer Classification <u>(1)</u>	Number of Customers <u>(2)</u>	Service Equiv. Ratio (a) <u>(3)</u>	Service Equivalents <u>(2)X(3)=(4)</u>	Allocation Factor <u>(5)</u>
Residential	171,072	1.0	171,072	0.9303
Non-Residential	12,816	1.0	12,816	0.0697
	<hr/>		<hr/>	
Total	<u><u>183,888</u></u>		<u><u>183,888</u></u>	<u><u>1.0000</u></u>

(a) Based on ratio by class for Coatesville service area.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH BILLING AND COLLECTING.

Factors are based on the number of customers.

Customer Classification <u>(1)</u>	Number of Customers <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	171,072	0.9303
Non-Residential	12,816	0.0697
	<hr/>	<hr/>
Total	<u><u>183,888</u></u>	<u><u>1.0000</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 6. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	\$ 1,874,225	0.7785
Non-Residential	533,246	0.2215
	<hr/>	<hr/>
Total	<u>\$ 2,407,470</u>	<u>1.0000</u>

FACTOR 7. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	\$ 185,670,939	0.7935
Non-Residential	48,323,487	0.2065
	<hr/>	<hr/>
Total	<u>\$ 233,994,426</u>	<u>1.0000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 8. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	\$ 183,730,629	0.7935
Non-Residential	47,806,288	0.2065
	<hr/>	<hr/>
Total	<u><u>\$ 231,536,917</u></u>	<u><u>1.0000</u></u>

FACTOR 9. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$ 29,585,086	0.7961
Non-Residential	7,579,123	0.2039
	<hr/>	<hr/>
Total	<u><u>\$ 37,164,209</u></u>	<u><u>1.0000</u></u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
COST OF SERVICE FOR THE TWELVE MONTHS ENDING JUNE 30, 2025, ALLOCATED TO CUSTOMER CLASSES

Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Non-Residential (5)
<b><u>RATE BASE</u></b>				
353.40 Land and Land Rights - Treatment	3	\$ 13,335,927	\$ 10,382,069	\$ 2,953,858
354.20 Structures and Improvements - Collection	2	8,105,225	6,536,990	1,568,236
354.30 Structures and Improvements - Pumping	2	36,944,919	29,796,649	7,148,270
354.40 Structures and Improvements - Treatment	3	14,064,894	10,949,572	3,115,321
354.70 Structures and Improvements - General	10	9,429,707	7,577,649	1,852,058
355.00 Power Generation Equipment	2	1,502,908	1,212,119	290,789
360.10 Force Mains	3	7,987,183	6,218,052	1,769,131
361.10 Gravity Mains	3	98,503,648	76,685,458	21,818,189
361.20 Manholes	3	322,613	251,155	71,458
363.00 Service Laterals	4	11,155,171	10,377,716	777,455
364.00 Flow Measuring Devices	2	190,433	153,587	36,846
371.00 Pumping Equipment	2	8,345,933	6,731,124	1,614,809
380.00 Treatment Equipment	3	22,748,079	17,709,465	5,038,614
382.00 Outfall Sewer Lines	1	70,691	55,033	15,658
390.00 Office Furniture and Equipment	10	75,534	60,699	14,835
390.20 Computer and Peripheral Equipment	10	18,896	15,185	3,711
391.00 Transportation Equipment	10	412,344	331,357	80,987
393.00 Tools, Shop and Garage Equipment	10	141,852	113,991	27,861
395.00 Power Operated Equipment	10	638,467	513,068	125,399
396.00 Communication Equipment	10	576,938	463,623	113,314
397.00 Miscellaneous Equipment	10	730	587	143
<b>TOTAL SEWER UTILITY PLANT IN SERVICE</b>		<b>\$ 234,572,094</b>	<b>\$ 186,135,149</b>	<b>\$ 48,436,944</b>
<b>Other Rate Base Items:</b>				
Cash Working Capital - Expenses	11	373,592	300,338	73,254
Cash Working Capital - Int and Div	7	(422,915)	(335,583)	(87,332)
Materials and Supplies	7	117,597	93,313	24,284
Acquisition Adjustment	7	1,092,393	866,814	225,579
Deferred, Accrued and Prepaid Taxes	7	(4,195,844)	(3,329,402)	(866,442)
Total Other Rate Base Elements		(3,035,177)	(2,404,520)	(630,657)
<b>Total Original Cost Measure of Value</b>		<b>231,536,917</b>	<b>183,730,629</b>	<b>47,806,288</b>



PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 9A. ALLOCATION OF REVENUE FROM WATER RATES

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$ 29,585,086	0.7961
Non-Residential	7,579,123	0.2039
	<hr/>	<hr/>
Total	<u>\$ 37,164,209</u>	<u>1.000</u>

PENNSYLVANIA AMERICAN WATER COMPANY  
WASTEWATER SEWER SANITARY SYSTEM BUTLER AREA OPERATIONS  
FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 10. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 2,924,819	0.8036
Non-Residential	714,857	0.1964
	<hr/>	<hr/>
Total	<u>\$ 3,639,676</u>	<u>1.0000</u>

FACTOR 11. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation of operation and maintenance expenses including purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 5,538,425	0.8039
Commercial	1,350,857	0.1961
	<hr/>	<hr/>
Total	<u>\$ 6,889,282</u>	<u>1.0000</u>

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**2023 GENERAL BASE RATE CASE  
R-2023-3043189 (WATER)  
R-2023-3043190 (WASTEWATER)**

**DIRECT TESTIMONY AND EXHIBIT OF  
ANN E. BULKLEY**

**STATEMENT NO. 13  
EXHIBIT NO. 13-A**

**PENNSYLVANIA-AMERICAN WATER COMPANY**

**Direct Testimony**

**of**

**Ann E. Bulkley, Principal  
The Brattle Group**

**Concerning**

**Fair Rate of Return and Capital Structure**

**DOCKET NOS.**

**R-2023-3043189 (WATER)**

**R-2023-3043190 (WASTEWATER)**

**Date: November 8, 2023**

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1                    **II.     PURPOSE AND OVERVIEW OF DIRECT TESTIMONY**

2   **Q.     Please describe the purpose of your Direct Testimony.**

3   A.     The purpose of my Direct Testimony is to present evidence and provide a recommendation  
4        regarding the appropriate return on equity (“ROE”) for the Company and to provide an  
5        assessment of the reasonableness of PAWC’s proposed capital structure for ratemaking  
6        purposes.

7   **Q.     Are you sponsoring any exhibits in support of your direct testimony?**

8   A.     Yes. My analysis and recommendations are supported by the data presented in Exhibit No.  
9        13-A Schedule 1 through Schedule 14, which were prepared by me or under my direction.

10   **Q.     Please provide a brief overview of the analyses that led to your ROE recommendation.**

11   A.     As discussed in more detail below, it is important to consider the results of several  
12        analytical approaches in determining a reasonable recommendation for the Company’s  
13        ROE. To develop my ROE recommendation, I first developed a proxy group of utility  
14        companies. I did not limit the proxy group to water utilities, but included a broader group  
15        of utilities that face risk similar to PAWC because a proxy group composed only of water  
16        utilities would result in a small group of companies for which data is limited. To that proxy  
17        group, I applied the Constant Growth Form of the Discounted Cash Flow (“DCF”) model,  
18        the Capital Asset Pricing Model (“CAPM”), and the Empirical Capital Asset Pricing Model  
19        (“ECAPM”). My recommendation also takes into consideration the following factors:

- 20            1. PAWC’s capital expenditure program relative to the proxy group companies;
- 21            2. Flotation costs associated with AWK’s recent equity issuance;

- 1           3. the risks related to environmental and water quality regulation;
- 2           4. the regulatory risk of PAWC relative to the proxy group; and
- 3           5. PAWC’s proposed capital structure as compared to the capital structures of the
- 4           proxy group companies.<sup>1</sup>

5           While I did not make specific adjustments to my recommended ROE for these factors, I

6           did consider them in the aggregate when determining where my recommended ROE falls

7           within the range of the analytical results.

8   **Q.    How is the remainder of your Direct Testimony organized?**

9    A.    The remainder of my direct testimony is organized as follows:

- 10           • Section III provides a summary of my analyses and conclusions.
- 11           • Section IV reviews the regulatory guidelines pertinent to the development of the
- 12           cost of capital.
- 13           • Section V discusses current and projected capital market conditions and the effect
- 14           of those conditions on PAWC’s cost of equity.
- 15           • Section VI explains my selection of the proxy group for PAWC.
- 16           • Section VII describes my analyses and the analytical basis for my recommendation
- 17           of the appropriate ROE for PAWC.
- 18           • Section VIII provides a discussion of specific regulatory, business, and financial
- 19           risks that have a direct bearing on the ROE to be authorized for PAWC in this case.
- 20           • Section IX provides an assessment of the reasonableness of PAWC’s proposed
- 21           capital structure relative to the proxy group.
- 22           • Section X presents my conclusions and recommendations.

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<sup>1</sup> The selection and purpose of developing a group of comparable companies will be discussed in detail in Section VI of my Direct Testimony.





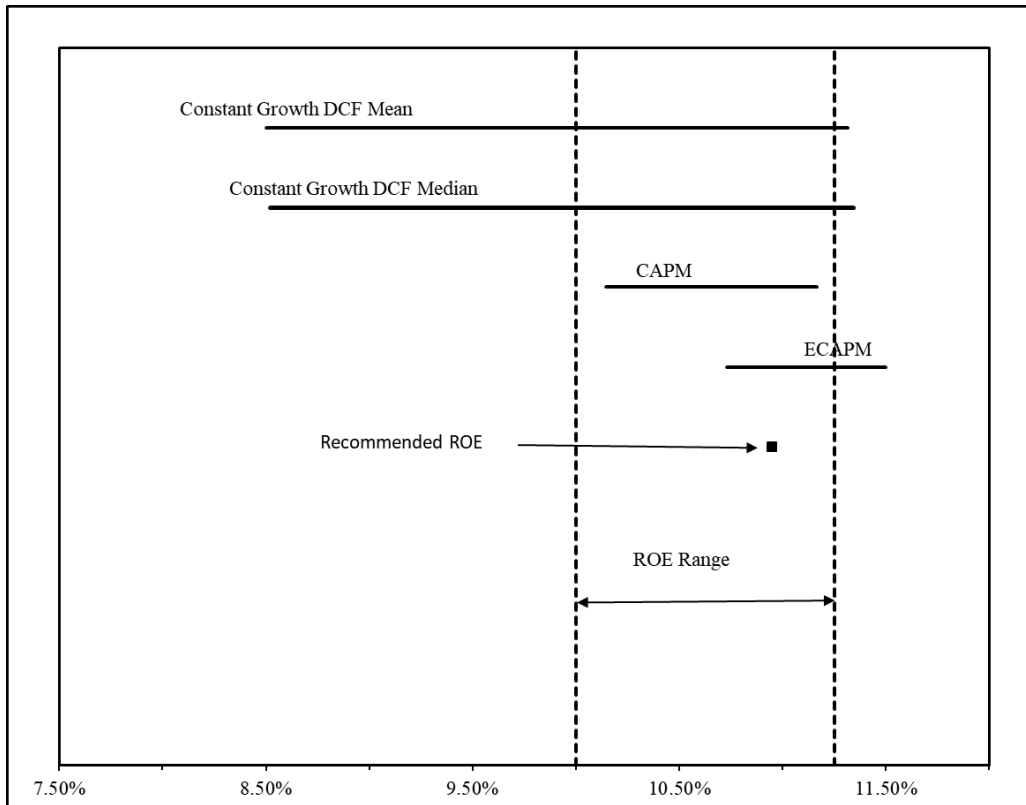
1 range of results. My conclusion as to the appropriate ROE for PAWC within that range of  
2 results is based on Company's business and financial risk relative to the proxy group and  
3 my assessment of market conditions. As noted above, although the companies in my proxy  
4 group are generally comparable to PAWC, each company is unique. Accordingly, I  
5 considered the Company's business, financial and regulatory risk in aggregate relative to  
6 that of the proxy group companies when determining where the Company's ROE should  
7 fall within the reasonable range of analytical results to appropriately account for any  
8 residual differences in risk.

9 **Q. What are the results of the models that you have used to estimate the cost of equity**  
10 **for PAWC?**

11 A. Figure 1 (and Exhibit No. 13-A, Schedule 1) summarizes the range of results produced by  
12 the Constant Growth DCF, CAPM, and ECAPM analyses.

1

**Figure 1: Summary of Cost of Equity Analytical Results<sup>3</sup>**



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As shown in Figure 1 (and Exhibit No. 13-A, Schedule 1), the range of results produced by the models used to estimate the COE is wide. For example, the low end of the DCF results are below any ROE that has been authorized by a regulatory commission for a water utility whereas the range set by the higher end of the DCF model overlap the results of the other risk premium-based methodologies. While it is common to consider multiple models to estimate the cost of equity, it is particularly important when the range of results varies

<sup>3</sup> DCF results exclude the result for Middlesex Water Company because the low and mean results are lower than the current yield on the Moody's Baa rated utility bond index, which is illogical and the high end DCF result does not provide a reasonable equity risk premium over the current yield on the Moody's Baa rated utility bond index of 6.48 percent on a 30-day average basis ending October 31, 2023.

1 considerably across methodologies. My ROE recommendation also considers PAWC's  
2 company-specific risk factors and current and prospective capital market conditions.

3 **Q. Are prospective capital market conditions expected to affect the results of the cost of**  
4 **equity for PAWC during the period in which the rates established in this proceeding**  
5 **will be in effect?**

6 A. Yes. Capital market conditions are expected to affect the results of the cost of equity  
7 estimation models. Specifically:

- 8 • Inflation is expected to persist over the near-term, which increases the retail revenue  
9 requirement due to increases in operating costs. Inflation increases the risk that the  
10 revenue requirement that is set in a rate proceeding will not recover the operating  
11 costs of the business going forward, which increases the operating risk of the utility  
12 during the period in which rates will be in effect.
- 13 • Long-term interest rates have increased substantially in the past year in response to  
14 inflation.
- 15 • Equity analysts have noted the increased risk for the utility sector as a result of  
16 rising interest rates and expect the sector to underperform over the near-term.
- 17 • Since utility dividend yields are now less attractive than the risk-free rates of  
18 government bonds, and interest rates are expected to remain elevated, it is likely  
19 that utility share prices will decline.
- 20 • A decline in utility stock prices will increase the dividend yields and thus, all else  
21 equal, the cost of equity estimates produced by the DCF model.
- 22 • Consequently, the results of the DCF model using current utility share prices may  
23 understate the cost of equity during the period that the Company's rates will be in  
24 effect.
- 25 • Furthermore, expected market conditions warrant consideration of forward-looking  
26 cost of equity estimation models such as the CAPM and ECAPM, which rely on  
27 interest rates as a direct input into the models and thus may better reflect the market  
28 expected during the period that the Company's rates will be in effect.

- 1           • Rating agencies have cited increased risk in the utility sector due to increased  
2           interest rates, inflation and elevated capital expenditures.

3           It is appropriate to consider all of these factors when estimating a reasonable range of the  
4           investor-required cost of equity and the recommended ROE for PAWC.

5   **Q.    What is your conclusion regarding the appropriate authorized ROE for PAWC in**  
6   **this proceeding?**

7   A.    Considering the analytical results presented in Figure 1, current and prospective capital  
8           market conditions, as well as the level of regulatory, business, and financial risk faced by  
9           PAWC’s water and wastewater operations in Pennsylvania relative to the proxy group, I  
10          believe a range from 10.00 percent to 11.25 percent is reasonable. Taking into  
11          consideration the results of the analytical models, current market conditions, the  
12          Company’s relative risk, and superior management performance, an ROE in the higher end  
13          of that range of 10.95 percent is reasonable and appropriate.

14 **Q.    Is PAWC’s requested capital structure reasonable and appropriate?**

15 A.    Yes. Comparing the Company’s proposed equity ratio of 55.00 percent to the equity ratios  
16          of the operating companies owned by the proxy group companies demonstrates that the  
17          Company’s requested equity ratio is well within the range of equity ratios for the proxy  
18          group. Further, the Company’s proposed equity ratio is reasonable considering credit  
19          rating agencies’ continued concern with the negative effect on the cash flows and credit  
20          metrics associated with increasing interest rates, inflation and capital expenditures.

1 IV. REGULATORY GUIDELINES

2 **Q. Please describe the guiding principles to be used in establishing the cost of capital for**  
3 **a regulated utility.**

4 A. The U.S. Supreme Court’s precedent-setting *Hope* and *Bluefield* cases established the  
5 standards for determining the fairness and reasonableness of a utility’s authorized ROE.  
6 Among the standards established by the Court in those cases are: (1) consistency with other  
7 businesses having similar or comparable risks; (2) adequacy of the return to support credit  
8 quality and access to capital; and (3) the principle that the specific means of arriving at a  
9 fair return does not need to be determined, only that the end result leads to just and  
10 reasonable rates.<sup>4</sup>

11 **Q. Is fixing a proper rate of return just about protecting the utility’s interests?**

12 A. No. As the Court noted in *Bluefield*, a proper rate of return not only assures “confidence  
13 in the financial soundness of the utility and should be adequate, under efficient and  
14 economical management, to maintain and support its credit [but also] enable[s the utility]  
15 to raise the money necessary for the proper discharge of its public duties.”<sup>5</sup> As the Court  
16 went on to explain in *Hope*, “[t]he rate-making process ... involves balancing of the  
17 investor and consumer interests.”<sup>6</sup>

---

<sup>4</sup> *Bluefield*, 262 U.S. at 692-93; *Hope*, 320 U.S. at 603.

<sup>5</sup> *Bluefield*, 262 U.S. at 693.

<sup>6</sup> *Hope*, 320 U.S. at 603.

1 **Q. Has the Pennsylvania Public Utility Commission (“Commission”) provided similar**  
2 **guidance in establishing the appropriate return on common equity?**

3 A. Yes. The Commission follows the precedents of the Hope and Bluefield cases and  
4 acknowledges that utility investors are entitled to a fair and reasonable return. This position  
5 was set forth by the Commission as follows:

6 In determining a fair rate of return, the Commission must adhere to the  
7 constitutional standards established by the United States Supreme Court in  
8 the seminal cases *Bluefield Water Works and Improvement Co. v. Public*  
9 *Service Comm’n of West Virginia*, 262 U.S. 679, 692-93 (1923) (*Bluefield*)  
10 and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591,  
11 603 (1944) (*Hope Natural Gas*). In *Bluefield*, the Supreme Court stated:

12 A public utility is entitled to such rates as will permit it to earn a return on  
13 the value of the property which it employs for the convenience of the public  
14 equal to that generally being made at the same time and in the same general  
15 part of the country on investments in other business undertakings which are  
16 attended by corresponding risks and uncertainties; but it has no  
17 constitutional right to profits such as are realized or anticipated in highly  
18 profitable enterprises or speculative ventures. The return should be  
19 reasonably sufficient to assure confidence in the financial soundness of the  
20 utility and should be adequate, under efficient and economical management,  
21 to maintain and support its credit and enable it to raise the money necessary  
22 for the proper discharge of its public duties. A rate of return may be too high  
23 or too low by changes affecting opportunities for investment, the money  
24 market and business conditions generally.

25 Twenty years later in *Hope Natural Gas*, the Supreme Court reiterated:

26 From the investor or company point of view it is important that there be  
27 enough revenue not only for operating expenses but also for the capital costs  
28 of the business. These include service on the debt and dividends on the  
29 stock. By that standard the return to equity owner should be commensurate  
30 with returns on investments in other enterprises having corresponding risks.  
31 That return, moreover, should be sufficient to assure confidence in the

1 financial integrity of the enterprise, so as to maintain its credit and to attract  
2 capital.<sup>7</sup>

3 **Q. Why is it important for a utility to be allowed the opportunity to earn a return that is**  
4 **adequate to attract capital at reasonable terms?**

5 A. A return that is adequate to attract capital at reasonable terms enables PAWC to continue  
6 to provide safe, reliable water and wastewater service efficiently while maintaining its  
7 financial integrity. That return should be commensurate with returns expected elsewhere  
8 in the market for investments of equivalent risk. If it is not, debt and equity investors will  
9 seek alternative investment opportunities for which the expected return reflects the  
10 perceived risks, thereby inhibiting PAWC's ability to attract capital at reasonable cost.  
11 When the Company is afforded a reasonable opportunity to earn its market-based cost of  
12 capital, a fair and reasonable balance will be achieved between customers' and  
13 shareholders' interests.

14 **Q. Is a utility's ability to attract capital also affected by the ROEs authorized for other**  
15 **utilities?**

16 A. Yes. Utilities compete directly for capital with other investments of similar risk, which  
17 include other water, natural gas, and electric utilities. Therefore, the ROE authorized for a  
18 utility sends an important signal to investors regarding whether there is regulatory support  
19 for financial integrity, dividends, growth, and fair compensation for business and financial  
20 risk. The cost of capital represents an opportunity cost to investors. If higher returns are  
21 available elsewhere for other investments of comparable risk over the same time period,

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<sup>7</sup> Pennsylvania Public Utility Commission, Opinion and Order, PECO Energy Company – Gas Division, Docket No. R-2020-3018929, June 17, 2021 at 8.



1 investors have an incentive to direct their capital to those alternative investments. Thus,  
2 an authorized ROE significantly below authorized ROEs for other water, natural gas, and  
3 electric utilities can inhibit the utility's ability to attract capital for investment.

4 **Q. Is the regulatory framework and the authorized ROE and equity ratio important to**  
5 **the financial community?**

6 A. Yes. The regulatory framework is one of the most important factors in debt and equity  
7 investors' assessments of risk. Specifically regarding debt investors, credit rating agencies  
8 consider the authorized ROE and equity ratio for regulated utilities to be very important  
9 for two reasons: (1) they help determine the cash flows and credit metrics of the regulated  
10 utility; and (2) they provide an indication of the degree of regulatory support for credit  
11 quality in the jurisdiction. To the extent that the authorized returns in a jurisdiction are  
12 lower than the returns that have been authorized more broadly, credit rating agencies will  
13 consider this in the overall risk assessment of the regulatory jurisdiction in which the  
14 company operates. Not only do credit ratings affect the overall cost of borrowing, they  
15 also act as a signal to equity investors about the risk of investing in the equity of a company.

16 **Q. What is the standard for setting the ROE in any jurisdiction?**

17 A. The stand-alone ratemaking principle is the foundation of jurisdictional ratemaking. This  
18 principle requires that the rates that are charged in any operating jurisdiction be for the  
19 costs incurred in that jurisdiction. The stand-alone ratemaking principle ensures that  
20 customers in each jurisdiction only pay for the costs of the service provided in that  
21 jurisdiction, which is not influenced by the business operations in other operating  
22 companies. In order to maintain this principle, the cost of equity analysis is performed for

1 an individual operating company as a stand-alone entity. As such, I have evaluated the  
2 investor-required return for PAWC's water and wastewater operations in Pennsylvania.

3 **Q. What are your conclusions regarding regulatory guidelines?**

4 A. The ratemaking process is premised on the principle that, in order for investors and  
5 companies to commit the capital needed to provide safe and reliable utility services, a  
6 utility must have a reasonable opportunity to recover the return of, and the market-required  
7 return on, its invested capital. Accordingly, the Commission's order in this proceeding  
8 should establish rates that provide the Company with a reasonable opportunity to earn a  
9 ROE that is: (1) adequate to attract capital at reasonable terms; (2) sufficient to ensure its  
10 financial integrity; and (3) commensurate with returns on investments in enterprises with  
11 similar risk. It is important for the ROE authorized in this proceeding to take into  
12 consideration current and projected capital market conditions, as well as investors'  
13 expectations and requirements for both risks and returns. Because utility operations are  
14 capital-intensive, regulatory decisions should enable the utility to attract capital at  
15 reasonable terms under a variety of economic and financial market conditions. Providing  
16 the opportunity to earn a market-based cost of capital supports the financial integrity of the  
17 Company, which is in the interest of both customers and shareholders.

18 **V. CAPITAL MARKET CONDITIONS**

19 **Q. Why is it important to analyze capital market conditions?**

20 A. The models used to estimate the cost of equity rely on market data that are specific either  
21 to the proxy group, in the case of the DCF model, or to the expectations of market risk, in

1 the case of the CAPM. The results of the cost of equity estimation models can be affected  
2 by prevailing market conditions at the time the analysis is performed. While the ROE  
3 established in a rate proceeding is intended to be forward-looking, the analyst uses both  
4 current and projected market data, specifically stock prices, dividends, growth rates, and  
5 interest rates, in the cost of equity estimation models to estimate the investor-required  
6 return for the subject company.

7 Regulatory commissions and analysts recognize that current market conditions affect the  
8 results of the cost of equity estimation models. As a result, it is important to consider the  
9 effect of the market conditions on these models when determining an appropriate range for  
10 the ROE and the recommended ROE for ratemaking purposes for a future period. If  
11 investors do not expect current market conditions to be sustained in the future, it is possible  
12 that the cost of equity estimation models will not provide an accurate estimate of investors'  
13 required return during that rate period. Therefore, it is very important to consider projected  
14 market data to estimate the return for that forward-looking period.

15 **Q. What factors are affecting the cost of equity for regulated utilities in the current and**  
16 **prospective capital markets?**

17 A. The cost of equity for regulated utility companies is being affected by several factors in the  
18 current and prospective capital markets, including: (1) changes in monetary policy; (2)  
19 relatively high inflation; and (3) increased interest rates that also are expected to remain  
20 relatively high over the next few years. These factors affect the assumptions used in the  
21 cost of equity estimation models.

1 **Q. What effect do current and prospective market conditions have on the cost of equity**  
2 **for the Company?**

3 A. As is discussed in more detail in the remainder of this section, the combination of inflation  
4 persistently higher than the Federal Reserve’s target level and the Federal Reserve’s  
5 changes in monetary policy contribute to an expectation of increased market risk and an  
6 increase in the cost of the investor-required return. It is important that these factors be  
7 considered in setting a forward-looking ROE. Inflation has recently been at some of the  
8 highest levels seen in approximately 40 years, and while inflation has declined from these  
9 recent peaks, it remains relatively high. Interest rates, which have increased significantly,  
10 are expected to continue to remain relatively high in direct response to the Federal  
11 Reserve’s use of monetary policy to combat inflation. There is a strong historical inverse  
12 correlation between interest rates (i.e., yields on long-term government bonds) and the  
13 share prices of utility stocks (i.e., as utility share prices decline, utility dividend yields  
14 increase). Since the yields on long-term government bonds currently exceed the dividend  
15 yields of utilities, and historically long-term government bond yields have been lower than  
16 the dividend yields of utilities, it is reasonable to expect that utility investors’ cost of equity  
17 is increasing. Because the cost of equity in this proceeding is being estimated for the future  
18 period that the Company’s rates will be in effect, and because the cost of equity is expected  
19 to increase over the near term for utilities, cost of equity estimates based in whole or in part  
20 on historical or current market conditions, as opposed to projected market conditions, will  
21 likely understate the cost of equity during the future period that the Company’s rates will  
22 be in effect.

1           **A.   Inflationary Expectations in Current and Projected Capital Market**  
2           **Conditions**

3   **Q.    Has inflation increased significantly in recent years?**

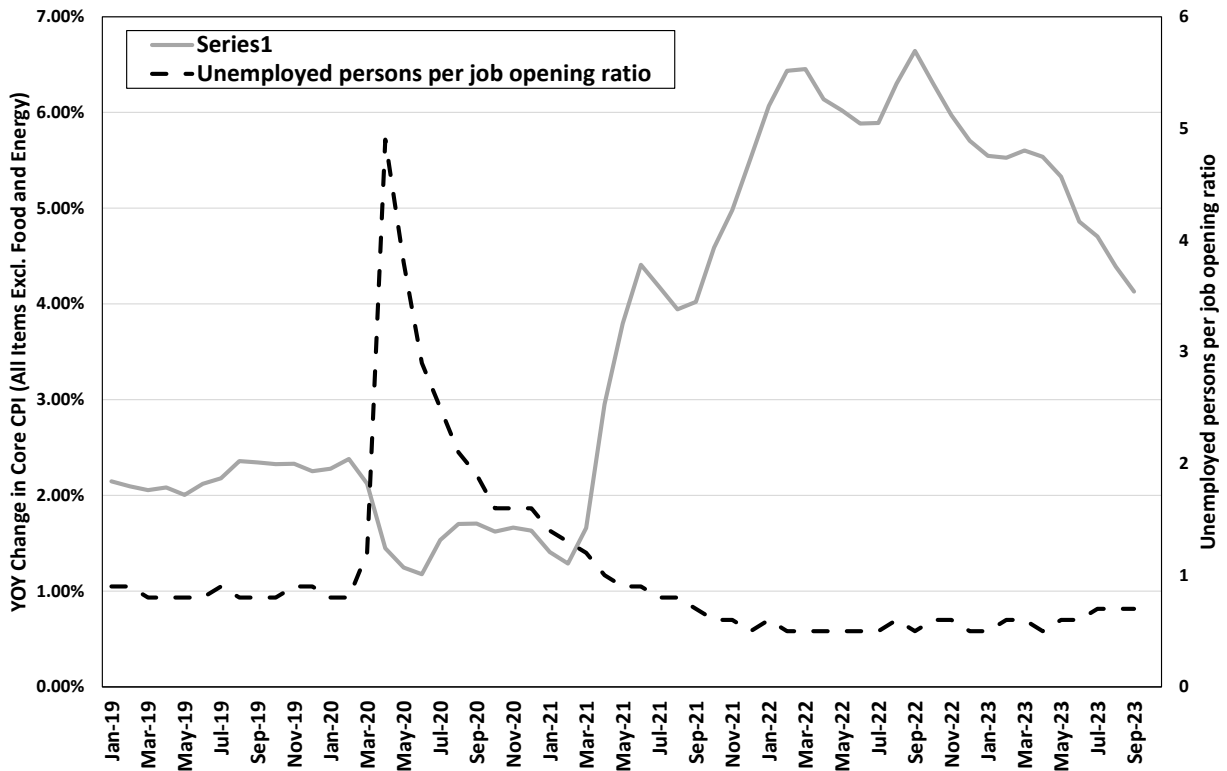
4   A.    Yes. As shown in Figure 2, core inflation increased steadily beginning in early 2021, rising  
5        from 1.41 percent in January 2021 to a high of 6.64 percent in September 2022, which was  
6        the largest 12-month increase since 1982.<sup>8</sup> Since that time, while core inflation has  
7        declined in response to the Federal Reserve’s monetary policy, core inflation continues to  
8        remain significantly above the Federal Reserve’s target level of 2.0 percent.

9        Finally, Figure 2 also considers the ratio of unemployed persons per job opening, which is  
10        currently 0.7 and has been consistently below 1.0 since mid- 2021 despite the Federal  
11        Reserve’s accelerated policy normalization. This metric indicates sustained strength in the  
12        labor market. Given the Federal Reserve’s dual mandate of maximum employment and  
13        price stability, the continued increased levels of core inflation coupled with the strength in  
14        the labor market has resulted in the Federal Reserve’s sustained focus on the priority of  
15        reducing inflation.

---

<sup>8</sup> Figure 2, presents the year-over-year (“YOY”) change in core inflation as measured by the Consumer Price Index (“CPI”) excluding food and energy prices as published by the Bureau of Labor Statistics. I considered core inflation because it is the preferred inflation indicator of the Federal Reserve for determining the direction of monetary policy. Core inflation is preferred by the Federal Reserve since it removes the effect of food and energy prices, which can be highly volatile.

1 **Figure 2: Core Inflation and Unemployed Persons-to-Job Openings, January 2019**  
 2 **to October 2023<sup>9</sup>**



3

4 **Q. What are the expectations for inflation over the near term?**

5 A. Despite the declines from 40-year highs, the Federal Reserve has indicated that it expects  
 6 inflation will remain above its target level over at least the next year and that monetary  
 7 policy will remain restrictive in order to reduce inflation. For example, Federal Reserve  
 8 Chair Powell observed at the Federal Open Market Committee (FOMC) meeting in  
 9 September 2023 that while inflation is down from its recent highs, it remains significantly  
 10 above the Federal Reserve’s long-term target:

<sup>9</sup> Bureau of Labor Statistics.

1 Inflation remains well above our longer-run goal of 2 percent. Based on the  
2 Consumer Price Index and other data, we estimate that total PCE [personal  
3 consumption expenditures] prices rose 3.4 percent over the 12 months  
4 ending in August; and that, excluding the volatile food and energy  
5 categories, core PCE prices rose 3.9 percent. Inflation has moderated  
6 somewhat since the middle of last year, and longer-term inflation  
7 expectations appear to remain well anchored, as reflected in a broad range  
8 of surveys of households, businesses, and forecasters, as well as measures  
9 from financial markets. Nevertheless, the process of getting inflation  
10 sustainably down to 2 percent has a long way to go. The median projection  
11 in the SEP for total PCE inflation is 3.3 percent this year, falls to 2.5 percent  
12 next year, and reaches 2 percent in 2026.<sup>10</sup>

13 After the September 2023 and the November 2023 meetings Chair Powell kept open the  
14 possibility of additional rate increases, considering even December this year, or thereafter  
15 if it is appropriate to do so. He also stated that interest rates would likely remain positive  
16 for some time:

17 First of all, interest rates – real interest rates are, are positive now. They’re  
18 meaningfully positive, and that’s a good thing. We need policy to be  
19 restrictive so that we can get inflation down to target. Okay. And we need -  
20 we’re going to need that to remain to be the case for some time. So I think,  
21 you know – remember that the – of course, the SEP [Summary of Economic  
22 Projections] is not a plan that is negotiated or discussed, really, as a plan.  
23 It's accumulation, really, and what you see are the medians. It's  
24 accumulation of individual forecasts from 19 people, and then what you're  
25 seeing are the medians. So I wouldn't want to, you know, bestow upon it the  
26 idea that, that it's really a plan. But what it reflects, though, is that economic  
27 activity’s been stronger than we expected – stronger than I think everyone  
28 expected. And, so what you're – what you’re seeing is, this is what people  
29 believe, as of now, will be appropriate to achieve what we're looking to  
30 achieve, which is progress toward our – toward our inflation goal, as you  
31 see in the SEP.<sup>11</sup>

32 The fact is the committee is not thinking about rate cuts right now at all.  
33 We’re not talking about rate cuts. We’re still very focused on the first  
34 question, which is ‘have we achieved a stance of monetary policy that’s

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<sup>10</sup> Federal Reserve, Transcript of Chair Powell’s Press Conference, September 20, 2023, p 2.

<sup>11</sup> *Id.*, Transcript of Chair Powell Press Conference, September 20, 2023 at 6.

1 sufficiently restrictive to bring inflation down to 2% over time,  
2 sustainably?’ That is the question we’re focusing on.<sup>12</sup>

3 **B. The Use of Monetary Policy to Address Inflation**

4 **Q. What policy actions has the Federal Reserve enacted to respond to increased**  
5 **inflation?**

6 A. The dramatic increase in inflation has prompted the Federal Reserve to pursue an  
7 aggressive normalization of monetary policy, removing the accommodative policy  
8 programs used to mitigate the economic effects of COVID-19. Since the March 2022  
9 FOMC meeting, the Federal Reserve increased the target federal funds rate through a series  
10 of increases from a range of 0.00 – 0.25 percent to a range of 5.25 percent to 5.50 percent.<sup>13</sup>  
11 Further, as noted above, while the Federal Reserve acknowledges that inflation has  
12 declined from its peak, it still is well above the Federal Reserve’s target of 2 percent.  
13 Therefore, the Federal Reserve anticipates the continued need to maintain the federal funds  
14 rate at a restrictive level in order to achieve its goal of 2 percent inflation over the long run.

15 **C. The Effect of Inflation and Monetary Policy on Interest Rates and the**  
16 **Investor-Required Return**

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<sup>12</sup> CNBC “Full recap: Fed leaves rates unchanged, Powell discusses December decision”, November 1, 2023.

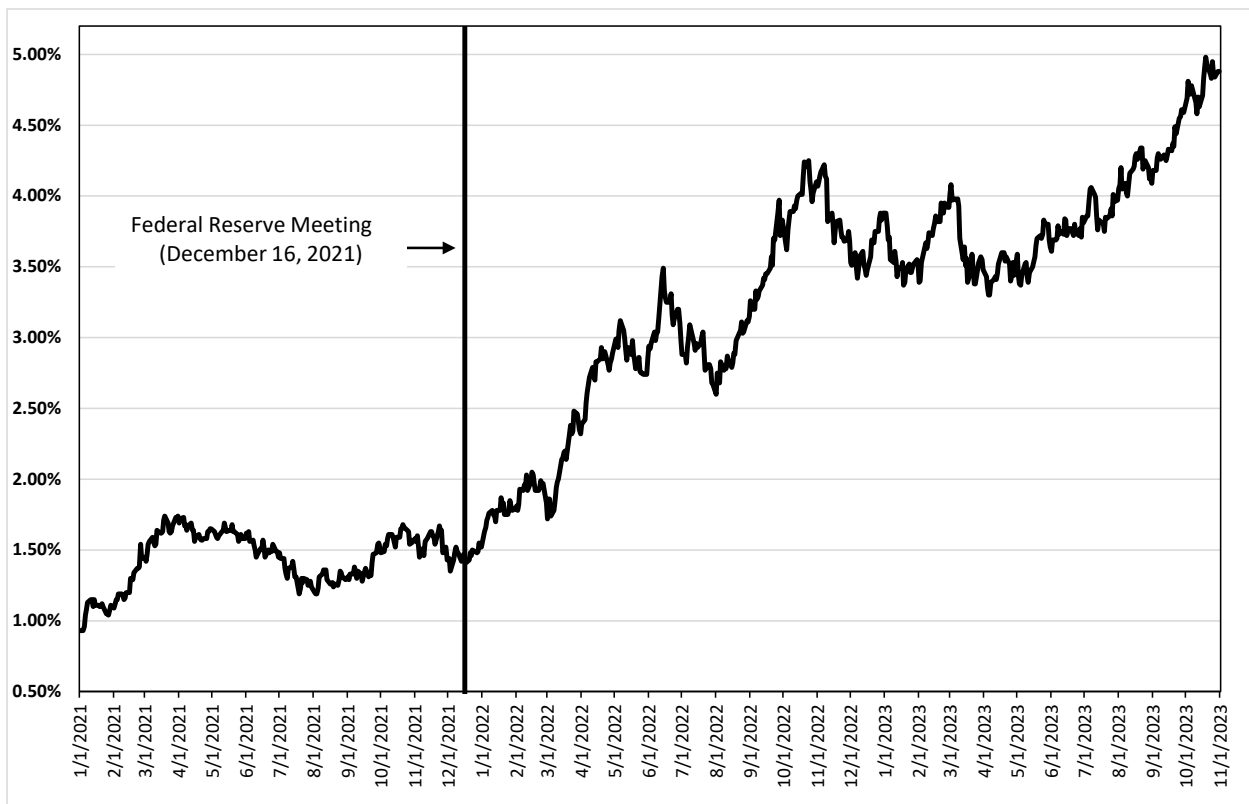
<sup>13</sup> Federal Reserve, Press Releases, March 16, 2022, May 4, 2022, June 15, 2022, September 22, 2022, November 2, 2022, February 1, 2023, March 22, 2023, May 3, 2023, July 26, 2023, September 20, 2023, November 1, 2023.  
[Federal Reserve Board - Press Releases](#)



1 **Q. Have the yields on long-term government bonds increased in response to inflation and**  
2 **the Federal Reserve’s normalization of monetary policy?**

3 A. Yes. As the Federal Reserve has substantially increased the federal funds rate in response  
4 to increased levels of inflation that have persisted for longer than originally projected,  
5 longer term interest rates have also increased. As shown in Figure 3, since the Federal  
6 Reserve’s December 2021 meeting, the yield on 10-year Treasury bond has more than  
7 doubled, increasing from 1.47 percent on December 15, 2021 to 4.88 percent at the end of  
8 October 2023.

9 **Figure 3: 10-Year Treasury Bond Yield, January 2021 through October 2023<sup>14</sup>**



10

<sup>14</sup> S&P Capital IQ Pro.

1 **Q. What have equity analysts said about long-term government bond yields?**

2 A. Leading equity analysts have noted that they expect the yields on long-term government  
3 bonds to remain elevated. According to the most recent *Blue Chip Financial Forecasts*  
4 report, the consensus estimate of the average yield on the 10-year Treasury Bond is  
5 approximately 3.80 percent through the first quarter of 2025.<sup>15</sup> It is reasonable to expect  
6 that if government bond yields remain elevated, the cost of equity will be increasing above  
7 the levels experienced in the 2020 and 2021 lower interest rate environment.

8 **Q. How have interest rates and inflation changed since the Company’s last rate case?**

9 A. As shown in Figure 4, at the time that the Commission approved the Company’s settlement  
10 in its last rate proceeding, interest rates (as measured by the 30-year Treasury bond yield)  
11 were 3.91 percent and inflation was 5.70 percent. Since the Company’s last rate  
12 proceeding, long-term interest rates have increased approximately 93 basis points as the  
13 Federal Reserve has increased the federal funds rate to combat inflation. While inflation  
14 has moderated since the Company’s last case, it remains above the Federal Reserve’s  
15 target.

16 **Figure 4: Change in Market Conditions Since the Company’s Last Rate Case<sup>16</sup>**

<b>Docket</b>	<b>Date</b>	<b>Federal Funds Rate</b>	<b>30-Day Avg of 30-Year Treasury Bond Yield</b>	<b>Core Inflation Rate</b>
D-R-2022- 3031672	12/8/2022	4.10%	3.91%	5.70%

<sup>15</sup> *Blue Chip Financial Forecasts*, Vol. 42, No. 10, October 10, 2023, p. 2.

<sup>16</sup> St. Louis Federal Reserve Bank; Bureau of Labor Statistics.

Current	10/31/2023	5.33%	4.84%	4.13%
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1 **D. Expected Performance of Utility Stocks and the Investor-Required Return on**  
2 **Utility Investments**

3 **Q. Are utility share prices correlated to changes in the yields on long-term government**  
4 **bonds?**

5 A. Yes. Interest rates and utility share prices are inversely correlated, which means that  
6 increases in interest rates result in declines in the share prices of utilities and vice versa.  
7 For example, Goldman Sachs and Deutsche Bank examined the sensitivity of share prices  
8 of different industries to changes in interest rates over the past five years. Both Goldman  
9 Sachs and Deutsche Bank found that utilities had one of the strongest negative relationships  
10 with bond yields (*i.e.*, increases in bond yields resulted in the decline of utility share  
11 prices).<sup>17</sup>

12 **Q. How do equity analysts expect the utilities sector to perform in an increasing interest**  
13 **rate environment?**

14 A. Equity analysts project that utilities will underperform the broader market given high  
15 inflation and the recent increases in interest rates. Fidelity classifies the utility sector as  
16 underweight,<sup>18</sup> and Bank of America recently noted that it is “not so constructive on

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<sup>17</sup> Lee, Justina. “Wall Street Is Rethinking the Treasury Threat to Big Tech Stocks.” Bloomberg.com, 11 Mar. 2021, [www.bloomberg.com/news/articles/2021-03-11/wall-street-is-rethinking-the-treasury-threat-to-big-tech-stocks](http://www.bloomberg.com/news/articles/2021-03-11/wall-street-is-rethinking-the-treasury-threat-to-big-tech-stocks).

<sup>18</sup> Fidelity. “Third Quarter 2023 Investment Research Update.” July 24, 2023.

1 [u]tilities” given that the dividend yields for utilities are below the yields available on both  
2 long- and short-term government bonds.<sup>19</sup>

### 3 **E. Conclusion**

4 **Q. What are your conclusions regarding the effect of current market conditions on the**  
5 **cost of equity for the Company?**

6 A. Investors expect long-term interest rates to remain relatively high in response to continued  
7 elevated levels of inflation and the Federal Reserve’s normalization of monetary policy.  
8 Because the share prices of utilities are inversely correlated to interest rates, and  
9 government bond yields have increased significantly since the lows of 2020, the share  
10 prices of utilities are likely to continue to decline, which is the reason a number of equity  
11 analysts have classified the sector as either underperform or underweight. The expected  
12 underperformance of utilities means that DCF models using recent historical data likely  
13 underestimate investors’ required return over the period that rates will be in effect.  
14 Therefore, this expected change in market conditions supports consideration of the higher  
15 end of the range of cost of equity results produced by the DCF models. Moreover,  
16 prospective market conditions warrant consideration of, and placing more weight on,  
17 forward-looking cost of equity estimation models such as the CAPM and ECAPM, which  
18 better reflect expected market conditions.

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<sup>19</sup> Dumoulin-Smith, “US Electric Utilities & IPPs: As the leaves fall, preparing for Autumn utility outlook. Macro still has potholes,” September 6, 2023.

1 **VI. PROXY GROUP SELECTION**

2 **Q. Why have you used a group of proxy companies to estimate the cost of equity for**  
3 **PAWC?**

4 A. In this proceeding, I am estimating the cost of equity for PAWC, which is a rate regulated  
5 subsidiary of AWK. Because the ROE is a market-based concept, and given the fact that  
6 PAWC's operations do not make up the entirety of a publicly-traded entity, it is necessary  
7 to establish a group of companies that is both publicly-traded and comparable to the  
8 Company in certain fundamental business and financial respects to serve as its "proxy" for  
9 purposes of the ROE estimation process. The proxy companies used in my analyses all  
10 possess a set of operating and financial risk characteristics that are substantially  
11 comparable to PAWC, and, therefore, provide a reasonable basis for deriving the  
12 appropriate ROE.

13 **Q. Please provide a brief profile of PAWC.**

14 A. PAWC, a wholly-owned subsidiary of AWK, provides water distribution service to  
15 approximately 679,000 customers and wastewater services to approximately 97,000  
16 customers in Pennsylvania.<sup>20</sup> The Company can access debt markets through American  
17 Water Capital Corp. ("AWCC") or independently. The current credit ratings for AWCC

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<sup>20</sup> American Water Works Company, Inc., 2022 SEC Form 10-K, at 4.

1 and AWK are as follows: (1) S&P - A (Outlook: Stable)<sup>21</sup>; and (2) Moody's - Baa1  
2 (Outlook: Stable).<sup>22</sup>

3 **Q. How did you select the companies in your proxy group?**

4 A. I began with the group of U.S. utilities that Value Line classifies as "Water Utilities" and  
5 "Natural Gas Distribution Companies". That combined group includes 16 domestic U.S.  
6 utilities. I simultaneously applied the following screening criteria to select companies that:

- 7 • pay consistent quarterly cash dividends because companies that do not cannot be  
8 analyzed using the Constant Growth DCF model;
- 9 • have investment grade long-term issuer ratings from S&P and/or Moody's;
- 10 • are covered by at least two utility industry analysts;
- 11 • have positive long-term earnings growth forecasts from at least two utility industry  
12 equity analysts;
- 13 • derive more than 70.00 percent of their total operating income from regulated  
14 operations; and
- 15 • were not parties to a merger or transformative transaction during the analytical  
16 periods relied on.

17  
18 **Q. Did you consider any additional companies for inclusion in your proxy group?**

19 A. Yes. I also considered the group of 36 companies that Value Line classifies as "Electric  
20 Utilities". In determining which electric utilities would qualify for inclusion in my proxy  
21 group, I started by relying on the criteria used to screen the water and natural gas utilities.

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<sup>21</sup> S&P Global Ratings, American Water Works Co. Inc., June 26, 2023.

<sup>22</sup> Moody's Investors Service, accessed June 30, 2023. Moody's last rating change for American Water Works Company, Inc was as of April 1, 2019. ([https://www.moodys.com/research/Moodys-downgrades-American-Water-and-American-Water-Capital-Corp-to--PR\\_397640](https://www.moodys.com/research/Moodys-downgrades-American-Water-and-American-Water-Capital-Corp-to--PR_397640))

1 I then applied two additional screening criteria to only include electric utilities that would  
2 be considered risk comparable to PAWC:

- 3 • have owned generation comprising less than 10 percent of the Company’s MWh  
4 sales to ultimate customers to ensure that the electric utilities included did not own  
5 a substantial amount of generation and therefore had operations that were primarily  
6 transmission and distribution; and
- 7 • own water operations.

8 **Q. Did you include AWK in your proxy group?**

9 A. No. Consistent with my general practice of excluding the subject company, or its parent  
10 holding company, from the proxy group, I have excluded AWK from my proxy group for  
11 PAWC.

12 **Q. What is the composition of your proxy group?**

13 A. The screening criteria discussed above resulted in a proxy group consisting of the  
14 companies in Figure 5 (see also Exhibit No. 13-A, Schedule 2).

15 **Figure 5: Proxy Group**

<b>Company</b>	<b>Ticker</b>
American States Water Company	AWR
Atmos Energy Corporation	ATO
California Water Service Group	CWT
Essential Utilities, Inc.	WTRG
Eversource Energy	ES
Middlesex Water Company	MSEX
NiSource Inc.	NI
Northwest Natural Gas Company	NWN
ONE Gas, Inc.	OGS
SJW Group	SJW
Spire, Inc.	SR

1 **Q. Why did you include electric utilities and natural gas distribution companies in the**  
2 **proxy group?**

3 A. Value Line currently classifies only seven companies as water utilities. Therefore, the  
4 universe of water utilities is already small before a set of screening criteria are applied.  
5 Additionally, there has been a recent trend towards consolidation in the utility industry,  
6 which reduces the number of available proxy companies. Because there are a small number  
7 of companies that are available for inclusion in the proxy group, I also considered electric  
8 utilities and natural gas distribution companies that meet the screening criteria.

9 **Q. Are electric utilities and natural gas distribution companies reasonably comparable**  
10 **to water utilities to be included in a proxy group used to estimate the cost of equity**  
11 **for a water utility?**

12 A. Yes, I believe that it is reasonable to rely on a combined proxy group. As noted above, due  
13 to consolidation in the water utility industry, there is only a small group of water companies  
14 that can be included in the proxy group. In addition, the screening criteria relied on for my  
15 proxy group require that a company derive more than 70 percent of their operating income  
16 from regulated operations. Therefore, the electric utilities and natural gas distribution  
17 companies included in my proxy group generate a large portion of their operating income  
18 from regulated operations similar to PAWC and the water utilities that will be included in  
19 the proxy group. As a result, I believe that it is appropriate to include electric utilities and  
20 natural gas distribution companies in my proxy group.



1 **VII. COST OF EQUITY ESTIMATION**

2 **Q. Please briefly discuss the ROE in the context of the regulated rate of return.**

3 A. The ROE is the cost of common equity capital in the utility’s capital structure for  
4 ratemaking purposes. The overall rate of return for a regulated utility is the weighted  
5 average cost of capital, in which the cost rates of the individual sources of capital are  
6 weighted by their respective book values. While the costs of debt and preferred stock can  
7 be directly observed, the cost of equity is market-based and, therefore, must be estimated  
8 based on observable market data.

9 **Q. How is the required cost of equity determined?**

10 A. The required cost of equity is estimated by using analytical techniques that rely on market-  
11 based data to quantify investor expectations regarding equity returns, adjusted for certain  
12 incremental costs and risks. Informed judgment is then applied to determine where the  
13 given company’s cost of equity falls within the range of results produced by multiple  
14 analytical techniques. The key consideration in determining the cost of equity is to ensure  
15 that the methodologies employed reasonably reflect investors’ views of the financial  
16 markets in general, as well as the subject company (in the context of the proxy group), in  
17 particular.

18 **Q. What methods did you use to estimate PAWC’s cost of equity?**

19 A. I considered the results of the Constant Growth DCF model, the CAPM, and the ECAPM.  
20 As discussed in more detail below, a reasonable ROE estimate considers alternative

1 methodologies, observable market data, and the reasonableness of their individual and  
2 collective results.

3 **A. Importance of Multiple Analytical Approaches**

4 **Q. Is it important to use more than one analytical approach?**

5 A. Yes. Because the cost of equity is not directly observable, it must be estimated based on  
6 both quantitative and qualitative information. When faced with the task of estimating the  
7 cost of equity, analysts and investors are inclined to gather and evaluate as much relevant  
8 data as reasonably can be analyzed. Several models have been developed to estimate the  
9 cost of equity, and I use multiple approaches to estimate the cost of equity. As a practical  
10 matter, however, all of the models available for estimating the cost of equity are subject to  
11 limiting assumptions or other methodological constraints. Consequently, many well-  
12 regarded finance texts recommend using multiple approaches when estimating the cost of  
13 equity. For example, Copeland, Koller, and Murrin<sup>23</sup> suggest using the CAPM and  
14 Arbitrage Pricing Theory model, while Brigham and Gapenski<sup>24</sup> recommend the CAPM,  
15 DCF, and Bond Yield Plus Risk Premium approaches.

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<sup>23</sup> Tom Copeland, Tim Koller and Jack Murrin, *Valuation: Measuring and Managing the Value of Companies*, 3rd Ed. (New York: McKinsey & Company, Inc., 2000), at 214.

<sup>24</sup> Eugene Brigham, Louis Gapenski, *Financial Management: Theory and Practice*, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

1 **Q. Do current market conditions support the reliance on more than one analytical**  
2 **approach?**

3 A. Yes. As I discussed above, interest rates have increased substantially over the past year  
4 and are expected to remain elevated from the lows seen during the COVID-19 pandemic.  
5 The benefit of using multiple models is that each model relies on different assumptions,  
6 certain of which may better reflect current and projected market conditions at different  
7 times. As discussed previously, the CAPM, and the ECAPM analyses offer some balance  
8 through the use of projected interest rates since the effect of changes in interest rates,  
9 particularly the recent increase in interest rates, may not be captured as well in the DCF  
10 model at this time. Therefore, it is important to use multiple analytical approaches to  
11 ensure that the cost of equity results reflect market conditions that are expected during the  
12 period that the Company's rates will be in effect.

13 **Q. Has the Commission made similar findings regarding the reliance on multiple**  
14 **models?**

15 A. Yes, it has. In a 2012 decision for PPL Electric Utilities, while noting that the Commission  
16 has traditionally relied primarily on the DCF method to estimate the cost of equity for  
17 regulated utilities, the Commission recognized that market conditions were causing the  
18 DCF model to produce results that were much lower than other models such as the CAPM  
19 and Risk Premium. The Commission's Order explained:

20 Sole reliance on one methodology without checking the validity of the  
21 results of that methodology with other cost of equity analyses does not  
22 always lend itself to responsible ratemaking. We conclude that

1 methodologies other than the DCF can be used as a check upon the  
2 reasonableness of the DCF derived equity return calculation.<sup>25</sup>

3 The Commission ultimately concluded:

4 As such, where evidence based on the CAPM and RP methods suggest that  
5 the DCF-only results may understate the utility's current cost of equity  
6 capital, we will give consideration to those other methods, to some degree,  
7 in determining the appropriate range of reasonableness for our equity return  
8 determination.<sup>26</sup>

9 **Q. Are you aware of any regulatory commissions that have recognized the importance  
10 of considering the results of multiple models?**

11 A. Yes, several regulatory commissions consider the results of multiple COE estimation  
12 methodologies such as the DCF, CAPM, and ECAPM in determining the authorized ROE,  
13 including the Minnesota Public Utilities Commission (“Minnesota PUC”)<sup>27</sup>, the Michigan  
14 Public Service Commission (“Michigan PSC”)<sup>28</sup>, the Iowa Utilities Board (“IUB”)<sup>29</sup>, the  
15 Washington Utilities and Transportation Commission (“Washington UTC”)<sup>30</sup> and the New  
16 Jersey Board of Public Utilities (“NJBPU”)<sup>31</sup>. For example, the Washington UTC has  
17 repeatedly emphasized that it “places value on each of the methodologies used to calculate  
18 the cost of equity and does not find it appropriate to select a single method as being the

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<sup>25</sup> Pennsylvania Public Utility Commission, PPL Electric Utilities, R-2012-2290597, meeting held December 5, 2012, at 80.

<sup>26</sup> *Id.*, at 81.

<sup>27</sup> Docket No. G011/GR-17-563, Findings of Fact, Conclusions and Order, at 27; Docket No. E015/GR-16-664, Findings of Fact, Conclusions and Order, at 60-61.

<sup>28</sup> Michigan Public Service Commission Order, DTE Gas Company, Case No. U-18999, September 13, 2018, at 45-47.

<sup>29</sup> Iowa Utilities Board, Iowa-American Water Company, RPU-2016-0002, Final Decision and Order issued February 27, 2017, at 35.

<sup>30</sup> Wash. Utils. & Transp. Comm’n v. PacifiCorp, Docket UE-130043, Order 05, n. 89 (Dec. 4, 2013); Wash. Utils. & Transp. Comm’n v. PacifiCorp, Docket UE-100749, Order 06, ¶ 91 (March 25, 2011).

<sup>31</sup> NJBPU Docket No. ER12111052, OAL Docket No. PUC16310-12, Order Adopting Initial Decision with Modifications and Clarifications, March 18, 2015, at 71.

1 most accurate or instructive.”<sup>32</sup> The Washington UTC has also explained that “[f]inancial  
2 circumstances are constantly shifting and changing, and we welcome a robust and diverse  
3 record of evidence based on a variety of analytics and cost of capital methodologies.”<sup>33</sup>

4 Additionally, in its recent order for DTE Gas Company (“DTE Gas”) in Case No. U-18999,  
5 the Michigan PSC considered the results of each of the models presented by the ROE  
6 witnesses, which included the DCF, CAPM, and ECAPM in the determination of the  
7 authorized ROE.<sup>34</sup> The Commission also considered authorized ROEs in other states,  
8 increased volatility in capital markets and the company-specific business risks of DTE Gas.

#### 9 **B. Constant Growth DCF Model**

##### 10 **Q. Please describe the DCF approach.**

11 A. The DCF approach is based on the theory that a stock’s current price represents the present  
12 value of all expected future cash flows. In its most general form, the DCF model is  
13 expressed as follows:

$$14 \quad P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_\infty}{(1+k)^\infty} \quad [1]$$

15 Where  $P_0$  represents the current stock price,  $D_1 \dots D_\infty$  are all expected future dividends,  
16 and  $k$  is the discount rate, or required ROE. Equation [1] is a standard present value  
17 calculation that can be simplified and rearranged into the following form:

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<sup>32</sup> Wash. Utils. & Transp. Comm’n v. PacifiCorp, Docket UE-130043, Order 05, n. 89 (Dec. 4, 2013).

<sup>33</sup> Wash. Utils. & Transp. Comm’n v. PacifiCorp, Docket UE-100749, Order 06, ¶ 91 (March 25, 2011).

<sup>34</sup> Michigan Public Service Commission Order, DTE Gas Company, Case No. U-18999, September 13, 2018, at 45-47.

1 
$$k = \frac{D_0(1+g)}{P_0} + g \quad [2]$$

2 Equation [2] is often referred to as the Constant Growth DCF model in which the first term  
3 is the expected dividend yield and the second term is the expected long-term growth rate.

4 **Q. What assumptions are required for the Constant Growth DCF model?**

5 A. The Constant Growth DCF model requires the following four assumptions: (1) a constant  
6 growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant  
7 price-to-earnings ratio; and (4) a discount rate greater than the expected growth rate. To  
8 the extent that any of these assumptions are not objectively valid, considered judgment  
9 and/or specific adjustments should be applied to the results.

10 **Q. What market data do you use to calculate the dividend yield in your Constant Growth**  
11 **DCF model?**

12 A. The dividend yield in my Constant Growth DCF model is based on the proxy group  
13 companies' current annualized dividend and average closing stock prices over the 30-,  
14 90-, and 180-trading days ended October 31, 2023.

15 **Q. Why do you use 30-, 90-, and 180-day averaging periods?**

16 A. I use an average of recent trading days to calculate the term  $P_0$  in the DCF model to reflect  
17 current market data while also ensuring that the result of the model is not skewed by  
18 anomalous events that may affect stock prices on any given trading day.

1 **Q. Did you make any adjustments to the dividend yield to account for periodic growth**  
2 **in dividends?**

3 A. Yes, I did. Because utility companies tend to increase their quarterly dividends at different  
4 times throughout the year, it is reasonable to assume that dividend increases will be evenly  
5 distributed over calendar quarters. Given that assumption, it is reasonable to apply one-  
6 half of the expected annual dividend growth rate for purposes of calculating the expected  
7 dividend yield component of the DCF model. This adjustment ensures that the expected  
8 first-year dividend yield is, on average, representative of the coming twelve-month period,  
9 and does not overstate the aggregated dividends to be paid during that time.

10 **Q. Why is it important to select appropriate measures of long-term growth in applying**  
11 **the DCF model?**

12 A. In its Constant Growth form, the DCF model (*i.e.*, Equation [2]) assumes a single growth  
13 estimate in perpetuity. To reduce the long-term growth rate to a single measure, one must  
14 assume that the payout ratio remains constant and that earnings per share, dividends per  
15 share and book value per share all grow at the same constant rate. Over the long run,  
16 however, dividend growth can only be sustained by earnings growth. Therefore, it is  
17 important to consider a variety of sources in arriving at a singular long-term earnings  
18 growth rate for the Constant Growth DCF model.

19 **Q. Which sources of long-term earnings growth rates did you use?**

20 A. My Constant Growth DCF model incorporates three sources of long-term earnings growth  
21 rates: (1) Zacks Investment Research; (2) Thompson as reported by Yahoo! Finance; and  
22 (3) *Value Line Investment Survey* (“*Value Line*”).

1 **Q. Why are EPS growth rates the appropriate growth rates to be relied on in the DCF**  
2 **model?**

3 A. Earnings are the fundamental driver of a company's ability to pay dividends; therefore,  
4 projected EPS growth is the appropriate measure of a company's long-term growth. In  
5 contrast, changes in a company's dividend payments are based on management decisions  
6 related to cash management and other factors. For example, a company may decide to  
7 retain earnings rather than pay out a portion of those earnings to shareholders through  
8 dividends. Therefore, dividend growth rates are less likely than earnings growth rates to  
9 reflect accurately investor perceptions of a company's growth prospects.

10 **Q. How did you calculate the range of results for the Constant Growth DCF Model?**

11 A. I calculated a low end result for my DCF model using the minimum growth rate of the  
12 three sources (*i.e.*, the lowest of the Zacks, Yahoo Finance, and *Value Line* projected  
13 earnings growth rates) for each of the proxy group companies. I used a similar approach  
14 to calculate a high end result, using the maximum growth rate of the three sources for each  
15 proxy group company. The mean results were calculated using the average growth rate  
16 from all three sources for each proxy group company.

17 **Q. What were the results of your DCF analyses?**

18 A. Figure 6 summarizes the results of my DCF analyses. As shown in Figure 6, the mean and  
19 median DCF results using the average growth rates range from 9.28 percent to 10.00  
20 percent, and the mean and median results using the maximum growth rates range from  
21 10.63 percent to 11.34 percent. While I also summarize the DCF results using the  
22 minimum growth rates, given the expected underperformance of utility stocks going



1 forward and thus the likelihood that the DCF model is understating the cost of equity, I do  
 2 not believe it is appropriate to consider these understated DCF results at this time. It is  
 3 important to note that there have been no relevant regulatory decisions where a commission  
 4 has determined that the appropriate ROE for a water utility should be set in the range  
 5 resulting from the use of the minimum growth rates in the DCF model.

6 **Figure 6: Summary of Constant Growth DCF Results**

	Mean Low	Mean	Mean High
<b>Constant Growth DCF<sup>35</sup></b>			
<b>Mean Results:</b>			
30-Day Average	8.90%	10.00%	11.31%
90-Day Average	8.66%	9.77%	11.08%
180-Day Average	8.50%	9.60%	10.91%
Average	8.69%	9.79%	11.10%
<b>Median Results:</b>			
30-Day Average	8.91%	9.98%	11.34%
90-Day Average	8.65%	9.54%	10.90%
180-Day Average	8.52%	9.28%	10.63%
Average	8.69%	9.60%	10.96%

7 **Q. Has the Commission acknowledged that the DCF model might understate the cost of**  
 8 **equity given the current capital market conditions of high inflation and elevated**  
 9 **interest rates?**

10 **A. Yes.** For example, in its May 2022 decision establishing the cost of equity for Aqua  
 11 Pennsylvania, Inc., the Pennsylvania Public Utility Commission concluded that the current

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<sup>35</sup> DCF results exclude the result for Middlesex Water Company because the low and mean results are lower than the current yield on the Moody's Baa rated utility bond index, which is illogical and the high end DCF result does not provide a reasonable equity risk premium over the current yield on the Moody's Baa rated utility bond index of 6.48 percent on a 30-day average basis ending October 31, 2023.

1 capital market conditions of high inflation and increased interest rates has resulted in the  
2 DCF model understating the utility cost of equity, and that weight should be placed on risk  
3 premium models, such as the CAPM, in the determination of the ROE.

4 To help control rising inflation, the Federal Open Market Committee has  
5 signaled that it is ending its policies designed to maintain low interest rates.  
6 Aqua Exc. at 9. Because the DCF model does not directly account for  
7 interest rates, consequently, it is slow to respond to interest rate changes.  
8 However, I&E's CAPM model uses forecasted yields on ten-year Treasury  
9 bonds, and accordingly, its methodology captures forward looking changes  
10 in interest rates.

11 Therefore, our methodology for determining Aqua's ROE shall utilize both  
12 I&E's DCF and CAPM methodologies. As noted above, the Commission  
13 recognizes the importance of informed judgment and information provided  
14 by other ROE models. In the 2012 PPL Order, the Commission considered  
15 PPL's CAPM and RP methods, tempered by informed judgment, instead of  
16 DCF-only results. We conclude that methodologies other than the DCF can  
17 be used as a check upon the reasonableness of the DCF derived ROE  
18 calculation. Historically, we have relied primarily upon the DCF  
19 methodology in arriving at ROE determinations and have utilized the results  
20 of the CAPM as a check upon the reasonableness of the DCF derived equity  
21 return. As such, where evidence based on other methods suggests that the  
22 DCF-only results may understate the utility's ROE, we will consider those  
23 other methods, to some degree, in determining the appropriate range of  
24 reasonableness for our equity return determination. In light of the above, we  
25 shall determine an appropriate ROE for Aqua using informed judgement  
26 based on I&E's DCF and CAPM methodologies.<sup>36</sup>

27 .....

28 We have previously determined, above, that we shall utilize I&E's DCF and  
29 CAPM methodologies. I&E's DCF and CAPM produce a range of  
30 reasonableness for the ROE in this proceeding from 8.90% [DCF] to 9.89%  
31 [CAPM]. Based upon our informed judgment, which includes  
32 consideration of a variety of factors, including increasing inflation leading  
33 to increases in interest rates and capital costs since the rate filing, we

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<sup>36</sup> Pennsylvania Public Utility Commission, Docket Nos. R-2021-3027385 and R-2021-3027386, Opinion and Order, May 12, 2022, pp. 154–155.

1 determine that a base ROE of 9.75% is reasonable and appropriate for  
2 Aqua.<sup>37</sup>

3 Also, in a recent decision, the Massachusetts Department of Public Utilities recognized that  
4 long-term interest rates had increased and found greater certainty in that proceeding (as  
5 compared with prior decisions) that the DCF results understate the Company's cost of  
6 equity. As such, the Department considered this finding in establishing the range of  
7 reasonable results from within the analytical results presented.<sup>38</sup>

8 **Q. What are your conclusions about the results of the DCF models?**

9 A. As discussed previously, one primary assumption of the DCF models is a constant price-  
10 to-earnings ratio. That assumption is heavily influenced by the market price of utility  
11 stocks. Because utility stocks are expected to underperform the broader market over the  
12 near-term as interest rates remain elevated and yields on long-term government bonds  
13 exceed utility dividend yields, it is important to consider the results of the DCF models  
14 with caution. Therefore, although I have given weight to the results of the Constant Growth  
15 DCF model, my recommendation also gives weight to the results of other cost of equity  
16 estimation models that take into greater consideration current and expected market  
17 conditions.

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<sup>37</sup> *Id.*, pp. 177–178.

<sup>38</sup> D.P.U. 22-22 at 386.



1 investors should only be concerned with systematic or non-diversifiable risk. Non-  
2 diversifiable risk is measured by beta, which is defined as:

$$\beta = \frac{\text{Covariance}(r_e, r_m)}{\text{Variance}(r_m)} \quad [4]$$

3 The variance of the market return (*i.e.*, Variance ( $r_m$ )) is a measure of the uncertainty of the  
4 general market, and the Covariance between the return on a specific security and the  
5 general market (*i.e.*, Covariance ( $r_e, r_m$ )) reflects the extent to which the return on that  
6 security will respond to a given change in the general market return. Thus, beta represents  
7 the risk of the security relative to the general market.

8 **Q. What risk-free rate did you use in your CAPM analysis?**

9 A. I relied on three sources for my estimate of the risk-free rate: (1) the current 30-day average  
10 yield on 30-year U.S. Treasury bonds, which is 4.84 percent;<sup>39</sup> (2) the average projected  
11 30-year U.S. Treasury bond yield for the fourth quarter of 2023 through the fourth quarter  
12 of 2024, which is 4.44 percent;<sup>40</sup> and (3) the average projected 30-year U.S. Treasury bond  
13 yield for 2025 through 2029, which is 3.80 percent.<sup>41</sup>

14 **Q. What Beta coefficients did you use in your CAPM analyses?**

15 A. As shown in Exhibit No. 13-A, Schedule 5, I used the average Beta coefficients for the  
16 proxy group companies as reported by Bloomberg and *Value Line*. The beta coefficients  
17 reported by Bloomberg are calculated using ten years of weekly returns relative to the S&P

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<sup>39</sup> Bloomberg Professional as of October 31, 2023.

<sup>40</sup> Blue Chip Financial Forecasts, Vol. 42, No. 11, November 1, 2023, at 2.

<sup>41</sup> Blue Chip Financial Forecasts, Vol. 42, No. 6, June 1, 2023, at 14.

1 500 Index. Value Line’s calculation of the beta coefficients is based on five years of weekly  
2 returns relative to the New York Stock Exchange Composite Index (“NYSE”).  
3 Additionally, as shown on Exhibit No. 13-A, Schedule 5 and Exhibit No. 13-A, Schedule 6,  
4 I also considered an additional CAPM analysis that relies on the long-term average utility  
5 beta coefficient for the companies in my proxy group, which is calculated as an average of  
6 the *Value Line* beta coefficients for the companies in my proxy group from 2013 through  
7 2022.

8 **Q. How did you estimate the Market Risk Premium in the CAPM?**

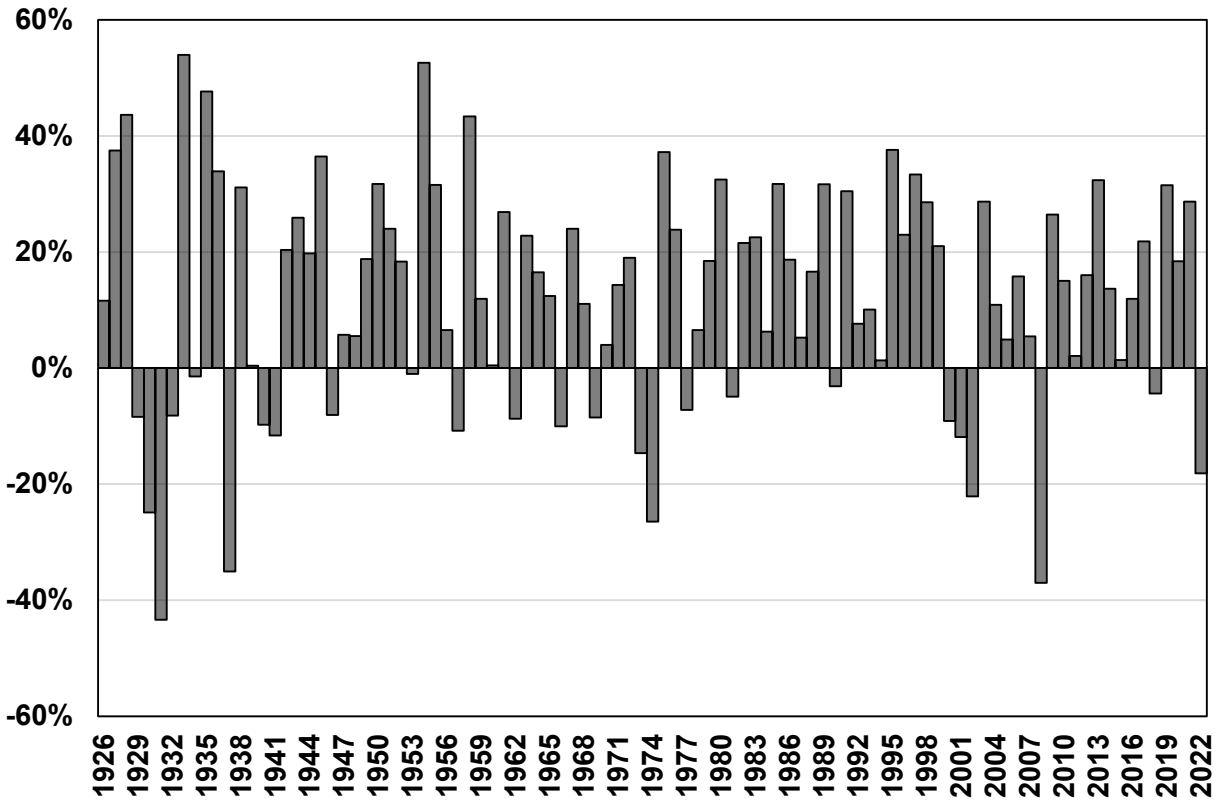
9 A. I estimated the market risk premium as the difference between the implied expected equity  
10 market return and the risk-free rate. As shown in Exhibit No. 13-A, Schedule 7, the  
11 expected market return is calculated using the Constant Growth DCF model discussed  
12 earlier in my testimony for the companies in the S&P 500 Index. Based on an estimated  
13 market capitalization-weighted dividend yield of 1.88 percent and a weighted long-term  
14 earnings growth rate of 10.51 percent, the estimated required market return for the S&P  
15 500 Index as of October 31, 2023 is 12.49 percent. Based on the three risk-free rates  
16 considered, the implied market risk premia ranges from 7.64 percent to 8.69 percent.

17 **Q. How does the current expected market return compare to observed historical market**  
18 **returns?**

19 A. As shown in Figure 7, given the range of annual equity returns that have been observed  
20 over the past century, a current expected market return of 12.49 percent is not unreasonable.  
21 As shown, in 50 out of the past 97 years (or roughly 52 percent of observations), the  
22 realized equity market return was at least 12.49 percent or greater.

1

**Figure 7: Realized U.S. Equity Market Returns (1926-2022)<sup>42</sup>**



2

3 **Q. Did you consider another form of the CAPM in your analysis?**

4 A. Yes. I have also considered the results of an ECAPM in estimating the cost of equity for  
5 PAWC.<sup>43</sup> The ECAPM calculates the product of the adjusted beta coefficient and the  
6 market risk premium and applies a weight of 75.00 percent to that result. The model then  
7 applies a 25.00 percent weight to the market risk premium without any effect from the beta  
8 coefficient. The results of the two calculations are summed, along with the risk-free rate,  
9 to produce the ECAPM result, as noted in Equation [5] below:

10

$$k_e = r_f + 0.75\beta(r_m - r_f) + 0.25(r_m - r_f) \quad [5]$$

<sup>42</sup> Depicts total annual returns on large company stocks, as reported in the 2023 Kroll SBBI Yearbook.

<sup>43</sup> See, e.g., Roger A. Morin, *New Regulatory Finance*, Public Utilities Reports, Inc., 2006, at 189.

1           Where:

2                      $k_e$  = the required market ROE

3                      $\beta$  = Adjusted Beta coefficient of an individual security

4                      $r_f$  = the risk-free rate of return

5                      $r_m$  = the required return on the market as a whole

6           In essence, the empirical form of the CAPM addresses the tendency of the “traditional”  
7           CAPM to underestimate the cost of equity for companies with low beta coefficients such  
8           as regulated utilities. In that regard, the ECAPM is not redundant to the use of adjusted  
9           betas in the traditional CAPM; rather, it recognizes the results of academic research  
10          indicating that the risk-return relationship is different (in essence, flatter) than estimated  
11          by the CAPM, and that the CAPM underestimates the “alpha,” or the constant return  
12          term.<sup>44</sup>

13          As with the CAPM, my application of the ECAPM uses the forward-looking market risk  
14          premium estimates, the three yields on 30-year Treasury securities noted earlier as the risk-  
15          free rate, and the current Bloomberg and *Value Line* and long-term *Value Line* beta  
16          coefficients.

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<sup>44</sup> *Id.*, at 191.



1 **Q. What are the results of your CAPM analyses?**

2 A. As shown in Figure 8 (*see* also Exhibit No. 13-A, Schedule 5), my traditional CAPM analyses  
3 produce a range of returns from 10.15 percent to 11.17 percent. The ECAPM analysis  
4 results range from 10.73 percent to 11.50 percent.

1

**Figure 8: CAPM Results**

	Current 30-day Average 30-Year Treasury Bond Yield	Near-Term Projected 30- Year Treasury Yield	Longer-Term Projected 30- Year Treasury Yield
<b>CAPM:</b>			
Current Value Line Beta	11.17%	11.10%	10.99%
Current Bloomberg Beta	10.66%	10.56%	10.41%
Long-term Avg. Beta	10.43%	10.32%	10.15%
<b>ECAPM:</b>			
Current Value Line Beta	11.50%	11.44%	11.36%
Current Bloomberg Beta	11.12%	11.04%	10.93%
Long-term Avg. Beta	10.94%	10.86%	10.73%

2

3

**VIII. BUSINESS RISKS AND MANAGEMENT PERFORMANCE**

4

**Q. Taken alone, do the results from the cost of equity estimation models for the proxy group provide an appropriate estimate of the cost of equity for the Company?**

5

6

**A.** No. These results provide only a range for the appropriate estimate of the Company’s cost of equity. There are several additional factors that must be taken into consideration when determining where the Company’s cost of equity falls within the range of results. These factors, which are discussed below, should be considered with respect to their overall effect on the Company’s risk profile.

7

8

9

10

1           **A.    Flotation Costs**

2   **Q.    What are flotation costs?**

3   A.    Flotation costs are the costs associated with the sale of new issues of common stock. These  
4       costs include out-of-pocket expenditures for preparation, filing, underwriting, and other  
5       issuance costs.

6   **Q.    Why is it important to consider flotation costs in the allowed ROE?**

7   A.    A regulated utility must have the opportunity to earn an ROE that is both competitive and  
8       compensatory to attract and retain new investors. To the extent that a company is denied  
9       the opportunity to recover prudently incurred flotation costs, actual returns will fall short  
10      of expected (or required) returns, thereby diluting equity share value.

11 **Q.    Are flotation costs part of the utility’s invested costs or part of the utility’s expenses?**

12 A.    Flotation costs are part of the invested costs of the utility, which are properly reflected on  
13       the balance sheet under “paid in capital.” They are not current expenses, and, therefore,  
14       are not reflected on the income statement. Rather, like investments in rate base or the  
15       issuance costs of long-term debt, flotation costs are incurred over time. As a result, the  
16       great majority of a utility’s flotation cost is incurred prior to the test year but remains part  
17       of the cost structure that exists during the test year and beyond, and as such, should be  
18       recognized for ratemaking purposes. Therefore, it is irrelevant whether an issuance occurs  
19       during the test year or is planned for the test year because failure to allow recovery of past  
20       flotation costs may deny PAWC the opportunity to earn its required rate of return in the  
21       future.

1 **Q. Please provide an example of why a flotation cost adjustment is necessary to**  
2 **compensate investors for the capital they have invested?**

3 A. As shown in Exhibit No. 13-A, Schedule 4, in AWK's most recent stock issuance, the  
4 offering price was \$135.5 per share of common stock. After paying flotation costs  
5 associated with the equity issuance, which include fees paid to underwriters and attorneys,  
6 among others, AWK's net proceeds are only \$133.41 per share invested. AWK invests  
7 that \$133.41 per share in plant used to serve its customers, which becomes part of rate base.  
8 Absent a flotation cost adjustment, the investor will thereafter earn a return on only the  
9 \$133.41 per share invested in rate base, even though the contribution was \$135.50. Making  
10 a small flotation cost adjustment gives the investor a reasonable opportunity to earn the  
11 authorized return, rather than the lower return that results when the authorized return is  
12 applied to an amount less than what the investor contributed.

13 **Q. Is the need to consider flotation costs eliminated because PAWC is a wholly-owned**  
14 **subsidiary of AWK?**

15 A. No. Although PAWC is a wholly-owned subsidiary of AWK, it is appropriate to consider  
16 flotation costs because wholly-owned subsidiaries receive equity capital from their parent  
17 and provide returns on the capital that roll up to the parent, which is designated to attract  
18 and raise capital based upon the returns of those subsidiaries. To deny recovery of issuance  
19 costs associated with the capital that is invested in the subsidiaries ultimately penalizes the  
20 investors that fund the utility operations and could inhibit the utility's ability to obtain new  
21 equity capital at a reasonable cost. This is important for PAWC because, as I will discuss

1 in more detail below, the Company is planning significant capital expenditures in the near  
2 term.

3 **Q. Is the need to consider flotation costs recognized by the academic and financial**  
4 **communities?**

5 A. Yes. The need to reimburse shareholders for the lost returns associated with equity  
6 issuance costs is recognized by the academic and financial communities in the same spirit  
7 that investors are reimbursed for the costs of issuing debt. This treatment is consistent with  
8 the philosophy of a fair rate of return. According to Dr. Shannon Pratt:

9 Flotation costs occur when new issues of stock or debt are sold to the public.  
10 The firm usually incurs several kinds of flotation or transaction costs, which  
11 reduce the actual proceeds received by the firm. Some of these are direct  
12 out-of-pocket outlays, such as fees paid to underwriters, legal expenses, and  
13 prospectus preparation costs. Because of this reduction in proceeds, the  
14 firm's required returns on these proceeds equate to a higher return to  
15 compensate for the additional costs. Flotation costs can be accounted for  
16 either by amortizing the cost, thus reducing the cash flow to discount, or by  
17 incorporating the cost into the cost of capital. Because flotation costs are  
18 not typically applied to operating cash flow, one must incorporate them into  
19 the cost of capital.<sup>45</sup>

20 **Q. How did you calculate the flotation costs for PAWC?**

21 A. My flotation cost calculation is based on the costs incurred by AWK in its most recent  
22 equity offering as of March 3, 2023. That flotation cost percentage is then applied to the  
23 DCF analysis to estimate impact on ROE. As shown in Exhibit No. 13-A, Schedule 4,  
24 based on the flotation costs incurred in the most recent AWK issuance, the impact on the

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<sup>45</sup> Shannon P. Pratt, Cost of Capital Estimation and Applications, Second Edition, at 220-221.

1 proxy group's cost of equity amounts to 6 basis points (i.e., 0.6 percent) based on the  
2 median and 6 basis points (i.e., 0.6 percent) based on the mean.

3 **Q. Do your final results include an adjustment for flotation cost recovery?**

4 A. No. While the final ROE results do not incorporate an explicit adjustment for flotation  
5 costs, the estimated effect of flotation cost on ROE is considered in identifying a  
6 recommended ROE within the range of ROE estimates from the various models.

7 **B. Risks Associated with Capital Expenditure Program**

8 **Q. How is PAWC's risk profile affected by its substantial capital expenditure program?**

9 A. PAWC projects that the Company will make over \$1 billion in capital investments for the  
10 period through June 30, 2025, including significant investment to replace aging  
11 infrastructure to meet the needs of its customers and to comply with various regulations  
12 and recent acquisitions of water utility systems.<sup>46</sup> These investments are summarized in  
13 PAWC Statement No. 03 in the testimony of Mr. Aiton.

14 From a credit perspective, the additional pressure on cash flows associated with high levels  
15 of capital expenditures exerts corresponding pressure on credit metrics and, therefore,  
16 credit ratings. An S&P report explains:

17 [T]here is little doubt that the U.S. electric industry needs to make record  
18 capital expenditures to comply with the proposed carbon pollution rules  
19 over the next several years, while maintaining safety standards and grid  
20 stability. We believe the higher capital spending and subsequent rise in debt  
21 levels could strain these companies' financial measures, resulting in an  
22 almost consistent negative discretionary cash flow throughout this higher

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<sup>46</sup> Data provided by PAWC.

1 construction period. To meet the higher capital spending requirements,  
2 companies will require ongoing and steady access to the capital markets,  
3 necessitating that the industry maintains its high credit quality. We expect  
4 that utilities will continue to effectively manage their regulatory risk by  
5 using various creative means to recover their costs and to finance their  
6 necessary higher spending.<sup>47</sup>

7 Although this S&P report refers to electric utilities, the same applies to water utilities. In  
8 an August 2016 report, S&P explained the importance of regulatory support for large  
9 capital projects:

10 When applicable, a jurisdiction's willingness to support large capital  
11 projects with cash during construction is an important aspect of our analysis.  
12 This is especially true when the project represents a major addition to rate  
13 base and entails long lead times and technological risks that make it  
14 susceptible to construction delays. Broad support for all capital spending is  
15 the most credit-sustaining. Support for only specific types of capital  
16 spending, such as specific environmental projects or system integrity plans,  
17 is less so, but still favorable for creditors. Allowance of a cash return on  
18 construction work-in-progress or similar ratemaking methods historically  
19 were extraordinary measures for use in unusual circumstances, but when  
20 construction costs are rising, cash flow support could be crucial to maintain  
21 credit quality through the spending program. Even more favorable are those  
22 jurisdictions that present an opportunity for a higher return on capital  
23 projects as an incentive to investors.<sup>48</sup>

24 **Q. Does PAWC have a capital tracking mechanism to recover some of the costs**  
25 **associated with its capital expenditures plan between rate cases?**

26 A. Yes. PAWC has a Water and Wastewater Distribution System Improvement Charge  
27 ("DSIC") which allows PAWC to recover the costs associated with replacing and repairing  
28 aging water and wastewater infrastructure. In addition, the Company is proposing an  
29 Environmental Compliance Investment Charge recovery mechanism, which will allow for

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<sup>47</sup> S&P, Ratings Direct, "U.S. Regulated Electric Utilities' Annual Capital Spending is Poised to Eclipse \$100 Billion," July 2014.

<sup>48</sup> S&P Global Ratings, "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 7.

1 the recovery of the fixed costs associated with certain non-revenue producing, non DSIC  
2 eligible projects between rate cases that are related to environmental requirements. The  
3 presence of these clauses is certainly a positive aspect of Pennsylvania regulation but they  
4 have become quite commonplace in utility regulation. In fact, each of the proxy group  
5 companies has infrastructure and capital recovery mechanisms that address significant  
6 capital expenditure requirements. As shown in Exhibit AEB-10, the companies in the  
7 proxy group have infrastructure replacement recovery mechanisms in approximately 78.57  
8 percent of their operating jurisdictions. Consequently, the presence of the DSIC, and the  
9 Company's proposed Environmental Compliance Investment Charge recovery mechanism,  
10 while positive regulatory mechanisms, do not reduce the Company's risk vis-à-vis that of  
11 the proxy group.

12 **Q. Why is it important that PAWC's capital tracking mechanisms recover these costs?**

13 A. Over the next few years, PAWC is proposing to invest \$3.28 billion in infrastructure  
14 improvements. On an annual basis, PAWC's capital investment program is greater than its  
15 allowance for depreciation which results in negative Free Cash Flow. Therefore, the  
16 Company will need to seek financing for its capital investments beyond any internally  
17 generated cash flow. Similar to the credit rating agencies, discussed previously, investors  
18 consider the stability and supportiveness of the regulatory environment in the assessment  
19 of overall risk of investment. The use of tracking mechanisms for the recovery of capital



1 investments has become a key component of the strategy to address regulatory lag that  
2 results from significant investments in supportive regulatory jurisdictions.<sup>49</sup>

3 **Q. Has Pennsylvania been viewed as a supportive regulatory jurisdiction?**

4 A. Yes. S&P conducts a ranking of regulatory jurisdictions, using a scale of 9 steps ranging  
5 from a low of Below Average to Above Average, with each ranking having three notches  
6 (“3” being the low end of the ranking and “1” being the high end of the ranking). These  
7 rankings are assigned from an investor perspective and are intended to indicate the relative  
8 regulatory risk associated with the ownership of securities issued by the utilities in the  
9 jurisdiction. The evaluation is intended to assess the level and quality of earnings realized  
10 by the state utilities as a result of regulatory, legislative and court actions. Pennsylvania  
11 has been ranked Above Average 2 since 2019. S&P indicates that this ranking is based on  
12 a constructive regulatory climate, relying on forward test years, year -end rate base and  
13 reduction in regulatory lag.

14 **Q. What is your conclusion regarding the regulatory environment in Pennsylvania as it  
15 relates to PAWC’s capital investment plan?**

16 A. The Company’s capital plan demonstrates a need to access external capital for financing.  
17 Therefore, it is important that the constructive regulatory environment that has been  
18 established by the Commission be maintained to ensure that the Company continues to be  
19 able to secure capital on favorable terms.

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<sup>49</sup> S&P Global Market Intelligence, RRA Regulatory Focus: Adjustment Mechanisms, July 22, 2022, pp. 6-15.

1           **C.    Rate Decoupling Mechanism**

2   **Q.    Are you aware that the Company is proposing to implement a Rate Decoupling**  
3   **Mechanism (“RDM”)?**

4   A.    Yes. As discussed in PAWC Statement No. 10, the Direct Testimony of Company witness  
5   Mr. Charles Rea, the Company’s current rate design recovers approximately 81 percent of  
6   water and wastewater service revenues under volumetric rates whereas approximately 95  
7   percent of the Company’s costs are fixed costs, which do not vary with usage. Further, Mr.  
8   Rea’s analysis demonstrates that there are two primary factors that cause revenue volatility,  
9   seasonal weather conditions and continuing trends in declining use per customer in the  
10   residential, commercial and municipal customer classes. As Mr. Rea notes, seasonal  
11   weather conditions can cause water sales to increase or decrease from expected going-  
12   forward levels, which creates volatility in revenues. Further, if water usage going forward  
13   is less than the levels set in this rate proceeding, the Company’s revenues will be less than  
14   what is authorized as a result of this case, making it difficult to earn the authorized ROE.

15   **Q.    Does the implementation of an RDM affect your recommended ROE?**

16   A.    No. The recommended ROE in this proceeding has been estimated using market data for a  
17   proxy group of companies. In order to determine the appropriate ROE from within the  
18   range of results, it is necessary to consider PAWC’s overall risks as compared with the  
19   operating companies of the proxy group companies. That evaluation demonstrates whether  
20   or not the Company has greater or less risk and informs the decision regarding the estimated  
21   investor-required return on equity. Therefore, it is necessary to review the proposed

1 mechanism as compared with proxy group to determine if the Company's overall risk is  
2 greater or less than the proxy group companies.

3 **Q. Have you conducted an analysis of the proxy group companies and whether or not**  
4 **they have implemented recovery mechanisms?**

5 A. Yes. I have reviewed each of the operating companies of the proxy group to determine  
6 whether or not they have implemented a mechanism similar to the RDM proposed by  
7 PAWC. As shown on Exhibit No. 13-A, Schedule 9, approximately 59 percent of the proxy  
8 group companies have implemented some form of revenue decoupling mechanism.

9 **Q. What are your conclusions regarding the Company's proposed RDM?**

10 A. Since a significant amount of the operating companies of the proxy group companies have  
11 implemented some form of RDM, the Company's proposed RDM makes PAWC more like  
12 the proxy group. Therefore, comparing PAWC to the proxy group, the Company would be  
13 more comparable to the proxy group with the RDM. If the RDM were not authorized,  
14 PAWC would have greater risk than the proxy group.

15 **D. Risks Associated with Environmental and Water Quality Regulation**

16 **Q. Please provide an overview of the risks associated with water quantity, water quality**  
17 **and other environmental regulations applicable to PAWC's water supply facilities**  
18 **and operations.**

19 A. Water supply utilities are subject to a complex array of regulations at the federal, state and  
20 river basin commission levels with respect to water quantity, water quality and other  
21 environmental aspects of their facilities and operations.

1 In addition to the requirement to make significant investments to extend facilities to  
2 accommodate applicants for service, there are multiple levels of authorization and  
3 regulation that apply to a public water system that wants to add a new source of supply or  
4 increase its withdrawals from existing sources. These factors add to the costs and lead-  
5 time for obtaining new, or increasing existing, water sources to meet new demands that  
6 may arise in portions of the Company's system. These are additional risk factors that can  
7 directly affect PAWC's ability to continue to furnish safe, adequate and reliable service,  
8 and increase the costs PAWC incurs to provide that service.

9 As discussed in the direct testimony of Company witness Mr. Jim Runzer, there are  
10 significant regulations that require the monitoring and treatment of water supplies to ensure  
11 the safety of and reliability of drinking water service. Further, there is increased research  
12 and awareness of contaminants on an ongoing basis that, once identified, require  
13 investment to meet more stringent regulatory standards related to new contaminants.

14 While the Company intends to comply with all state and federal regulatory standards for  
15 safe and reliable drinking water service, the upstream releases of chemicals that are then  
16 found in the Company's water supplies and must be remediated present an ongoing  
17 business risk.

18 **Q. Provide an overview of the risks associated with environmental regulation with**  
19 **respect to PAWC's wastewater system operations.**

20 A. As is the case with regard to drinking water system operations, the operation of wastewater  
21 collection and treatment systems face a range of environmental regulatory risks.

1 Wastewater operations are also regulated at both the federal and state levels pursuant to  
2 numerous statutes and regulations. At the federal level, wastewater systems are regulated  
3 pursuant to the Clean Water Act and numerous regulations adopted by the Environmental  
4 Protection Agency (“EPA”) under that law. At the state level, the Pennsylvania Clean  
5 Streams Law, Sewage Facilities Act, Solid Waste Management Act, Storage Tank and Spill  
6 Prevention Act and other laws administered by the DEP, coupled with the regulations  
7 adopted under those statutes, set standards and requirements for virtually every aspect of  
8 wastewater system operations. Similar to water regulation meeting regulatory compliance  
9 requirements, including evolving permitting requirements, and more stringent limits can  
10 be challenging and can result in significant increases in operating costs. Furthermore,  
11 wastewater systems face significant regulatory and environmental liability risks  
12 enforceable by governmental agencies through penalties and through citizen lawsuits.

13 Finally, combined sewer systems present additional risks, particularly during storms when  
14 water flows can exceed the treatment system capacity and result in excess untreated water  
15 discharging through combined sewer outfalls. These systems can present increased risk, as  
16 they often cannot be separated, and the EPA seeks to reduce the number of these systems  
17 that operate.

18 **Q. What is your conclusion with respect to the effect of the risk associated with**  
19 **environmental regulations and water quality regulations on PAWC’s cost of equity?**

20 A. PAWC has significant risk and uncertainty associated with environmental and water  
21 quality regulations, and the recovery of costs to comply with those regulations. It is clear  
22 that the financial community recognizes the additional risks to credit quality associated

1 with the capital investment required to meet environmental and water quality regulations.  
2 As discussed in Section VI of my testimony, in order to establish a proxy group of sufficient  
3 size, the group is composed of water utilities, electric utilities and natural gas utilities,  
4 which all face significant and increasing environmental requirements. The environmental  
5 risk factors faced by PAWC, and the magnitude of the capital program that the Company  
6 has planned to maintain compliance, support an ROE above the proxy group mean and  
7 median.

8 **E. Management Performance and Recognition**

9 **Q. Please summarize the Public Utility Code as it pertains to consideration of**  
10 **performance factors in the utility's revenue requirement.**

11 A. Section 523 of the Pennsylvania Public Utility Code states that the Commission shall  
12 consider "the efficiency, effectiveness and adequacy of service of each utility when  
13 determining just and reasonable rates under this title". Additionally, the Commission's  
14 Policy Statement on Small Nonviable Water and Wastewater Systems at 52 Pa. Code §  
15 69.711 states that the Commission will consider acquisition incentives including "rate of  
16 return premiums", "acquisition adjustments", "deferral of acquisition improvement costs"  
17 and "plant improvement surcharges" to encourage the acquisition of troubled water and  
18 wastewater systems by viable utilities.

1 **Q. What are the specific performance factors that are to be considered by the**  
2 **Commission?**

3 A. Sections 523 (a) and (b) address the factors considered in evaluating the performance of  
4 water and wastewater utilities. These provisions include 1) the efficiency, effectiveness  
5 and adequacy of service, 2) management effectiveness and operating efficiency, 3) action  
6 or inaction to encourage cost-effective conservation by customers of water, and 4) other  
7 relevant evidence that relates to efficiency, effectiveness and adequacy of service.

8 **Q. How has PAWC demonstrated excellence in these categories?**

9 A. The testimony of Company witness Ashley Everette discusses several areas where PAWC  
10 has demonstrated exemplary management performance. Among these areas, the  
11 performance highlighted by Ms. Everette includes:

- 12 • The Company's H2O program ranks at the top of the Pennsylvania water  
13 utility customer assistance programs for the types of benefits provided  
14 under the program. Further, the Company is expanding this program to  
15 add a fourth tier of eligibility to its bill discount program to customers  
16 whose household incomes are between 151% and 200% of FPL as well as  
17 to offer arrearage forgiveness for certain qualifying customers.
- 18 • PAWC's treatment plants are nationally recognized for optimization and  
19 performance above the regulatory standards.
- 20 • The Company is committed to continuing improvement in water quality  
21 and monitoring for pollutants where there is no obligation to monitor.
- 22 • PAWC's demonstrated commitment to operational and water efficiency  
23 for the benefit of customers.
- 24 • The Company has acted as a receiver for and acquired troubled water and  
25 wastewater systems for over 25 years, acquiring sixteen companies in the  
26 last 10 years.

1 **Q. How have you considered the management performance of PAWC in your**  
2 **recommendation?**

3 A. Yes. As discussed above, a reasonable range of ROE estimates for PAWC is from 10  
4 percent to 11.25 percent. I recommend an ROE of 10.95 percent for PAWC, which is at  
5 the high end of the reasonable range. This recommendation considers the effects of current  
6 market conditions as well as the Company's excellent management performance.

7 **IX. CAPITAL STRUCTURE**

8 **Q. Please explain how the water services capital structure was calculated for PAWC.**

9 A. Because there is specific debt that has been identified for wastewater services, the capital  
10 structures for water and wastewater services were calculated separately. The capital  
11 structure for the total company was calculated first, including all debt issuances and all  
12 sources of capital. As shown in Exhibit No. 13-A, Schedule 11, the total company  
13 projected permanent capital structure includes 44.70 percent long-term debt, 0.00 percent  
14 preferred stock and 55.30 percent common equity for the fully projected future test year  
15 ending June 30, 2025. The total company capital structure includes three issuances that can  
16 be specifically assigned to the wastewater services: Pennvest Clarion; Pennvest Scranton;  
17 and \$47 million of a PEDFA tax-exempt debt issuance for Coatsville. These issuances are  
18 shown on Exhibit No. 13-A, Schedule 14. The capital structure for water service was  
19 calculated by removing the wastewater specific debt instruments from the total long-term  
20 debt of the company and recalculating the ratios of the remaining capital stock. As shown  
21 in Exhibit No. 13-A, Schedule 12 the permanent ratemaking capital structure for the water  
22 service after removing the wastewater specific debt issuances from the total company



1 capital structure is 44.01 percent long-term debt, 0.00 percent preferred stock and 55.99  
2 percent common equity for the fully projected future test year ending June 30, 2025.

3 **Q. How was the wastewater services capital structure calculated?**

4 A. The wastewater specific capital structure was calculated by applying the total company  
5 debt ratio to the wastewater rate base, excluding the specific wastewater debt issuances.  
6 Preferred stock is also calculated by applying the total company percentage of preferred  
7 stock to the rate base less the wastewater specific debt issuances. The equity component  
8 of the capital structure is the rate base less long-term debt, wastewater specific debt  
9 issuances and preferred stock. As shown in Exhibit No. 13-A, Schedule 13, the wastewater  
10 specific capital structure includes 42.73 percent long-term debt, wastewater specific  
11 financing of 4.40 percent, for a total long-term debt of 47.13 percent, 0.00 percent preferred  
12 stock and 52.87 percent common equity for fully projected future test year ending June 30,  
13 2025.

1 **Figure 13: Ratemaking Capital Structures for the Fully Projected Future Test**  
 2 **Year ending June 30, 2025**

Total Company <sup>50</sup>	
Common Equity	55.30%
Preferred Stock	0.00%
Long-Term Debt	44.70%
Water Services <sup>51</sup>	
Common Equity	55.99%
Preferred Stock	0.00%
Long-Term Debt	44.01%
Wastewater Services <sup>52</sup>	
Common Equity	52.87%
Preferred Stock	0.00%
Long-Term Debt	42.73%
WW Specific Debt	4.40%

3 **Q. Why does the ratemaking capital structure exclude short-term debt?**

4 A. The ratemaking capital structure is intended to reflect the permanent financing of rate base  
 5 assets. PAWC has relied on short-term debt as temporary financing; to finance  
 6 Construction Work in Progress (CWIP), and the acquisitions of other water systems. As  
 7 those assets are brought into rate base, the Company secures permanent financing including  
 8 equity and long-term debt.

9 **Q. Did you conduct any analysis to determine if the requested equity ratio was**  
 10 **reasonable?**

11 A. Yes, I did. I reviewed the Company’s proposed capital structure and the capital structures  
 12 of the utility operating subsidiaries of the proxy companies.

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<sup>50</sup> See Exhibit 13-A, Schedule 11.

<sup>51</sup> *Ibid.*, at Schedule 12.

<sup>52</sup> *Ibid.*, at Schedule 13.

1 **Q. Why is it appropriate to consider the equity ratio for the proxy companies?**

2 A. The determination of the ROE is based on the expected return for a proxy group of  
3 companies that are comparable in risk to PAWC. The equity ratio is a measure of the  
4 financial risk of the company, and the authorized ROE is the return to compensate investors  
5 for that risk. If the Commission is going to rely on the ROE estimates for the proxy  
6 companies to establish the authorized ROE for PAWC, it is important that the financial  
7 risk of PAWC be similar to the financial risk of the proxy group. This is accomplished  
8 when the equity ratio of the subject company (in this case PAWC) is within the range  
9 established by the proxy group.

10 **Q. How did you conduct your analysis of the proxy group capital structures?**

11 A. Specifically, I calculated the mean proportions of common equity, long-term debt and  
12 short-term debt over the past three years for each of companies in the proxy group at the  
13 operating subsidiary level. Exhibit No. 13-A, Schedule 10 summarizes the actual capital  
14 structures of the operating subsidiaries. As shown, the average equity ratios for the  
15 operating subsidiaries of the proxy group range from 49.41 percent to 59.88 percent, with  
16 a mean of 55.88 percent. PAWC's proposed equity ratio of 55.30 percent is well within the  
17 equity ratio range established by the utility operating subsidiaries of the proxy group.

18 **Q. Are there other factors to be considered in setting the Company's capital structure?**

19 A. Yes, there are other factors that should be considered in setting the Companies' capital  
20 structures, namely the challenges that the credit rating agencies have highlighted as placing  
21 pressure on the outlook for utilities in 2023.

1 For example, Moody’s recently revised its 2023 outlook for the regulated gas and electric  
2 utilities sector to “negative” based on ongoing challenges of inflation, increasing interest  
3 rates and higher natural gas prices. Moody’s noted that these challenges increase the  
4 pressure on customer affordability, and thus face heightened public scrutiny and the ability  
5 of utilities to promptly recover their costs. Moody’s concluded that regulated utilities’  
6 financial metrics are already under pressure with little cushion, and that sustained capital  
7 spending is likely as utilities continue progress towards emissions reductions and net-zero  
8 goals. Moody’s noted that the outlook could return to stable if regulatory support remains  
9 intact, natural gas prices are at a level where utilities are able to recover their fuel and  
10 purchased power costs without delay beyond 12 months, overall inflation moderates,  
11 interest rates stabilize and/or utilities’ aggregate funds from operations-to-debt ratio  
12 remains between 14% and 15%.<sup>53</sup>

13 Fitch Ratings (“Fitch”) also highlights similar factors identified by Moody’s as challenging  
14 utilities’ outlook for 2023, stating that the sector faces mounting cost pressures due to  
15 “elevated commodity prices, inflationary headwinds and rising interest costs,” and that  
16 some offset in managing these headwinds include “higher authorized ROEs and the use of  
17 tools such as securitization of under-recovered fuel balances.”<sup>54</sup>

18 Likewise, S&P also continues to maintain a negative outlook for the utility industry, noting  
19 that downgrades have outpaced upgrades for the third consecutive year in 2022 with a

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<sup>53</sup> Moody’s Investors Service, Outlook. “2023 outlook negative due to higher natural gas prices, inflation and rising interest rates.” November 10, 2022; Moody’s Investors Service. Outlook, Sector In-Depth. “Inflation, high natural gas prices complicate prospects for supportive rate increases.” November 11, 2022.

<sup>54</sup> Fitch Ratings. “North American Utilities, Power & Gas Outlook 2023.” December 7, 2022, at 1-2.

1 median investor-owned utility credit rating of “BBB+”.<sup>55</sup> Further, S&P expects the  
2 industry to have negative discretionary cash flow as a result of significant capital spending  
3 and consistent dividends.<sup>56</sup> Therefore, the utility industry will need ongoing access to  
4 capital markets to fund the capital expenditures. However, S&P notes that inflation, rising  
5 interest rates and decreasing equity prices may “hamper” consistent access to capital  
6 markets and result in additional pressure on cash flows.<sup>57</sup> Moreover, S&P indicates that if  
7 inflation risks persist over the near-term and customer bills increase, regulatory credit  
8 support could decrease resulting in weaker financial metrics for the industry:

9 Over the past decade the industry’s financial measures have weakened from  
10 a combination of rising capital spending, regulatory lag, and lower  
11 authorized return on equity (ROE). The industry’s return on capital was  
12 about 6% a decade ago and today is closer to 4%. More recently, we have  
13 seen instances where not only is the authorized ROE lowered but also the  
14 equity ratio is lowered. These results have weakened the industry’s financial  
15 measures, pressuring credit quality. Under our base case of moderating  
16 inflationary risks during 2023, we expect the industry's credit measures to  
17 generally remain flat. However, if inflationary risks persist, it may further  
18 pressure the customer bill, potentially decreasing the level of regulatory  
19 credit support, weakening the industry's financial performance.<sup>58</sup>

20 The credit ratings agencies’ continued concerns over the negative effects of inflation and  
21 increased capital expenditures underscore the importance of maintaining adequate cash  
22 flow metrics for the industry as a whole, and PAWC in particular in the context of this  
23 proceeding.

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<sup>55</sup> S&P Global Ratings. Industry Top Trends, “North American Regulated Utilities: The industries outlook remains negative.” January 23, 2023.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

1 **Q. What is your conclusion with regard to PAWC's proposed capital structure?**

2 A. Considering the actual capital structures of the proxy group operating companies, I believe  
3 that PAWC's proposed common equity ratio of 55.30 percent is reasonable. The proposed  
4 equity ratio is well within the range and slightly below the mean established by the capital  
5 structures of the utility operating subsidiaries of the proxy companies.

6 **X. CONCLUSION AND RECOMMENDATIONS**

7 **Q. What is your conclusion regarding a fair ROE for PAWC?**

8 A. Figure 9 summarizes the results of my cost of equity analyses. Based on the various  
9 quantitative analyses summarized in Figure 1 above and the qualitative analyses presented  
10 in my Direct Testimony, a reasonable range of ROE results for PAWC is from 10.00  
11 percent to 11.25 percent. Within that range, I believe that an ROE of 10.95 percent is  
12 reasonable and appropriate. A return at the high end of the range of results would recognize  
13 the Company's superior performance and service quality, as discussed in the testimony of  
14 Ms. Ashley Everette at PAWC Statement No. 1. In addition, the recommended ROE takes  
15 into consideration the current conditions in capital markets including the high interest rates,  
16 and elevated inflationary pressures, both of which increase the cost of capital as well as the  
17 need to recover flotation costs and the relative business and financial risk of PAWC as  
18 compared to the proxy group. This ROE would enable the company to attract capital at  
19 reasonable terms under a variety of economic and financial market conditions, while  
20 continuing to provide safe, reliable and affordable water service to customers in  
21 Pennsylvania.

1

**Figure 9: Summary of Cost of Equity Model Results<sup>59</sup>**

	Mean Low	Mean	Mean High
<b>Constant Growth DCF</b>			
Mean Results:			
30-Day Average	8.90%	10.00%	11.31%
90-Day Average	8.66%	9.77%	11.08%
180-Day Average	8.50%	9.60%	10.91%
Average	8.69%	9.79%	11.10%
Median Results:			
30-Day Average	8.91%	9.98%	11.34%
90-Day Average	8.65%	9.54%	10.90%
180-Day Average	8.52%	9.28%	10.63%
Average	8.69%	9.60%	10.96%
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
<b>CAPM:</b>			
Current Value Line Beta	11.17%	11.10%	10.99%
Current Bloomberg Beta	10.66%	10.56%	10.41%
Long-term Avg. Beta	10.43%	10.32%	10.15%
<b>ECAPM:</b>			
Current Value Line Beta	11.50%	11.44%	11.36%
Current Bloomberg Beta	11.12%	11.04%	10.93%
Long-term Avg. Beta	10.94%	10.86%	10.73%

- 2 **Q. What is your conclusion regarding PAWC’s proposed capital structure?**
- 3 A. My conclusion is that PAWC’s proposed rate-making capital structure consisting of 55.30
- 4 percent common equity, 44.70 percent long-term debt is reasonable as compared to the
- 5 proxy group companies and should be used for setting rates in this case.

<sup>59</sup> DCF results exclude the result for Middlesex Water Company because the low and mean results are lower than the current yield on the Moody’s Baa rated utility bond index, which is illogical and the high end DCF result does not provide a reasonable equity risk premium over the current yield on the Moody’s Baa rated utility bond index of 6.48 percent on a 30-day average basis ending October 31, 2023.

1 Q. Does this conclude you direct testimony?

2 A. Yes, it does.





SUMMARY OF ROE ANALYSES RESULTS

	Mean Low	Mean	Mean High
<b>Constant Growth DCF<sup>1</sup></b>			
Mean Results:			
30-Day Average	8.90%	10.00%	11.31%
90-Day Average	8.66%	9.77%	11.08%
180-Day Average	8.50%	9.60%	10.91%
Average	8.69%	9.79%	11.10%
Median Results:			
30-Day Average	8.91%	9.98%	11.34%
90-Day Average	8.65%	9.54%	10.90%
180-Day Average	8.52%	9.28%	10.63%
Average	8.69%	9.60%	10.96%
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
<b>CAPM:</b>			
Current Value Line Beta	11.17%	11.10%	10.99%
Current Bloomberg Beta	10.66%	10.56%	10.41%
Long-term Avg. Beta	10.43%	10.32%	10.15%
<b>ECAPM:</b>			
Current Value Line Beta	11.50%	11.44%	11.36%
Current Bloomberg Beta	11.12%	11.04%	10.93%
Long-term Avg. Beta	10.94%	10.86%	10.73%

<sup>1</sup> Excludes the results for Middlesex Water Company

PROXY GROUP SCREENING DATA AND RESULTS - PROXY GROUP

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
Company	Ticker	Dividends	S&P Credit Rating Between BBB- and AAA	Covered by More Than 1 Analyst	Positive Growth Rates from at least two sources (Value Line, Yahoo! First Call, and Zacks)	% Regulated Operating Income > 70%	Announced Merger	Electric Companies with < 10% Generation	Electric Companies with Water Operations
American States Water Company	AWR	Yes	A	Yes	Yes	83.04%	No	n/a	n/a
Atmos Energy Corporation	ATO	Yes	A-	Yes	Yes	100.00%	No	n/a	n/a
California Water Service Group	CWT	Yes	A+	Yes	Yes	97.98%	No	n/a	n/a
Essential Utilities, Inc.	WTRG	Yes	A	Yes	Yes	98.55%	No	n/a	n/a
Eversource Energy	ES	Yes	A-	Yes	Yes	92.38%	No	0.06%	Yes
Middlesex Water Company	MSEX	Yes	A	Yes	Yes	91.18%	No	n/a	n/a
NiSource Inc.	NI	Yes	BBB+	Yes	Yes	100.17%	No	n/a	n/a
Northwest Natural Gas Company	NWN	Yes	A+	Yes	Yes	99.84%	No	n/a	n/a
ONE Gas, Inc.	OGS	Yes	A-	Yes	Yes	100.00%	No	n/a	n/a
SJW Group	SJW	Yes	A-	Yes	Yes	98.70%	No	n/a	n/a
Spire, Inc.	SR	Yes	A-	Yes	Yes	86.84%	No	n/a	n/a

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional

[3] Source: Yahoo! Finance, Value Line Investment Survey, and Zacks

[4] Source: Yahoo! Finance, Value Line Investment Survey, and Zacks

[5] Source: Form 10-K's for 2022, 2021, and 2020

[6] Source: SNL Financial News Releases

30-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Mean Low ROE	Mean ROE	Mean High ROE
American States Water Company	AWR	\$1.72	\$78.68	2.19%	2.25%	6.50%	4.40%	6.30%	5.73%	6.63%	7.98%	8.76%
Atmos Energy Corporation	ATO	\$2.96	\$108.89	2.72%	2.82%	7.00%	7.50%	7.30%	7.27%	9.81%	10.08%	10.32%
California Water Service Group	CWT	\$1.04	\$47.85	2.17%	2.27%	6.50%	10.80%	n/a	8.65%	8.74%	10.92%	13.09%
Essential Utilities, Inc.	WTRG	\$1.23	\$33.92	3.62%	3.73%	7.50%	5.40%	5.60%	6.17%	9.12%	9.90%	11.26%
Eversource Energy	ES	\$2.70	\$56.56	4.77%	4.90%	6.50%	4.00%	5.00%	5.17%	8.87%	10.06%	11.43%
Middlesex Water Company	MSEX	\$1.25	\$65.50	1.91%	1.94%	5.00%	2.70%	n/a	3.85%	4.63%	5.79%	6.96%
NiSource Inc.	NI	\$1.00	\$25.13	3.98%	4.13%	9.50%	6.70%	7.00%	7.73%	10.81%	11.87%	13.67%
Northwest Natural Gas Company	NWN	\$1.95	\$38.12	5.11%	5.23%	6.50%	2.80%	3.70%	4.33%	7.99%	9.56%	11.78%
ONE Gas, Inc.	OGS	\$2.60	\$67.61	3.85%	3.95%	6.50%	5.00%	5.00%	5.50%	8.94%	9.45%	10.47%
SJW Group	SJW	\$1.52	\$60.01	2.53%	2.61%	6.50%	6.10%	n/a	6.30%	8.71%	8.91%	9.12%
Spire, Inc.	SR	\$2.88	\$57.02	5.05%	5.20%	8.00%	n/a	4.20%	6.10%	9.36%	11.30%	13.25%
Mean				3.45%	3.55%	6.91%	5.54%	5.51%	6.07%	8.51%	9.62%	10.92%
Median				3.62%	3.73%	6.50%	5.20%	5.30%	6.10%	8.87%	9.90%	11.26%
Excluding Middlesex												
Mean										8.90%	10.00%	11.31%
Median										8.91%	9.98%	11.34%
Notes:												
[1] Source: Bloomberg Professional												
[2] Source: Bloomberg Professional, equals 30-day average as of October 31, 2023												
[3] Equals [1] / [2]												
[4] Equals [3] x (1 + 0.50 x [8])												
[5] Source: Value Line												
[6] Source: Yahoo! Finance												
[7] Source: Zacks												
[8] Equals Average ([5], [6], [7])												
[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))												
[10] Equals [4] + [8]												
[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))												

90-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Mean Low ROE	Mean ROE	Mean High ROE
American States Water Company	AWR	\$1.72	\$83.40	2.06%	2.12%	6.50%	4.40%	6.30%	5.73%	6.51%	7.85%	8.63%
Atmos Energy Corporation	ATO	\$2.96	\$114.42	2.59%	2.68%	7.00%	7.50%	7.30%	7.27%	9.68%	9.95%	10.18%
California Water Service Group	CWT	\$1.04	\$49.92	2.08%	2.17%	6.50%	10.80%	n/a	8.65%	8.65%	10.82%	13.00%
Essential Utilities, Inc.	WTRG	\$1.23	\$37.37	3.29%	3.39%	7.50%	5.40%	5.60%	6.17%	8.78%	9.56%	10.91%
Eversource Energy	ES	\$2.70	\$63.56	4.25%	4.36%	6.50%	4.00%	5.00%	5.17%	8.33%	9.52%	10.89%
Middlesex Water Company	MSEX	\$1.25	\$74.06	1.69%	1.72%	5.00%	2.70%	n/a	3.85%	4.41%	5.57%	6.73%
NiSource Inc.	NI	\$1.00	\$26.25	3.81%	3.96%	9.50%	6.70%	7.00%	7.73%	10.64%	11.69%	13.49%
Northwest Natural Gas Company	NWN	\$1.95	\$39.90	4.89%	4.99%	6.50%	2.80%	3.70%	4.33%	7.76%	9.33%	11.55%
ONE Gas, Inc.	OGS	\$2.60	\$73.09	3.56%	3.66%	6.50%	5.00%	5.00%	5.50%	8.65%	9.16%	10.17%
SJW Group	SJW	\$1.52	\$65.26	2.33%	2.40%	6.50%	6.10%	n/a	6.30%	8.50%	8.70%	8.90%
Spire, Inc.	SR	\$2.88	\$59.42	4.85%	4.99%	8.00%	n/a	4.20%	6.10%	9.15%	11.09%	13.04%
Mean				3.22%	3.31%	6.91%	5.54%	5.51%	6.07%	8.28%	9.39%	10.68%
Median				3.29%	3.39%	6.50%	5.20%	5.30%	6.10%	8.65%	9.52%	10.89%
Excluding Middlesex												
Mean										8.66%	9.77%	11.08%
Median										8.65%	9.54%	10.90%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 30-day average as of October 31, 2023
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

180-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Mean Low ROE	Mean ROE	Mean High ROE
American States Water Company	AWR	\$1.72	\$85.94	2.00%	2.06%	6.50%	4.40%	6.30%	5.73%	6.45%	7.79%	8.57%
Atmos Energy Corporation	ATO	\$2.96	\$113.86	2.60%	2.69%	7.00%	7.50%	7.30%	7.27%	9.69%	9.96%	10.20%
California Water Service Group	CWT	\$1.04	\$53.14	1.96%	2.04%	6.50%	10.80%	n/a	8.65%	8.52%	10.69%	12.86%
Essential Utilities, Inc.	WTRG	\$1.23	\$39.68	3.10%	3.19%	7.50%	5.40%	5.60%	6.17%	8.58%	9.36%	10.71%
Eversource Energy	ES	\$2.70	\$68.77	3.93%	4.03%	6.50%	4.00%	5.00%	5.17%	8.00%	9.19%	10.55%
Middlesex Water Company	MSEX	\$1.25	\$75.84	1.65%	1.68%	5.00%	2.70%	n/a	3.85%	4.37%	5.53%	6.69%
NiSource Inc.	NI	\$1.00	\$26.61	3.76%	3.90%	9.50%	6.70%	7.00%	7.73%	10.58%	11.64%	13.44%
Northwest Natural Gas Company	NWN	\$1.95	\$42.32	4.61%	4.71%	6.50%	2.80%	3.70%	4.33%	7.47%	9.04%	11.26%
ONE Gas, Inc.	OGS	\$2.60	\$75.75	3.43%	3.53%	6.50%	5.00%	5.00%	5.50%	8.52%	9.03%	10.04%
SJW Group	SJW	\$1.52	\$70.29	2.16%	2.23%	6.50%	6.10%	n/a	6.30%	8.33%	8.53%	8.73%
Spire, Inc.	SR	\$2.88	\$63.09	4.56%	4.70%	8.00%	n/a	4.20%	6.10%	8.86%	10.80%	12.75%
Mean				3.07%	3.16%	6.91%	5.54%	5.51%	6.07%	8.12%	9.23%	10.53%
Median				3.10%	3.19%	6.50%	5.20%	5.30%	6.10%	8.52%	9.19%	10.55%
Excluding Middlesex												
Mean										8.50%	9.60%	10.91%
Median										8.52%	9.28%	10.63%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 30-day average as of October 31, 2023
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))

FLOTATION COST ADJUSTMENT

			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Date [i]	Shares Issued (000)	Offering Price	Under-writing Discount [ii]	Offering Expense (\$000)	Net Proceeds Per Share	Total Flotation Costs (\$000)	Gross Equity Issue Before Costs (\$000)	Net Proceeds (\$000)	Flotation Cost Percentage
American Water Works Company	AWK	2/28/2023	12,650	135.50	2.033	700	133.41	26,411	1,714,075	1,687,664	1.54% [iii]

[i] Offering Completion Date

[ii] Underwriting discount is calculated as the market price minus the offering price when not explicitly given in the prospectus.

[iii] American Water Works Company: AWK Prospectus 424B7 02.28.2023

The flotation cost adjustment is derived by dividing the dividend yield by 1 - F (where F = flotation costs expressed in percentage terms), or by 0.9846, and adding that result to the constant growth rate to determine the cost of equity. Using the formulas shown previously in my testimony, the Constant Growth DCF calculation is modified as follows to accommodate an adjustment for flotation costs:

$$k = \frac{D \times (1 + 0.5g)}{P \times (1 - F)} + g$$

			[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Expected Dividend Yield Adjusted for Flotation Costs	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Earnings Growth	Cost of Equity: Mean Growth Rate	Cost of Equity: Adjusted for Flotation Costs	
American States Water Company	AWR	\$ 1.72	\$ 78.68	2.19%	2.25%	2.28%	6.50%	4.40%	6.30%	5.73%	7.98%	8.02%	
Atmos Energy Corporation	ATO	\$ 2.96	\$ 108.89	2.72%	2.82%	2.86%	7.00%	7.50%	7.30%	7.27%	10.08%	10.13%	
California Water Service Group	CWT	\$ 1.04	\$ 47.85	2.17%	2.27%	2.30%	6.50%	10.80%	n/a	8.65%	10.92%	10.95%	
Essential Utilities, Inc.	WTRG	\$ 1.23	\$ 33.92	3.62%	3.73%	3.79%	7.50%	5.40%	5.60%	6.17%	9.90%	9.96%	
Eversource Energy	ES	\$ 2.70	\$ 56.56	4.77%	4.90%	4.97%	6.50%	4.00%	5.00%	5.17%	10.06%	10.14%	
Middlesex Water Company	MSEX	\$ 1.25	\$ 65.50	1.91%	1.94%	1.98%	5.00%	2.70%	n/a	3.85%	5.79%	5.83%	
NiSource Inc.	NI	\$ 1.00	\$ 25.13	3.98%	4.13%	4.20%	9.50%	6.70%	7.00%	7.73%	11.87%	11.93%	
Northwest Natural Gas Company	NWN	\$ 1.95	\$ 38.12	5.11%	5.23%	5.31%	6.50%	2.80%	3.70%	4.33%	9.56%	9.64%	
ONE Gas, Inc.	OGS	\$ 2.60	\$ 67.61	3.85%	3.95%	4.01%	6.50%	5.00%	5.00%	5.50%	9.45%	9.51%	
SJW Group	SJW	\$ 1.52	\$ 60.01	2.53%	2.61%	2.65%	6.50%	6.10%	n/a	6.30%	8.91%	8.95%	
Spire, Inc.	SR	\$ 2.88	\$ 57.02	5.05%	5.20%	5.29%	8.00%	n/a	4.20%	6.10%	11.30%	11.39%	
Mean											9.62%	9.68%	
Median											9.90%	9.96%	
Flotation Cost Adjustment (Mean)												0.06%	[21]
Flotation Cost Adjustment (Median)												0.06%	[22]

Notes:

[1] - [4] See Notes [i] to [iii] above

[5] Equals [8] / [1]

[6] Equals [4] + ([1] x [3])

[7] Equals [1] x [2]

[8] Equals [7] - [6]

[9] Equals [6] / [7]

[10] Bloomberg Professional

[11] Bloomberg Professional, equals 30-day average as of October 31, 2023

[12] Equals [10] / [11]

[13] Equals [12] x (1 + 0.5 x [18])

[14] Equals [13] / (1 - Flotation Cost)

[15] Value Line

[16] Yahoo! Finance

[17] Zacks Investment Research

[18] Equals Average of [15], [16], [17]

[19] Equals [13] + [18]

[20] Equals [14] + [18]

[21] Equals [20] (Mean) - [19] (Mean)

[22] Equals [20] (Median) - [19] (Median)

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	4.84%	0.70	12.49%	7.64%	10.19%	10.77%
Atmos Energy Corporation	ATO	4.84%	0.85	12.49%	7.64%	11.34%	11.63%
California Water Service Group	CWT	4.84%	0.70	12.49%	7.64%	10.19%	10.77%
Essential Utilities, Inc.	WTRG	4.84%	1.00	12.49%	7.64%	12.49%	12.49%
Eversource Energy	ES	4.84%	0.90	12.49%	7.64%	11.72%	11.91%
Middlesex Water Company	MSEX	4.84%	0.75	12.49%	7.64%	10.58%	11.05%
NiSource Inc.	NI	4.84%	0.90	12.49%	7.64%	11.72%	11.91%
Northwest Natural Gas Company	NWN	4.84%	0.80	12.49%	7.64%	10.96%	11.34%
ONE Gas, Inc.	OGS	4.84%	0.80	12.49%	7.64%	10.96%	11.34%
SJW Group	SJW	4.84%	0.85	12.49%	7.64%	11.34%	11.63%
Spire, Inc.	SR	4.84%	0.85	12.49%	7.64%	11.34%	11.63%
Mean			0.83			11.17%	11.50%

Notes:

[1] Source: Bloomberg Professional, 30-day average as of October 31, 2023

[2] Source: Value Line Reports, August 25, 2023, October 6, 2023

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])



CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Near-term projected 30-year U.S. Treasury bond yield (Q1 2024 - Q1 2025)	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	4.44%	0.70	12.49%	8.05%	10.07%	10.68%
Atmos Energy Corporation	ATO	4.44%	0.85	12.49%	8.05%	11.28%	11.58%
California Water Service Group	CWT	4.44%	0.70	12.49%	8.05%	10.07%	10.68%
Essential Utilities, Inc.	WTRG	4.44%	1.00	12.49%	8.05%	12.49%	12.49%
Eversource Energy	ES	4.44%	0.90	12.49%	8.05%	11.68%	11.88%
Middlesex Water Company	MSEX	4.44%	0.75	12.49%	8.05%	10.48%	10.98%
NiSource Inc.	NI	4.44%	0.90	12.49%	8.05%	11.68%	11.88%
Northwest Natural Gas Company	NWN	4.44%	0.80	12.49%	8.05%	10.88%	11.28%
ONE Gas, Inc.	OGS	4.44%	0.80	12.49%	8.05%	10.88%	11.28%
SJW Group	SJW	4.44%	0.85	12.49%	8.05%	11.28%	11.58%
Spire, Inc.	SR	4.44%	0.85	12.49%	8.05%	11.28%	11.58%
Mean			0.83			11.10%	11.44%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 42, No. 11, November 1, 2023, at 2

[2] Source: Value Line Reports, August 25, 2023, October 6, 2023

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA

$$K = R_f + \beta (R_m - R_f)$$

	[1]	[2]	[3]	[4]	[5]	[6]	
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2025-2029)	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	3.80%	0.70	12.49%	8.69%	9.88%	10.53%
Atmos Energy Corporation	ATO	3.80%	0.85	12.49%	8.69%	11.18%	11.51%
California Water Service Group	CWT	3.80%	0.70	12.49%	8.69%	9.88%	10.53%
Essential Utilities, Inc.	WTRG	3.80%	1.00	12.49%	8.69%	12.49%	12.49%
Eversource Energy	ES	3.80%	0.90	12.49%	8.69%	11.62%	11.84%
Middlesex Water Company	MSEX	3.80%	0.75	12.49%	8.69%	10.32%	10.86%
NiSource Inc.	NI	3.80%	0.90	12.49%	8.69%	11.62%	11.84%
Northwest Natural Gas Company	NWN	3.80%	0.80	12.49%	8.69%	10.75%	11.18%
ONE Gas, Inc.	OGS	3.80%	0.80	12.49%	8.69%	10.75%	11.18%
SJW Group	SJW	3.80%	0.85	12.49%	8.69%	11.18%	11.51%
Spire, Inc.	SR	3.80%	0.85	12.49%	8.69%	11.18%	11.51%
Mean			0.83			10.99%	11.36%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 42, No. 6, June 1, 2023, at 14

[2] Source: Value Line Reports, August 25, 2023, October 6, 2023

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

	[1]	[2]	[3]	[4]	[5]	[6]	
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	4.84%	0.65	12.49%	7.64%	9.82%	10.48%
Atmos Energy Corporation	ATO	4.84%	0.75	12.49%	7.64%	10.57%	11.05%
California Water Service Group	CWT	4.84%	0.69	12.49%	7.64%	10.09%	10.69%
Essential Utilities, Inc.	WTRG	4.84%	0.85	12.49%	7.64%	11.33%	11.62%
Eversource Energy	ES	4.84%	0.80	12.49%	7.64%	10.98%	11.36%
Middlesex Water Company	MSEX	4.84%	0.77	12.49%	7.64%	10.74%	11.18%
NiSource Inc.	NI	4.84%	0.81	12.49%	7.64%	11.06%	11.42%
Northwest Natural Gas Company	NWN	4.84%	0.70	12.49%	7.64%	10.19%	10.77%
ONE Gas, Inc.	OGS	4.84%	0.79	12.49%	7.64%	10.86%	11.27%
SJW Group	SJW	4.84%	0.80	12.49%	7.64%	10.93%	11.32%
Spire, Inc.	SR	4.84%	0.76	12.49%	7.64%	10.69%	11.14%
Mean			0.76			10.66%	11.12%

Notes:

[1] Source: Bloomberg Professional, 30-day average as of October 31, 2023

[2] Source: Bloomberg Professional, as of October 31, 2023

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Near-term projected 30-year U.S. Treasury bond yield (Q1 2024 - Q1 2025)	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	4.44%	0.65	12.49%	8.05%	9.67%	10.38%
Atmos Energy Corporation	ATO	4.44%	0.75	12.49%	8.05%	10.47%	10.97%
California Water Service Group	CWT	4.44%	0.69	12.49%	8.05%	9.96%	10.60%
Essential Utilities, Inc.	WTRG	4.44%	0.85	12.49%	8.05%	11.27%	11.57%
Eversource Energy	ES	4.44%	0.80	12.49%	8.05%	10.90%	11.30%
Middlesex Water Company	MSEX	4.44%	0.77	12.49%	8.05%	10.65%	11.11%
NiSource Inc.	NI	4.44%	0.81	12.49%	8.05%	10.99%	11.36%
Northwest Natural Gas Company	NWN	4.44%	0.70	12.49%	8.05%	10.07%	10.68%
ONE Gas, Inc.	OGS	4.44%	0.79	12.49%	8.05%	10.77%	11.20%
SJW Group	SJW	4.44%	0.80	12.49%	8.05%	10.85%	11.26%
Spire, Inc.	SR	4.44%	0.76	12.49%	8.05%	10.59%	11.06%
Mean			0.76			10.56%	11.04%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 42, No. 11, November 1, 2023, at 2

[2] Source: Bloomberg Professional, as of October 31, 2023

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2025-2029)	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	3.80%	0.65	12.49%	8.69%	9.45%	10.21%
Atmos Energy Corporation	ATO	3.80%	0.75	12.49%	8.69%	10.31%	10.85%
California Water Service Group	CWT	3.80%	0.69	12.49%	8.69%	9.76%	10.45%
Essential Utilities, Inc.	WTRG	3.80%	0.85	12.49%	8.69%	11.17%	11.50%
Eversource Energy	ES	3.80%	0.80	12.49%	8.69%	10.77%	11.20%
Middlesex Water Company	MSEX	3.80%	0.77	12.49%	8.69%	10.50%	11.00%
NiSource Inc.	NI	3.80%	0.81	12.49%	8.69%	10.87%	11.27%
Northwest Natural Gas Company	NWN	3.80%	0.70	12.49%	8.69%	9.88%	10.53%
ONE Gas, Inc.	OGS	3.80%	0.79	12.49%	8.69%	10.64%	11.10%
SJW Group	SJW	3.80%	0.80	12.49%	8.69%	10.72%	11.16%
Spire, Inc.	SR	3.80%	0.76	12.49%	8.69%	10.44%	10.95%
Mean			0.76			10.41%	10.93%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 42, No. 6, June 1, 2023, at 14

[2] Source: Bloomberg Professional, as of October 31, 2023

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VALUE LINE LT AVERAGE BETA

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

	[1]	[2]	[3]	[4]	[5]	[6]	
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)	ECAPM ROE
American States Water Company	AWR	4.84%	0.69	12.49%	7.64%	10.12%	10.71%
Atmos Energy Corporation	ATO	4.84%	0.74	12.49%	7.64%	10.50%	11.00%
California Water Service Group	CWT	4.84%	0.71	12.49%	7.64%	10.23%	10.80%
Essential Utilities, Inc.	WTRG	4.84%	0.77	12.49%	7.64%	10.73%	11.17%
Eversource Energy	ES	4.84%	0.74	12.49%	7.64%	10.53%	11.02%
Middlesex Water Company	MSEX	4.84%	0.74	12.49%	7.64%	10.46%	10.97%
NiSource Inc.	NI	4.84%	0.74	12.49%	7.64%	10.48%	10.98%
Northwest Natural Gas Company	NWN	4.84%	0.70	12.49%	7.64%	10.19%	10.77%
ONE Gas, Inc.	OGS	4.84%	0.73	12.49%	7.64%	10.41%	10.93%
SJW Group	SJW	4.84%	0.76	12.49%	7.64%	10.61%	11.08%
Spire, Inc.	SR	4.84%	0.73	12.49%	7.64%	10.42%	10.94%
Mean			0.73			10.43%	10.94%

Notes:

[1] Source: Bloomberg Professional, 30-day average as of October 31, 2023

[2] Source: Value Line Reports, 2013 - 2022.

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VALUE LINE LT AVERAGE BETA

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Near-term projected 30-year U.S. Treasury bond yield (Q1 2024 - Q1 2025)	Beta ( $\beta$ )	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)	ECAPM ROE
American States Water Company	AWR	4.44%	0.69	12.49%	8.05%	9.99%	10.62%
Atmos Energy Corporation	ATO	4.44%	0.74	12.49%	8.05%	10.39%	10.92%
California Water Service Group	CWT	4.44%	0.71	12.49%	8.05%	10.11%	10.71%
Essential Utilities, Inc.	WTRG	4.44%	0.77	12.49%	8.05%	10.64%	11.10%
Eversource Energy	ES	4.44%	0.74	12.49%	8.05%	10.42%	10.94%
Middlesex Water Company	MSEX	4.44%	0.74	12.49%	8.05%	10.35%	10.89%
NiSource Inc.	NI	4.44%	0.74	12.49%	8.05%	10.37%	10.90%
Northwest Natural Gas Company	NWN	4.44%	0.70	12.49%	8.05%	10.07%	10.68%
ONE Gas, Inc.	OGS	4.44%	0.73	12.49%	8.05%	10.30%	10.85%
SJW Group	SJW	4.44%	0.76	12.49%	8.05%	10.52%	11.01%
Spire, Inc.	SR	4.44%	0.73	12.49%	8.05%	10.31%	10.86%
Mean			0.73			10.32%	10.86%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 42, No. 11, November 1, 2023, at 2

[2] Source: Value Line Reports, 2013 - 2022.

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VALUE LINE LT AVERAGE BETA

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2025-2029)	Beta ( $\beta$ )	Market Return (Rm)	Market Risk Premium (Rm - Rf)	ROE (K)	ECAPM ROE
American States Water Company	AWR	3.80%	0.69	12.49%	8.69%	9.79%	10.47%
Atmos Energy Corporation	ATO	3.80%	0.74	12.49%	8.69%	10.23%	10.79%
California Water Service Group	CWT	3.80%	0.71	12.49%	8.69%	9.92%	10.56%
Essential Utilities, Inc.	WTRG	3.80%	0.77	12.49%	8.69%	10.49%	10.99%
Eversource Energy	ES	3.80%	0.74	12.49%	8.69%	10.26%	10.82%
Middlesex Water Company	MSEX	3.80%	0.74	12.49%	8.69%	10.18%	10.76%
NiSource Inc.	NI	3.80%	0.74	12.49%	8.69%	10.21%	10.78%
Northwest Natural Gas Company	NWN	3.80%	0.70	12.49%	8.69%	9.88%	10.53%
ONE Gas, Inc.	OGS	3.80%	0.73	12.49%	8.69%	10.13%	10.72%
SJW Group	SJW	3.80%	0.76	12.49%	8.69%	10.36%	10.89%
Spire, Inc.	SR	3.80%	0.73	12.49%	8.69%	10.14%	10.73%
Mean			0.73			10.15%	10.73%

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 42, No. 6, June 1, 2023, at 14

[2] Source: Value Line Reports, 2013 - 2022.

[3] Source: Schedule 7

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])



HISTORICAL BETA - 2013 - 2022

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	Average
American States Water Company	AWR	0.65	0.70	0.70	0.75	0.80	0.70	0.65	0.65	0.65	0.65	0.69
Atmos Energy Corporation	ATO	0.80	0.80	0.80	0.70	0.70	0.60	0.60	0.80	0.80	0.80	0.74
California Water Service Group	CWT	0.60	0.70	0.75	0.75	0.80	0.70	0.70	0.65	0.70	0.70	0.71
Essential Utilities, Inc.	WTRG	0.60	0.70	0.75	0.70	0.75	0.70	0.65	0.95	0.95	0.95	0.77
Eversource Energy	ES			0.75	0.70	0.65	0.60	0.55	0.90	0.90	0.90	0.74
Middlesex Water Company	MSEX	0.75	0.70	0.70	0.75	0.80	0.75	0.75	0.75	0.70	0.70	0.74
NiSource Inc.	NI	0.85	0.85	NMF	NMF	0.60	0.50	0.55	0.85	0.85	0.85	0.74
Northwest Natural Gas Company	NWN	0.65	0.70	0.65	0.65	0.70	0.60	0.60	0.80	0.85	0.80	0.70
ONE Gas, Inc.	OGS				0.70	0.70	0.65	0.65	0.80	0.80	0.80	0.73
SJW Group	SJW	0.85	0.85	0.75	0.75	0.70	0.60	0.60	0.85	0.80	0.80	0.76
Spire, Inc.	SR	0.65	0.70	0.70	0.70	0.70	0.65	0.65	0.85	0.85	0.85	0.73
Mean		0.71	0.74	0.73	0.72	0.72	0.64	0.63	0.80	0.80	0.80	0.73

Notes:

- [1] Value Line, dated December 26, 2013.
- [2] Value Line, dated December 31, 2014.
- [3] Value Line, dated December 30, 2015.
- [4] Value Line, dated December 29, 2016.
- [5] Value Line, dated December 28, 2017.
- [6] Value Line, dated December 27, 2018.
- [7] Value Line, dated December 26, 2019.
- [8] Value Line, dated December 30, 2020.
- [9] Value Line, dated December 29, 2021.
- [10] Value Line, dated December 30, 2022.
- [11] Average ([1] - [10])

MARKET RISK PREMIUM DERIVED FROM S&P 500 INDEX

[1] Estimated Weighted Average Dividend Yield	1.88%
[2] Estimated Weighted Average Long-Term Growth Rate	10.51%
[3] S&P 500 Estimated Required Market Return	12.49%

Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
LyondellBasell Industries NV	LYB	324,362	90.24	29,270	0.11%	5.54%	0.01%	11.00%	0.01%
American Express Co	AXP	728,746	146.03	106,419	0.40%	1.64%	0.01%	13.94%	0.06%
Verizon Communications Inc	VZ	4204,102	35.13	147,690		7.57%			
Broadcom Inc	AVGO	412,736	841.37	347,264	1.31%	2.19%	0.03%	12.40%	0.16%
Boeing Co/The	BA	604,977	186.82	113,022					
Caterpillar Inc	CAT	510,143	226.05	115,318	0.44%	2.30%	0.01%	20.00%	0.09%
JPMorgan Chase & Co	JPM	2906,085	139.06	404,120	1.52%	3.02%	0.05%	1.00%	0.02%
Chevron Corp	CVX	1867,245	145.73	272,114	1.03%	4.14%	0.04%	7.27%	0.07%
Coca-Cola Co/The	KO	4323,414	56.49	244,230	0.92%	3.26%	0.03%	7.02%	0.06%
AbbVie Inc	ABBV	1765,047	141.18	249,189	0.94%	4.39%	0.04%	6.50%	0.06%
Walt Disney Co/The	DIS	1829,779	81.59	149,292				22.27%	
FleetCor Technologies Inc	FLT	73,957	225.17	16,653	0.06%			12.40%	0.01%
Extra Space Storage Inc	EXR	211,277	103.59	21,886	0.08%	2.36%	0.00%	0.61%	0.00%
Exxon Mobil Corp	XOM	3962,918	105.85	419,475	1.58%	3.59%	0.06%	16.80%	0.27%
Phillips 66	PSX	445,288	114.07	50,794	0.19%	3.68%	0.01%	15.21%	0.03%
General Electric Co	GE	1088,386	108.63	118,231	0.45%	0.29%	0.00%	7.00%	0.03%
HP Inc	HPQ	988,269	26.33	26,021	0.10%	3.99%	0.00%	0.50%	0.00%
Home Depot Inc/The	HD	1000,066	284.69	284,709	1.07%	2.94%	0.03%	3.32%	0.04%
Monolithic Power Systems Inc	MPWR	47,911	441.74	21,164	0.08%	0.91%	0.00%	8.00%	0.01%
International Business Machines Corp	IBM	913,119	144.64	132,074	0.50%	4.59%	0.02%	2.77%	0.01%
Johnson & Johnson	JNJ	2407,279	148.34	357,096	1.35%	3.21%	0.04%	3.86%	0.05%
Lululemon Athletica Inc	LULU	121,425	393.48	47,778	0.18%			16.00%	0.03%
McDonald's Corp	MCD	728,763	262.17	191,060	0.72%	2.55%	0.02%	9.67%	0.07%
Merck & Co Inc	MRK	2537,521	102.7	260,603	0.98%	2.84%	0.03%	8.51%	0.08%
3M Co	MMM	552,317	90.95	50,233	0.19%	6.60%	0.01%	4.00%	0.01%
American Water Works Co Inc	AWK	194,669	117.65	22,903	0.09%	2.41%	0.00%	8.00%	0.01%
Bank of America Corp	BAC	7913,732	26.34	208,448		3.64%			
Pfizer Inc	PFE	5645,96	30.56	172,541		5.37%		50.40%	
Procter & Gamble Co/The	PG	2356,886	150.03	353,604	1.33%	2.51%	0.03%	7.51%	0.10%
AT&T Inc	T	1750,02	15.4	110,110	0.42%	7.21%	0.03%	2.44%	0.01%
Travelers Cos Inc/The	TRV	228,399	167.44	38,243	0.14%	2.39%	0.00%	15.33%	0.02%
RTX Corp	RTX	1437,901	81.39	117,031	0.44%	2.90%	0.01%	8.61%	0.04%
Analog Devices Inc	ADI	498,314	157.33	78,400	0.30%	2.19%	0.01%	6.50%	0.02%
Walmart	WMT	2691,564	163.41	439,828	1.66%	1.40%	0.02%	8.00%	0.13%
Cisco Systems Inc	CSCO	4050,542	52.13	211,155	0.80%	2.99%	0.02%	7.50%	0.06%
Intel Corp	INTC	4216	36.5	153,884		1.37%		-1.82%	
General Motors Co	GM	1369,481	28.2	38,619	0.15%	1.28%	0.00%	0.36%	0.00%
Microsoft Corp	MSFT	7432,262	338.11	2,512,922	9.48%	0.89%	0.08%	15.72%	1.49%
Dollar General Corp	DG	219,476	119.04	26,126		1.98%		-2.50%	
Cigna Group/The	CI	295,98	309.2	91,517	0.35%	1.59%	0.01%	9.80%	0.03%
Kinder Morgan Inc	KMI	2222,774	16.2	36,009	0.14%	6.98%	0.01%	2.00%	0.00%
Citigroup Inc	C	1913.9	39.49	75,580		5.37%		-9.70%	
American International Group Inc	AIG	711.9	61.31	43,647	0.16%	2.35%	0.00%	10.00%	0.02%
Altria Group Inc	MO	1768,647	40.17	71,047	0.27%	9.76%	0.03%	4.50%	0.01%
HCA Healthcare Inc	HCA	267,661	226.14	60,529	0.23%	1.06%	0.00%	7.56%	0.02%
International Paper Co	IP	346,017	33.73	11,671		5.48%		-2.00%	
Hewlett Packard Enterprise Co	HPE	1282,865	15.38	19,730	0.07%	3.12%	0.00%	3.03%	0.00%
Abbott Laboratories	ABT	1735,358	94.55	164,078	0.62%	2.16%	0.01%	3.27%	0.02%
Aflac Inc	AFL	594,062	78.11	46,402	0.18%	2.15%	0.00%	5.98%	0.01%
Air Products and Chemicals Inc	APD	222,149	282.44	62,744	0.24%	2.48%	0.01%	10.86%	0.03%
Royal Caribbean Cruises Ltd	RCL	256,235	84.73	21,711					
Hess Corp	HES	307,061	144.4	44,340	0.17%	1.21%	0.00%	13.00%	0.02%
Archer-Daniels-Midland Co	ADM	533,381	71.57	38,174		2.52%		-7.07%	
Automatic Data Processing Inc	ADP	411.7	218.22	89,841	0.34%	2.29%	0.01%	16.00%	0.05%
Verisk Analytics Inc	VRSK	145,027	227.36	32,973	0.12%	0.60%	0.00%	10.52%	0.01%
AutoZone Inc	AZO	17,634	2477.13	43,682	0.16%			13.72%	0.02%
Avery Dennison Corp	AVY	80,531	174.07	14,018	0.05%	1.86%	0.00%	7.00%	0.00%
Enphase Energy Inc	ENPH	136,551	79.58	10,867				30.50%	
MSCI Inc	MSCI	79,091	471.55	37,295	0.14%	1.17%	0.00%	14.41%	0.02%
Ball Corp	BALL	315,059	48.15	15,170	0.06%	1.66%	0.00%	10.30%	0.01%
Axon Enterprise Inc	AXON	74.76	204.49	15,288					
Ceridian HCM Holding Inc	CDAY	155,613	64.01	9,961					
Carrier Global Corp	CARR	839,047	47.66	39,989	0.15%	1.55%	0.00%	10.80%	0.02%
Bank of New York Mellon Corp/The	BNK	769,073	42.5	32,686	0.12%	3.95%	0.00%	10.00%	0.01%
Otis Worldwide Corp	OTIS	409,259	77.21	31,599	0.12%	1.76%	0.00%	9.00%	0.01%
Baxter International Inc	BAX	506,405	32.43	16,423	0.06%	3.58%	0.00%	0.33%	0.00%
Becton Dickinson & Co	BDX	290,109	252.78	73,334	0.28%	1.44%	0.00%	9.20%	0.03%
Berkshire Hathaway Inc	BRK/B	1308,07	341.33	446,484					
Best Buy Co Inc	BBY	217,638	66.82	14,543	0.05%	5.51%	0.00%	3.21%	0.00%
Boston Scientific Corp	BSX	1464,223	51.19	74,954	0.28%			12.10%	0.03%
Bristol-Myers Squibb Co	BMJ	2034,758	51.53	104,851	0.40%	4.42%	0.02%	2.22%	0.01%
Brown-Forman Corp	BF/B	310,136	56.16	17,417	0.07%	1.46%	0.00%	7.04%	0.00%
Coterra Energy Inc	CTRA	755,046	27.5	20,764		2.91%		23.02%	
Campbell Soup Co	CPB	297,622	40.41	12,027	0.05%	3.66%	0.00%	3.17%	0.00%
Hilton Worldwide Holdings Inc	HLT	256.44	151.53	38,858	0.15%	0.40%	0.00%	17.09%	0.03%
Carnival Corp	CCL	1119,445	11.46	12,829					
Qorvo Inc	QRVO	97.91	87.42	8,559	0.03%			2.83%	0.00%
UDR Inc	UDR	328,928	31.81	10,463	0.04%	5.28%	0.00%	6.08%	0.00%
Clorox Co/The	CLX	124,001	117.7	14,595	0.06%	4.08%	0.00%	14.82%	0.01%
Paycom Software Inc	PAYC	60,467	244.97	14,813		0.61%		21.43%	
CMS Energy Corp	CMS	291,764	53.856	15,713	0.06%	3.62%	0.00%	7.33%	0.00%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Colgate-Palmolive Co	CL	823.372	75.12	61,852	0.23%	2.56%	0.01%	7.61%	0.02%
EPAM Systems Inc	EPAM	57.961	217.57	12,611	0.05%			4.70%	0.00%
Comerica Inc	CMA	131.873	39.4	5,196	0.02%	7.21%	0.00%	10.63%	0.00%
Conagra Brands Inc	CAG	477.968	27.01	12,910	0.05%	5.18%	0.00%	0.84%	0.00%
Airbnb Inc	ABNB	426.359	118.29	50,434	0.19%			18.84%	0.04%
Consolidated Edison Inc	ED	344.924	87.79	30,281	0.11%	3.69%	0.00%	4.88%	0.01%
Corning Inc	GLW	853.175	26.76	22,831	0.09%	4.19%	0.00%	1.57%	0.00%
Cummins Inc	CMI	141.647	216.3	30,638	0.12%	3.11%	0.00%	11.27%	0.01%
Caesars Entertainment Inc	CZR	215.711	39.89	8,605					
Danaher Corp	DHR	738.927	192.02	141,889		0.56%		-5.34%	
Target Corp	TGT	461.605	110.79	51,141		3.97%		-0.10%	
Deere & Co	DE	288.001	365.36	105,224	0.40%	1.48%	0.01%	16.67%	0.07%
Dominion Energy Inc	D	836.773	40.32	33,739		6.62%		-3.05%	
Dover Corp	DOV	139.89	129.95	18,179	0.07%	1.57%	0.00%	10.00%	0.01%
Alliant Energy Corp	LNT	252.719	48.79	12,330	0.05%	3.71%	0.00%	6.26%	0.00%
Steel Dynamics Inc	STLD	165.644	106.51	17,643		1.60%		-16.12%	
Duke Energy Corp	DUK	771	88.89	68,534	0.26%	4.61%	0.01%	6.06%	0.02%
Regency Centers Corp	REG	171.003	60.26	10,305	0.04%	4.31%	0.00%	4.98%	0.00%
Eaton Corp PLC	ETN	399.3	207.91	83,018	0.31%	1.65%	0.01%	13.00%	0.05%
Ecolab Inc	ECL	285.034	167.74	47,812	0.18%	1.26%	0.00%	15.40%	0.03%
Revvity Inc	RVTY	124.135	82.85	10,285		0.34%		-26.69%	
Emerson Electric Co	EMR	571.5	88.97	50,846	0.19%	2.34%	0.00%	16.70%	0.03%
EOG Resources Inc	EOG	582.261	126.25	73,510	0.28%	2.61%	0.01%	11.33%	0.03%
Aon PLC	AON	200.216	309.4	61,947	0.23%	0.80%	0.00%	11.58%	0.03%
Entergy Corp	ETR	211.456	95.59	20,213	0.08%	4.73%	0.00%	6.03%	0.00%
Equifax Inc	EFX	123.217	169.57	20,894	0.08%	0.92%	0.00%	12.33%	0.01%
EQT Corp	EQT	411.332	42.38	17,432		1.49%		22.52%	
IQVIA Holdings Inc	IQV	183.122	180.83	33,114	0.12%			13.12%	0.02%
Gartner Inc	IT	78.825	332.04	26,173	0.10%			7.22%	0.01%
FedEx Corp	FDX	251.42	240.1	60,366	0.23%	2.10%	0.00%	14.50%	0.03%
FMC Corp	FMC	124.734	53.2	6,636		4.36%		-4.00%	
Brown & Brown Inc	BRO	284.598	69.42	19,757	0.07%	0.75%	0.00%	11.00%	0.01%
Ford Motor Co	F	3932.102	9.75	38,338		6.15%		-2.52%	
NextEra Energy Inc	NEE	2023.714	58.3	117,983	0.45%	3.21%	0.01%	8.76%	0.04%
Franklin Resources Inc	BEN	498.978	22.79	11,372		5.27%		-9.00%	
Garmin Ltd	GRMN	191.452	102.53	19,630	0.07%	2.85%	0.00%	5.60%	0.00%
Freeport-McMoRan Inc	FCX	1433.636	33.78	48,428		1.78%		-13.95%	
Dexcom Inc	DXCM	386.374	88.83	34,322				30.59%	
General Dynamics Corp	GD	272.897	241.31	65,853	0.25%	2.19%	0.01%	10.40%	0.03%
General Mills Inc	GIS	581.279	65.24	37,923	0.14%	3.62%	0.01%	8.00%	0.01%
Genuine Parts Co	GPC	140.197	128.86	18,066	0.07%	2.95%	0.00%	9.49%	0.01%
Atmos Energy Corp	ATO	148.462	107.66	15,983	0.06%	2.75%	0.00%	7.25%	0.00%
WW Grainger Inc	GWG	49.634	729.83	36,224		1.02%			
Halliburton Co	HAL	895.052	39.34	35,211		1.63%		24.14%	
L3Harris Technologies Inc	LHX	189.54	179.41	34,005	0.13%	2.54%	0.00%	3.50%	0.00%
Healthpeak Properties Inc	PEAK	547.074	15.55	8,507		7.72%			
Insulet Corp	PODD	69.821	132.57	9,256				39.24%	
Catalent Inc	CTLT	180.272	34.39	6,200					
Fortive Corp	FTV	351.434	65.28	22,942	0.09%	0.43%	0.00%	8.68%	0.01%
Hershey Co/The	HSY	149.885	187.35	28,081	0.11%	2.54%	0.00%	9.00%	0.01%
Synchrony Financial	SYF	413.804	28.05	11,607		3.57%			
Hormel Foods Corp	HRL	546.481	32.55	17,788	0.07%	3.38%	0.00%	2.39%	0.00%
Arthur J Gallagher & Co	AIG	215.9	235.49	50,842	0.19%	0.93%	0.00%	14.49%	0.03%
Mondelez International Inc	MDLZ	1360.418	66.21	90,073	0.34%	2.57%	0.01%	7.97%	0.03%
CenterPoint Energy Inc	CNP	629.432	26.88	16,919	0.06%	2.98%	0.00%	8.02%	0.01%
Humana Inc	HUM	123.907	523.69	64,889	0.24%	0.68%	0.00%	12.32%	0.03%
Willis Towers Watson PLC	WTW	103.26	235.89	24,358	0.09%	1.42%	0.00%	11.19%	0.01%
Illinois Tool Works Inc	ITW	300.886	224.12	67,435	0.25%	2.50%	0.01%	3.91%	0.01%
CDW Corp/DE	CDW	134.048	200.4	26,863	0.10%	1.18%	0.00%	13.10%	0.01%
Trane Technologies PLC	TT	228.398	190.31	43,466	0.16%	1.58%	0.00%	11.86%	0.02%
Interpublic Group of Cos Inc/The	IPG	383.004	28.4	10,877	0.04%	4.37%	0.00%	5.71%	0.00%
International Flavors & Fragrances Inc	IFF	255.253	68.35	17,447		4.74%		-10.08%	
Generac Holdings Inc	GNRC	62.243	84.07	5,233	0.02%			4.50%	0.00%
NXP Semiconductors NV	NXPI	257.802	172.43	44,453		2.35%		20.50%	
Kellanova	K	342.347	50.47	17,278	0.07%	4.44%	0.00%	1.94%	0.00%
Broadridge Financial Solutions Inc	BR	117.621	170.64	20,071		1.88%			
Kimberly-Clark Corp	KMB	337.941	119.64	40,431	0.15%	3.95%	0.01%	9.64%	0.01%
Kimco Realty Corp	KIM	619.892	17.94	11,121	0.04%	5.35%	0.00%	3.47%	0.00%
Oracle Corp	ORCL	2739.376	103.4	283,251	1.07%	1.55%	0.02%	14.45%	0.15%
Kroger Co/The	KR	719.316	45.37	32,635	0.12%	2.56%	0.00%	4.55%	0.01%
Lennar Corp	LEN	250.152	106.68	26,686	0.10%	1.41%	0.00%	1.00%	0.00%
Eli Lilly & Co	LLY	949.295	553.93	525,843		0.82%		23.26%	
Bath & Body Works Inc	BBWI	227.381	29.65	6,742	0.03%	2.70%	0.00%	11.38%	0.00%
Charter Communications Inc	CHTR	147.92	402.8	59,582	0.22%			13.16%	0.03%
Loews Corp	L	223.251	64.01	14,290		0.39%			
Lowe's Cos Inc	LOW	577.115	190.57	109,981		2.31%		20.59%	
Hubbell Inc	HUBB	53.631	270.1	14,486		1.81%			
IDEX Corp	IEX	75.626	191.41	14,476	0.05%	1.34%	0.00%	11.00%	0.01%
Marsh & McLennan Cos Inc	MMC	493.072	189.65	93,511	0.35%	1.50%	0.01%	10.85%	0.04%
Masco Corp	MAS	224.501	52.09	11,694	0.04%	2.19%	0.00%	4.36%	0.00%
S&P Global Inc	SPGI	318.2	349.31	111,150	0.42%	1.03%	0.00%	13.54%	0.06%
Medtronic PLC	MDT	1330.534	70.56	93,882	0.35%	3.91%	0.01%	3.17%	0.01%
Viatrix Inc	VTRS	1199.532	8.9	10,676		5.39%		-2.38%	
CVS Health Corp	CVS	1284.399	69.01	88,636	0.33%	3.51%	0.01%	7.13%	0.02%
DuPont de Nemours Inc	DD	459.061	72.88	33,456	0.13%	1.98%	0.00%	12.18%	0.02%
Micron Technology Inc	MU	1098.034	66.87	73,426		0.69%		-11.00%	
Motorola Solutions Inc	MSI	167.02	278.46	46,508	0.18%	1.26%	0.00%	12.22%	0.02%
Cboe Global Markets Inc	CBOE	105.517	163.89	17,293	0.07%	1.34%	0.00%	7.62%	0.00%
Laboratory Corp of America Holdings	LH	84.9	199.73	16,957		1.44%		-19.90%	
Newmont Corp	NEM	794.8	37.47	29,781	0.11%	4.27%	0.00%	12.20%	0.01%

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Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
NIKE Inc	NKE	1224.013	102.77	125,792	0.47%	1.32%	0.01%	16.07%	0.08%
NiSource Inc	NI	413.255	25.16	10,397	0.04%	3.97%	0.00%	7.00%	0.00%
Norfolk Southern Corp	NSC	226.136	189.4358	42,838	0.16%	2.85%	0.00%	0.73%	0.00%
Principal Financial Group Inc	PFJ	241.715	67.68	16,359	0.06%	3.96%	0.00%	8.76%	0.01%
Eversource Energy	ES	349.086	53.79	18,777	0.07%	5.02%	0.00%	5.21%	0.00%
Northrop Grumman Corp	NOC	150.793	471.43	71,088	0.27%	1.59%	0.00%	2.53%	0.01%
Wells Fargo & Co	WFC	3631.64	39.4186	143,154	0.54%	3.55%	0.02%	13.41%	0.07%
Nucor Corp	NUE	248.722	147.79	36,759		1.38%		-11.10%	
Occidental Petroleum Corp	OXY	884.682	61.81	54,682		1.16%		-2.25%	
Omnicom Group Inc	OMC	197.934	74.91	14,827	0.06%	3.74%	0.00%	6.36%	0.00%
ONEOK Inc	OKE	582.473	65.2	37,977	0.14%	5.86%	0.01%	7.43%	0.01%
Raymond James Financial Inc	RJF	208.8	95.44	19,928		1.76%			
PG&E Corp	PCG	2133.508	16.3	34,776	0.13%			9.63%	0.01%
Parker-Hannifin Corp	PH	128.51	368.91	47,409	0.18%	1.60%	0.00%	14.56%	0.03%
Rollins Inc	ROL	484.038	37.61	18,205	0.07%	1.60%	0.00%	14.86%	0.01%
PPL Corp	PPL	737.089	24.57	18,110	0.07%	3.91%	0.00%	5.20%	0.00%
ConocoPhillips	COP	1197.491	118.8	142,262		0.51%		0.00%	
PulteGroup Inc	PHM	215.595	73.59	15,866	0.06%	0.87%	0.00%	2.04%	0.00%
Pinnacle West Capital Corp	PNW	113.312	74.18	8,405	0.03%	4.75%	0.00%	5.90%	0.00%
PNC Financial Services Group Inc/The	PNC	398.341	114.47	45,598	0.17%	5.42%	0.01%	12.87%	0.02%
PPG Industries Inc	PPG	235.8	122.77	28,949	0.11%	2.12%	0.00%	11.24%	0.01%
Progressive Corp/The	PGR	585.041	158.09	92,489		0.25%		38.38%	
Veralto Corp	VLTO	246.308	69	16,995					
Public Service Enterprise Group Inc	PEG	499.111	61.65	30,770	0.12%	3.70%	0.00%	6.23%	0.01%
Robert Half Inc	RHI	105.895	74.77	7,918	0.03%	2.57%	0.00%	1.26%	0.00%
Cooper Cos Inc/The	COO	49.524	311.75	15,439	0.06%	0.02%	0.00%	7.54%	0.00%
Edison International	EIX	383.289	63.06	24,170	0.09%	4.68%	0.00%	4.80%	0.00%
Schlumberger NV	SLB	1423.421	55.66	79,228		1.80%		33.41%	
Charles Schwab Corp/The	SCHW	1770.22	52.04	92,122	0.35%	1.92%	0.01%	3.60%	0.01%
Sherwin-Williams Co/The	SHW	255.966	238.21	60,974	0.23%	1.02%	0.00%	7.95%	0.02%
West Pharmaceutical Services Inc	WST	73.99	318.29	23,550	0.09%	0.25%	0.00%	5.80%	0.01%
J M Smucker Co/The	SJM	102.142	113.84	11,628	0.04%	3.72%	0.00%	6.09%	0.00%
Snap-on Inc	SNA	52.78	257.94	13,614	0.05%	2.51%	0.00%	4.85%	0.00%
AMETEK Inc	AME	230.799	140.77	32,490	0.12%	0.71%	0.00%	8.16%	0.01%
Southern Co/The	SO	1091.515	67.3	73,459	0.28%	4.16%	0.01%	5.05%	0.01%
Truist Financial Corp	TFC	1333.668	28.36	37,823	0.14%	7.33%	0.01%	16.00%	0.02%
Southwest Airlines Co	LUV	596.115	22.23	13,252	0.05%	3.24%	0.00%	10.15%	0.01%
W R Berkley Corp	WRB	258.044	67.42	17,397	0.07%	0.65%	0.00%	13.00%	0.01%
Stanley Black & Decker Inc	SWK	153.311	85.05	13,039	0.05%	3.81%	0.00%	9.00%	0.00%
Public Storage	PSA	175.829	238.71	41,972	0.16%	5.03%	0.01%	4.44%	0.01%
Arista Networks Inc	ANET	311.1	200.37	62,335				20.66%	
Sysco Corp	SYF	504.226	66.49	33,526	0.13%	3.01%	0.00%	13.00%	0.02%
Corteva Inc	CTVA	709.516	48.14	34,156	0.13%	1.33%	0.00%	17.67%	0.02%
Texas Instruments Inc	TXN	908.204	142.01	128,974	0.49%	3.66%	0.02%	10.00%	0.05%
Textron Inc	TXT	196.005	76	14,896	0.06%	0.11%	0.00%	11.73%	0.01%
Thermo Fisher Scientific Inc	TMO	385.95	444.77	171,659		0.31%		-5.00%	
TJX Cos Inc/The	TJX	1144.081	88.07	100,759	0.38%	1.51%	0.01%	10.00%	0.04%
Globe Life Inc	GL	94.82	116.36	11,033		0.77%			
Johnson Controls International plc	JCI	680.32	49.02	33,349	0.13%	3.02%	0.00%	13.36%	0.02%
Ulta Beauty Inc	ULTA	49.229	381.31	18,772	0.07%			6.54%	0.00%
Union Pacific Corp	UNP	609.597	207.61	126,558	0.48%	2.50%	0.01%	6.50%	0.03%
Keysight Technologies Inc	KEYS	177.575	122.05	21,673	0.08%			2.52%	0.00%
UnitedHealth Group Inc	UNH	926.305	535.56	496,092	1.87%	1.40%	0.03%	12.79%	0.24%
Blackstone Inc	BX	718.443	92.35	66,348	0.25%	3.47%	0.01%	7.63%	0.02%
Marathon Oil Corp	MRO	605.687	27.31	16,541		1.61%		-10.00%	
Bio-Rad Laboratories Inc	BIO	24.059	275.28	6,623	0.02%			4.00%	0.00%
Ventas Inc	VTR	402.378	42.46	17,085	0.06%	4.24%	0.00%	7.81%	0.01%
VF Corp	VFC	388.868	14.73	5,728	0.02%	2.44%	0.00%	7.80%	0.00%
Vulcan Materials Co	VMC	132.873	196.49	26,108		0.88%		23.22%	
Weyerhaeuser Co	WY	730.001	28.69	20,944		2.65%			
Whirlpool Corp	WHR	54.853	104.56	5,735		6.69%		-2.33%	
Williams Cos Inc/The	WMB	1216.421	34.4	41,845	0.16%	5.20%	0.01%	3.50%	0.01%
Constellation Energy Corp	CEG	321.592	112.92	36,314		1.00%		26.26%	
WEC Energy Group Inc	WEC	315.435	81.39	25,673	0.10%	3.83%	0.00%	6.47%	0.01%
Adobe Inc	ADBE	455.3	532.06	242,247		0.91%		17.33%	0.16%
AES Corp/The	AES	669.629	14.9	9,977	0.04%	4.45%	0.00%	6.37%	0.00%
Amgen Inc	AMGN	535.178	255.7	136,845	0.52%	3.33%	0.02%	5.33%	0.03%
Apple Inc	AAPL	15634.232	170.77	2,669,858	10.07%	0.56%	0.06%	9.05%	0.91%
Autodesk Inc	ADSK	213.764	197.63	42,246	0.16%			13.86%	0.02%
Cintas Corp	CTAS	101.854	507.12	51,652		1.06%	0.00%	11.86%	0.02%
Comcast Corp	CMCSA	4015.635	41.29	165,806	0.63%	2.81%	0.02%	9.26%	0.06%
Molson Coors Beverage Co	TAP	200.96	57.77	11,609	0.04%	2.84%	0.00%	8.01%	0.00%
KLA Corp	KLAC	135.932	469.7	63,847	0.24%	1.11%	0.00%	9.93%	0.02%
Marriott International Inc/MD	MAR	298.24	188.56	56,236	0.21%	1.10%	0.00%	17.06%	0.04%
Fiserv Inc	FI	600.186	113.75	68,271	0.26%			14.08%	0.04%
McCormick & Co Inc/MD	MKC	251.291	63.9	16,057	0.06%	2.44%	0.00%	7.01%	0.00%
PACCAR Inc	PCAR	523.1	82.53	43,171	0.16%	1.31%	0.00%	12.00%	0.02%
Costco Wholesale Corp	COST	442.741	551.428	244,140	0.92%	0.74%	0.01%	13.06%	0.12%
Stryker Corp	SYK	379.778	270.22	102,624	0.39%	1.11%	0.00%	7.26%	0.03%
Tyson Foods Inc	TSN	285.55	46.35	13,235		4.14%		-24.28%	
Lamb Weston Holdings Inc	LW	144.927	89.5236	12,974	0.05%	1.25%	0.00%	13.32%	0.01%
Applied Materials Inc	AMAT	836.534	132.35	110,715	0.42%	0.97%	0.00%	3.73%	0.02%
American Airlines Group Inc	AAL	653.541	11.15	7,287				54.64%	
Cardinal Health Inc	CAH	246.354	91	22,418		2.20%			
Cincinnati Financial Corp	CINF	156.908	99.67	15,639	0.06%	3.01%	0.00%	18.21%	0.01%
Paramount Global	PARA	610.399	10.88	6,641		1.84%		-22.86%	
DR Horton Inc	DHI	338.297	104.4	35,318		0.96%		-8.43%	
Electronic Arts Inc	EA	270.912	123.79	33,536	0.13%	0.61%	0.00%	9.26%	0.01%
Fair Isaac Corp	FICO	24.857	845.87	21,026					
Expeditors International of Washington Inc	EXPD	147.897	109.25	16,158		1.26%			

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Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Fastenal Co	FAST	571.413	58.34	33,336		2.40%			
M&T Bank Corp	MTB	165.97	112.75	18,713	0.07%	4.61%	0.00%	11.59%	0.01%
Xcel Energy Inc	XEL	551.816	59.27	32,706	0.12%	3.51%	0.00%	5.95%	0.01%
Fifth Third Bancorp	FITB	680.99	23.71	16,146		5.90%		25.00%	
Gilead Sciences Inc	GILD	1246.014	78.54	97,862	0.37%	3.82%	0.01%	2.15%	0.01%
Hasbro Inc	HAS	138.741	45.15	6,264		6.20%		-3.49%	
Huntington Bancshares Inc/OH	HBAN	1448.075	9.65	13,974		6.42%		-7.69%	
Welltower Inc	WELL	532.268	83.61	44,503	0.17%	2.92%	0.00%	10.19%	0.02%
Biogen Inc	BIIB	144.823	237.54	34,401	0.13%			0.05%	0.00%
Northern Trust Corp	NTRS	207.036	65.91	13,646	0.05%	4.55%	0.00%	13.00%	0.01%
Packaging Corp of America	PKG	89.915	153.05	13,761	0.05%	3.27%	0.00%	3.00%	0.00%
Paychex Inc	PAYX	361.232	111.05	40,115	0.15%	3.21%	0.00%	7.00%	0.01%
QUALCOMM Inc	QCOM	1116	108.99	121,633		2.94%		-1.35%	
Ross Stores Inc	ROST	338.632	115.97	39,271	0.15%	1.16%	0.00%	10.00%	0.01%
IDEXX Laboratories Inc	IDXX	83.012	399.47	33,161	0.13%			17.57%	0.02%
Starbucks Corp	SBUX	1145.4	92.24	105,652		2.47%		20.53%	
KeyCorp	KEY	936.161	10.22	9,568	0.04%	8.02%	0.00%	7.08%	0.00%
Fox Corp	FOXA	253.684	30.39	7,709	0.03%	1.71%	0.00%	6.24%	0.00%
Fox Corp	FOX	235.581	27.91	6,575	0.02%	1.86%	0.00%	6.24%	0.00%
State Street Corp	STT	308.584	64.63	19,944	0.08%	4.27%	0.00%	6.92%	0.01%
Norwegian Cruise Line Holdings Ltd	NCLH	425.424	13.6	5,786					
US Bancorp	USB	1556.965	31.88	49,636	0.19%	6.02%	0.01%	7.50%	0.01%
A O Smith Corp	AOS	122.828	69.76	8,568		1.83%			
Gen Digital Inc	GEN	639.439	16.66	10,653		3.00%			
T Rowe Price Group Inc	TROW	223.47	90.5	20,224		5.39%		-3.90%	
Waste Management Inc	WM	402.775	164.33	66,188	0.25%	1.70%	0.00%	10.05%	0.03%
Constellation Brands Inc	STZ	183.663	233.26	42,841	0.16%	1.53%	0.00%	9.75%	0.02%
DENTSPLY SIRONA Inc	XRAY	211.716	30.41	6,438	0.02%	1.84%	0.00%	9.78%	0.00%
Zions Bancorp NA	ZION	148.146	30.85	4,570		5.32%		-9.73%	
Alaska Air Group Inc	ALK	127.12	31.63	4,021	0.02%			3.56%	0.00%
Invesco Ltd	IVZ	449.554	12.97	5,831		6.17%		-4.35%	
Intuit Inc	INTU	280.259	494.95	138,714	0.52%	0.73%	0.00%	18.84%	0.10%
Morgan Stanley	MS	1656.967	70.82	117,346	0.44%	4.80%	0.02%	3.64%	0.02%
Microchip Technology Inc	MCHP	544.334	71.29	38,806	0.15%	2.30%	0.00%	12.06%	0.02%
Chubb Ltd	CB	407.984	214.62	87,562	0.33%	1.60%	0.01%	15.50%	0.05%
Hologic Inc	HOLX	244.942	66.17	16,208				-16.00%	
Citizens Financial Group Inc	CFG	466.222	23.43	10,924		7.17%		-10.63%	
O'Reilly Automotive Inc	ORLY	59.621	930.44	55,474	0.21%			11.39%	0.02%
Allstate Corp/The	ALL	261.574	128.13	33,515		2.78%		-3.00%	
Equity Residential	EQR	379.032	55.33	20,972	0.08%	4.79%	0.00%	5.17%	0.00%
BorgWarner Inc	BWA	235.063	36.9	8,674	0.03%	1.19%	0.00%	5.16%	0.00%
Keurig Dr Pepper Inc	KDP	1398.336	30.33	42,412	0.16%	2.84%	0.00%	6.85%	0.01%
Host Hotels & Resorts Inc	HST	711.605	15.48	11,016		4.65%			
Incyte Corp	INCY	224.109	53.93	12,086				36.36%	
Simon Property Group Inc	SPG	326.247	109.89	35,851	0.14%	6.92%	0.01%	1.71%	0.00%
Eastman Chemical Co	EMN	118.564	74.73	8,860	0.03%	4.23%	0.00%	4.75%	0.00%
AvalonBay Communities Inc	AVB	142.016	165.74	23,538	0.09%	3.98%	0.00%	10.62%	0.01%
Prudential Financial Inc	PRU	363	91.44	33,193	0.13%	5.47%	0.01%	10.60%	0.01%
United Parcel Service Inc	UPS	723.276	141.25	102,163	0.39%	4.59%	0.02%	1.64%	0.01%
Walgreens Boots Alliance Inc	WBA	863.915	21.08	18,211	0.07%	9.11%	0.01%	0.25%	0.00%
STERIS PLC	STE	98.781	209.98	20,742		0.99%			
McKesson Corp	MCK	134.902	455.36	61,429	0.23%	0.54%	0.00%	10.03%	0.02%
Lockheed Martin Corp	LMT	248.099	454.64	112,796	0.43%	2.77%	0.01%	7.04%	0.03%
Cencora Inc	COR	202.175	185.15	37,433	0.14%	1.05%	0.00%	9.44%	0.01%
Capital One Financial Corp	COF	381	101.29	38,591		2.37%		-6.32%	
Waters Corp	WAT	59.103	238.53	14,098	0.05%			5.37%	0.00%
Nordson Corp	NDSN	57.014	212.59	12,121		1.28%			
Dollar Tree Inc	DLTR	220.006	111.09	24,440	0.09%			7.37%	0.01%
Darden Restaurants Inc	DRI	120.315	145.53	17,509	0.07%	3.60%	0.00%	10.45%	0.01%
Evergy Inc	EVER	229.583	49.14	11,282	0.04%	4.99%	0.00%	4.82%	0.00%
Match Group Inc	MATCH	278.087	34.6	9,622				48.68%	
Dominos Pizza Inc	DPZ	34.881	338.99	11,824	0.04%	1.43%	0.00%	13.97%	0.01%
NVR Inc	NVR	3.21	5412.62	17,375				-4.57%	
NetApp Inc	NTAP	208.791	72.78	15,196	0.06%	2.75%	0.00%	7.40%	0.00%
Old Dominion Freight Line Inc	ODFL	109.268	376.66	41,157	0.16%	0.42%	0.00%	5.83%	0.01%
DaVita Inc	DVA	91.3	77.23	7,051	0.03%			15.78%	0.00%
Hartford Financial Services Group Inc/The	HIG	300.77	73.45	22,092	0.08%	2.56%	0.00%	7.00%	0.01%
Iron Mountain Inc	IRM	291.852	59.07	17,240	0.07%	4.40%	0.00%	4.00%	0.00%
Estee Lauder Cos Inc/The	EL	232.297	128.87	29,936		2.05%		22.00%	
Cadence Design Systems Inc	CDNS	272.062	239.85	65,254	0.25%			18.56%	0.05%
Tyler Technologies Inc	TYL	42.078	372.9	15,691					
Universal Health Services Inc	UHS	62.14	125.89	7,823	0.03%	0.64%	0.00%	9.41%	0.00%
Skyworks Solutions Inc	SKWS	159.393	86.74	13,826	0.05%	3.14%	0.00%	4.99%	0.00%
Quest Diagnostics Inc	DGX	112.435	130.1	14,628		2.18%		-1.27%	
Rockwell Automation Inc	ROK	114.86	262.81	30,186	0.11%	1.90%	0.00%	15.47%	0.02%
Kraft Heinz Co/The	KHC	1228.295	31.46	38,642	0.15%	5.09%	0.01%	3.92%	0.01%
American Tower Corp	AMT	466.165	178.19	83,066	0.31%	3.64%	0.01%	13.67%	0.04%
Regeneron Pharmaceuticals Inc	REGN	106.741	779.89	83,246	0.31%			3.33%	0.01%
Amazon.com Inc	AMZN	10334.031	133.09	1,375,356				52.33%	
Jack Henry & Associates Inc	JKHY	72.801	140.99	10,264	0.04%	1.48%	0.00%	7.52%	0.00%
Ralph Lauren Corp	RL	40.388	112.53	4,545	0.02%	2.67%	0.00%	10.82%	0.00%
Boston Properties Inc	BXP	156.865	53.57	8,403	0.03%	7.32%	0.00%	3.79%	0.00%
Amphenol Corp	APH	598.31	80.55	48,194	0.18%	1.09%	0.00%	4.04%	0.01%
Howmet Aerospace Inc	HWM	412.208	44.1	18,178	0.07%	0.45%	0.00%	19.27%	0.01%
Pioneer Natural Resources Co	PXD	233.309	239	55,761		3.08%		-3.00%	
Valero Energy Corp	VLO	340.453	127	43,238		3.21%		35.66%	
Synopsis Inc	SNPS	152.084	469.44	71,394	0.27%			16.27%	0.04%
Etsy Inc	ETSY	123.014	62.3	7,664	0.03%			7.02%	0.00%
CH Robinson Worldwide Inc	CHRW	116.439	81.83	9,528	0.04%	2.98%	0.00%	5.00%	0.00%
Accenture PLC	ACN	664.787	297.09	197,502	0.75%	1.74%	0.01%	10.00%	0.07%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
TransDigm Group Inc	TDG	55.183	828.09	45,696				26.65%	
Yum! Brands Inc	YUM	280.211	120.86	33,866	0.13%	2.00%	0.00%	12.91%	0.02%
Prologis Inc	PLD	923.862	100.75	93,079	0.35%	3.45%	0.01%	8.04%	0.03%
FirstEnergy Corp	FE	573.815	35.6	20,428		4.61%		-0.83%	
VeriSign Inc	VRSN	102.1	199.66	20,385	0.08%			11.50%	0.01%
Quanta Services Inc	PWR	145.199	167.12	24,266	0.09%	0.19%	0.00%	8.00%	0.01%
Henry Schein Inc	HSIC	130.585	64.98	8,485	0.03%			5.16%	0.00%
Ameren Corp	AEE	262.475	75.71	19,872	0.07%	3.33%	0.00%	6.21%	0.00%
ANSYS Inc	ANSS	86.791	278.26	24,150	0.09%			11.14%	0.01%
FactSet Research Systems Inc	FDS	37.988	431.89	16,407	0.06%	0.91%	0.00%	10.45%	0.01%
NVIDIA Corp	NVDA	247.0	407.8	1,007,266		0.04%		56.84%	
Sealed Air Corp	SEE	144.41	30.79	4,446	0.02%	2.60%	0.00%	0.93%	0.00%
Cognizant Technology Solutions Corp	CTSH	505.041	64.47	32,560	0.12%	1.80%	0.00%	12.00%	0.01%
Intuitive Surgical Inc	ISRG	352.072	262.22	92,320	0.35%			11.57%	0.04%
Take-Two Interactive Software Inc	TWTO	169.831	133.75	22,715				54.11%	
Republic Services Inc	RSG	314.637	148.49	46,720	0.18%	1.44%	0.00%	9.93%	0.02%
eBay Inc	EBAY	532.157	39.23	20,877	0.08%	2.55%	0.00%	9.50%	0.01%
Goldman Sachs Group Inc/The	GS	329.671	303.61	100,091	0.38%	3.62%	0.01%	7.71%	0.03%
SBA Communications Corp	SBAC	108.383	208.63	22,612	0.09%	1.63%	0.00%	8.00%	0.01%
Sempra	SRE	629.307	70.03	44,070	0.17%	3.40%	0.01%	5.49%	0.01%
Moody's Corp	MCO	183	308	56,364	0.21%	1.00%	0.00%	14.08%	0.03%
ON Semiconductor Corp	ON	430.698	62.64	26,979	0.10%			5.81%	0.01%
Booking Holdings Inc	BKNG	35.692	2789.56	99,565	0.38%			17.50%	0.07%
FS Inc	FFIV	59.207	151.59	8,975	0.03%			5.45%	0.00%
Akamai Technologies Inc	AKAM	151.713	103.33	15,677	0.06%			10.72%	0.01%
Charles River Laboratories International Inc	CRL	51.271	168.36	8,632	0.03%			11.00%	0.00%
MarketAxess Holdings Inc	MKTX	37.905	213.75	8,102		1.35%			
Devon Energy Corp	DVN	640.7	46.57	29,837		4.21%		-4.00%	
Bio-Techne Corp	TECH	158.24	54.63	8,645	0.03%	0.59%	0.00%	5.00%	0.00%
Alphabet Inc	GOOGL	5918	124.08	734,305	2.77%			16.65%	0.46%
Teleflex Inc	TFX	46.992	184.75	8,682	0.03%	0.74%	0.00%	7.03%	0.00%
Bunge Ltd	6369743D	145.288	105.98	15,398		2.50%			
Netflix Inc	NFLX	437.68	411.69	180,188				30.96%	
Allegion plc	ALLE	87.788	98.36	8,635	0.03%	1.83%	0.00%	5.93%	0.00%
Agilent Technologies Inc	A	292.587	103.37	30,245	0.11%	0.87%	0.00%	11.00%	0.01%
Warner Bros Discovery Inc	WBD	2437.384	9.94	24,228				71.32%	
Elevance Health Inc	ELV	234.959	450.09	105,753	0.40%	1.32%	0.01%	10.85%	0.04%
Trimble Inc	TRMB	248.322	47.13	11,703					
CME Group Inc	CME	359.746	213.46	76,791	0.29%	2.06%	0.01%	11.10%	0.03%
Juniper Networks Inc	JNPR	318.868	26.92	8,584	0.03%	3.27%	0.00%	7.96%	0.00%
BlackRock Inc	BLK	149.303	612.28	91,415	0.34%	3.27%	0.01%	6.72%	0.02%
DTE Energy Co	DTE	206.109	96.38	19,865	0.07%	3.95%	0.00%	6.00%	0.00%
Nasdaq Inc	NDAQ	491.316	49.6	24,369	0.09%	1.77%	0.00%	2.68%	0.00%
Celanese Corp	CE	108.852	114.51	12,465	0.05%	2.45%	0.00%	3.27%	0.00%
Philip Morris International Inc	PM	1552.406	89.16	138,413	0.52%	5.83%	0.03%	9.19%	0.05%
Salesforce Inc	CRM	973	200.83	195,408				21.67%	
Ingersoll Rand Inc	IR	404.399	60.68	24,539		0.13%			
Roper Technologies Inc	ROP	106.711	488.57	52,136		0.56%		-1.00%	
Huntington Ingalls Industries Inc	HII	39.868	219.82	8,764		2.26%		40.00%	
MetLife Inc	MET	752.022	60.01	45,129	0.17%	3.47%	0.01%	12.89%	0.02%
Tapescry Inc	TPR	227.439	27.56	6,268	0.02%	5.08%	0.00%	15.00%	0.00%
CSX Corp	CSX	1976.131	29.85	58,988	0.22%	1.47%	0.00%	6.39%	0.01%
Edwards Lifesciences Corp	EW	606.5	63.72	38,646	0.15%			8.45%	0.01%
Ameriprise Financial Inc	AMP	102.626	314.57	32,283	0.12%	1.72%	0.00%	15.82%	0.02%
Zebra Technologies Corp	ZBRA	51.36	209.43	10,756					
Zimmer Biomet Holdings Inc	ZBH	208.964	104.41	21,818	0.08%	0.92%	0.00%	9.48%	0.01%
CBRE Group Inc	CBRE	304.793	69.34	21,134					
Camden Property Trust	CPT	106.771	84.88	9,063	0.03%	4.71%	0.00%	6.77%	0.00%
Mastercard Inc	MA	930.438	376.35	350,170	1.32%	0.61%	0.01%	17.85%	0.24%
CarMax Inc	KMX	158.668	61.09	9,693	0.04%			16.34%	0.01%
Intercontinental Exchange Inc	ICE	594.936	107.44	63,920	0.24%	1.56%	0.00%	9.87%	0.02%
Fidelity National Information Services Inc	FIS	592.465	49.11	29,096	0.11%	4.24%	0.00%	2.68%	0.00%
Chipotle Mexican Grill Inc	CMG	27.445	194.22	53,304				25.41%	
Wynn Resorts Ltd	WYNN	113.936	87.78	10,001		1.14%			
Live Nation Entertainment Inc	LYV	230.151	80.02	18,417					
Assurant Inc	AIZ	53.023	148.9	7,895	0.03%	1.88%	0.00%	14.70%	0.00%
NRG Energy Inc	NRG	229.117	42.38	9,710	0.04%	3.56%	0.00%	10.26%	0.00%
Regions Financial Corp	RF	938.377	14.53	13,635	0.05%	6.61%	0.00%	0.99%	0.00%
Monster Beverage Corp	MNST	1047.518	51.1	53,528	0.20%			15.56%	0.03%
Mosaic Co/The	MOS	332.28	32.48	10,792		2.46%		22.93%	
Baker Hughes Co	BKR	1006.234	34.42	34,635	0.13%	3.32%	0.00%	16.00%	0.02%
Expedia Group Inc	EXPE	137.841	95.29	13,135	0.05%			17.50%	0.01%
CF Industries Holdings Inc	CF	192.948	79.78	15,393		2.01%		44.50%	
Leidos Holdings Inc	LDOS	137.506	99.12	13,630	0.05%	1.53%	0.00%	6.45%	0.00%
APA Corp	APA	307.265	39.72	12,205		2.52%		-2.68%	
Alphabet Inc	GOOG	5725	125.3	717,343	2.71%			16.65%	0.45%
First Solar Inc	FSLR	106.844	142.45	15,220	0.06%			19.80%	0.01%
TE Connectivity Ltd	TEL	313.939	117.85	36,998	0.14%	2.00%	0.00%	3.10%	0.00%
Discover Financial Services	DFS	250.058	82.08	20,525		3.41%		56.16%	
Linde PLC	LIN	484.89	382.16	185,306	0.70%	1.33%	0.01%	12.47%	0.09%
Visa Inc	V	1594	235.1	374,749	1.41%	0.88%	0.01%	14.73%	0.21%
Mid-America Apartment Communities Inc	MAA	116.677	118.15	13,785	0.05%	4.74%	0.00%	2.36%	0.00%
Xylem Inc/NY	XYL	241.078	93.54	22,550	0.09%	1.41%	0.00%	12.00%	0.01%
Marathon Petroleum Corp	MPC	379.697	151.25	57,429		2.18%		83.00%	
Tractor Supply Co	TSCO	108.808	192.56	20,952	0.08%	2.14%	0.00%	3.81%	0.00%
Advanced Micro Devices Inc	AMD	1615.671	98.5	159,144				27.10%	
ResMed Inc	RMD	147.092	141.22	20,772	0.08%	1.36%	0.00%	7.00%	0.01%
Mettler-Toledo International Inc	MTD	21.865	985.2	21,541	0.08%			8.29%	0.01%
Jacobs Solutions Inc	J	125.918	133.3	16,785	0.06%	0.78%	0.00%	9.26%	0.01%
Capart Inc	CPRT	960.183	43.52	41,787					

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
VICI Properties Inc	VICI	1034.532	27.9	28,863	0.11%	5.95%	0.01%	11.05%	0.01%
Albemarle Corp	ALB	117.347	126.78	14,877		1.26%		25.23%	
Fortinet Inc	FTNT	785.337	57.17	44,898	0.17%			18.00%	0.03%
Moderna Inc	MRNA	380.593	75.96	28,910				-42.47%	
Essex Property Trust Inc	ESS	64.183	213.92	13,730	0.05%	4.32%	0.00%	9.46%	0.00%
CoStar Group Inc	CSGP	408.363	73.41	29,978	0.11%			20.00%	0.02%
Realty Income Corp	O	723.912	47.38	34,299		6.48%			
Westrock Co	WRK	256.403	35.93	9,213		3.37%		-6.74%	
Westinghouse Air Brake Technologies Corp	WAB	179.159	106.02	18,994	0.07%	0.64%	0.00%	12.86%	0.01%
Pool Corp	POOL	38.679	315.77	12,214		1.39%		-5.49%	
Western Digital Corp	WDC	324.145	40.15	13,014				-10.00%	
PepsiCo Inc	PEP	1374.864	163.28	224,488	0.85%	3.10%	0.03%	8.70%	0.07%
Diamondback Energy Inc	FANG	178.818	160.32	28,668	0.11%	2.10%	0.00%	8.97%	0.01%
Palo Alto Networks Inc	PANW	310.816	243.02	75,535				20.50%	
ServiceNow Inc	NOW	205	581.85	119,279					
Church & Dwight Co Inc	CHD	246.047	90.94	22,376	0.08%	1.20%	0.00%	5.85%	0.00%
Federal Realty Investment Trust	FRT	81.523	91.19	7,434	0.03%	4.78%	0.00%	6.53%	0.00%
MGM Resorts International	MGM	350.889	34.92	12,253					
American Electric Power Co Inc	AEP	515.176	75.54	38,916	0.15%	4.66%	0.01%	4.83%	0.01%
SolarEdge Technologies Inc	SEDG	56.558	75.95	4,296	0.02%			19.59%	0.00%
Invitation Homes Inc	INVH	611.958	29.69	18,169	0.07%	3.50%	0.00%	4.51%	0.00%
PTC Inc	PTC	118.833	140.42	16,687	0.06%			16.99%	0.01%
JB Hunt Transport Services Inc	JBHT	103.143	171.87	17,727		0.98%		27.00%	
Lam Research Corp	LRXC	131.792	588.22	77,523	0.29%	1.36%	0.00%	5.44%	0.02%
Mohawk Industries Inc	MHK	63.682	80.38	5,119				-3.08%	
GE HealthCare Technologies Inc	GEHC	455.243	66.57	30,306	0.11%	0.18%	0.00%	12.70%	0.01%
Pentair PLC	PNR	165.299	58.12	9,607	0.04%	1.51%	0.00%	6.22%	0.00%
Vertex Pharmaceuticals Inc	VRTX	258.095	362.11	93,459	0.35%			13.55%	0.05%
Amcor PLC	AMCR	1446.437	8.89	12,859	0.05%	5.62%	0.00%	1.33%	0.00%
Meta Platforms Inc	META	2219.607	301.27	668,701				24.05%	
T-Mobile US Inc	TMUS	1156.475	143.86	166,370		1.81%		38.46%	
United Rentals Inc	URI	67.781	406.27	27,537	0.10%	1.46%	0.00%	17.87%	0.02%
Honeywell International Inc	HON	659.251	183.26	120,814	0.46%	2.36%	0.01%	7.69%	0.04%
Alexandria Real Estate Equities Inc	ARE	173.775	93.13	16,184	0.06%	5.33%	0.00%	5.53%	0.00%
Delta Air Lines Inc	DAL	643.463	31.25	20,108		1.28%		30.85%	
Seagate Technology Holdings PLC	STX	209.184	68.25	14,277	0.05%	4.10%	0.00%	6.11%	0.00%
United Airlines Holdings Inc	UAL	326.729	35.01	11,439				46.54%	
News Corp	NWS	191.837	21.44	4,113	0.02%	0.93%	0.00%	8.00%	0.00%
Centene Corp	CNC	534.201	68.98	36,849	0.14%			4.72%	0.01%
Martin Marietta Materials Inc	MLM	61.804	408.94	25,274	0.10%	0.72%	0.00%	19.03%	0.02%
Teradyne Inc	TER	154.014	83.27	12,825	0.05%	0.53%	0.00%	7.82%	0.00%
PayPal Holdings Inc	PYPL	1098.037	51.8	56,878	0.21%			15.96%	0.03%
Tesla Inc	TSLA	3178.921	200.84	638,454				32.00%	
Arch Capital Group Ltd	ACGL	373.1	86.68	32,340	0.12%			14.50%	0.02%
Dow Inc	DOW	703.075	48.34	33,987	0.13%	5.79%	0.01%	0.93%	0.00%
Everest Group Ltd	EG	43.4	395.62	17,170		1.77%		35.22%	
Teledyne Technologies Inc	TDY	47.185	374.59	17,675	0.07%			6.36%	0.00%
News Corp	NWSA	379.585	20.68	7,850	0.03%	0.97%	0.00%	8.00%	0.00%
Exelon Corp	EXC	994.299	38.94	38,718	0.15%	3.70%	0.01%	4.00%	0.01%
Global Payments Inc	GPN	260.389	106.22	27,659	0.10%	0.94%	0.00%	13.33%	0.01%
Crown Castle Inc	CCI	434	92.98	40,353	0.15%	6.73%	0.01%	7.00%	0.01%
Aptiv PLC	APTIV	282.824	87.2	24,662	0.09%			12.44%	0.01%
Align Technology Inc	ALGN	76.534	184.59	14,127					
Illumina Inc	ILMN	158.3	109.42	17,321					
Kenvue Inc	KVUE	1914.894	18.6	35,617		4.30%			
Targa Resources Corp	TRGP	223.712	83.61	18,705	0.07%	2.39%	0.00%	15.00%	0.01%
LKQ Corp	LKQ	267.598	43.92	11,753		2.73%			
Zoetis Inc	ZTS	460.317	157	72,270	0.27%	0.96%	0.00%	10.91%	0.03%
Equinix Inc	EQIX	93.883	729.64	68,501	0.26%	2.34%	0.01%	15.33%	0.04%
Digital Realty Trust Inc	DLR	302.846	124.36	37,662	0.14%	3.92%	0.01%	6.80%	0.01%
Molina Healthcare Inc	MOH	58.3	332.95	19,411	0.07%			11.24%	0.01%
Las Vegas Sands Corp	LVS	764.491	47.46	36,283		1.69%			

Notes:

- [1] Equals sum of Col. [9]
- [2] Equals sum of Col. [11]
- [3] Equals (([1] x (1 + (0.5 x [2]))) + [2])
- [4] Source: Bloomberg Professional as of October 31, 2023
- [5] Source: Bloomberg Professional as of October 31, 2023
- [6] Equals [4] x [5]
- [7] Equals weight in the S&P 500
- [8] Source: Bloomberg Professional as of October 31, 2023
- [9] Equals [7] x [8]
- [10] Source: Bloomberg Professional, as of October 31, 2023
- [11] Equals [7] x [10]

2024-2028 CAPITAL EXPENDITURES AS A PERCENT OF 2022 NET PLANT  
(*\$ Millions*)

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		2022	2024	2025	2026	2027	2028	2024-28 Cap. Ex. / 2022 Net Plant
American States Water Co	AWR							
Capital Spending per Share			\$5.25	\$4.75	\$4.25	\$4.25	\$4.25	
Common Shares Outstanding			\$37.00	\$37.25	37.50	37.50	37.50	
Capital Expenditures			\$194.3	\$176.9	\$159.4	\$159.4	\$159.4	48.43%
Net Plant			\$1,753.8					
Atmos Energy Corporation	ATO							
Capital Spending per Share			\$18.70	\$18.50	\$18.30	\$18.30	\$18.30	
Common Shares Outstanding			\$155.00	\$162.50	170.00	170.00	170.00	
Capital Expenditures			\$2,898.5	\$3,006.3	\$3,111.0	\$3,111.0	\$3,111.0	88.39%
Net Plant			\$17,240.0					
California Water Service Group	CWT							
Capital Spending per Share			\$6.15	\$6.30	\$6.45	\$6.45	\$6.45	
Common Shares Outstanding			\$52.00	\$51.00	50.00	50.00	50.00	
Capital Expenditures			\$319.8	\$321.3	\$322.5	\$322.5	\$322.5	52.59%
Net Plant			\$3,058.9					
Essential Utilities, Inc.	WTRG							
Capital Spending per Share			\$4.00	\$3.93	\$3.85	\$3.85	\$3.85	
Common Shares Outstanding			\$270.00	\$277.50	285.00	285.00	285.00	
Capital Expenditures			\$1,080.0	\$1,089.2	\$1,097.3	\$1,097.3	\$1,097.3	49.06%
Net Plant			\$11,131.0					
Eversource Energy	ES							
Capital Spending per Share			\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	
Common Shares Outstanding			\$355.00	\$357.50	360.00	360.00	360.00	
Capital Expenditures			\$3,905.0	\$3,932.5	\$3,960.0	\$3,960.0	\$3,960.0	54.60%
Net Plant			\$36,113.0					
Middlesex Water Company	MSEX							
Capital Spending per Share			\$5.45	\$5.73	\$6.00	\$6.00	\$6.00	
Common Shares Outstanding			\$17.90	\$17.95	18.00	18.00	18.00	
Capital Expenditures			\$97.6	\$102.8	\$108.0	\$108.0	\$108.0	56.95%
Net Plant			\$920.6					
NiSource Inc.	NI							
Capital Spending per Share			\$6.55	\$6.65	\$6.75	\$6.75	\$6.75	
Common Shares Outstanding			\$420.00	\$430.00	440.00	440.00	440.00	
Capital Expenditures			\$2,751.0	\$2,859.5	\$2,970.0	\$2,970.0	\$2,970.0	73.18%
Net Plant			\$19,843.0					
Northwest Natural Gas Company	NWN							
Capital Spending per Share			\$7.75	\$7.63	\$7.50	\$7.50	\$7.50	
Common Shares Outstanding			\$37.50	\$38.75	40.00	40.00	40.00	
Capital Expenditures			\$290.6	\$295.5	\$300.0	\$300.0	\$300.0	47.72%
Net Plant			\$3,114.4					
ONE Gas Inc.	OGS							
Capital Spending per Share			\$11.85	\$12.18	\$12.50	\$12.50	\$12.50	
Common Shares Outstanding			\$55.50	\$56.25	57.00	57.00	57.00	
Capital Expenditures			\$657.7	\$684.8	\$712.5	\$712.5	\$712.5	61.83%
Net Plant			\$5,628.8					
SJW Group	SJW							
Capital Spending per Share			\$8.25	\$8.50	\$8.75	\$8.75	\$8.75	
Common Shares Outstanding			\$30.00	\$30.00	30.00	30.00	30.00	
Capital Expenditures			\$247.5	\$255.0	\$262.5	\$262.5	\$262.5	49.04%
Net Plant			\$2,630.3					
Spire, Inc.	SR							
Capital Spending per Share			\$12.85	\$12.60	\$12.35	\$12.35	\$12.35	
Common Shares Outstanding			\$53.00	\$54.00	55.00	55.00	55.00	
Capital Expenditures			\$681.1	\$680.4	\$679.3	\$679.3	\$679.3	63.30%
Net Plant			\$5,370.4					
Pennsylvania-American Water Company	PAWC							
Capital Expenditures [8]			\$686.1	\$713.8	\$649.7	\$648.3	\$586.2	52.97%
Net Plant [9]			\$6,200.3					

PAWC CapEx Total (5 years)	\$3,284.13
PAWC CapEx Annual Average	\$656.8
Proxy Group Median	54.60%
Ratio of PAWC to the Proxy Group	0.97

Notes:

- [1] - [6] Source: Value Line Reports, August 25, 2023, October 6, 2023  
[7] Equals (Column [2] + [3] + [4] + [5] + [6]) / Column [1]  
[8] Data provided by PAWC  
[9] PAWC PUC 2022 Annual Reports



2024-2028 CAPITAL EXPENDITURES AS A PERCENT OF 2022 NET PLANT

**Projected CAPEX / 2022 Net Plant**

Company		2024-2028
1 Northwest Natural Gas Company	NWN	47.72%
2 American States Water Co	AWR	48.43%
3 SJW Group	SJW	49.04%
4 Essential Utilities, Inc.	WTRG	49.06%
5 California Water Service Group	CWT	52.59%
6 Pennsylvania-American Water Company	PAWC	52.97%
7 Eversource Energy	ES	54.60%
8 Middlesex Water Company	MSEX	56.95%
9 ONE Gas Inc.	OGS	61.83%
10 Spire, Inc.	SR	63.30%
11 NiSource Inc.	NI	73.18%
12 Atmos Energy Corporation	ATO	88.39%
Proxy Group Median		54.60%
PAWC / Proxy Group		0.97

Notes:

Source: Schedule AEB-8, col. [7]

COMPARISON OF PAWC AND PROXY GROUP COMPANIES  
CAPITAL COST RECOVERY MECHANISMS

Company	Ticker	State	Utility Type	Infrastructure Cost Recovery Mechanism	Future Test Year	Revenue Stabilization or Decoupling	Citations		
American States Water Co	AWR	California	Water	Yes	Fully Forecast	Full	Infrastructure Cost Recovery: 2022 10-K, p. 28 and p. 54. Revenue Stabilization or Decoupling: 2022 10-K, p. 29 and p. 43 Test Year: S&P Cap IQ Pro, Rate Case History and Commission Profiles		
	AWR	California	Electric	Yes	Fully Forecast	Full			
Atmos Energy Corporation	ATO	Colorado	Gas	Yes	Historical	No	Infrastructure Cost Recovery: 2022 10-K, p. 9 Revenue Stabilization or Decoupling: 2022 10-K, p.9, S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22, Company Tariffs (CO and VA).		
	ATO	Kansas	Gas	Yes	Historical	Partial			
	ATO	Kentucky	Gas	Yes	Fully Forecast	Partial	Test Year: S&P Cap IQ Pro, Rate Case History and Commission Profiles; Company Tariffs (LA, MS, TN); 2022 10-K, p. 10		
	ATO	Louisiana	Gas	No	Historical	FRP			
	ATO	Mississippi	Gas	Yes	Historical	FRP			
	ATO	Tennessee	Gas	No	Historical	FRP			
	ATO	Texas	Gas	Yes	Historical	FRP			
	ATO	Virginia	Gas	Yes	Historical	Partial			
California Water Service Group	CWT	California	Water	Yes	Fully Forecast	Full	Infrastructure Cost Recovery and Revenue Stabilization or Decoupling: 2022 10-K, p.9 (California Water); Tariffs (HI, WA, NM) Test Year: S&P Cap IQ Pro, Rate Case History and Commission Profiles		
	CWT	Hawaii	Water	No	Fully Forecast	No			
	CWT	New Mexico	Water	No	Historical	No			
	CWT	Washington	Water	Yes	Historical	No			
Essential Utilities, Inc.	WTRG	Pennsylvania	Water	Yes	Fully Forecast	No	Infrastructure Cost Recovery: 2022 10-K, p. 9; S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22 Revenue Stabilization or Decoupling: 2022 10-K, p. 11 Test Year: S&P Cap IQ Pro, Rate Case History and Commission Profiles		
	WTRG	Pennsylvania	Gas	Yes	Fully Forecast	No			
	WTRG	Ohio	Water	Yes	Partially Forecast	No			
	WTRG	Illinois	Water	Yes	Fully Forecast	Full			
	WTRG	Texas	Water	Yes	Historical	No			
	WTRG	New Jersey	Water	Yes	Partially Forecast	No			
	WTRG	North Carolina	Water	Yes	Historical	No			
	WTRG	Indiana	Water	Yes	Fully Forecast	No			
	WTRG	Virginia	Water	Yes	Historical	No			
	WTRG	Kentucky	Gas	Yes	Fully Forecast	Partial			
	WTRG	West Virginia	Gas	No	Historical	No			
Eversource Energy	ES	Connecticut	Electric	Yes	Fully Forecast	Full		Infrastructure Cost Recovery: 2022 10-K, p. 11 (water); S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22 (electric and natural gas)	
	ES	Connecticut	Gas	Yes	Fully Forecast	Full			
	ES	Connecticut	Water	Yes	Fully Forecast	Full	Revenue Stabilization or Decoupling: 2022 10-K, p. 11 (water); S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22 (electric and natural gas) Test Year: S&P Cap IQ Pro, Rate Case History		
	ES	Massachusetts	Electric	Yes	Historical	Full			
	ES	Massachusetts	Gas	Yes	Historical	Full			
	ES	Massachusetts	Water	Yes	Historical	No			
	ES	New Hampshire	Electric	Yes	Historical	Partial			
	ES	New Hampshire	Water	Yes	Historical	No			
	ES	New Hampshire	Water	Yes	Historical	No			
Middlesex Water Company	MSEX	New Jersey	Water	Yes	Partially Forecast	No	Infrastructure Cost Recovery/ Revenue Decoupling: Tariffs (NJ, DE, PA) Test Year: S&P Cap IQ Pro, Rate Case History		
	MSEX	Delaware	Water	Yes	Historical	No			
	MSEX	Pennsylvania	Water	No	Fully Forecast	No			
NiSource Inc.	NI	Indiana	Electric	Yes	Fully Forecast	Partial	Infrastructure Cost Recovery and Revenue Stabilization or Decoupling: S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22 Test Year: S&P Cap IQ Pro, Rate Case History		
	NI	Indiana	Gas	Yes	Fully Forecast	No			
	NI	Kentucky	Gas	Yes	Fully Forecast	Partial			
	NI	Maryland	Gas	Yes	Partially Forecast	Partial			
	NI	Ohio	Gas	Yes	Partially Forecast	SFV			
	NI	Pennsylvania	Gas	Yes	Fully Forecast	Partial			
	NI	Virginia	Gas	Yes	Historical	Partial			
Northwest Natural Gas Company	NWN	Oregon	Gas	Yes	Fully Forecast	Partial	Infrastructure Cost Recovery and Revenue Stabilization or Decoupling: S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22 Test Year: S&P Cap IQ Pro, Rate Case History		
	NWN	Washington	Gas	No	Historical	No			
ONE Gas, Inc.	OGS	Kansas	Gas	Yes	Historical	Partial	Infrastructure Cost Recovery and Revenue Stabilization or Decoupling: S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22; 2022 10-K, p. 7. Test Year: S&P Cap IQ Pro, Rate Case History		
	OGS	Oklahoma	Gas	No	Historical	FRP			
	OGS	Texas	Gas	Yes	Historical	FRP			
SJW Group	SJW	California	Water	Yes	Fully Forecast	No	Infrastructure Cost Recovery: 2022 10-K, pp. 5-8 Revenue Stabilization or Decoupling: 2022 10-K, p. 60. Test Year: S&P Cap IQ Pro, Rate Case History and Commission Profiles		
	SJW	Connecticut	Water	Yes	Fully Forecast	Full			
	SJW	Maine	Water	Yes	Historical	No			
	SJW	Texas	Water	No	Historical	No			
Spire, Inc.	SR	Alabama (AL)	Gas	No	Fully Forecast	FRP	Infrastructure Cost Recovery and Revenue Stabilization or Decoupling: S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated 7/18/22, Company Tariffs (AL and MS) Test Year: S&P Cap IQ Pro, Rate Case History; 2022 10-K, pgs. 117-121		
	SR	Alabama (Gulf)	Gas	No	Fully Forecast	FRP			
	SR	Mississippi	Gas	No	Historical	FRP			
	SR	Missouri	Gas	Yes	Partially Forecast	Partial			
Proxy Group Totals				Yes No	44 12	Historical Fully Forecast Partially Forecast	27 23 6	Full Partial FRP SFV No	10 13 9 1 23
			CCRM	78.57%	FTY	51.79%		58.93%	
PAWC		Pennsylvania	Water	Yes		Fully Forecast	No		

CAPITAL STRUCTURE ANALYSIS

COMMON EQUITY RATIO [1]					
Proxy Group Company	Ticker	2022	2021	2020	3-yr Avg.
American States Water Company	AWR	60.78%	59.68%	56.75%	59.07%
Atmos Energy Corporation	ATO	60.01%	59.88%	58.31%	59.40%
California Water Service Group	CWT	50.88%	48.85%	52.23%	50.65%
Essential Utilities, Inc.	WTRG	57.80%	55.09%	55.36%	56.08%
Eversource Energy	ES	56.37%	54.75%	55.63%	55.58%
Middlesex Water Company	MSEX	61.42%	59.01%	59.21%	59.88%
NiSource Inc.	NI	54.17%	54.85%	54.43%	54.48%
Northwest Natural Gas Company	NWN	51.21%	49.57%	47.44%	49.41%
ONE Gas, Inc.	OGS	58.23%	61.09%	60.04%	59.79%
SJW Group	SJW	53.78%	52.06%	56.76%	54.20%
Spire, Inc.	SR	54.32%	55.46%	58.61%	56.13%
<b>Proxy Group</b>					
MEAN		56.27%	55.48%	55.89%	55.88%
LOW		50.88%	48.85%	47.44%	49.41%
HIGH		61.42%	61.09%	60.04%	59.88%

COMMON EQUITY RATIO - UTILITY OPERATING COMPANIES					
Company Name	Ticker	2022	2021	2020	3-yr Avg.
Golden State Water / Bear Valley	AWR	60.78%	59.68%	56.75%	59.07%
Atmos Energy Corporation	ATO	60.01%	59.88%	58.31%	59.40%
California Water Service	CWT	50.41%	48.11%	51.34%	49.95%
New Mexico Water Service Water Division	CWT		69.19%	67.06%	68.12%
New Mexico Water Service Sewer Division	CWT		62.89%	59.47%	61.18%
Washington Water Service	CWT	62.87%	65.96%	71.93%	66.92%
Hawaii Water Service Pukalani Division	CWT	65.87%	65.58%	64.56%	65.34%
Aqua Pennsylvania Water	WTRG		54.32%	51.14%	52.73%
Aqua Pennsylvania Wastewater	WTRG		98.06%	97.07%	97.57%
Peoples Natural Gas Company	WTRG	58.85%	57.75%	61.48%	59.36%
Peoples Gas Company	WTRG	67.48%	55.97%	79.59%	67.68%
Aqua Ohio Water	WTRG	54.03%	52.11%	64.62%	56.92%
Aqua Ohio Wastewater	WTRG	74.40%	73.67%	72.82%	73.63%
Aqua Illinois	WTRG	56.55%	57.99%	54.57%	56.37%
Aqua Texas	WTRG		49.91%	50.17%	50.04%
Aqua New Jersey, Inc. Water	WTRG	55.74%	53.19%	50.28%	53.07%
Aqua New Jersey, Inc. Wastewater	WTRG	100.00%	100.00%	100.00%	100.00%
Aqua North Carolina	WTRG	50.21%	48.75%	50.62%	49.86%
Aqua Virginia	WTRG	47.83%	48.83%	55.23%	50.63%
Delta Natural Gas Company	WTRG	58.51%	54.49%	56.93%	56.64%
Peoples Gas of WV	WTRG	58.78%	47.74%	48.44%	51.65%
Connecticut Light and Power Company	ES	57.03%	54.86%	55.42%	55.77%
Yankee Gas Company	ES	61.62%	61.12%	61.97%	61.57%
Aquarion Water Company CT	ES	55.94%	57.55%	58.76%	57.42%
NSTAR Electric Company	ES	55.89%	55.10%	54.95%	55.32%
NSTAR Gas Company	ES	55.96%	55.54%	55.54%	55.68%
Aquarion Water Company MA	ES	86.93%	85.64%	96.04%	89.54%
Eversource Gas of MA	ES	53.20%	52.25%	68.65%	58.03%
Public Service Company of NH	ES	53.77%	49.10%	48.66%	50.51%
Aquarion Water Company NH	ES	75.26%	59.74%	58.81%	64.60%
Middlesex Water Company	MSEX	61.15%	58.76%	59.03%	59.65%
Pinelands Water	MSEX	100.00%	100.00%	100.00%	100.00%
Pinelands WW	MSEX	100.00%	100.00%	100.00%	100.00%
Northern Indiana Public Service Company LLC	NI	56.92%	58.59%	58.01%	57.84%
Columbia Gas of Kentucky, Inc.	NI	54.91%	53.87%	54.68%	54.49%
Columbia Gas of Maryland, Inc.	NI	51.96%	55.26%	54.95%	54.06%
Columbia Gas of Ohio, Inc.	NI	50.67%	50.79%	50.45%	50.64%
Columbia Gas of Pennsylvania, Inc.	NI	56.64%	56.05%	55.68%	56.12%
Columbia Gas of Virginia, Inc.	NI	44.25%	44.52%	43.69%	44.15%
Northwest Natural Gas Company	NWN	51.21%	49.57%	47.44%	49.41%
Kansas Gas Service Company, Inc.	OGS	58.37%	61.37%	60.33%	60.02%
Oklahoma Natural Gas Company	OGS		60.99%	59.85%	60.42%
Texas Gas Service Company, Inc.	OGS	58.13%	60.98%	59.99%	59.70%
San Jose Water	SJW	53.20%	50.25%	54.02%	52.49%
CT Water	SJW	54.61%	52.66%	59.12%	55.46%
Maine Water Co.	SJW	53.92%	57.59%	60.15%	57.22%
Canyon Lake Water Service Company	SJW		59.64%	74.05%	66.85%
Spire Alabama Inc.	SR	61.18%	58.51%	64.20%	61.30%
Spire Gulf Inc.	SR	51.61%	49.48%	40.55%	47.21%
Spire Mississippi Inc.	SR		100.00%	100.00%	100.00%
Spire Missouri Inc.	SR	51.46%	53.96%	56.68%	54.03%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, and long-term debt of Operating Subsidiaries.

[2] Electric, Natural Gas and Water operating subsidiaries where data was unable to be obtained for 2022, 2021 and 2020 were removed from the analysis.

CAPITAL STRUCTURE ANALYSIS

LONG-TERM DEBT RATIO [1]					
Proxy Group Company	Ticker	2022	2021	2020	3-yr Avg.
American States Water Company	AWR	39.22%	40.32%	43.25%	40.93%
Atmos Energy Corporation	ATO	39.99%	40.12%	41.69%	40.60%
California Water Service Group	CWT	49.12%	51.15%	47.77%	49.35%
Essential Utilities, Inc.	WTRG	42.20%	44.91%	44.64%	43.92%
Eversource Energy	ES	43.11%	44.67%	43.74%	43.84%
Middlesex Water Company	MSEX	38.26%	40.66%	40.43%	39.78%
NiSource Inc.	NI	45.83%	45.15%	45.57%	45.52%
Northwest Natural Gas Company	NWN	48.79%	50.43%	52.56%	50.59%
ONE Gas, Inc.	OGS	41.77%	38.91%	39.96%	40.21%
SJW Group	SJW	46.22%	47.94%	43.24%	45.80%
Spire, Inc.	SR	45.68%	44.54%	41.39%	43.87%
<b>Proxy Group</b>					
MEAN		43.65%	44.44%	44.02%	44.04%
LOW		38.26%	38.91%	39.96%	39.78%
HIGH		49.12%	51.15%	52.56%	50.59%

LONG-TERM DEBT RATIO - UTILITY OPERATING COMPANIES					
Company Name	Ticker	2022	2021	2020	3-yr Avg.
Golden State Water / Bear Valley	AWR	39.22%	40.32%	43.25%	40.93%
Atmos Energy Corporation	ATO	39.99%	40.12%	41.69%	40.60%
California Water Service	CWT	49.59%	51.89%	48.66%	50.05%
New Mexico Water Service Water Division	CWT		30.81%	32.94%	31.88%
New Mexico Water Service Sewer Division	CWT		37.11%	40.53%	38.82%
Washington Water Service	CWT	37.13%	34.04%	28.07%	33.08%
Hawaii Water Service Pukalani Division	CWT	34.13%	34.42%	35.44%	34.66%
Aqua Pennsylvania Water	WTRG		45.68%	48.86%	47.27%
Aqua Pennsylvania Wastewater	WTRG		1.94%	2.93%	2.43%
Peoples Natural Gas Company	WTRG	41.15%	42.25%	38.52%	40.64%
Peoples Gas Company	WTRG	32.52%	44.03%	20.41%	32.32%
Aqua Ohio Water	WTRG	45.97%	47.89%	35.38%	43.08%
Aqua Ohio Wastewater	WTRG	25.60%	26.33%	27.18%	26.37%
Aqua Illinois	WTRG	43.45%	42.01%	45.43%	43.63%
Aqua Texas	WTRG		50.09%	49.83%	49.96%
Aqua New Jersey, Inc. Water	WTRG	44.26%	46.81%	49.72%	46.93%
Aqua New Jersey, Inc. Wastewater	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua North Carolina	WTRG	49.79%	51.25%	49.38%	50.14%
Aqua Virginia	WTRG	52.17%	51.17%	44.77%	49.37%
Delta Natural Gas Company	WTRG	41.49%	45.51%	43.07%	43.36%
Peoples Gas of WV	WTRG	41.22%	52.26%	51.56%	48.35%
Connecticut Light and Power Company	ES	41.82%	43.93%	43.30%	43.02%
Yankee Gas Company	ES	38.38%	38.88%	38.03%	38.43%
Aquarion Water Company CT	ES	44.06%	42.45%	41.24%	42.58%
NSTAR Electric Company	ES	43.68%	44.42%	44.52%	44.21%
NSTAR Gas Company	ES	44.04%	44.46%	44.46%	44.32%
Aquarion Water Company MA	ES	13.07%	14.36%	3.96%	10.46%
Eversource Gas of MA	ES	46.80%	47.75%	31.35%	41.97%
Public Service Company of NH	ES	46.23%	50.90%	51.34%	49.49%
Aquarion Water Company NH	ES	24.73%	40.26%	41.18%	35.39%
Middlesex Water Company	MSEX	38.53%	40.91%	40.62%	40.02%
Pinelands Water	MSEX	0.00%	0.00%	0.00%	0.00%
Pinelands WW	MSEX	0.00%	0.00%	0.00%	0.00%
Northern Indiana Public Service Company LLC	NI	43.08%	41.41%	41.99%	42.16%
Columbia Gas of Kentucky, Inc.	NI	45.09%	46.13%	45.32%	45.51%
Columbia Gas of Maryland, Inc.	NI	48.04%	44.74%	45.05%	45.94%
Columbia Gas of Ohio, Inc.	NI	49.33%	49.21%	49.55%	49.36%
Columbia Gas of Pennsylvania, Inc.	NI	43.36%	43.95%	44.32%	43.88%
Columbia Gas of Virginia, Inc.	NI	55.75%	55.48%	56.31%	55.85%
Northwest Natural Gas Company	NWN	48.79%	50.43%	52.56%	50.59%
Kansas Gas Service Company, Inc.	OGS	41.63%	38.63%	39.67%	39.98%
Oklahoma Natural Gas Company	OGS		39.01%	40.15%	39.58%
Texas Gas Service Company, Inc.	OGS	41.87%	39.02%	40.01%	40.30%
San Jose Water	SJW	46.80%	49.75%	45.98%	47.51%
CT Water	SJW	45.39%	47.34%	40.88%	44.54%
Maine Water Co.	SJW	46.08%	42.41%	39.85%	42.78%
Canyon Lake Water Service Company	SJW		40.36%	25.95%	33.15%
Spire Alabama Inc.	SR	38.82%	41.49%	35.80%	38.70%
Spire Gulf Inc.	SR	48.39%	50.52%	59.45%	52.79%
Spire Mississippi Inc.	SR		0.00%	0.00%	0.00%
Spire Missouri Inc.	SR	48.54%	46.04%	43.32%	45.97%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, and long-term debt of Operating Subsidiaries.

[2] Electric, Natural Gas and Water operating subsidiaries where data was unable to be obtained for 2022, 2021 and 2020 were removed from the analysis.

CAPITAL STRUCTURE ANALYSIS

PREFERRED EQUITY RATIO [1]					
Proxy Group Company	Ticker	2022	2021	2020	3-yr Avg.
American States Water Company	AWR	0.00%	0.00%	0.00%	0.00%
Atmos Energy Corporation	ATO	0.00%	0.00%	0.00%	0.00%
California Water Service Group	CWT	0.00%	0.00%	0.00%	0.00%
Essential Utilities, Inc.	WTRG	0.00%	0.00%	0.00%	0.00%
Eversource Energy	ES	0.53%	0.58%	0.63%	0.58%
Middlesex Water Company	MSEX	0.32%	0.33%	0.35%	0.33%
NiSource Inc.	NI	0.00%	0.00%	0.00%	0.00%
Northwest Natural Gas Company	NWN	0.00%	0.00%	0.00%	0.00%
ONE Gas, Inc.	OGS	0.00%	0.00%	0.00%	0.00%
SJW Group	SJW	0.00%	0.00%	0.00%	0.00%
Spire, Inc.	SR	0.00%	0.00%	0.00%	0.00%
<b>Proxy Group</b>					
MEAN		0.08%	0.08%	0.09%	0.08%
LOW		0.00%	0.00%	0.00%	0.00%
HIGH		0.53%	0.58%	0.63%	0.58%

PREFERRED EQUITY RATIO - UTILITY OPERATING COMPANIES					
Company Name	Ticker	2022	2021	2020	3-yr Avg.
Golden State Water / Bear Valley	AWR	0.00%	0.00%	0.00%	0.00%
Atmos Energy Corporation	ATO	0.00%	0.00%	0.00%	0.00%
California Water Service	CWT	0.00%	0.00%	0.00%	0.00%
New Mexico Water Service Water Division	CWT		0.00%	0.00%	0.00%
New Mexico Water Service Sewer Division	CWT		0.00%	0.00%	0.00%
Washington Water Service	CWT	0.00%	0.00%	0.00%	0.00%
Hawaii Water Service Pukalani Division	CWT	0.00%	0.00%	0.00%	0.00%
Aqua Pennsylvania Water	WTRG		0.00%	0.00%	0.00%
Aqua Pennsylvania Wastewater	WTRG		0.00%	0.00%	0.00%
Peoples Natural Gas Company	WTRG	0.00%	0.00%	0.00%	0.00%
Peoples Gas Company	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua Ohio Water	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua Ohio Wastewater	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua Illinois	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua Texas	WTRG		0.00%	0.00%	0.00%
Aqua New Jersey, Inc. Water	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua New Jersey, Inc. Wastewater	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua North Carolina	WTRG	0.00%	0.00%	0.00%	0.00%
Aqua Virginia	WTRG	0.00%	0.00%	0.00%	0.00%
Delta Natural Gas Company	WTRG	0.00%	0.00%	0.00%	0.00%
Peoples Gas of WV	WTRG	0.00%	0.00%	0.00%	0.00%
Connecticut Light and Power Company	ES	1.15%	1.20%	1.28%	1.21%
Yankee Gas Company	ES	0.00%	0.00%	0.00%	0.00%
Aquarion Water Company CT	ES	0.00%	0.00%	0.00%	0.00%
NSTAR Electric Company	ES	0.42%	0.48%	0.52%	0.47%
NSTAR Gas Company	ES	0.00%	0.00%	0.00%	0.00%
Aquarion Water Company MA	ES	0.00%	0.00%	0.00%	0.00%
Eversource Gas of MA	ES	0.00%	0.00%	0.00%	0.00%
Public Service Company of NH	ES	0.00%	0.00%	0.00%	0.00%
Aquarion Water Company NH	ES	0.01%	0.01%	0.01%	0.01%
Middlesex Water Company	MSEX	0.32%	0.33%	0.36%	0.34%
Pinelands Water	MSEX	0.00%	0.00%	0.00%	0.00%
Pinelands WW	MSEX	0.00%	0.00%	0.00%	0.00%
Northern Indiana Public Service Company LLC	NI	0.00%	0.00%	0.00%	0.00%
Columbia Gas of Kentucky, Inc.	NI	0.00%	0.00%	0.00%	0.00%
Columbia Gas of Maryland, Inc.	NI	0.00%	0.00%	0.00%	0.00%
Columbia Gas of Ohio, Inc.	NI	0.00%	0.00%	0.00%	0.00%
Columbia Gas of Pennsylvania, Inc.	NI	0.00%	0.00%	0.00%	0.00%
Columbia Gas of Virginia, Inc.	NI	0.00%	0.00%	0.00%	0.00%
Northwest Natural Gas Company	NWN	0.00%	0.00%	0.00%	0.00%
Kansas Gas Service Company, Inc.	OGS	0.00%	0.00%	0.00%	0.00%
Oklahoma Natural Gas Company	OGS	0.00%	0.00%	0.00%	0.00%
Texas Gas Service Company, Inc.	OGS	0.00%	0.00%	0.00%	0.00%
San Jose Water	SJW	0.00%	0.00%	0.00%	0.00%
CT Water	SJW	0.00%	0.00%	0.00%	0.00%
Maine Water Co.	SJW	0.00%	0.00%	0.00%	0.00%
Canyon Lake Water Service Company	SJW		0.00%	0.00%	0.00%
Spire Alabama Inc.	SR	0.00%	0.00%	0.00%	0.00%
Spire Gulf Inc.	SR	0.00%	0.00%	0.00%	0.00%
Spire Mississippi Inc.	SR		0.00%	0.00%	0.00%
Spire Missouri Inc.	SR	0.00%	0.00%	0.00%	0.00%

Notes:

[1] Ratios are weighted by actual common capital, preferred equity, and long-term debt of Operating Subsidiaries.

[2] Electric, Natural Gas and Water operating subsidiaries where data was unable to be obtained for 2022, 2021 and 2020 were removed from the analysis.

Pennsylvania-American Water Company  
Total Company

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
<b>Proforma at June 30, 2024</b>			
Long-term Debt	44.55%	4.59%	2.04%
Preferred Stock	0.00%	0.00%	0.00%
Common Equity	55.45%	10.95%	6.07%
Total			8.12%
<b>Proforma at June 30, 2025</b>			
Long-term Debt	44.70%	4.71%	2.11%
Preferred Stock	0.00%	0.00%	0.00%
Common Equity	55.30%	10.95%	6.06%
Total			8.17%

Pennsylvania-American Water Company  
Water Services - Cost of Capital

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
<b>Proforma at June 30, 2024</b>			
Long-term Debt	43.80%	4.63%	2.03%
Preferred Stock	0.00%	0.00%	0.00%
Common Equity	56.20%	10.95%	6.15%
Total			8.18%
<b>Proforma at June 30, 2025</b>			
Long-term Debt	44.01%	4.76%	2.09%
Preferred Stock	0.00%	0.00%	0.00%
Common Equity	55.99%	10.95%	6.13%
Total			8.22%

Pennsylvania-American Water Company  
Wastewater Services - Cost of Capital

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
<b>Proforma at June 30, 2024</b>			
Long-term Debt	42.46%	4.63%	1.97%
LTD WW Financing	4.70%	2.64%	0.12%
Preferred Stock	0.00%	0.00%	0.00%
Common Equity	52.84%	10.95%	5.79%
Total			7.88%
<b>Proforma at June 30, 2025</b>			
Long-term Debt	42.73%	4.76%	2.03%
LTD WW Financing	4.40%	2.62%	0.12%
Preferred Stock	0.00%	0.00%	0.00%
Common Equity	52.87%	10.95%	5.79%
Total			7.94%



Pennsylvania American Water Company  
Capital Structure - Wastewater Specific LTD

6/30/2023													
DATE OF ISSUE	DATE OF MATURITY	AMOUNT ISSUED	AMOUNT OUTSTANDING	COUPON RATE	ANNUAL INTEREST	NOTE #	ISSUANCE EXPENSE	NET PROCEEDS	NET PROCEEDS Ratio	SINKING REQUIR.	PERCENT TO TOTAL	EFFECTIVE COST RATE (1)	WEIGHTED COST RATE
PENNVEST- Clarion WW	04/01/15	16,892,338	10,887,689	1.000%	108,877	20	0	16,892,338	100.00%	0	17.16%	1.00%	0.17%
PEDFA - Coatesville WW	06/21/19	47,000,000	47,000,000	3.000%	1,410,000	5	1,173,060	45,826,940	97.50%	0	74.06%	3.17%	2.35%
PENNVEST- Scranton WW	12/29/16	7,951,445	5,571,037	1.000%	55,710	24	0	7,951,445	100.00%	0	8.78%	1.00%	0.09%
		<b>\$71,843,783</b>	<b>\$63,458,726</b>		<b>\$1,574,587</b>		<b>\$1,173,060</b>	<b>\$70,670,723</b>		<b>\$0</b>	100.00%		2.61%

6/30/2024													
DATE OF ISSUE	DATE OF MATURITY	AMOUNT ISSUED	AMOUNT OUTSTANDING	COUPON RATE	ANNUAL INTEREST	NOTE #	ISSUANCE EXPENSE	NET PROCEEDS	NET PROCEEDS Ratio	SINKING REQUIR.	PERCENT TO TOTAL	EFFECTIVE COST RATE (1)	WEIGHTED COST RATE
PENNVEST- Clarion WW	04/01/15	16,892,338	10,138,880	1.000%	101,389	20	0	16,892,338	100.00%	0	16.26%	1.00%	0.16%
PEDFA - Coatesville WW	06/21/19	47,000,000	47,000,000	3.000%	1,410,000	5	1,173,060	45,826,940	97.50%	0	75.38%	3.17%	2.39%
PENNVEST- Scranton WW	12/29/16	7,951,445	5,209,980	1.000%	52,100	24	0	7,951,445	100.00%	0	8.36%	1.00%	0.08%
		<b>\$71,843,783</b>	<b>\$62,348,860</b>		<b>\$1,563,489</b>		<b>\$1,173,060</b>	<b>\$70,670,723</b>		<b>\$0</b>	100.00%		2.64%

6/30/2025													
DATE OF ISSUE	DATE OF MATURITY	AMOUNT ISSUED	AMOUNT OUTSTANDING	COUPON RATE	ANNUAL INTEREST	NOTE #	ISSUANCE EXPENSE	NET PROCEEDS	NET PROCEEDS Ratio	SINKING REQUIR.	PERCENT TO TOTAL	EFFECTIVE COST RATE (1)	WEIGHTED COST RATE
PENNVEST- Clarion WW	04/01/15	16,892,338	9,382,548	1.000%	93,825	20	0	16,892,338	100.00%	0.00%	15.05%	1.00%	0.15%
PEDFA - Coatesville WW	06/21/19	47,000,000	47,000,000	3.000%	1,410,000	5	1,173,060	45,826,940	97.50%	0.00%	75.38%	3.17%	2.39%
PENNVEST- Scranton WW	12/29/16	7,951,445	4,845,296	1.000%	48,453	24	0	7,951,445	100.00%	0.00%	7.77%	1.00%	0.08%
		<b>\$71,843,783</b>	<b>\$61,227,844</b>		<b>\$1,552,278</b>		<b>\$1,173,060</b>	<b>\$70,670,723</b>		<b>\$0</b>	98.20%		2.62%

PA AMERICAN WATER - TOTAL COMPANY  
SCHEDULE OF DEBT AT June 30, 2023

DATE OF ISSUE	DATE OF MATURITY	AMOUNT ISSUED	AMOUNT OUTSTANDING	COUPON RATE	ANNUAL INTEREST	NOTE #	ISSUANCE EXPENSE	NET PROCEEDS	NET PROCEEDS RATIO	SINKING REQUIR.	PERCENT TO TOTAL	EFFECTIVE COST RATE (1)	WEIGHTED COST RATE
<b>Bonds and Notes</b>													
11/01/03	11/01/33	38,000,000	38,000,000	6.780%	2,576,400		174,946	37,825,054	99.54%		1.72%	6.82%	0.12%
09/01/06	09/01/26	150,000,000	150,000,000	7.800%	11,700,000		2,069,648	147,930,352	98.62%		6.81%	7.94%	0.54%
11/01/04	11/01/31	10,000,000	10,000,000	8.820%	882,000		88,352	9,911,648	99.12%		0.45%	8.91%	0.04%
08/01/04	08/01/25	10,000,000	10,000,000	8.150%	815,000		60,119	9,939,881	99.40%		0.45%	8.21%	0.04%
12/21/12	12/01/42	23,015,000	23,015,000	4.300%	989,645	1	895,945	22,119,055	96.11%		1.04%	4.54%	0.05%
12/17/12	12/01/42	45,000,000	45,000,000	4.300%	1,935,000	2	582,689	44,417,311	98.71%		2.04%	4.38%	0.09%
11/21/11	10/15/37	35,000,000	35,000,000	5.050%	1,767,500		0	35,000,000	100.00%		1.59%	5.05%	0.08%
11/21/11	10/15/37	15,500,000	15,500,000	5.050%	782,750		740,260	14,759,740	95.22%		0.70%	5.39%	0.04%
11/20/13	03/01/24	67,000,000	67,000,000	3.850%	2,579,500		791,901	66,208,099	98.82%		3.04%	3.99%	0.12%
08/14/14	03/01/25	36,200,000	36,200,000	3.400%	1,230,800		1,189,364	35,010,636	96.71%		1.64%	3.78%	0.06%
08/14/14	12/01/42	65,700,000	65,700,000	4.300%	2,825,100		4,432,879	61,267,121	93.25%		2.98%	4.74%	0.14%
08/10/17	09/01/47	240,000,000	240,000,000	3.750%	9,000,000		3,231,905	236,768,095	98.65%		10.89%	3.83%	0.42%
09/13/17	09/01/27	101,426,171	101,426,171	2.950%	2,992,072	3	11,291,519	90,134,652	88.87%		4.60%	4.34%	0.20%
08/09/18	09/01/28	74,739,360	74,739,360	3.750%	2,802,726		623,814	74,115,546	99.17%		3.39%	3.85%	0.13%
08/09/18	09/01/48	227,489,000	227,489,000	4.200%	9,554,538		2,490,214	224,998,786	98.91%		10.33%	4.26%	0.44%
09/11/18	09/01/28	124,719,875	124,719,875	3.750%	4,676,995	4	8,287,774	116,432,101	93.35%		5.66%	4.59%	0.26%
05/23/19	06/01/29	110,000,000	110,000,000	3.450%	3,795,000		1,141,559	108,858,441	98.96%		4.99%	3.57%	0.18%
06/21/19	04/01/39	80,000,000	80,000,000	3.000%	2,400,000	5	1,996,698	78,003,302	97.50%		3.63%	3.17%	0.12%
12/12/19	12/03/29	80,000,000	80,000,000	2.450%	1,960,000	6	1,907,647	78,092,353	97.62%		3.63%	2.72%	0.10%
12/12/19	12/03/29	13,165,000	13,165,000	2.450%	322,543	6	483,935	12,681,065	96.32%		0.60%	2.88%	0.02%
04/14/20	05/01/30	30,000,000	30,000,000	2.800%	840,000	26	373,996	29,626,004	98.75%		1.36%	2.94%	0.04%
04/14/20	05/01/50	90,000,000	90,000,000	3.450%	3,105,000	27	1,141,788	88,858,212	98.73%		4.09%	3.52%	0.14%
06/14/21	06/01/31	47,500,000	47,500,000	2.300%	1,092,500	28	1,798,391	45,701,609	96.21%		2.16%	2.74%	0.06%
05/14/21	06/01/51	47,500,000	47,500,000	3.250%	1,543,750	29	641,731	46,858,269	98.65%		2.16%	3.32%	0.07%
05/05/22	06/01/32	255,000,000	255,000,000	4.450%	11,347,500	30	2,964,855	252,035,145	98.84%		11.58%	4.59%	0.53%
12/27/22	09/01/48	120,000,000	120,000,000	4.200%	5,040,000	31	1,128,649	118,871,351	99.06%		5.45%	4.26%	0.23%
12/27/22	10/15/37	6,000,000	6,000,000	5.050%	303,000	32	0	6,000,000	100.00%		0.27%	5.05%	0.01%
12/27/22	10/15/37	9,000,000	9,000,000	5.060%	455,400	33	117,667	8,882,333	98.69%		0.41%	5.19%	0.02%
12/27/22	10/15/37	3,370,000	3,370,000	4.200%	141,540	34	0	3,370,000	100.00%		0.15%	4.20%	0.01%
12/27/22	10/15/37	500,000	500,000	5.060%	25,300	35	0	500,000	100.00%		0.02%	5.06%	0.00%
12/27/22	10/15/37	600,000	600,000	4.750%	28,500	36	0	600,000	100.00%		0.03%	4.75%	0.00%
12/27/22	05/19/39	5,000,000	5,000,000	5.140%	257,000	37	1,346	4,998,654	99.97%		0.23%	5.14%	0.01%
<b>Pennvest Loans</b>													
08/01/04	07/01/24	1,559,205	85,926	2.774%	2,384	7	13,749	1,545,456	99.12%		0.00%	2.83%	0.00%
06/01/05	11/01/24	5,721,348	430,451	1.156%	4,976	8	29,484	5,691,864	99.48%		0.02%	1.19%	0.00%
01/01/06	12/01/25	5,670,111	639,732	2.763%	17,676	9	34,130	5,635,981	99.40%		0.03%	2.80%	0.00%
09/01/04	08/01/24	5,240,631	372,303	2.774%	10,328	10	7,951	5,232,680	99.85%		0.02%	2.78%	0.00%
11/01/04	10/01/24	3,099,441	246,443	2.432%	5,994	11	5,660	3,093,781	99.82%		0.01%	2.44%	0.00%
10/01/09	09/01/29	2,359,891	838,783	2.547%	21,364	12	0	2,359,891	100.00%		0.04%	2.55%	0.00%
06/01/11	02/01/31	12,150,000	5,278,326	2.690%	141,987	13	0	12,150,000	100.00%		0.24%	2.69%	0.01%
01/05/12	10/01/32	9,936,500	5,354,376	3.117%	166,896	14	0	9,936,500	100.00%		0.24%	3.12%	0.01%
01/05/12	12/01/31	1,606,709	791,106	3.098%	24,508	15	0	1,606,709	100.00%		0.04%	3.10%	0.00%
03/23/12	03/01/41	1,724,610	1,119,744	1.000%	11,197	16	0	1,724,610	100.00%		0.05%	1.00%	0.00%
03/20/12	04/01/31	1,675,790	865,549	2.810%	24,322	17	0	1,675,790	100.00%		0.04%	2.81%	0.00%
03/26/12	03/01/32	1,273,465	549,926	2.690%	14,793	18	0	1,273,465	100.00%		0.02%	2.69%	0.00%
03/22/13	03/01/33	1,378,357	709,760	2.196%	15,586	19	0	1,378,357	100.00%		0.03%	2.20%	0.00%
04/01/15	02/01/37	16,892,338	10,887,689	1.000%	108,877	20	0	16,892,338	100.00%		0.49%	1.00%	0.00%
10/15/15	07/01/40	123,663	88,573	1.000%	886	21	0	123,663	100.00%		0.00%	1.00%	0.00%
10/15/15	07/01/40	969,823	694,627	1.000%	6,946	22	0	969,823	100.00%		0.03%	1.00%	0.00%
04/21/16	05/01/37	4,152,000	2,923,387	1.985%	58,029	23	0	4,152,000	100.00%		0.13%	1.98%	0.00%
12/29/16	11/01/37	7,951,445	5,571,037	1.000%	55,710	24	0	7,951,445	100.00%		0.25%	1.00%	0.00%
06/14/17	11/01/36	5,937,613	4,130,079	2.027%	83,717	25	0	5,937,613	100.00%		0.19%	2.03%	0.00%
		<b>\$2,250,847,347</b>	<b>\$2,203,002,222</b>		<b>\$90,543,235</b>		<b>\$50,740,564</b>	<b>\$2,200,106,783</b>			<b>100.00%</b>		<b>4.34%</b>

**Notes to Debt Schedule**

- (1) Re-issuance 12/21/12 from Parent at a coupon rate of 4.30% for 30 years
- (2) New unsecured borrowing at a coupon rate of 4.30% for 30 years
- (3) Issuances costs included make whole premium of \$10M
- (4) Issuances costs included make whole premium of \$7.2M
- (5) Refinanced June 2019 at a lower rate for the remaining term of the bond
- (6) Refinanced Dec 2019 at a lower rate for the remaining term of the bond
- (7) Farmington Twp., Interest rate 1.387% for first 70 months and 2.774% (07/2009) for remainder
- (8) Sandy Ridge, Interest rate 1.000% for first 60 months and 1.156% (07/2010) for remainder
- (9) Sligo/Shippenville, Interest rate 1.385% for first 86 months and 2.763% (06/2013) for remainder
- (10) Ellwood/Butler Interconnect, Interest rate 1.387% for first 74 months and 2.774% (08/2009) for remainder
- (11) Mahoning & Union Twp, Interest rate 1.305% for first 82 months and 2.432% (10/2009) for remainder
- (12) Hanover & Collier 1.274% first 2009 - 2014 and 2.547% starting Oct 2014
- (13) Mount Pleasant Water System Extension 1.559% first 2011 - 2016 and 2.69% starting March 2016
- (14) Rock Run WTP 2.414% first 2011 - 2016 and 3.117% starting Dec 2017
- (15) Silver Spring Clearwell 2.376% first 2012 - 2016 and 3.098% starting Jan 2017
- (16) Wallaceeton Municipal Authority 1.00% for 30 years starting March 2012
- (17) Pittsburgh Meter Improvements 1.799% first 2012 - 2017 and 2.81% starting April 2017
- (18) Pittsburgh Meter Improvement Project Phase II 1.559% first 60 months and 2.69% starting May 2016
- (19) Southwest PA Pipeline Exts Phase II - Interest 1.591% first 5 years - 2.196% starting April 2018
- (20) Clarion WW Act 537 Implementation Project - Interest rate is 1.0% for the life of the loan
- (21) Paint Twp #1 - Interest rate is 1% for the remaining life of the Bond
- (22) Paint Twp #2 - Interest rate is 1% for the remaining life of the Bond
- (23) Fairview Water Main Extension - Interest rate is 1.356% for the first 5 years, 1.985% June 2022 for remaining 5 years
- (24) Debt assumed as part of Scranton Sewer acquisition
- (25) Washington County Main Extension Project - Interest rate is 1.439% until Oct 2021 - 2.027% for the remaining term
- (26) Unsecured borrowing at a coupon rate of 2.80% for 10 years
- (27) Unsecured borrowing at a coupon rate of 3.45% for 30 years
- (28) Issuance costs include make whole premium of \$1.2M
- (29) New unsecured borrowing at a coupon rate of 3.25% for 30 years
- (30) New projected unsecured borrowing at a coupon rate of 4.45% for 10 years
- (31) New unsecured borrowing at a coupon rate of 4.20% for 26 years
- (32) New unsecured borrowing at a coupon rate of 5.05% for 15 years
- (33) New unsecured borrowing at a coupon rate of 5.06% for 15 years
- (34) New unsecured borrowing at a coupon rate of 4.20% for 15 years
- (35) New unsecured borrowing at a coupon rate of 5.06% for 15 years
- (36) New unsecured borrowing at a coupon rate of 4.75% for 15 years
- (37) New unsecured borrowing at a coupon rate of 5.14% for 17 years

PA AMERICAN WATER - TOTAL COMPANY  
SCHEDULE OF DEBT AT June 30, 2024

DATE OF ISSUE	DATE OF MATURITY	AMOUNT ISSUED	AMOUNT OUTSTANDING	COUPON RATE	ANNUAL INTEREST	NOTE #	ISSUANCE EXPENSE	NET PROCEEDS	NET PROCEEDS RATIO	SINKING REQUIR.	PERCENT TO TOTAL	EFFECTIVE COST RATE (1)	WEIGHTED COST RATE
<b>Bonds and Notes</b>													
11/01/03	11/01/33	38,000,000	38,000,000	6.780%	2,576,400		174,946	37,825,054	99.54%		1.44%	6.82%	0.10%
09/01/06	09/01/26	150,000,000	150,000,000	7.800%	11,700,000		2,069,648	147,930,352	98.62%		5.70%	7.94%	0.45%
11/01/04	11/01/31	10,000,000	10,000,000	8.820%	882,000		88,352	9,911,648	99.12%		0.38%	8.91%	0.03%
08/01/04	08/01/25	10,000,000	10,000,000	8.150%	815,000		60,119	9,939,881	99.40%		0.38%	8.21%	0.03%
12/21/12	12/01/42	23,015,000	23,015,000	4.300%	989,645	1	895,945	22,119,055	96.11%		0.87%	4.54%	0.04%
12/17/12	12/01/42	45,000,000	45,000,000	4.300%	1,935,000	2	582,689	44,417,311	98.71%		1.71%	4.38%	0.07%
11/21/11	10/15/37	35,000,000	35,000,000	5.050%	1,767,500		0	35,000,000	100.00%		1.33%	5.05%	0.07%
11/21/11	10/15/37	15,500,000	15,500,000	5.050%	782,750		740,260	14,759,740	95.22%		0.59%	5.39%	0.03%
08/14/14	03/01/25	36,200,000	36,200,000	3.400%	1,230,800		1,189,364	35,010,636	96.71%		1.38%	3.78%	0.05%
08/14/14	12/01/42	65,700,000	65,700,000	4.300%	2,825,100		4,432,879	61,267,121	93.25%		2.50%	4.74%	0.12%
08/10/17	09/01/47	240,000,000	240,000,000	3.750%	9,000,000		3,231,905	236,768,095	98.65%		9.12%	3.83%	0.35%
09/13/17	09/01/27	101,426,171	101,426,171	2.950%	2,992,072	3	11,291,519	90,134,652	88.87%		3.85%	4.34%	0.17%
08/09/18	09/01/28	74,739,360	74,739,360	3.750%	2,802,726		623,814	74,115,546	99.17%		2.84%	3.85%	0.11%
08/09/18	09/01/48	227,489,000	227,489,000	4.200%	9,554,538		2,490,214	224,998,786	98.91%		8.64%	4.26%	0.37%
09/11/18	09/01/28	124,719,875	124,719,875	3.750%	4,676,995	4	8,287,774	116,432,101	93.35%		4.74%	4.59%	0.22%
05/23/19	06/01/29	110,000,000	110,000,000	3.450%	3,795,000		1,141,559	108,858,441	98.96%		4.18%	3.57%	0.15%
06/21/19	04/01/39	80,000,000	80,000,000	3.000%	2,400,000	5	1,996,698	78,003,302	97.50%		3.04%	3.17%	0.10%
12/12/19	12/03/29	80,000,000	80,000,000	2.450%	1,960,000	6	1,907,647	78,092,353	97.62%		3.04%	2.72%	0.08%
12/12/19	12/03/29	13,165,000	13,165,000	2.450%	322,543	6	483,935	12,681,065	96.32%		0.50%	2.88%	0.01%
04/14/20	05/01/30	30,000,000	30,000,000	2.800%	840,000	26	373,996	29,626,004	98.75%		1.14%	2.94%	0.03%
04/14/20	05/01/50	90,000,000	90,000,000	3.450%	3,105,000	27	1,141,788	88,858,212	98.73%		3.42%	3.52%	0.12%
06/14/21	06/01/31	47,500,000	47,500,000	2.300%	1,092,500	28	1,798,391	45,701,609	96.21%		1.80%	2.74%	0.05%
05/14/21	06/01/51	47,500,000	47,500,000	3.250%	1,543,750	29	641,731	46,858,269	98.65%		1.80%	3.32%	0.06%
05/05/22	06/01/32	255,000,000	255,000,000	4.450%	11,347,500	30	2,964,855	252,035,145	98.84%		9.69%	4.59%	0.44%
12/27/22	09/01/48	120,000,000	120,000,000	4.200%	5,040,000	31	1,128,649	118,871,351	99.06%		4.56%	4.26%	0.19%
12/27/22	10/15/37	6,000,000	6,000,000	5.050%	303,000	32	0	6,000,000	100.00%		0.23%	5.05%	0.01%
12/27/22	10/15/37	9,000,000	9,000,000	5.060%	455,400	33	117,667	8,882,333	98.69%		0.34%	5.19%	0.02%
12/27/22	10/15/37	3,370,000	3,370,000	4.200%	141,540	34	0	3,370,000	100.00%		0.13%	4.20%	0.01%
12/27/22	10/15/37	500,000	500,000	5.060%	25,300	35	0	500,000	100.00%		0.02%	5.06%	0.00%
12/27/22	10/15/37	600,000	600,000	4.750%	28,500	36	0	600,000	100.00%		0.02%	4.75%	0.00%
12/27/22	05/19/39	5,000,000	5,000,000	5.140%	257,000	37	1,346	4,998,654	99.97%		0.19%	5.14%	0.01%
08/15/23	06/15/26	150,000,000	150,000,000	3.625%	5,437,500	38	2,181,818	147,818,182	98.55%		5.70%	4.17%	0.24%
05/15/24	06/01/34	175,000,000	175,000,000	5.904%	10,331,125	39	1,750,000	173,250,000	99.00%		6.65%	6.04%	0.40%
05/15/24	06/01/54	175,000,000	175,000,000	6.201%	10,851,138	40	1,750,000	173,250,000	99.00%		6.65%	6.27%	0.42%
<b>Pennvest Loans</b>													
08/01/04	07/01/24	1,559,205	6,701	2.774%	186	7	13,749	1,545,456	99.12%		0.00%	2.83%	0.00%
06/01/05	11/01/24	5,721,348	127,335	1.156%	1,472	8	29,484	5,691,864	99.48%		0.00%	1.19%	0.00%
01/01/06	12/01/25	5,670,111	389,123	2.763%	10,751	9	34,130	5,635,981	99.40%		0.01%	2.80%	0.00%
09/01/04	08/01/24	5,240,631	53,926	2.774%	1,496	10	7,951	5,232,680	99.85%		0.00%	2.78%	0.00%
11/01/04	10/01/24	3,099,441	62,362	2.432%	1,517	11	5,660	3,093,781	99.82%		0.00%	2.44%	0.00%
10/01/09	09/01/29	2,359,891	713,377	2.547%	18,170	12	0	2,359,891	100.00%		0.03%	2.55%	0.00%
06/01/11	02/01/31	12,150,000	4,649,925	2.690%	125,083	13	0	12,150,000	100.00%		0.18%	2.69%	0.00%
01/05/12	10/01/32	9,936,500	4,861,715	3.117%	151,540	14	0	9,936,500	100.00%		0.18%	3.12%	0.01%
01/05/12	12/01/31	1,606,709	708,465	3.098%	21,948	15	0	1,606,709	100.00%		0.03%	3.10%	0.00%
03/23/12	03/01/41	1,724,610	1,061,802	1.000%	10,618	16	0	1,724,610	100.00%		0.04%	1.00%	0.00%
03/20/12	04/01/31	1,675,790	765,438	2.810%	21,509	17	0	1,675,790	100.00%		0.03%	2.81%	0.00%
03/26/12	03/01/32	1,273,465	486,793	2.690%	13,095	18	0	1,273,465	100.00%		0.02%	2.69%	0.00%
03/22/13	03/01/33	1,378,357	643,802	2.196%	14,138	19	0	1,378,357	100.00%		0.02%	2.20%	0.00%
04/01/15	02/01/37	16,892,338	10,138,880	1.000%	101,389	20	0	16,892,338	100.00%		0.39%	1.00%	0.00%
10/15/15	07/01/40	123,663	83,794	1.000%	838	21	0	123,663	100.00%		0.00%	1.00%	0.00%
10/15/15	07/01/40	969,823	657,151	1.000%	6,572	22	0	969,823	100.00%		0.02%	1.00%	0.00%
04/21/16	05/01/37	4,152,000	2,739,161	1.985%	54,372	23	0	4,152,000	100.00%		0.10%	1.98%	0.00%
12/29/16	11/01/37	7,951,445	5,209,980	1.000%	52,100	24	0	7,951,445	100.00%		0.20%	1.00%	0.00%
06/14/17	11/01/36	5,937,613	3,859,447	2.027%	78,231	25	0	5,937,613	100.00%		0.15%	2.03%	0.00%
		<b>\$2,683,847,347</b>	<b>\$2,631,643,583</b>		<b>\$114,492,347</b>		<b>\$55,630,481</b>	<b>\$2,628,216,866</b>			<b>100.00%</b>		<b>4.59%</b>

**Notes to Debt Schedule**

- (1) Re-issuance 12/21/12 from Parent at a coupon rate of 4.30% for 30 years
- (2) New unsecured borrowing at a coupon rate of 4.30% for 30 years
- (3) Issuances costs included make whole premium of \$10M
- (4) Issuances costs included make whole premium of \$7.2M
- (5) Refinanced June 2019 at a lower rate for the remaining term of the bond
- (6) Refinanced Dec 2019 at a lower rate for the remaining term of the bond
- (7) Farmington Twp., Interest rate 1.387% for first 70 months and 2.774% (07/2009) for remainder
- (8) Sandy Ridge, Interest rate 1.000% for first 60 months and 1.156% (07/2010) for remainder
- (9) Sligo/Shippenville, Interest rate 1.385% for first 86 months and 2.763% (06/2013) for remainder
- (10) Ellwood/Butler Interconnect, Interest rate 1.387% for first 74 months and 2.774% (08/2009) for remainder
- (11) Mahoning & Union Twp, Interest rate 1.305% for first 82 months and 2.432% (10/2009) for remainder
- (12) Hanover & Collier 1.274% first 2009 - 2014 and 2.547% starting Oct 2014
- (13) Mount Pleasant Water System Extension 1.559% first 2011 - 2016 and 2.69% starting March 2016
- (14) Rock Run WTP 2.414% first 2011 - 2016 and 3.117% starting Dec 2017
- (15) Silver Spring Clearwell 2.376% first 2012 - 2016 and 3.098% starting Jan 2017
- (16) Wallaceton Municipal Authority 1.00% for 30 years starting March 2012
- (17) Pittsburgh Meter Improvements 1.799% first 2012 - 2017 and 2.81% starting April 2017
- (18) Pittsburgh Meter Improvement Project Phase II 1.559% first 60 months and 2.69% starting May 2016
- (19) Southwest PA Pipeline Exts Phase II - Interest 1.591% first 5 years - 2.196% starting April 2018
- (20) Clarion WW Act 537 Implementation Project - Interest rate is 1.0% for the life of the loan
- (21) Paint Twp #1 - Interest rate is 1% for the remaining life of the Bond
- (22) Paint Twp #2 - Interest rate is 1% for the remaining life of the Bond
- (23) Fairview Water Main Extension - Interest rate is 1.356% for the first 5 years, 1.985% June 2022 for remaining 5 years
- (24) Debt assumed as part of Scranton Sewer acquisition
- (25) Washington County Main Extension Project - Interest rate is 1.439% until Oct 2021 - 2.027% for the remaining term
- (26) Unsecured borrowing at a coupon rate of 2.80% for 10 years
- (27) Unsecured borrowing at a coupon rate of 3.45% for 30 years
- (28) Issuance costs include make whole premium of \$1.2M
- (29) New unsecured borrowing at a coupon rate of 3.25% for 30 years
- (30) New projected unsecured borrowing at a coupon rate of 4.45% for 10 years
- (31) New unsecured borrowing at a coupon rate of 4.20% for 26 years
- (32) New unsecured borrowing at a coupon rate of 5.05% for 15 years
- (33) New unsecured borrowing at a coupon rate of 5.06% for 15 years
- (34) New unsecured borrowing at a coupon rate of 4.20% for 15 years
- (35) New unsecured borrowing at a coupon rate of 5.06% for 15 years
- (36) New unsecured borrowing at a coupon rate of 4.75% for 15 years
- (37) New unsecured borrowing at a coupon rate of 5.14% for 17 years
- (38) New unsecured borrowing at a coupon rate of 3.625% for 3 years
- (39) New unsecured borrowing at a coupon rate of 5.247% for 10 years
- (40) New unsecured borrowing at a coupon rate of 5.646% for 30 years

PA AMERICAN WATER - TOTAL COMPANY  
SCHEDULE OF DEBT AT June 30, 2025

DATE OF ISSUE	DATE OF MATURITY	AMOUNT ISSUED	AMOUNT OUTSTANDING	COUPON RATE	ANNUAL INTEREST	NOTE #	ISSUANCE EXPENSE	NET PROCEEDS	NET PROCEEDS RATIO	SINKING REQUIR.	PERCENT TO TOTAL	EFFECTIVE COST RATE (1)	WEIGHTED COST RATE
<b>Bonds and Notes</b>													
11/01/03	11/01/33	38,000,000	38,000,000	6.780%	2,576,400		174,946	37,825,054	99.54%		1.35%	6.82%	0.09%
09/01/06	09/01/26	150,000,000	150,000,000	7.800%	11,700,000		2,069,648	147,930,352	98.62%		5.33%	7.94%	0.42%
11/01/04	11/01/31	10,000,000	10,000,000	8.820%	882,000		88,352	9,911,648	99.12%		0.36%	8.91%	0.03%
08/01/04	08/01/25	10,000,000	10,000,000	8.150%	815,000		60,119	9,939,881	99.40%		0.36%	8.21%	0.03%
12/21/12	12/01/42	23,015,000	23,015,000	4.300%	989,645	1	895,945	22,119,055	96.11%		0.82%	4.54%	0.04%
12/17/12	12/01/42	45,000,000	45,000,000	4.300%	1,935,000	2	582,689	44,417,311	98.71%		1.60%	4.38%	0.07%
11/21/11	10/15/37	35,000,000	35,000,000	5.050%	1,767,500		0	35,000,000	100.00%		1.24%	5.05%	0.06%
11/21/11	10/15/37	15,500,000	15,500,000	5.050%	782,750		740,260	14,759,740	95.22%		0.55%	5.39%	0.03%
08/14/14	12/01/42	65,700,000	65,700,000	4.300%	2,825,100		4,432,879	61,267,121	93.25%		2.34%	4.74%	0.11%
08/10/17	09/01/47	240,000,000	240,000,000	3.750%	9,000,000		3,231,905	236,768,095	98.65%		8.54%	3.83%	0.33%
09/13/17	09/01/27	101,426,171	101,426,171	2.950%	2,992,072	3	11,291,519	90,134,652	88.87%		3.61%	4.34%	0.16%
08/09/18	09/01/28	74,739,360	74,739,360	3.750%	2,802,726		623,814	74,115,546	99.17%		2.66%	3.85%	0.10%
08/09/18	09/01/48	227,489,000	227,489,000	4.200%	9,554,538		2,490,214	224,998,786	98.91%		8.09%	4.26%	0.34%
09/11/18	09/01/28	124,719,875	124,719,875	3.750%	4,676,995	4	8,287,774	116,432,101	93.35%		4.44%	4.59%	0.20%
05/23/19	06/01/29	110,000,000	110,000,000	3.450%	3,795,000		1,141,559	108,858,441	98.96%		3.91%	3.57%	0.14%
06/21/19	04/01/39	80,000,000	80,000,000	3.000%	2,400,000	5	1,996,698	78,003,302	97.50%		2.85%	3.17%	0.09%
12/12/19	12/03/29	80,000,000	80,000,000	2.450%	1,960,000	6	1,907,647	78,092,353	97.62%		2.85%	2.72%	0.08%
12/12/19	12/03/29	13,165,000	13,165,000	2.450%	322,543	6	483,935	12,681,065	96.32%		0.47%	2.88%	0.01%
04/14/20	05/01/30	30,000,000	30,000,000	2.800%	840,000	26	373,996	29,626,004	98.75%		1.07%	2.94%	0.03%
04/14/20	05/01/50	90,000,000	90,000,000	3.450%	3,105,000	27	1,141,788	88,858,212	98.73%		3.20%	3.52%	0.11%
06/14/21	06/01/31	47,500,000	47,500,000	2.300%	1,092,500	28	1,798,391	45,701,609	96.21%		1.69%	2.74%	0.05%
05/14/21	06/01/51	47,500,000	47,500,000	3.250%	1,543,750	29	641,731	46,858,269	98.65%		1.69%	3.32%	0.06%
05/05/22	06/01/32	255,000,000	255,000,000	4.450%	11,347,500	30	2,964,855	252,035,145	98.84%		9.07%	4.59%	0.42%
12/27/22	09/01/48	120,000,000	120,000,000	4.200%	5,040,000	31	1,128,649	118,871,351	99.06%		4.27%	4.26%	0.18%
12/27/22	10/15/37	6,000,000	6,000,000	5.050%	303,000	32	0	6,000,000	100.00%		0.21%	5.05%	0.01%
12/27/22	10/15/37	9,000,000	9,000,000	5.060%	455,400	33	117,667	8,882,333	98.69%		0.32%	5.19%	0.02%
12/27/22	10/15/37	3,370,000	3,370,000	4.200%	141,540	34	0	3,370,000	100.00%		0.12%	4.20%	0.01%
12/27/22	10/15/37	500,000	500,000	5.060%	25,300	35	0	500,000	100.00%		0.02%	5.06%	0.00%
12/27/22	10/15/37	600,000	600,000	4.750%	28,500	36	0	600,000	100.00%		0.02%	4.75%	0.00%
12/27/22	05/19/39	5,000,000	5,000,000	5.140%	257,000	37	1,346	4,998,654	99.97%		0.18%	5.14%	0.01%
08/15/23	06/15/26	150,000,000	150,000,000	3.625%	5,437,500	38	2,181,818	147,818,182	98.55%		5.33%	4.17%	0.22%
05/15/24	06/01/34	175,000,000	175,000,000	5.904%	10,331,125	39	1,750,000	173,250,000	99.00%		6.22%	6.04%	0.38%
05/15/24	06/01/54	175,000,000	175,000,000	6.201%	10,851,138	40	1,750,000	173,250,000	99.00%		6.22%	6.27%	0.39%
05/15/25	06/01/35	110,000,000	110,000,000	5.802%	6,382,420	41	1,100,000	108,900,000	99.00%		3.91%	5.94%	0.23%
05/15/25	06/01/55	110,000,000	110,000,000	6.098%	6,708,295	42	1,100,000	108,900,000	99.00%		3.91%	6.17%	0.24%
<b>Pennvest Loans</b>													
01/01/06	12/01/25	5,670,111	131,502	2.763%	3,633	9	34,130	5,635,981	99.40%		0.00%	2.80%	0.00%
10/01/09	09/01/29	2,359,891	584,740	2.547%	14,893	12	-	2,359,891	100.00%		0.02%	2.55%	0.00%
06/01/11	02/01/31	12,150,000	4,004,410	2.690%	107,719	13	-	12,150,000	100.00%		0.14%	2.69%	0.00%
01/05/12	10/01/32	9,936,500	4,353,257	3.117%	135,691	14	-	9,936,500	100.00%		0.15%	3.12%	0.00%
01/05/12	12/01/31	1,606,709	623,228	3.098%	19,308	15	-	1,606,709	100.00%		0.02%	3.10%	0.00%
03/23/12	03/01/41	1,724,610	1,003,277	1.000%	10,033	16	-	1,724,610	100.00%		0.04%	1.00%	0.00%
03/20/12	04/01/31	1,675,790	662,469	2.810%	18,615	17	-	1,675,790	100.00%		0.02%	2.81%	0.00%
03/26/12	03/01/32	1,273,465	421,935	2.690%	11,350	18	-	1,273,465	100.00%		0.02%	2.69%	0.00%
03/22/13	03/01/33	1,378,357	576,376	2.196%	12,657	19	-	1,378,357	100.00%		0.02%	2.20%	0.00%
04/01/15	02/01/37	16,892,338	9,382,548	1.000%	93,825	20	-	16,892,338	100.00%		0.33%	1.00%	0.00%
10/15/15	07/01/40	123,663	78,968	1.000%	790	21	-	123,663	100.00%		0.00%	1.00%	0.00%
10/15/15	07/01/40	969,823	619,299	1.000%	6,193	22	-	969,823	100.00%		0.02%	1.00%	0.00%
04/21/16	05/01/37	4,152,000	2,551,245	1.985%	50,642	23	-	4,152,000	100.00%		0.09%	1.98%	0.00%
12/29/16	11/01/37	7,951,445	4,845,296	1.000%	48,453	24	-	7,951,445	100.00%		0.17%	1.00%	0.00%
06/14/17	11/01/36	5,937,613	3,583,278	2.027%	72,633	25	-	5,937,613	100.00%		0.13%	2.03%	0.00%
		<b>\$2,852,026,723</b>	<b>\$2,811,646,232</b>		<b>\$126,273,672</b>		<b>\$56,584,274</b>	<b>\$2,795,442,449</b>			<b>100.00%</b>		<b>4.71%</b>

**Notes to Debt Schedule**

- (1) Re-issuance 12/21/12 from Parent at a coupon rate of 4.30% for 30 years
- (2) New unsecured borrowing at a coupon rate of 4.30% for 30 years
- (3) Issuances costs included make whole premium of \$10M
- (4) Issuances costs included make whole premium of \$7.2M
- (5) Refinanced June 2019 at a lower rate for the remaining term of the bond
- (6) Refinanced Dec 2019 at a lower rate for the remaining term of the bond
- (9) Sligo/Shippenville, Interest rate 1.385% for first 86 months and 2.763% (06/2013) for remainder
- (12) Hanover & Collier 1.274% first 2009 - 2014 and 2.547% starting Oct 2014
- (13) Mount Pleasant Water System Extension 1.559% first 2011 - 2016 and 2.69% starting March 2016
- (14) Rock Run WTP 2.414% first 2011 - 2016 and 3.117% starting Dec 2017
- (15) Silver Spring Clearwell 2.376% first 2012 - 2016 and 3.098% starting Jan 2017
- (16) Wallaceton Municipal Authority 1.00% for 30 years starting March 2012
- (17) Pittsburgh Meter Improvements 1.799% first 2012 - 2017 and 2.81% starting April 2017
- (18) Pittsburgh Meter Improvement Project Phase II 1.559% first 60 months and 2.69% starting May 2016
- (19) Southwest PA Pipeline Exts Phase II - Interest 1.591% first 5 years - 2.196% starting April 2018
- (20) Clarion WW Act 537 Implementation Project - Interest rate is 1.0% for the life of the loan
- (21) Paint Twp #1 - Interest rate is 1% for the remaining life of the Bond
- (22) Paint Twp #2 - Interest rate is 1% for the remaining life of the Bond
- (23) Fairview Water Main Extension - Interest rate is 1.356% for the first 5 years, 1.985% June 2022 for remaining 5 years
- (24) Debt assumed as part of Scranton Sewer acquisition
- (25) Washington County Main Extension Project - Interest rate is 1.439% until Oct 2021 - 2.027% for the remaining term
- (26) Unsecured borrowing at a coupon rate of 2.80% for 10 years
- (27) Unsecured borrowing at a coupon rate of 3.45% for 30 years
- (28) Issuance costs include make whole premium of \$1.2M
- (29) New unsecured borrowing at a coupon rate of 3.25% for 30 years
- (30) New projected unsecured borrowing at a coupon rate of 4.45% for 10 years
- (31) New unsecured borrowing at a coupon rate of 4.20% for 26 years
- (32) New unsecured borrowing at a coupon rate of 5.05% for 15 years
- (33) New unsecured borrowing at a coupon rate of 5.06% for 15 years
- (34) New unsecured borrowing at a coupon rate of 4.20% for 15 years
- (35) New unsecured borrowing at a coupon rate of 5.06% for 15 years
- (36) New unsecured borrowing at a coupon rate of 4.75% for 15 years
- (37) New unsecured borrowing at a coupon rate of 5.14% for 17 years
- (38) New unsecured borrowing at a coupon rate of 3.625% for 3 years
- (39) New unsecured borrowing at a coupon rate of 5.247% for 10 years
- (40) New unsecured borrowing at a coupon rate of 5.646% for 30 years
- (41) New unsecured borrowing at a coupon rate of 5.101% for 10 years
- (42) New unsecured borrowing at a coupon rate of 5.548% for 30 years

PENNSYLVANIA AMERICAN WATER COMPANY  
SCHEDULE OF PREFERRED STOCK AT JUNE 30, 2023

SERIES	DATE OF ISSUE	DATE OF MATURITY	(1) (3)			PRINCIPAL AMOUNT ISSUED	AMOUNT OUTSTANDING	EXPENSE	NET PROCEEDS	SINKING REQUIR.	ANNUAL DIVIDEND	PERCENT TO TOTAL	EFFECTIVE COST RATE	WEIGHTED COST RATE
			AVG TERM (YRS)	SHARES ISSUED	SHARES OUTSTANDING									
9.75%	23-Apr-71	---	19.5	3,000	1,780	300,000	178,000	5,473	294,527	0	17,355	39.42%	9.96%	3.93%
9.35%	23-Apr-71	---	22.5	4,250	2,735	425,000	273,500	7,275	417,725	0	25,572	60.58%	9.53%	5.77%
				7,250	4,515	725,000	451,500	12,748	712,252	0	42,927	100.00%		9.70%

Notes:

- (1) Determined by taking into account the effect of the annual sinking fund requirements which are met by the retirement of stock which reduce the term of each issue.
- (2) The effective cost for each issue is the yield to maturity using as inputs the average term of issue, stated dividend rate, and net proceeds ratio.
- (3) Series without sinking fund requirements are outstanding in perpetuity. For those series, the effective cost rate is the stated dividend rate divided by the net proceeds ratio.

PENNSYLVANIA AMERICAN WATER COMPANY  
SCHEDULE OF PREFERRED STOCK AT JUNE 30, 2024

SERIES	DATE OF ISSUE	DATE OF MATURITY	(1) (3)			PRINCIPAL AMOUNT ISSUED	AMOUNT OUTSTANDING	EXPENSE	NET PROCEEDS	SINKING REQUIR.	ANNUAL DIVIDEND	PERCENT TO TOTAL	EFFECTIVE COST RATE	WEIGHTED COST RATE
			AVG TERM (YRS)	SHARES ISSUED	SHARES OUTSTANDING									
				-	-	-	-	-	-	0	-	0.00%		0.00%

Notes:

- (1) Determined by taking into account the effect of the annual sinking fund requirements which are met by the retirement of stock which reduce the term of each issue.
- (2) The effective cost for each issue is the yield to maturity using as inputs the average term of issue, stated dividend rate, and net proceeds ratio.
- (3) Series without sinking fund requirements are outstanding in perpetuity. For those series, the effective cost rate is the stated dividend rate divided by the net proceeds ratio.

PENNSYLVANIA AMERICAN WATER COMPANY  
SCHEDULE OF PREFERRED STOCK AT JUNE 30, 2025

SERIES	DATE OF ISSUE	DATE OF MATURITY	(1) (3)			PRINCIPAL AMOUNT ISSUED	AMOUNT OUTSTANDING	EXPENSE	NET PROCEEDS	SINKING REQUIR.	ANNUAL DIVIDEND	PERCENT TO TOTAL	EFFECTIVE COST RATE	WEIGHTED COST RATE
			AVG TERM (YRS)	SHARES ISSUED	SHARES OUTSTANDING									
				-	-	-	-	-	-	0	-	0.00%		0.00%

Notes:

- (1) Determined by taking into account the effect of the annual sinking fund requirements which are met by the retirement of stock which reduce the term of each issue.
- (2) The effective cost for each issue is the yield to maturity using as inputs the average term of issue, stated dividend rate, and net proceeds ratio.
- (3) Series without sinking fund requirements are outstanding in perpetuity. For those series, the effective cost rate is the stated dividend rate divided by the net proceeds ratio.



PENNSYLVANIA AMERICAN WATER  
*Common Stock Stock as of June 30, 2023*

<b>Designation of Kind and Class</b> <b>(a)</b>	<b>Par Value</b> <b>Per Share</b> <b>(b)</b>	<b>Number</b> <b>of Shares</b> <b>Authorized</b> <b>(c)</b>	<b>Amount</b> <b>Authorized</b> <b>(d)</b>	<b>Number of Shares</b> <b>Issued &amp;</b> <b>Outstanding</b> <b>(e)</b>	<b>Amount</b> <b>Outstanding</b> <b>(f)</b>
Common Stock	5.50	<u>10,000,000</u>	<u>\$55,000,000</u>	<u>3,910,343</u>	<u>\$21,506,887</u>