

PENNSYLVANIA-AMERICAN WATER COMPANY

**2022 GENERAL BASE RATE CASE
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

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

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 STABILIZATION MECHANISM, AND COMPLIANCE WITH SECTION 1301.1(B) OF THE PENNSYLVANIA PUBLIC UTILITY CODE; (4) COMMITMENTS FROM PRIOR RATE CASE SETTLEMENT AND COMPARISON OF CLAIMED RATE BASE AND EXPENSES FROM THE LAST RATE CASE; (5) PERFORMANCE FACTORS UNDER SECTION 523 OF THE CODE AND THE POLICY STATEMENT AT 69 PA. CODE § 69.711; AND (6) STORMWATER CHARGES

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

DATE: APRIL 29, 2022

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 for Pennsylvania, and now in
14 my current role as Senior Director of Rates and Regulatory with regulatory responsibility for
15 Pennsylvania and West Virginia. In these positions, I am responsible for preparing and
16 presenting rate applications as well as certain aspects of the financial, budgeting and
17 regulatory functions of the Company.

18 Prior to my employment at the Service Company, I was employed by the Pennsylvania
19 Office of Consumer Advocate (“OCA”) as a Regulatory Analyst from September 2012 to
20 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 December 31, 2023. Second, as part of this discussion, I address the affordability of
15 water and wastewater service under present and proposed rates; explain the sources of the
16 accounting data that were the starting point for the Company’s rate case presentation; identify
17 the test years the Company is employing in this case; and give an overview of PAWC’s
18 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 a Revenue Stabilization Mechanism; and
4 (3) The Company's compliance with Section 1301.1(b) of the Code by calculating the
5 "differential" in tax costs recognized for ratemaking purposes before and after the
6 enactment of Act 40 of 2016 and identifying how 50% of that differential will be
7 invested in water and wastewater infrastructure.

8 Fourth, I will discuss, or identify other witnesses who discuss, the Company's
9 compliance with commitments it made in the Joint Petition for Non-Unanimous Settlement of
10 Rate Investigation in the Company's last base rate case.

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

16 Finally, I discuss the Company's commitment in the last base rate case regarding
17 stormwater fees for its combined sewer systems ("CSSs"), including the results of the
18 Stormwater Fee Feasibility Study ("Feasibility Study") prepared by Gannett Fleming, Inc.

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

21 A. In addition to me, the following witnesses will be responsible for presenting PAWC's direct
22 case:

- 1 • **PAWC Statement No. 2 - Jim Runzer** is the Vice President of Operations for PAWC.
2 Mr. Runzer discusses the general operations of the Company; PAWC's commitment to
3 supplying high quality water; initiatives taken to increase efficiency, enhance service and
4 control costs; employee safety and employee training and development; support for
5 employee levels; and efforts to control non-revenue water.
- 6 • **PAWC Statement No. 3 - Bruce W. Aiton** is the Vice President of Engineering for
7 PAWC. Mr. Aiton's testimony discusses the Company's claim for plant additions to be
8 placed in service during the future test year ("FTY") ending December 31, 2022 and fully
9 projected future test year ("FPFTY") ending December 31, 2023, PAWC's major
10 acquisitions since the last case, operational and regulatory risks associated with the
11 provision of public water and wastewater service, PAWC's proposed modifications to its
12 lead service line replacement plan, the Company's efforts to evaluate the feasibility of
13 adopting a separate stormwater fee for its CSS customers, and issues related to the
14 Company's emergency interconnection agreement with the Middlesex Township
15 Municipal Authority.
- 16 • **PAWC Statement No. 4 - Stacey D. Gress** is Director of Rates and Regulatory for
17 PAWC. Her testimony discusses the Company's claims for rate base, depreciation and
18 amortization, taxes other than income and acquisitions since its last rate case that the
19 Company has reflected in its proposed rate base in this case, certain specific expense items
20 not covered by other witnesses, proposed tariff changes, the allocation of expenses
21 between water and wastewater operations, and PAWC's rate structure and rate design
22 proposals.

- 1 • **PAWC Statement No. 5 - Lori O'Malley** is a Senior Manager Regulatory Services for
2 AWWSC. Her testimony addresses the Company's claim for labor and labor-related
3 expenses, Service Company expenses, miscellaneous expenses and inflation.
- 4 • **PAWC Statement No. 6 - Thomas Markward** is a Principal Regulatory Analyst of
5 Regulatory Services for AWWSC. His testimony supports the Company's adjustments
6 for purchased power, waste disposal, purchased water, chemicals, transportation,
7 insurance other than group, and rent.
- 8 • **PAWC Statement No. 7 - Bernard J. Grundusky, Jr.** is Senior Director of Business
9 Development for PAWC. His testimony describes various acquisitions that have closed
10 or are pending, since the Company's last base rate case. He will also discuss the
11 Company's proposed wastewater capacity reservation fee discount.
- 12 • **PAWC Statement No. 8 - Melissa Ciullo** is Vice President of Tax. Her testimony
13 supports the Company's claim for Federal and state income taxes.
- 14 • **PAWC Statement No. 9 - J. Cas Swiz** is Senior Director of Regulatory Services of
15 AWWSC. His testimony discusses PAWC's claim for uncollectible accounts expense and
16 proposed tracking mechanism. He also supports the Company's request to recover the
17 deferred amounts recorded to the regulatory asset for incremental COVID-19 related
18 financial impacts authorized by the Commission's September 15, 2021 Order at Docket
19 No. P-2020-3022426.
- 20 • **PAWC Statement No. 10 - Charles B. Rea** is Senior Director of Regulatory Services of
21 AWWSC. His testimony explains the design of current and proposed tariff rates, presents
22 the Company's affordability analyses for water and wastewater service, describes the
23 Company's analysis of residential, commercial, and municipal water consumption,

discusses the Company's claimed revenues, and supports the Company's proposed Revenue Stabilization Mechanism.

- **PAWC Statement No. 11 - John J. Spanos** is President of Gannett Fleming Valuation and Rate Consultants LLC. Mr. Spanos' testimony explains the development of the depreciated original cost of the Company's utility plant in service and its claims for annual depreciation expense.
- **PAWC Statement No. 12 - Constance E. Heppenstall** is Senior Project Manager for rate studies of Gannett Fleming Valuation and Rate Consultants LLC. Ms. Heppenstall's testimony explains the allocation of the cost of service to customer classifications and the identification of stormwater-related costs of service of CSSs.
- **PAWC Statement No. 13 - Ann E. Bulkley** is a Principal with The Brattle Group. Ms. Bulkley's testimony provides a recommendation regarding PAWC's authorized return on equity and assesses the reasonableness of its proposed capital structure for ratemaking purposes.
- **PAWC Statement No. 14 - Nathan D. Walker** is a Senior Water Resources Planner with Gannett Fleming, Inc. Mr. Walker's testimony explains the Feasibility Study that examines the principal challenges to developing and implementing a separate charge to recover the cost of managing stormwater that enters the CSSs that PAWC owns and operates in its Kane, McKeesport, and Scranton service areas.

OVERVIEW:

GENERAL INFORMATION ABOUT THE COMPANY AND THIS CASE

Reasons For Rate Relief Requested

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

1 A. The Company is seeking an increase in the rates of its water and wastewater operations that
2 will produce additional annual operating revenues of \$173.2 million, or 20.8%, over PAWC's
3 annualized total revenues at present rates including Distribution System Improvement Charge
4 revenue. The key elements of the Company's rate request are summarized on Schedule AEE-1
5 to this statement. Schedule AEE-2 to this statement is a more detailed summary that provides
6 an overview of revenue requirements and revenues at existing and proposed rates on a total-
7 Company basis.

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

9 A. The most significant driver of this rate case is PAWC's ongoing infrastructure investment.
10 As explained in Mr. Aiton's direct testimony (PAWC Statement No. 3), maintaining PAWC's
11 facilities requires substantial capital investment. PAWC has made, and must continue to
12 make, substantial investments in new and replacement plant and equipment to replace aging
13 infrastructure, comply with mandates imposed by the Safe Drinking Water Act, the Clean
14 Water Act and the Clean Streams Law and their associated regulations, and meet customers'
15 demands for water and wastewater service. From the end of the FPFTY in the Company's
16 last base rate case (December 31, 2021) through the end of the FPFTY in this case
17 (December 31, 2023), the Company will have invested over \$1.1 billion in new or replacement
18 plant and equipment, and the overwhelming majority of this investment is and will be in
19 source of supply, treatment, distribution and collection assets. Part of this investment is also
20 being used to improve service to small, troubled water and wastewater systems that PAWC
21 has acquired. While the acquisition of smaller systems will result in increased economies of
22 scale over time, the Company is currently incurring increased capital investment and a
23 moderate increase in operating costs.

1 To address these diverse capital needs, PAWC must raise substantial amounts of debt
2 and equity capital and, in the process, must demonstrate its ability to provide a reasonable
3 return for investors to commit their funds to the Company for its use. On an annual basis,
4 PAWC's capital investment program is greater than its allowance for depreciation, which
5 results in negative free cash flow. Therefore, the Company needs to seek financing for its
6 capital investments beyond any internally generated cash flow. As shown in Schedule AEE-2
7 and explained in the Statement of Specific Reasons for Proposed Increase in Rates that
8 accompanies the Company's filing, absent rate relief, the Company's overall rate of return on
9 an original cost basis will be only 5.52% as of December 31, 2023. More significantly, the
10 indicated return on common equity is anticipated to be 6.54% as of December 31, 2023, which
11 is clearly far less than is required.

12 **Q. You indicated that operating expenses are moderately increasing. Are increased**
13 **operating costs a major driver of this case?**

14 A. No. Although the Company's FPFTY costs reflect a moderate increase in operating costs, the
15 Company's claims for its water operations' operating and maintenance ("O&M") expenses,
16 excluding depreciation, will increase by a compound annual growth rate of 2.2% in the two
17 years since the Company's last base rate proceeding. The Company's ability to mitigate O&M
18 increases is attributable to the Company's prudent management of operating costs. Our
19 management initiatives, as explained by Mr. Runzer (PAWC Statement No. 2), and our
20 prudent capital investments described by Mr. Aiton have enabled us to work more efficiently
21 and effectively in managing O&M expenses.

22 **Affordability of Water and Wastewater Service**

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

1 A. PAWC's proposed rate increase is reasonable and appropriate because, as I previously
2 discussed, it is driven primarily by investments that keep our water and wastewater service
3 safe and reliable. Such investments cannot be avoided and are in the long-term best interests
4 of our customers. If such investment is not made, our customers will be adversely impacted
5 in the long run as costs will increase even more. For example, when mains are not replaced
6 in a timely fashion, or equipment is neglected, our costs rise, as unanticipated main breaks
7 create water quality issues, unexpected expenses, and disruption to our customers and
8 communities. Similarly, equipment in need of replacement makes workers less efficient and
9 can create safety issues.

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

11 A. Yes, we have. We know our water and wastewater service is critical, and we know how
12 important it is for that service to remain affordable. A Zone 1 residential customer using 106
13 gallons of water per day would pay approximately \$906 per year for water under our rate
14 proposal. Put another way, under the Company's proposed rates in the Central Tariff Zone,
15 an annual residential bill of \$906 equates to less than \$2.50 per day. Therefore, for about
16 \$2.50 per day an average residential customer has all the water they and their family need to
17 drink, cook, wash, and maintain their general health and well-being.

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

20 A. Yes. Mr. Rea (PAWC Statement No. 10) has conducted a detailed analysis of the affordability
21 of our historical and proposed rates and relates the median household income ("MHI") for
22 customers in our service territory to our utility bills over time. Mr. Rea's analysis
23 demonstrates that our water and wastewater service, overall, has been affordable over time

1 and will remain well within the range of a percentage of MHI normally viewed as affordable.
2 His testimony compares historical average monthly water bills to monthly household income
3 for PAWC customers from 2010 through 2021, both in absolute terms and in terms of bill to
4 income (“BTI”) ratios. Mr. Rea then analyzed the Company’s proposed bills in this case and
5 estimated MHI for PAWC customers during the FPFTY. His analysis shows that BTI Ratios
6 for PAWC’s residential customer base have improved over time from 1.01% in 2010 to 0.89%
7 in 2021 (estimated) and are expected to be 1.08% under the Company’s proposed rates in this
8 case during the FPFTY. Mr. Rea shows in Exhibit CBR-4 that BTI Ratios for wastewater
9 service have ranged between 0.8% and 1.2% from 2010 through 2021 (estimated) and is
10 expected to be 1.35% under the Company’s proposed wastewater rates in this case. This is a
11 tangible demonstration that our customer bills have become more affordable and will remain
12 affordable even with PAWC’s requested rate increase.

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

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

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

1 A. Yes, some of our customers face challenging economic circumstances. Thus, Mr. Rea also
2 examined the affordability of our rates for customers at different MHI levels. His assessment
3 compares annualized bills for “basic water and/or wastewater service” (i.e., service that is
4 necessary and reasonable to meet basic household needs for drinking, cooking, sanitation, and
5 general health service that does not include seasonal discretionary water use) to measures of
6 household income for lower income groups. The Company estimates that there are
7 approximately 100,000 residential customers in its service areas with household incomes at
8 or below 150% of Federal Poverty Level (“FPL”), or approximately 15% of the Company’s
9 residential water customer base. For these customers, the average BTI Ratio is approximately
10 3.6% for basic water service, which we define as 40 gallons of water per household resident
11 per day. For these customers, the Company continues to offer various assistance programs,
12 which I describe below. The Company is also proposing in this case an expanded low-income
13 tariff discount program to further address the affordability of water or wastewater service for
14 low-income customers, as explained in more detail by Mr. Rea.

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

17 A. PAWC offers several customer assistance programs to help our low-income customers. The
18 Company supports low-income customers through PAWC’s H2O Help to Others Program™
19 (“H2O”). The H2O program offers a three-fold approach, including bill discounts for water
20 and wastewater service, hardship grants, and water conservation assistance. The bill discount
21 program currently includes a water discount of 85% of the service charge and 10% of usage
22 charges and a wastewater discount of 30% on the total bill. I discuss proposed changes to the
23 low-income discount below.

1 The hardship grant assistance program is a bill-paying assistance program funded by
2 PAWC shareholders and donations from customers and others who want to help our customers
3 in need. Customers who qualify may receive grants of up to \$500 annually toward their water
4 bill and \$500 annually toward their wastewater bill. The hardship grant assistance program is
5 administered by Dollar Energy Fund, an independent, non-profit organization.

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

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

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

18 A. Yes. The Low-Income Household Water Assistance Program ("LIHWAP"), which was
19 authorized by the federal government pursuant to the American Rescue Plan Act of 2021 and
20 the Consolidated Appropriations Act, 2021, has been providing, and continues to provide, bill
21 assistance for our qualifying customers. At the state level, this program is administered by
22 the Pennsylvania Department of Human Services ("DHS"). PAWC has a vendor agreement

1 with the DHS. Customers can apply online at www.compass.state.pa.us, call DHS and request
2 an application or apply in person at a local county assistance office.

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

4 A. Yes. The Emergency Rental Assistance Program (“ERAP”), which was authorized by the
5 federal government pursuant to the Consolidated Appropriations Act of 2021, provided
6 funding to states to establish an emergency rental assistance program. The program offers
7 rental and utility assistance to help Pennsylvanians avoid eviction or loss of utility service.
8 The ERAP is administered by each county.

9 Allegheny County through the Allegheny County COVID-19 Utility Assistance
10 Program provides utility bill payment assistance to residential customers (homeowners and
11 renters) facing higher, or outstanding, water and wastewater bills due to the COVID-19.
12 PAWC partnered with Dollar Energy to expedite customer applications as funding was and
13 continues to be distributed on a first come, first serve basis.

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

16 A. The Company is proposing an expanded low-income discount tariff to help customers with
17 household incomes at or below 150% of the FPL. As explained by Mr. Rea, the Company’s
18 proposed low-income discount program will make water and wastewater service more
19 affordable for this group of customers by offering a tiered discount for qualifying customers,
20 with the discount based on the customers’ percentage of federal poverty level. The proposed
21 discount offered under this tariff would reduce the typical basic water service (“BWS”) bill
22 as shown in the chart below:

Proposed Low Income Discount Program

<i>Income Group</i>	BWS Bill Pre-Discount	Pre- Discount BTI Ratio	BWS Bill Post-Discount	Post-Discount BTI Ratio
<i>0% - 50% FPL</i>	\$66.40	18.82%	\$13.28	3.76%
<i>51% - 100% FPL</i>	\$76.28	6.37%	\$35.14	2.87%
<i>101% - 150% FPL</i>	\$64.96	3.58%	\$45.72	2.50%

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

A. In accordance with a stipulation between the Company and the Commission on Economic Opportunity in the Company’s 2020 base rate case, on August 25, 2021, PAWC filed with the Commission a Petition of Pennsylvania-American Water Company for Approval of an Arrearage Management Plan at Docket No. P-2021-3028195. Under this program, qualifying customers will receive \$25 of arrearage forgiveness per month. The parties reached a settlement in principle of all issues in the proceeding. The settlement is anticipated to be filed with the Commission in May 2022.

Q. When will the Company implement its AMP?

A. The settlement in principle of the AMP proceeding provides that the Company will implement the plan no later than twelve months after the Commission issues a Final Order in the AMP proceeding. The Company anticipates implementing the AMP as close to the effective date of new rates as possible, pending Commission approval of the settlement prior to the effective date of new rates. As noted in Ms. O’Malley’s direct testimony (PAWC Statement No. 5), the Company has included the cost of the arrearage management plan in its expense claims in this case, which is consistent with the settlement in principle.

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

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

6 **Source Of Accounting Data And The Test Years Employed By The Company**

7 **Q. What is PAWC's principal accounting exhibit in this case?**

8 A. PAWC Exhibit No. 3-A is PAWC's principal accounting exhibit in this case. PAWC Exhibit
9 No. 3-A includes six separate revenue requirement studies, one of which relates to the
10 Company's water operations and five which relate to its wastewater operations.

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

12 A. The starting point for each of the revenue requirement studies in PAWC Exhibit No. 3-A is
13 the accounting information recorded in the Company's books and records for the twelve
14 months ended December 31, 2021. The Company's books and records are maintained in
15 conformity with the National Association of Regulatory Utility Commissioners ("NARUC")
16 Uniform System of Accounts for Water Companies, the NARUC Uniform System of
17 Accounts for Wastewater Companies and generally accepted accounting principles. Because
18 the purpose of ratemaking is to establish rates to be applied in the future, per-book data were
19 adjusted on a pro forma basis, as appropriate, to reflect changes in operating conditions that
20 are not fully reflected in the book data for the historic test year ("HTY"), the FTY or the
21 FPFTY.

1 **Q. Why is the Company presenting six separate revenue requirement studies in PAWC**
2 **Exhibit No. 3-A?**

3 **A.** The Company is presenting six separate revenue requirement studies in its Exhibit No. 3-A to
4 comply with the terms set forth in the Joint Petition for Non-Unanimous Settlement of Rate
5 Investigation (“Joint Petition for Non-Unanimous Settlement”) of its last base rate case that
6 was approved by the Commission, at Docket No. R-2020-3019369, and the terms and
7 conditions of the Commission’s approvals of PAWC’s acquisitions of certain water and
8 wastewater systems that are included in this case.

9 Paragraph 28 of the Joint Petition for Non-Unanimous Settlement provides that “in
10 future rate filings, PAWC will submit one or more separate stormwater and wastewater cost-
11 of-service studies for each of its combined sewer systems (‘CSSs’) currently consisting of
12 McKeesport, Scranton and Kane and including any other CSS acquired by the time of each of
13 the future rate filings”¹ and further provides that “the Company is not required to provide a
14 separate study for each combined sewer system.” Accordingly, PAWC Exhibit No. 3-A
15 includes a separate revenue requirement study, in aggregate, for the CSSs it currently owns,
16 which consist of the Scranton, McKeesport, and Kane systems.

17 Consistent with the Commission’s approvals under Section 1329 of the Code for the
18 Company to acquire the Sanitary Sewer Systems (“SSS”) in Royersford Borough,
19 Upper Pottsgrove Township, and the City of York, the Company is also submitting separate
20 cost of service studies for those systems in this next base rate case.

¹ The cost-of-service studies that separately identify and quantify storm water costs are sponsored by Ms. Constance E. Heppenstall and are explained in her direct testimony (PAWC Statement No. 12).

1 **Q. In the Company's last base rate case, it submitted separate revenue requirement studies**
2 **for Steelton Water Operations, Exeter Wastewater SSS Operations and Sadsbury**
3 **Wastewater SSS Operations. Please identify where the information with respect to these**
4 **systems is included in the Company's filing in this case.**

5 A. The cost of service of the Steelton Water system is included in the Company's consolidated
6 Water Operations revenue requirement. The cost of service of the Exeter and Sadsbury
7 wastewater systems is included in the Wastewater SSS General Operations revenue
8 requirement.

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

10 A. As previously explained, PAWC Exhibit No. 3-A contains six separate revenue requirement
11 studies, each of which is set forth at a separate tab within the exhibit, consisting of the
12 following:

Tab 1	Water Operations
Tab 2	Wastewater Sanitary Sewer Systems General Operations
Tab 3	Royersford Wastewater ("WW") Operations
Tab 4	Upper Pottsgrove WW Operations
Tab 5	York WW Operations
Tab 6	Wastewater Combined Sewer Systems Operations

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

1 In order to reflect data for the FPFTY, PAWC Exhibit No. 3-A presents PAWC's rate
2 base, revenues, expenses and tax information on the basis of an HTY ended December 31,
3 2021, a FTY ending December 31, 2022, and a FPFTY ending December 31, 2023. The
4 support for the Company's requested revenue increase is based principally upon the data
5 presented for the FPFTY. Within PAWC Exhibit No. 3-A, HTY data are generally identified
6 by the title or heading "Present Rates at December 31, 2021" and FTY data are generally
7 identified by the title or heading "Present Rates at December 31, 2022." Data for the FPFTY
8 are generally identified by the title or heading "Present Rates at December 31, 2023."

9 **SUPPORT FOR SPECIFIC ELEMENTS OF THE COMPANY'S FILING**

10 **Development Of Water And Wastewater Revenue Requirements**
11 **and The Application Of Section 1311(c) Of The Code**

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

14 A. Yes, it has. As authorized by Section 1311(c) of the Code, PAWC is proposing to allocate in
15 the FPFTY approximately \$73 million of its wastewater cost of service to its water operations,
16 which is approximately 9% of total proposed water revenue. Thus, the authority granted by
17 Act 11 would be used to mitigate the increases that wastewater customers in certain service
18 areas would experience if their rates were established on a stand-alone basis. The Company's
19 proposed rates would also make meaningful progress in moving the rates of its separate
20 wastewater rate zones closer to a single consolidated wastewater rate design for all of the
21 Company's wastewater operations.

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

Revenue Requirement Allocated from Wastewater to Water Customer Base	
Wastewater Operations	FPFTY 2023
Wastewater Sanitary Sewer Systems General Operations	12,786,945
Royersford Wastewater WW Operations	1,504,562
Upper Pottsgrove WW Operations	859,192
York WW Operations	18,985,985
Wastewater Combined Sewer Systems Operations	38,809,970
Total	\$72,946,653

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

A. Based on the Company’s cost of service and proposed customer class revenue allocation in this case, the allocation would increase the monthly water bill of a residential water customer by approximately \$6.42 per month at proposed rates.

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

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

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

A. The phrase is not specifically defined in Section 1311(c). However, I am advised by counsel that the Commission provided guidance on the meaning of “in the public interest” in the

1 Company's last base rate proceeding with respect to acquisitions that were approved under
2 Section 1329 of the Public Utility Code.² The Commission held that it is in the public interest
3 for a utility to recover a portion of the wastewater revenue requirement associated with an
4 acquired wastewater system from the combined water and wastewater customer base,
5 "because otherwise, large viable public utilities would be discouraged from acquiring
6 municipal and wastewater systems and contravene legislative intent and the Commission's
7 policy of encouraging consolidation and regionalization."³

8 **Q. Is the public interest served by distributing a portion of the revenue requirement of the**
9 **Company's wastewater operations across PAWC's approximately 678,000 water**
10 **customers?**

11 A. Yes, it is. As indicated by the Commission in the Company's last rate case, it is in the public
12 interest for the Company to recover a portion of its wastewater revenue requirement associated
13 with its acquired wastewater systems from its combined water and wastewater customer base.⁴
14 Distributing a portion of the revenue requirement of the Company's wastewater operations
15 across all of the Company's approximately 678,000 water customers is consistent with
16 legislative intent and the important policy considerations underlying Sections 1311(c) and
17 Section 1329, including ameliorating rate impacts on wastewater customers while imposing
18 only a modest increase on the water bills of the much larger base of water customers, and
19 promoting the Commission's policy of encouraging consolidation and regionalization.

20 The amendment Act 11 made to Section 1311(c) has extended to combined water and
21 wastewater utilities a policy similar to the concept of single tariff pricing, which this

² *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.

³ *Id.*

⁴ *Id.*

Commission has approved and encouraged water utilities to adopt for nearly forty years. Like single tariff pricing, allocating a portion of wastewater revenue requirement to the entire customer base recognizes that: (1) PAWC is an integrated water and wastewater company; (2) a multitude of functions needed to provide water and wastewater service are performed on a consolidated basis by PAWC employees and by the Service Company; (3) providing both water and wastewater service creates opportunities, over time, to capture additional economies of scale and scope; (4) the need for capital additions in different parts of the Company's water and wastewater systems will be higher in some areas and lower in others at any given point in time, but will average out over time ; (5) "averaging" water and wastewater costs is very much like the cost averaging that single tariff pricing is explicitly designed to accomplish and stabilizes rates and mitigates rate impacts for all customers over the long run. Consistent with these factors, PAWC's proposal represents a reasonable approach to allocating revenue requirement that supports economies of scale over the long term.

Proposed Revenue Stabilization Mechanism

Q. Is the Company proposing a Revenue Stabilization Mechanism in this proceeding?

A. Yes. As outlined in the testimony of PAWC witness Charles Rea, the Company requests approval of a Revenue Stabilization Mechanism ("RSM") as part of this proceeding. The RSM is a decoupling mechanism which will simply align the revenue upon which the Company's rates are established with the revenue that is actually billed to customers.

Q. Does Pennsylvania law allow the Commission to approve a Revenue Stabilization Mechanism as PAWC requests?

A. Yes, 66 Pa. Code C.S. § 1330(b) was added to the Public Utility Code in a 2018 amendment. I am advised by counsel that Section 1330 allows the Commission to approve an application

by PAWC to establish various forms of alternative ratemaking. One such form of alternative ratemaking, as identified in Section 1330(b)(i), is a decoupling mechanism.

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

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

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

The Commission policy objectives state that the utility's alternative ratemaking proposals: "should encourage and sustain investment" through mechanisms that (1) "enhance safety, security, reliability or availability of utility infrastructure", and (2) are "consistent with the efficient consumption of utility service."

Q. How does the Company's proposed RSM meet these policy objectives?

A. The authorized water and wastewater revenue requirements approved by the Commission represent the amount of revenue the Commission determines that the Company needs to operate, maintain, and invest in its water and wastewater system in a prudent and efficient manner. The Company's investment priorities continue to focus on non-revenue producing investments (e.g., water efficiency investments, aging infrastructure replacement and compliance with environmental regulations) (PAWC Statement No. 3). A rate design that relies heavily on sales volumes means that the Company's revenues are driven by factors which are largely outside of its control. The need to recover a rate of return on these significant investments, however, does not vary with usage. The ability to reliably recover the Company's approved revenue requirement under an RSM improves the Company's ability to plan, manage, maintain, and invest in the facilities necessary to continue providing safe, reliable,

1 and high-quality water and wastewater service at a reasonable cost to customers (PAWC
2 Statement No. 3).

3 Further, the volumetric components of the Company's current rate structure can create
4 a "throughput incentive": the more water customers use, the more revenue the Company
5 collects and, to the extent this revenue exceeds variable costs, the better its financial
6 performance. Rather than implicitly encouraging water use and penalizing a water utility for
7 encouraging conservation, an RSM removes a disincentive for utilities to promote end use
8 efficiency. Removing the disincentive to improving end-use efficiency is consistent with the
9 policy objective of "the efficient consumption of utility service."

10 Just as prudent energy efficiency investments can be the least-cost investments in
11 energy resources, improving water efficiency reduces operating costs (e.g., energy, treatment
12 and residuals handling/storage costs) and reduces the need to develop new supplies and
13 expand our water infrastructure. Ultimately, it is customers who will benefit from an RSM
14 because it provides a consistent regulatory framework to support long-term capital investment,
15 properly matches cost incurrence with cost recovery, and facilitates more consistent and
16 efficient planning and deployment of resources.

17 **Q. Are there other benefits an RSM provides?**

18 A. Yes, there are. One of the contested aspects of a rate case is often the forecast level of utility
19 sales during the year the new rates will be in effect. As a ratemaking tool, an RSM will
20 effectively reduce or even eliminate the contentiousness related to the process of determining
21 the water volumes used to set water rates. With the implementation of a RSM that allows for
22 adjustments between rate cases, the Company will not need to file to recover revenue shortfalls

1 in an environment of falling sales. On the other hand, when the company does experience
2 sales growth, it will credit the revenue in excess of the authorized amount.

3 **Q. Have you reviewed Ms. Ciullo’s direct testimony regarding Section 1301.1(b)(1) of the**
4 **Code and the Company’s plan to invest 50% of the “differential” resulting from the**
5 **implementation of Act 40?**

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

7 **Q. How does the Company plan to invest 50% of the “differential” (approximately**
8 **\$1.6 million per year) that Ms. Ciullo calculated?**

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

13 **2020 RATE CASE SETTLEMENT COMMITMENTS**

14
15 **Q. Has the Company complied with the terms and conditions of the Joint Petition for Non-**
16 **Unanimous Settlement approved by the Commission in its 2020 base rate case?**

17 A. Yes, it has. The Joint Petition for Non-Unanimous Settlement, together with its attachments
18 and accompanying exhibits, is a lengthy document setting forth a number of terms and
19 conditions. I will briefly explain PAWC’s compliance with major commitments in the Joint
20 Petition for Non-Unanimous Settlement directly affecting customer rates, customer service
21 and assistance to low-income customers, which I will reference by the applicable paragraph
22 of the Joint Petition for Non-Unanimous Settlement. I address the Company’s commitments
23 relating to stormwater fees later in my testimony.

1 **Paragraph Nos. 23 through 25.** The annualized credit of \$10.5 million to flow
2 through to customers the excess accumulated deferred income taxes (“EADIT”) associated
3 with the amortization of EADIT during the period January 1, 2018 through December 31,
4 2020 is continuing through January 28, 2023. The adoption of this credit mechanism
5 accelerated the flow-back to customers of this portion of the Company’s EADIT amortization
6 and substantially mitigated the effect of the increase in base rates approved in its last case.

7 **Paragraph No. 28.** The Company submitted with this filing a separate stormwater
8 and wastewater cost of service study for its three CSSs, Scranton, McKeesport and Kane.
9 Ms. Heppenstall is sponsoring the Company’s cost of service studies for its water and
10 wastewater operations. While the Company submitted a separate cost-of-service study and
11 revenue requirement for its CSS operations to comply with its commitment in the Joint
12 Petition for Non-Unanimous Settlement, going forward, the Company recommends moving
13 to single tariff pricing for all wastewater operations as I discuss later in my testimony.

14 **Paragraph Nos. 34 through 39.** The Company adopted the COVID-19 relief
15 measures included in the Joint Petition for Non-Unanimous Settlement. During the midst of
16 the pandemic, PAWC waived reconnection fees for customers at or below 200% of the FPL
17 and the good faith payment requirement for its H2O Help to Others program. PAWC also
18 permitted customers to self-certify their income to qualify for the H2O program. In addition,
19 PAWC expanded its community outreach and developed a community outreach plan that
20 includes a strategy and tactics to enroll eligible customers with income at or below 50% of
21 FPIG. Lastly, PAWC increased its annual contribution to the H2O Help to Others hardship
22 grant assistance program from \$400,000 to \$500,000 for water operations and from \$50,000
23 to \$100,000 for wastewater operations.

1 **Paragraph Nos. 40 through 44.** The Company implemented the requirements
2 identified in the low-income program section of the Joint Petition for Non-Unanimous
3 Settlement. PAWC established a Customer Assistance Advisory Group to solicit input to
4 enhance its H2O program. This group convened on May 24, 2021, August 16, 2021,
5 November 15, 2021, and February 28, 2022. The purpose of this group is to develop strategies
6 to expand outreach to low-income communities and identify new sources of funding for the
7 H2O program. In addition, PAWC updated its training materials and customer service center
8 scripts to direct customers who are having trouble paying their bills or seeking financial
9 assistance to PAWC's customer assistance programs.

10 **Paragraph 45.** The Company is tracking low-income customers protected from
11 winter moratorium termination consistent with 52 Pa. Code §§ 56.100(a) and 56.251.

12 **Paragraphs 46 through 49.** The Company adopted the procedures related to the
13 Discontinuance of Services to Leased Premises Act ("DSLPA") in the Joint Petition for Non-
14 Unanimous Settlement. PAWC adopted a standard form for landlords to verify when a unit
15 is unoccupied at the time of disconnection of service. PAWC also agreed to accept a driver's
16 license, photo identification, medical assistance, food stamp identification, and similar
17 documents issued by a public agency to establish tenancy for purposes of the DSLPA. Finally,
18 PAWC modified its policies and training materials as provided for in the Joint Petition for
19 Non-Unanimous Settlement and fully complies with the procedures in the DSLPA.

20 **Paragraphs 50 through 54.** The Company adopted the language access procedures
21 addressed in the Joint Petition for Non-Unanimous Settlement for Spanish-speaking
22 customers. PAWC updated its SAP system in order to provide documents and written
23 correspondence in Spanish to customers upon request. On November 15, 2021, PAWC

1 presented its translated billing information to its Customer Assistance Advisory Group to
2 obtain feedback. PAWC's termination notices also have been modified to include information
3 in Spanish, which directs Spanish-speaking customers to call a number for translation
4 assistance.

5 **Paragraphs 55 through 57.** PAWC satisfied the other language access requirements
6 in the Joint Petition for Non-Unanimous Settlement related to non-English speakers. PAWC
7 developed a language access plan and presented the components of this plan to its Customer
8 Assistance Advisory Group. PAWC also is utilizing a third-party interpreter service upon
9 encountering a customer with limited English proficiency and is currently tracking, on a
10 quarterly basis, the language line usage. Finally, PAWC conducted a formal needs assessment
11 using census data to evaluate whether any of its water or wastewater zones are populated by
12 5% or more of individuals who speak a language other than English or Spanish. Based on this
13 assessment, PAWC determined that none of its zones are populated by 5% or more of
14 individuals who speak a language other than English or Spanish.

15 **Paragraphs 58 through 67.** The Company adopted the changes outlined for
16 protection from abuse ("PFA") accounts in the Joint Petition for Non-Unanimous Settlement.
17 PAWC worked with the Pennsylvania Coalition Against Domestic Violence and its Customer
18 Assistance Advisory Group to develop updated policies, procedures, and scripting to help the
19 customer service center identify domestic violence victims and process protection from abuse
20 orders and similar court orders with clear evidence of domestic violence. A fact sheet for
21 customers was prepared in consultation with the Customer Assistance Advisory Group.
22 PAWC implemented training for its compliance, customer advocacy, and customer service
23 center teams to increase their knowledge regarding domestic violence issues. To maintain

1 extra confidentiality protections for domestic violence victims, PAWC established a dedicated
2 team who is responsible for communicating with customers with PFAs and similar court
3 orders, as well as a separate email address and fax number where PFAs and court orders can
4 be sent, which are only accessed by a limited number of PAWC employees.

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

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

9 A. Yes. Section 523 of the Public Utility Code provides that the Commission "shall consider"
10 the "efficiency, effectiveness and adequacy of service" of a utility when determining just and
11 reasonable rates.

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

14 A. Section 523(a) requires the Commission to consider performance factors, while Section
15 523(b) identifies the kinds of factors that are relevant in assessing a utility's performance.
16 Section 523(a) and the portions of 523(b) that are relevant to a water and wastewater utility
17 are set forth below:

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

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

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

* * *

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

* * *

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

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

A. Yes, it is. For the reasons I will discuss later in my direct testimony, the Company strongly believes, and proposes, that the Commission should implement the terms of Section 523 in determining the Company’s allowed rate of return on equity in this case. Specifically, Ms. Bulkley has recommended a range of reasonable rates of return on equity from 9.90% to 11.25%. Both Ms. Bulkley and I recommend that the Commission adopt a rate of return on equity of 10.8% – at the upper end of Ms. Bulkley’s range – in recognition of PAWC’s superior management performance based on the factors that apply to water utilities in Section 523 of the Code. In addition, and for the same reason, if the Commission were to approve a rate of return on equity that is lower than the upper end of Ms. Bulkley’s recommended range, it should add no less than 25 basis points to its market-determined rate of return.⁵

⁵ Of course, if the Commission’s market-determined rate of return on equity is greater than 10.55%, then the performance-based increment could be less than 25 basis points to achieve a final equity return rate of 10.8%.

1 **Q. Please summarize the factors demonstrating the Company's exemplary management**
2 **performance.**

3 A. I am addressing eight areas: (1) the Company's dedication to assisting customers during the
4 COVID-19 pandemic; (2) the Company's industry-leading programs to assist low-income and
5 payment-troubled customers; (3) the Company's environmental record and commitment to
6 water quality; (4) the Company's strong safety performance; (5) the Company's commitment
7 to continuous performance improvement for the benefit of customers; (6) the Company's
8 significant infrastructure investment; (7) the Company's community engagement and
9 consumer education initiatives; and (8) the Company's efforts to support the Commission's
10 and the Pennsylvania Department of Environmental Protection's ("DEP") long-standing
11 policy to eliminate the problems of small, troubled and nonviable water and wastewater
12 systems by acquiring those systems and making the improvements needed to assure safe and
13 reliable service.

14 **Q. Please discuss the Company's COVID-19 relief measures to date.**

15 A. Beginning in 2020 with the COVID-19 health emergency, PAWC was well ahead of the
16 nationwide mandates to suspend shutoffs and late fees and reconnect customers that were
17 shutoff for billing related issues. On March 12, 2020, PAWC voluntarily implemented these
18 measures because the Company felt it was the right thing to do for our customers during
19 extremely challenging times for the communities we serve and the country. The Company
20 reconnected customers who had been disconnected for non-payment of water and wastewater
21 services. For residential and non-residential customers experiencing financial hardship,
22 PAWC worked with those customers on payment arrangements.

1 The Commission allowed utilities to resume service shutoffs on November 9, 2020,
2 with certain consumer protections in place; however, PAWC chose not to resume assessing
3 late fees or shutting off water service for non-payment until April 2021. This extended
4 suspension applied to all customers, both residential and non-residential.

5 PAWC was proactive and engaged in extensive customer outreach throughout the
6 pandemic. During the first quarter of 2021, the Company's outreach included courtesy letters,
7 phone calls, emails, and a virtual information session on customer assistance programs. In
8 the winter and spring of 2021, PAWC dedicated resources to a customer education campaign
9 promoting the Company's payment assistance options as the Company moved toward
10 resuming service shutoffs in April. As part of this campaign, the PAWC's 30-second
11 animated customer assistance "commercial" ran on broadcast and cable TV, Hulu, YouTube
12 and Facebook/Instagram geo-targeted to media markets and zip codes across the Company's
13 service area. In early April, customer phone calls, emails, and texts through the Company's
14 customer notification platform focused on available utility assistance programs. This
15 initiative resulted in more than 532,000 successful phone messages delivered and
16 468,000 email messages delivered.

17 I previously discussed ERAP, which provided assistance to renters, landlords, and
18 utility providers who have been affected by COVID-19. PAWC was proactive and engaged
19 in extensive customer outreach to help ensure these funds were available to our customers.
20 First, PAWC contacted all 37 counties in which the Company operates and provided each
21 county with a process document along with the Company's W-9. The Company created a
22 dedicated web page on its website with email and phone contacts for each county. PAWC
23 also promoted ERAP on the Company's social media platforms and completed a statewide

1 customer email campaign in April and May 2021. PAWC conducted outreach to local
2 government officials and provided a shareable flyer and social media information. Finally,
3 the Company sent emails and letters in mid-May to all customers coded as landlord/ratepayer,
4 urging them to apply for ERAP.

5 As a result of the COVID-19 health emergency, PAWC also altered some of its H2O
6 hardship grant program requirements. PAWC modified the low funding threshold guidelines
7 for determining the point at which the Company will only accept applications from customers
8 whose service has been terminated. In December 2020, the Company also began waiving
9 good faith payment requirements for the program. Additionally, in December 2020, the
10 Company permitted customers to self-certify income for purposes of program qualification.
11 Finally, PAWC waived reconnection fees for customers at or below 200% of the federal
12 poverty level.

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

15 A. For more than 30 years, PAWC's H2O program has assisted customers in need. In fact, the
16 H2O program ranks at the top of Pennsylvania water utility customer assistance programs for
17 the benefits it provides. To support the H2O hardship grant program, PAWC contributes more
18 of its shareholders' money, \$600,000 annually, than any other water utility in the
19 Commonwealth to help customers in need. Moreover, recognizing the impact of COVID-19,
20 PAWC contributed \$750,000 to the H2O hardship grant program in 2021.

21 The H2O program also includes a low-income bill discount program. In this
22 proceeding, the Company is proposing to further enhance this program to assist households
23 with incomes at or below 150% of the federal poverty level. Specifically, as further discussed

1 in Mr. Rea's direct testimony (PAWC Statement No. 10), the Company is proposing to include
2 multiple tiers of discounts for both water and wastewater service based on different levels of
3 household income stated as multiples of federal poverty level.

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

7 In addition, earlier this year, PAWC successfully implemented LIHWAP which
8 resulted in PAWC customers, as of April 14, 2022, receiving 5,948 grants totaling \$3,547,660.
9 The successful implementation of this program is due to PAWC's proactive engagement and
10 collaboration with DHS and extensive customer outreach. PAWC attended stakeholder
11 meetings, webinars and briefings prior to the LIHWAP launch. Additionally, prior to the
12 LIHWAP launch, PAWC developed a customer communications and outreach plan to help
13 maximize the impact of the program for customers facing challenges paying their bills. The
14 Company published a LIHWAP-specific page on its website, prepared talking points and a
15 one-pager about the program for its customer service, customer advocacy and external and
16 government affairs teams, included LIHWAP information in a statewide customer email
17 campaign, and sent a one-pager to municipal, county and state elected officials across
18 PAWC's service territory. From mid-January to mid-February, the Company sent a bill
19 enclosure about LIHWAP to all customers statewide, with a second bill image about LIHWAP
20 running statewide the following month. PAWC continues to actively promote the LIHWAP
21 program approximately once per week through its various social media channels, reaching
22 tens of thousands of customers to date.

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 March
4 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 refers the customer to
8 LIHWAP.

9 The Company also created customer assistance cards containing information about all
10 available water/wastewater utility assistance programs for field employees to distribute during
11 customer interactions in the field. To further assist customers who received bill payment
12 assistance through LIHWAP, the Company established a process to review each LIHWAP
13 grant recipient's account and enroll all customers in PAWC's H2O bill discount program,
14 which optimizes the level of assistance provided to those customers. The established process
15 also includes sending a letter to each customer informing them of enrollment in the
16 Company's H2O bill discount program.

17 **Q. Does the Company's environmental record and commitment to water quality**
18 **demonstrate excellent management performance?**

19 A. Yes, it does. The Company has met and continues to meet all federal and state drinking water
20 regulations. As described in more detail in the testimony of PAWC witness Jim Runzer
21 (PAWC Statement No. 2), PAWC treatment plants are nationally recognized for optimization
22 and performance above and beyond regulatory standards. Part of providing water of the
23 highest quality is starting with quality water in the first place. PAWC is a leader in the

1 Environmental Protection Agency's ("EPA") Partnership for Safe Water Treatment Program,
2 which means the Company treats water to a standard that surpasses the requirements imposed
3 by EPA and DEP. As Mr. Runzer shares in his testimony, PAWC is proud of our efforts in
4 source water protection. Through our participation in these programs and our internal
5 practices and policies, the Company consistently meets our goal of providing high quality
6 drinking water to customers.

7 PAWC is also committed to ongoing water quality improvement. To monitor water
8 quality and improve our processes, the Company relies on its central laboratory in Bellville,
9 Illinois to process hundreds of process samples in addition to compliance samples. These
10 process samples contribute to the Company's ability to continually improve water treatment
11 and optimize our facilities. As regulatory standards continue to shift, PAWC continues to
12 remain a leader. For example, the Company often monitors for potential pollutants where
13 such monitoring is not yet required by regulation, including PFAS and other emerging
14 contaminants. Where issues are identified, treatment technology is put in place to provide
15 assurance to the Company's customers that the water they drink is safe. Finally, to ensure
16 that water is safe all the way to the tap, PAWC has worked with the Commission and OCA to
17 develop and institute a lead service line replacement program, which allows the Company to
18 address lead service line concerns ahead of regulatory changes and remove this health risk for
19 customers as soon as possible.

20 As the Company continues to grow in its provision of wastewater treatment services,
21 so grows the Company's commitment to ensuring that discharges leaving our plants are not
22 impacting water quality in streams. Perhaps just as importantly, the Company has undertaken
23 significant efforts to reduce the inflow of stormwater into our collection systems thus keeping

1 clean water clean and reducing treatment costs for customers. As described in more detail in
2 the testimony of PAWC witnesses Mr. Runzer (PAWC Statement No. 2) and Mr. Aiton
3 (PAWC Statement No. 3), it is the Company's commitment to water quality, environmental
4 protection, and our customers that drive our investment in highly effective water treatment
5 and the attention to detail at all levels of the organization to meet or exceed regulatory
6 requirements. We are proud of the quality of water and wastewater service that we provide
7 to our customers and the quality of water that we release back into our streams.

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

9 A. Yes. The health and safety of our customers, communities and employees continues to be our
10 top priority. In fact, safety is a defined core value and strategy for the Company. In 2021,
11 PAWC experienced the best safety record in the Company's operational history. Mr. Runzer,
12 in his direct testimony (PAWC Statement No. 2), further describes the Company's safety
13 initiatives and programs that benefit our customers.

14 **Q. Please describe how the Company's management is dedicated to continuous**
15 **performance improvement in any other areas.**

16 A. The Company's management is committed to continuous improvement in all aspects of its
17 performance. In PAWC Statement No. 2, Mr. Runzer highlights the Company's continuous
18 performance improvements in several additional areas beyond those I have already discussed,
19 including: (1) a robust program to reduce non-revenue water; (2) improvements in energy
20 efficiency and resulting reductions in energy costs; (3) improvements in operational efficiency
21 including successful efforts to control waste disposal, purchased water and vehicle fleet
22 expenses; (4) use of technology to improve field operations as well as enhance our
23 communications with customers; and (5) the Company's procedures related to the

Underground Damage Prevention Program, which resulted in 99.9% of tickets being responded to timely in 2021.

Q. Do the Company's significant infrastructure investments in the Commonwealth demonstrate superior management performance?

A. Yes. PAWC has invested, over the past 15 years, more than \$4.2 billion in PAWC infrastructure. The Company's capital investments have resulted in infrastructure reliability and resilience, which are important priorities for PAWC's leadership. Resilient infrastructure allows the Company to avoid or minimize interruptions of service during extraordinary events, such as extreme weather events. The resilience of PAWC's systems during Hurricane Ida in September 2021 exemplifies PAWC's system resiliency. Hurricane Ida caused heaving rain and major flooding and disrupted operations for many utilities throughout the country. Nevertheless, during this weather event, PAWC's plants and supporting infrastructure remained operational. The Company's investment in storm hardening and resilience resulted in our utility infrastructure being more resistant to weather. Mr. Aiton's testimony also includes several projects that will continue to improve the safety, reliability, and resilience of PAWC's systems (PAWC Statement No. 3).

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

A. Yes. As the communities we serve needed support to address food insecurities during the COVID-19 health emergency, PAWC made donations to local food banks. In addition, the Company's Environmental Grant Program supports innovative, community-based environmental projects that improve, restore or protect the watersheds, surface water and groundwater supplies in local communities.

PAWC's public education program, especially its initiative to educate the youth of the Commonwealth, is unsurpassed in depth and breadth. Not only do we conduct water camps for elementary school children in the Commonwealth during the summer and teach classes on watershed protection, water treatment, the water cycle and water conservation in the classroom during the school year, we also conduct plant tours, judge "envirothon" competitions, and participate in Earth Day activities. PAWC's annual "Protect Our Watershed Art Contest" for 4th, 5th and 6th graders throughout the Commonwealth attracts more than 500 applications. PAWC's "Stream of Learning" scholarships support outstanding students in our service area pursuing careers in the water and wastewater industries. Education of our youth produces both short- and long-term benefits for water quality and reliability. These efforts are part of PAWC's commitment to assure the wise and efficient use of water and to promote water conservation.

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

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

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

A. Section 69.711 states in relevant part as follows:

(a) *Acquisition incentives.* In its efforts to foster acquisition of suitable water and wastewater systems by viable utilities when the acquisitions are in the public interest, the Commission seeks to assist these acquisitions by permitting the use of a number of

1 regulatory incentives. Accordingly, the Commission will
2 consider the following acquisition incentives:

- 3 (1) *Rate of return premiums.* Under 66 Pa.C.S. § 523
4 (relating to performance factor considerations),
5 additional rate of return basis points may be awarded for
6 certain acquisitions and for certain associated
7 improvement costs, based on sufficient supporting data
8 submitted by the acquiring utility within its rate case
9 filing. The rate of return premium as an acquisition
10 incentive may be the most straightforward and its use is
11 encouraged.

12 **Q. Has PAWC acquired troubled water and wastewater systems?**

13 A. Yes. For more than 25 years, PAWC has been an industry leader in helping resolve the
14 significant challenges faced by troubled water and wastewater systems. Since the Company's
15 last rate case, the Company completed the acquisitions of Delaware Sewer Company
16 ("Delaware Sewer") and Winola Water Company, both of which were acquired pursuant to
17 66 Pa.C.S. § 529. The Company is committed to making capital investments to improve
18 service to customers of these systems and increase environmental compliance. Mr. Aiton
19 discusses in his testimony (PAWC Statement No. 3) the major regulatory compliance
20 challenges with Delaware Sewer and PAWC's \$2.8 million investment to prevent future
21 NPDES permit violations. The Company has also acted as the receiver for Indian Springs
22 Water Company during the pendency of the Commission's proceeding under 66 Pa.C.S.
23 § 529. The Company remains committed to helping the Commission resolve the issues posed
24 by the many troubled systems that still exist across the state. Consistent with 52 Pa. Code
25 § 69.711, a rate of return premium is appropriate to recognize the Company's efforts with
26 respect to troubled systems.

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

1 A. The well-documented exemplary performance of the Company's management discussed
2 above fully justifies approving a rate of return at the upper end of Ms. Bulkley's recommended
3 range – namely, 10.80% – and, in any event, an increment of at least 25 basis points to a lesser
4 market-determined rate of return on equity approved by the Commission, up to 10.80%.

5 **STORMWATER RATES**

6 **Q. Did the Company make any commitments regarding stormwater fees for its CSSs in its**
7 **last base rate case?**

8 A. Yes. Paragraph 71 of the Settlement provides as follows:

9 Stormwater Rates: Under the Settlement, the Company agrees to propose potential
10 recovery and rate methodology options for stormwater costs of combined sewer
11 systems in its next general wastewater or combined water/wastewater base rate filing.
12 The proposals will include an analysis of the recovery of such stormwater costs
13 through various methodologies including forms of separate stormwater rates, and a
14 description of the customers to whom the rates would apply. PAWC also agrees that,
15 at intervals of approximately one year and two years after entry of the Commission's
16 final Order approving the Settlement in this proceeding, unless the Company files a
17 wastewater or combined water/wastewater general base rate case prior to either of
18 those times, it will meet with the parties to this case to provide progress updates and
19 discuss potential cost recovery methods under consideration.

20 To address this commitment, the Company engaged Gannett Fleming, Inc. to perform
21 the Feasibility Study, which is included as Exhibit No. 14-A. The Feasibility Study identifies
22 the different methodologies that could theoretically be used by the Company to develop a
23 separate stormwater fee and calculates potential stormwater fees for the Company's CSS
24 customers. Mr. Walker discusses his study in detail in PAWC Statement No. 14. In addition,
25 Mr. Aiton describes in detail several regulatory, technical, administrative, and implementation
26 challenges identified in the Feasibility Study associated with the Company charging its
27 customers a separate stormwater fee in PAWC Statement No. 3.

1 **Q. Does the Company support the development of a separate stormwater rate?**

2 A. No. As Mr. Walker explains, the Company would encounter many challenges that are unique
3 to a private company in setting up a stormwater fee. For example, PAWC would need to
4 select methods for communicating with at least 20 municipalities and three counties about
5 changes in land cover, land use, and parcel delineation that would affect implementation of
6 the stormwater fee. PAWC would also need to explore methods of billing property owners
7 for impervious area where PAWC does not have a contract to provide sanitary sewer services
8 (i.e., customers that do not contract for sewer service but still discharge stormwater into the
9 combined sewer system). PAWC would need to decide whether to calculate a stormwater fee
10 based on all impervious area within the service areas, all of the impervious area that lies on a
11 parcel of which at least a part of the parcel discharges to the combined sewer, or only the
12 impervious area that discharges to the combined sewer.

13 In addition to the issues identified by Mr. Walker, Mr. Aiton describes numerous
14 operational challenges associated with a stormwater fee, including the legal and practical
15 (collection) issues associated with the Company imposing a stormwater charge on a
16 landowner that is not a water or wastewater customer of PAWC and has not applied for any
17 form of service from the Company. Unlike municipal entities that have authority specifically
18 granted by state law to charge a stormwater fee to property owners identified from the
19 municipalities' own property records, the Company does not have specific statutory authority
20 entitling it to charge a fee to a "stormwater contributor" who is not otherwise a customer of
21 PAWC. Similarly, the Company's primary tool for collections is disconnecting water service
22 for non-payment. The Company does not have the authority to impose a lien on the property
23 of its customers for non-payment as a municipal entity does. In short, the Company has no

1 way to “disconnect” service if a customer that is not a water/wastewater customer does not
2 pay its stormwater fee. Additionally, even for customers that obtain water/wastewater service
3 from the Company, it is not clear whether the Company would have authority to disconnect
4 that service if the customer did not pay its stormwater fee. Consequently, for all those reasons,
5 it would be prohibitively difficult for the Company to pursue customers for non-payment of
6 stormwater fees.

7 Given the various challenges and barriers associated with trying to develop, implement
8 and administer a stormwater fee, as explained above and by Mr. Walker and Mr. Aiton, the
9 Company believes that it is neither feasible nor cost-justified to impose stormwater charges
10 in its CSSs.

11 **Q. Based on your analysis, what are the methodologies the Commission could utilize for**
12 **determining rates for a combined sewer system?**

13 A. Besides a separate stormwater charge, which the Company does not recommend, there are at
14 least two options that the Commission could apply for determining the rates of a collection
15 system. First, the Commission could require the Company to maintain a separate tariff group
16 for combined systems, with a separate cost of service study covering all combined systems
17 filed in each case, to avoid the costs of the combined sewer system being comingled with
18 separate sanitary sewer customers over the long term. Second, the Commission could
19 continue to apply its long-stated preference for single tariff pricing. The single tariff pricing
20 concept does not isolate a singular cost component, as would occur if the Company’s
21 wastewater costs were separated into those caused by separate sanitary sewage and those
22 caused by combined wastewater.

1 **Q. Please discuss the first methodology, regarding a separate tariff group and revenue**
2 **requirement that could apply to collection systems.**

3 A. This option was proposed in the Company's last base rate case as a method to address the
4 concern about combined stormwater being included in the overall cost of service for
5 wastewater customers. Under this methodology, the combined sewer systems would be
6 separated into a separate tariff group, with eventual consolidation within the group of
7 combined sewer systems.

8 While the Company continues to believe that this is preferable to separate stormwater
9 rates, full eventual consolidation of wastewater customers is the Company's recommended
10 outcome and is most consistent with the Commission's goal of single tariff pricing.

11 **Q. Please discuss the Company's proposed cost recovery methodology for stormwater costs.**

12 A. The Company believes that eventual single tariff pricing for all wastewater customers is in the
13 long-term best interests of the Company's customers. Single tariff pricing allows for cost
14 sharing across systems regardless of geographical or other system differences, which
15 promotes equitable and non-discriminatory public utility service.

16 The Company's water tariff is an example of the success of single tariff pricing
17 allowed by the Commission. The Company's Zone 1 consolidated rates apply to more than
18 99% of the Company's 678,000 water customers. As discussed below, the Company proposes
19 further consolidation of those rates in this case. Consolidated rates enable cost sharing across
20 service territories, are easier for customers to understand, and are more efficient from an
21 administrative standpoint.

22 The Company's wastewater rates are significantly more fragmented. Of approximately
23 82,000 wastewater customers, only about 27% are Zone 1. Another 21% are on separate rate

1 schedules anticipated to move to or toward Zone 1 in this case. The remaining customers, who
2 represent more than half of PAWC's wastewater customer base, are served through combined
3 wastewater systems.

4 **CONCLUSION**

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

6 A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues
7 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-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

VERIFICATION

I, **Ashley E. Everett**, 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: April 29, 2022



Ashley E. Everett

Pennsylvania-American Water Company Rate Increase Request

Filing Date: April 29, 2022

Historic Test Year: 12 Months Ended December 31, 2021

Future Test Year: 12 Months Ended December 31, 2022

Fully Projected Future Test Year: 12 Months Ended December 31, 2023

Increase Requested: \$173.2 Million

Percentage Increase: 20.8%

Effective Date: January 28, 2023 (based on full suspension)

Rate of Return: 7.87% on rate base; 10.80% ROE

<u>Type of Capital</u>	<u>Proportion of Total</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Debt	44.79%	4.26%	1.91%
Preferred Stock	0.01%	9.70%	0.00%
Common Stock	55.20%	10.80%	<u>5.96%</u>
Total	100.00%		7.87%

<u>Elements of Increase</u>	<u>Required Revenue</u>
Capital Investment	\$87.0 Million
Declining Consumption	\$17.8 Million
Cost of Capital	\$21.2 Million
Acquisitions	\$27.5 Million
O&M and General Taxes	\$19.7 Million
Total	\$173.2 Million

PENNSYLVANIA-AMERICAN WATER
RATE CASE FILING
Docket No. R-2022-3031672
Docket No. R-2022-3031673

Schedule AEE-2

Total Company
PROPOSED

1.	Revenues at Present Rates	\$832,106,946
2.	Amount of Increase (Decrease)	173,155,952
3.	% Increase	20.8%
4.	Revenue	<u>1,005,262,898</u>
5.	O & M Expense	269,458,570
6.	Depreciation	206,770,911
7.	General taxes	19,168,336
8.	Income Taxes	<u>105,184,032</u>
9.	Sub-Total	<u>600,581,849</u>
10.	Utility Operating Income	<u>404,681,049</u>
11.	Interest on Long-Term Debt	96,645,800
12.	Other Interest	1,616,783
13.	Preferred Dividends	49,914
14.	Other Deductions	<u>0</u>
15.	Sub-Total	<u>98,312,497</u>
16.	Income to Common Stock (Fallout)	<u>\$306,368,552</u>
17.	Original Cost of Rate Base	\$5,145,726,373

Rate of Return and Return on Common Equity Absent Rate Relief

Utility Operating Income	\$283,845,404
Income to Common Stock (Fallout)	185,587,243
Original Cost of Rate Base	5,142,881,118
Common Equity	2,838,870,377
Rate of Return	5.52%
Return on Common Equity	6.54%

Statement No. 2

Runzer

**DIRECT TESTIMONY
OF
JIM RUNZER**

**DESCRIBING
PENNSYLVANIA-AMERICAN WATER COMPANY'S OPERATIONS, OPERATING
EFFICIENCIES, EMPLOYEE LEVELS AND COMPENSATION, AND CUSTOMER
EXPERIENCE**

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

DATE: April 29, 2022

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. Due to the geographical size of the Company’s service territory and the large number of
8 customers, PAWC Operations is divided into two areas. As Vice President Operations of
9 Central and Eastern PA, I am responsible for all of the water and wastewater operations in
10 22 districts. Diane Holder, Vice President of Western Operations is responsible for
11 16 districts. Together, we are responsible for managing a team of approximately
12 1,046 professionals, serving 2.3 million Pennsylvanians.

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

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

19 I began my career at American Water in 1994 as a bargaining unit employee for
20 New Jersey American Water Company (“NJAWC”), working in both Production and Field
21 Operations until being promoted to Operations Supervisor for NJAWC in Mount Holly,

1 New Jersey in 2008. I was promoted to Field Operations Superintendent in Delran,
2 New Jersey in 2011 and was then promoted to Operations Manager for the Atlantic/Cape
3 May New Jersey system in 2014 where I was responsible for Field Operations, Production
4 and Construction operations. I was named Director of Operations for Iowa American
5 Water Company in April 2018 and was later named Vice President of Operation for New
6 York American Water Company in July of 2019. I held that position until taking on my
7 current role as Vice President of Operations for the Company on June 28, 2021.

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

9 A. First, I will describe the Company's water and wastewater operations and facilities
10 throughout Pennsylvania. Second, I will describe Company programs that demonstrate our
11 commitment to excellent water quality and safety for both our customers and employees.
12 Third, I will describe our efforts to increase operational efficiencies, which includes
13 furthering the Company's gains in energy efficiency, continuing to reduce non-revenue
14 water, and expanding our use of technology in the field. Fourth, I will explain our
15 commitment to advanced metering infrastructure technology and its benefits to our
16 customers. Finally, I will describe the Company's current and anticipated employee levels,
17 employee compensation philosophy and commitment to employee development.

18 **Operations and Facilities**

19 **Q. Please describe PAWC's operations.**

20 A. PAWC owns, operates, and maintains potable water production, treatment, storage,
21 transmission and distribution systems, and wastewater collection, pumping, and/or
22 treatment systems, for furnishing water and wastewater services to approximately

1 760,000 residential, commercial, industrial, and governmental customers in communities
2 located in 37 of the 67 counties across Pennsylvania.

3 The Company has established two geographically defined operating areas that
4 collectively serve an estimated population of more than 2.3 million people. The western
5 Pennsylvania operating area serves an estimated population of one million people located
6 in fifteen counties. Some of the larger communities served include Butler, New Castle,
7 Ellwood, Indiana, Punxsutawney, Warren, Kane, portions of the City of Pittsburgh and its
8 southern suburbs, McMurray, Uniontown, Brownsville, and Connellsville. Large
9 customers include U.S. Steel, the Western Allegheny County Municipal Authority,
10 AK Steel, Allegheny County Housing Authority, Koppel Steel, United Refining, Clarion
11 University and Eastman Chemical Company.

12 The eastern Pennsylvania operating area serves an estimated population of
13 1.3 million people in 22 counties. Some of the larger communities served include Wilkes-
14 Barre, Scranton, Camp Hill, Mechanicsburg, Hershey, Palmyra, Philipsburg, Milton,
15 Norristown, Coatesville, Berwick, Milton, Yardley, and the suburbs of Reading. Several
16 of the large customers served in eastern Pennsylvania are Fairchild Semiconductor,
17 U.S. Penitentiary at Allenwood, Hershey Foods Company, Hershey Medical Center, Lion
18 Brewery, Quaker Oats Company, Furman Foods, Norristown State Hospital, Montgomery
19 County Correctional Facility, Mittal Steel, ConAgra Grocery Products Company and
20 Glaxo SmithKline.

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 Commission's filing
11 requirements, which is titled *Scope of Operations*.

12 **Water Quality**

13 **Q. Has PAWC been recognized for its optimization and water quality achievements?**

14 A. Yes. PAWC has received multiple awards and been recognized for its dedication to and
15 achievements in attaining exemplary water quality. PAWC is a participant in the
16 Partnership for Safe Water Treatment Optimization water treatment plant optimization
17 program and has repeatedly been recognized for its optimization and water quality
18 achievements. Nationwide, the Partnership for Safe Water Treatment Optimization
19 program currently has 501 treatment plants from 266 utilities in the program. As of 2021,
20 only 44 plants have received one of the program's highest honors, the Phase IV Presidents
21 Award. To date, PAWC has received nine Phase IV Presidents Award recognitions.
22 Moreover, each of these nine PAWC plants were also recognized as 5-year President's

1 Award winners. Only 18 systems nationally have achieved this level of recognition.
2 Therefore, PAWC accounts for 50% of these highest-level award-winning treatment plants.

3 Since the Company's last base rate case filing, PAWC's Rock Run Water
4 Treatment Plant was also recognized for maintaining the Phase III Directors Award status
5 for five years, and the Company's Stony Garden Water Treatment Plant (Blue Mountain
6 System) and Clarion Water Treatment Plants were recognized for maintaining the Phase
7 III Directors Award status for 10 years. An additional 27 PAWC plants were also
8 recognized for maintaining the Phase III Directors Award status for 20 years.

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

10 **A.** PAWC is deeply committed to ensuring our customers receive water that meets all
11 regulatory requirements, and we strive to provide water that exceeds those requirements.
12 In order to meet these goals, PAWC has developed strict internal metrics to support
13 exemplary water service.

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

22 These efforts are supported by our internal monitoring results program, Sample 1
23 View ("Sample 1V"). Sample 1V provides a user-friendly dashboard for several critical

1 water quality measurements that is reflective of real-time sample collection in the field and
2 has recently been updated to include bacteriological sample information. This is a
3 powerful tool that allows PAWC staff to ensure all required samples are collected and
4 observe and react to trends in samples.

5 I would also like to highlight the Company's environmental near miss program.
6 I will discuss the Company's near miss program in greater detail later in my testimony but
7 included within that program is a specific focus on environmental and water quality issues.
8 PAWC takes a proactive approach in identifying potential water quality issues and
9 implementing prompt improvements. The environmental near miss program identifies
10 water quality or environmental vulnerabilities before they can create an adverse impact. In
11 2021, PAWC employees submitted over 135 environmental near miss reports, which
12 identified and avoided potential customer impacts in those 135 instances. In addition,
13 because near miss reports, including environmental near misses, are shared statewide for
14 educational purposes, the impact and positive benefits from such near miss reports is much
15 broader than the specific near misses identified, as the reports often prompt proactive
16 corrections for other customers in different areas of PAWC's system.

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

19 **A.** The Company has invested heavily in facility upgrades to meet regulatory requirements
20 related to the Long Term 2 Enhanced Surface Water Treatment Rule. The Company
21 continually evaluates new treatment chemicals for improved treatment effectiveness,
22 safety, and cost efficiencies. Since our last rate case, the Company converted 7 treatment
23 plants from the use of gaseous chlorine for disinfection to liquid sodium hypochlorite or

1 ultra-violet (“UV”) disinfection. The elimination of chlorine gas reduces the risk of toxic
2 exposure for our employees and the surrounding communities. The Company will continue
3 to convert its remaining treatment plants that utilize gaseous chlorine to either liquid
4 sodium hypochlorite or UV disinfection until all of its chlorine gas locations are eliminated.
5 This conversion process is also now standard practice as new systems are acquired by
6 PAWC.

7 The Company also employs a proactive approach to protect customers from lead
8 exposure in the drinking water the Company supplies, consistent with federal and State
9 regulatory standards established by the United States Environmental Protection Agency
10 (“USEPA”) and the Pennsylvania Department of Environmental Protection (“PADEP”),
11 including the Lead and Copper Rule. Several of PAWC’s systems are undergoing
12 corrosion control studies to review the effectiveness of corrosion control treatment
13 measures. As explained in our previous rate case, we are continuing to implement an
14 industry-leading initiative to replace customer-owned lead service lines to address
15 conditions that may increase the risk of exposure to lead at the customer’s tap.

16 PAWC also changed coagulant options at several of its treatment plants to provide
17 improved treatment at reduced costs. One recent example is our Rock Run treatment plant,
18 which switched to Ferric Chloride-polymer blend in 2021 with approval from PADEP.
19 PAWC also improved the chemical feed systems at our Stony Garden and Montrose
20 facilities. We are also addressing potential contaminants of concern, such as the emerging
21 polyfluoroalkyl substances (“PFAS”) contaminant. Our central laboratory is now certified
22 to analyze PFAS samples, improving the Company’s ability to test for these contaminants.

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

2 A. Yes. With the increasing number of wastewater facilities owned and operated by PAWC,
3 the Company is making significant efforts to improve effluent quality discharged to
4 receiving streams. Examples of improvements include the transition to ultra-violet
5 disinfection at numerous wastewater plants and efforts to reduce inflow and infiltration in
6 our collection systems. The change to UV disinfection also reduces chemical usage and
7 eliminates the potential for chlorinated water to reach waters of the Commonwealth. This
8 modification has occurred in 8 systems owned by PAWC and is currently being installed
9 at 2 additional locations – Scranton and Clarion.

10 Additionally, significant effort to reduce inflow and infiltration has occurred in
11 McKeesport, Dravosburg, Claysville and Duquesne. Finally, as new systems are acquired
12 by PAWC, the Company acts to improve effluent quality and return systems to regulatory
13 compliance. Two facilities in Kane are a recent example of such investment and
14 improvement.

15 Notably, to aid in improvements in wastewater quality, the Company also recently
16 created a new section that solely focuses on wastewater facility water quality and
17 compliance. This focus is allowing us to develop and implement new operating
18 procedures, training, and optimization programs to continually improve our treated
19 effluent. Some concrete examples of improvement in our wastewater treatment include
20 improvements and standardization of our Industrial Pretreatment Program and the
21 development of wastewater specific curricula to continually improve operator knowledge
22 and plant optimization.

1 **Q. What other efforts has PAWC made to protect public health?**

2 A. PAWC has partnered with the Allegheny County Health Department, Carnegie Mellon
3 University, and two other wastewater utilities to conduct wastewater surveillance to track
4 the spread of COVID-19 in Allegheny County. PAWC collects 24-hour composite
5 wastewater samples three times a week at three of our wastewater plants in Southwest
6 Pennsylvania. The data is shared with the Pennsylvania Department of Health and entered
7 into the Centers for Disease Control wastewater surveillance tracking system.

8 **Source Water Protection**

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

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

18 **Q. Please describe the Company's source water protection planning efforts.**

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

1 source sites. This work is done in conjunction with the PADEP Source Water Protection
2 Technical Assistance Program (“SWPTAP”), and all PAWC systems have a source water
3 protection plan in place or under development in 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 Waters 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

Swatara Creek Watershed as a candidate for the program. Swatara Creek is a source of supply for the PAWC G.C. Smith Hershey Water Treatment Plant. The project, funded by the NRCS, is aimed at improving the watershed by reducing nutrient and sediment loading from agricultural runoff. This effort has leveraged and directed funding toward water quality improvements for the entire watershed that will ultimately benefit the whole community including PAWC customers. We continue to support this initiative by providing data and resources. We are also looking to partner with the 1 million trees campaign, a Coldwater Heritage Partnership stream assessment, an Environmental Protection Agency Acid Mine water study, and upstream restoration project evaluations at two reservoir locations.

Source Water Monitoring

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

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

WaterSuite is a Geographic Information System ("GIS") map-based tool that collects information about potential sources of contamination from various sources¹ and integrates that information into a database for a defined area of concern. The database is

¹ Data sources may include publicly available regulatory databases, aerial imagery analyses, and local knowledge.

1 updated on a regular basis to include the latest available information and has search and
2 reporting capabilities, which provides a significant advantage over standard static
3 contaminant assessments. This gives the Company a dynamic tool it can continue to use
4 over time rather than a paper-based equivalent that captures only the circumstances present
5 at a single point in time. The database also provides a larger set of data that is automatically
6 updated on a periodic basis without requiring manual work by PAWC. As a result, PAWC
7 can access more information more efficiently to address water quality concerns than in the
8 past. WaterSuite is fully implemented for surface water and groundwater systems. The
9 Company uses monitoring panels and WaterSuite together to better inform its treatment
10 decisions and response to a potential contamination event.

11 The Company also implemented the use of SolarBee mixers in four reservoirs to
12 disrupt algal growth. To support the Company's efforts to combat algal growth, PAWC
13 purchased a Cyanotoxin Automated Assay System for in-house rapid testing associated
14 with Harmful Algal Blooms. In addition, the Company monitors emerging technologies
15 and evaluates the use of new monitoring technologies.

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

17 A. The Company installed an online, source water quality monitoring device at each of its
18 surface water treatment plants as an effective tool for optimizing treatment decisions and
19 aiding in the detection of potential source water contamination. The sensors in each panel
20 monitor parameters in the source water that include turbidity, pH, oxygen reduction
21 potential, temperature, conductivity, dissolved oxygen, dissolved organic carbon, oil, and
22 total organic carbon. This equipment helps establish baseline water quality data for each
23 parameter and alert water plant operators to certain changes in water characteristics. The

1 Company uses this information to better understand the characteristics of its source water
2 and optimize chemical usage. In addition, a change in the baseline characteristics may
3 indicate an issue that warrants additional investigation. The Company is also piloting an
4 AI program to assist in the detection of source water anomalies from the real-time data
5 being collected with the panels.

6 **Q. Does the company utilize any other sources to obtain source water quality**
7 **information?**

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

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

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

drills, which are coordinated by operations and include on site mock drills, tabletop exercises and after-action reporting.

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

A. All of Pennsylvania American Water Systems are in the Source Water Protection Technical Assistance Program with approved PA-DEP Source Water Protection Plans and Small System Plans or have draft Source Water Protection Plans that are awaiting PA-DEP approval. The total number of systems and PAWC systems is reflected in the statistics below:

- (PADWIS) Community Water Systems in PA: 1,901 (Non-community/non-transient are not in this number)
- TOTAL number of project systems in SWPTAP: 292
- Number of PAWC project systems in SWPTAP: 45
- TOTAL number of Small System Projects: 198
- Number of PAWC small systems: 17

Commitment to Safety

Q. Please describe PAWC's overall commitment to safety.

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

The Company is also committed to securing assets across our system and recognizes the importance of protecting our water sources, treatment plants, infrastructure, and data from malevolent acts, as demonstrated by our robust security and cyber security programs. The Company's emergency response program demonstrates the Company's

1 recognition that rapid response and recovery from security incidents are critical to
2 maintaining resilient water and wastewater systems.

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

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

10 **Q. Please describe PAWC's safety program and Operations' role in promoting safety
11 and a safe working environment at PAWC.**

12 A. The Company's safety program includes multiple activities and initiatives to maintain
13 compliance, support employee engagement, and help ensure the safety of our workforce
14 and our customers, as well as the public. Operations is responsible for administering the
15 health and safety program, which includes the delivery of all Occupational Safety and
16 Health Administration ("OSHA") required training, training and qualification of
17 employees, physical security, cyber security, business continuity planning, and event
18 management. We are supported by functional departments within American Water Works
19 Service Company, such as Health & Safety, Learning & Development, Security, and
20 Human Resources, to deliver core operations services.

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

22 A. We are building a strong safety culture at PAWC, which is illustrated by our year-over-
23 year safety performance. The Company's OSHA recordable incident rate ("ORIR")

1 improved from 2.54 in 2018 to 0.77 in 2021. At the conclusion of 2021, PAWC had its
2 best safety record in its operational history. The Company experienced 9 OSHA recordable
3 injuries (compared to 29 in 2018). This reduction resulted in record rates in two key safety
4 performance metrics: an ORIR of 0.77 and a Days Away Restricted or Transferred rate of
5 0.35, demonstrating a 69% reduction in incidents.

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

7 A. In addition to establishing ORIR targets, the Company's Near Miss Reporting Program
8 involves employees identifying hazards that could have resulted in an injury or accident.
9 For example, if a piece of equipment becomes worn outside of a regular maintenance cycle,
10 an employee reports this as a "near miss" and we can then replace the worn part and avoid
11 a potential injury from an equipment malfunction. Near Misses improve safety by
12 encouraging employees to look for hazards in the workplace, which improves the
13 employees' awareness and helps make our workspaces safer. PAWC has continuously
14 sought improved safety results, which directly correlates with the increase of Near Miss
15 submittals. American Water's health and safety group collects these near misses from
16 operating utilities across the American Water footprint each week and selects several to
17 highlight in a safety video that is distributed across the business for use in safety tailgate
18 discussions.

19 PAWC also uses the services of an occupational training and information company
20 called Occupational Athletics ("OA"). OA supplies two (2) athletic trainers, one in eastern
21 PA and the other in western PA, to provide training, health-related information, on-site
22 first aid medical services and injury (home/work) consultation to our employees. OA has
23 developed and implemented ergonomic programs to reduce and eliminate soft tissue

1 injuries (strains and sprains) for our affected field operations and treatment plant
2 employees. In 2021, PAWC had 9 injuries classified as “ergonomic” in nature, down from
3 our 2018 total of 32 ergonomic related injuries. In 2021, PAWC will also utilize OA to
4 provide First Aid/CPR/AED training for our employees and we now have 94% of our
5 employees certified.

6 PAWC employees also participated in the American Water “Certified Safe
7 Worker” program. This program is a self-directed program documenting work and at-
8 home safety activities. In 2021, 1,029 PAWC employees completed the program,
9 achieving the highest number of Certified Safe Workers in our history and the highest total
10 in all the American Water subsidiaries.

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

12 A. PAWC has achieved considerable progress since the program’s inception in 2015, with
13 increasing numbers of “near miss” reports. In 2021, PAWC employees reported 1,803 near
14 misses from across the state, far surpassing our goal of 1,170. This is more than triple the
15 number of near misses reported in 2019 and reflects the increased employee awareness and
16 use of this program. Most near miss reports are corrected by an individual employee
17 identifying the issue and resolving the issue or working with the appropriate people to
18 obtain resources where necessary. PAWC has also experienced an 88% increase in near
19 miss STOP Work situations, a principal indicator of an advancing safety culture. Another
20 success is that 99% of all near misses reported in 2021 were corrected within 30 days of
21 the report. In 2022, PAWC’s goal is to achieve 1,200 near miss reports. While our effort
22 is to reduce the number of hazards found in our work areas, we want to once again continue
23 the goal of one Near Miss for each PAWC employee this year. We believe that this

1 increased emphasis on safety awareness will eventually enable PAWC to go a full year
2 without a recordable injury.

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

4 A. A strong safety culture is a cornerstone for any high performing organization. A strong
5 safety culture also improves employee morale, as employees understand a meaningful
6 commitment to them and to their families. In turn, PAWC's safety culture helps ensure
7 that our employees are thoughtful in their work, which directly benefits our customers, as
8 safety is a leading part of our high-performance culture. Lastly, when employees are
9 healthy at work, they are available for work that benefits the customers.

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

11 A. PAWC maintains emergency response manuals at each operating location. The manuals
12 are updated each year and include emergency phone numbers for company personnel,
13 PADEP, the Pennsylvania Public Utility Commission ("Commission"), emergency
14 response services, vendors, suppliers, and critical customers. In 2021, PAWC conducted
15 six functional water/wastewater treatment plant emergency response tabletop exercises.
16 These events test each plant's ability to function during an emergency, which could include
17 a power outage, chemical supply issues, cyber-attack, or other similar event

18 **Q. What operational measures has the Company implemented in response to the**
19 **COVID-19 pandemic?**

20 A. PAWC continues to maintain a pandemic response program that was initially enacted in
21 March of 2020. Protocols were put in place then to keep our employees safe, including
22 wearing personal protective equipment (e.g., masking and wearing hand protection), social
23 distancing, implementing vehicle passenger protocols, quarantine requirements, and

1 contact tracing protocols. In some cases, where employees were able to do so, remote
2 working schedules were initiated to reduce exposure to COVID-19. PAWC currently has
3 not experienced any COVID workplace transmissions throughout the entire pandemic,
4 which indicates our protocols were, and continue to be, effective and followed by
5 employees.

6 **Operational Efficiency**

7 **Q. Please describe PAWC's operational efficiency initiatives.**

8 A. The Company's ongoing focus on operational efficiency covers a wide range of targeted
9 measures to enhance efficiencies, including supply-side practices, such as increased pump
10 efficiency, more accurate meter reading and leak detection, and main replacement and
11 repair programs, as well as demand-side strategies, such as customer efficiency and public
12 education programs to support water and energy efficiency. From an operations
13 perspective, improving water efficiency requires achieving a cost-effective mix of prudent
14 investments and improved operations and maintenance management capabilities targeting
15 safety, customer satisfaction, sustainability, and system efficiency. Improving water
16 efficiency results is a win-win-win situation. Customers, utilities, businesses, and the
17 environment can all benefit from more efficient, higher quality service, reduced costs, and
18 sustainable use of natural resources.

19 **Q. Please discuss PAWC's use of technology to enhance operational efficiency.**

20 A. The Company's ongoing investment in technology and process improvements provides a
21 better end-to-end view of PAWC's water and wastewater business. Improved work
22 management systems, water usage monitoring and leak detection, water quality
23 monitoring, and consumer-communications technology are just some of the benefits that

1 result from the deployment of intelligent infrastructure, advanced communications, sensor
2 networks and other technologies.

3 For instance, improved metering results in more accurate usage information. This
4 results in more accurate billing, minimizing the need for a customer to contact our customer
5 service center with billing questions. Leak detection programs can reduce the amount of
6 water and energy required to deliver the same amount of water to consumers' taps. As I
7 discuss later in my testimony, PAWC has a comprehensive program to manage water losses
8 and proactively promotes wise water usage to customers, which can reduce customer
9 demand. Each year, our teams also participate in a variety of community events,
10 environmental grant programs, and firefighter grant programs. These events provide our
11 employees an opportunity to meet and discuss with our customers water conservation, leak
12 detection in our customers' homes, and other ways that customers can improve their water
13 efficiency. PAWC implemented a successful Wise Water Use program that educates
14 residential customers on measures to lower their water bills, encouraging them to
15 implement simple practices around the home to conserve water and fix water leaks in a
16 timely manner. Striving for increased water efficiency is evident in our infrastructure
17 investments, which include main and service replacements to provide a better, more
18 reliable system.

19 Prudent investment in technology enables us to leverage the size and scale of
20 American Water to reduce manual tasks and increase automation. Our water efficiency
21 efforts are demonstrated by investments in new metering and innovative data collection
22 technologies, and by improved business processes that help us work smarter and more
23 efficiently and, by extension, contribute to our cost control efforts.

1 **Q. Can you provide some more specific examples of how technology has played a role in**
2 **more efficient operations?**

3 A. Accurate electronic maps ensure that the institutional knowledge currently held by some
4 of our employees is captured for use by current and future employees. To that end, we
5 have loaded our facilities into GIS so that maps of PAWC's water and wastewater systems
6 are accessible online to PAWC personnel. GIS includes the location and a short description
7 of the facilities, giving us an electronic spatial view of our entire system. Having accurate
8 coordinates of underground assets, particularly valves, helps us to locate and isolate
9 sections of pipe during main breaks and is critical when marking water lines for
10 construction activities under the state's 8-1-1 Pennsylvania One Call program. GIS also
11 helps us locate customers that might be impacted by related service issues and allows us to
12 communicate the impact of service issues directly and more effectively with our customers.

13 More recently, we have been training construction inspectors to use GPS equipment
14 to capture the coordinates of our equipment as it is being installed. This helps reduce the
15 time to upload new pipeline to the GIS system and streamlines the as-built process for
16 better asset and financial management.

17 The Company also uses MapCall, which is a web-based work management system
18 that enables Operations' Production and Transmission & Distribution teams to complete
19 the lifecycle of work orders and equipment. This application provides a more intuitive
20 interface among PAWC's enterprise software, GIS, and Company employees in the field
21 to further enhance employee effectiveness. The MapCall system provides the flexibility to
22 create work orders, configure workflows and report progress while in the field, all in real
23 time. For example, a supervisor can create a work order to flush a dozen hydrants in a

1 particular area, and the field worker can report progress as flushing is performed using
2 MapCall. Both the supervisor and others in the field can visually see the progress made
3 toward completing the identified work in real time through the MapCall interface. The
4 same can be done to schedule and monitor other routine work, as well as emergency work,
5 such as main break repairs. As MapCall matures, field workers will be able to access
6 pressure and flow sensor data in the field to see the impact of their activities, allowing them
7 to address potential issues that may arise in a timelier manner and minimize the impact on
8 service to our customers.

9 **Q. Is there any other technology used by the Company to increase efficiency in the field**
10 **that you would like to discuss?**

11 A. In addition to GIS and MapCall, the Company continues to innovate by developing
12 applications that make it easier for workers to obtain and provide information from the
13 field. These applications include Work1View (“W1V”), Meter Ops and Sample1View
14 (“S1V”), each of which provides more comprehensive and easily accessible information to
15 employees.

16 Field Service Representatives (“FSRs”) are assigned work and send results back to
17 the Company’s enterprise resource planning system through the W1V user interface, which
18 is easier and quicker to change to meet the changing needs of the end user. W1V is a tool
19 built largely with the input of field employees for deployment in the field. It provides a
20 single view for managing work in the field, customer information and meter information.
21 W1V includes a real-time operations map to see work orders with optimized routing, as
22 well as other types of work and alerts happening in nearby areas. In addition, when using
23 W1V, FSRs can manage their own work based on the day’s demands by adding or deferring

1 undated work and putting orders on hold for emergency work needed at other locations.
2 Supervisors can also ensure that sensitive or critical work is prioritized and completed in
3 the required period.

4 Meter Ops is another application that supports our continued efficiency, and which
5 provides a superior level of insights into meter data. The app is designed to gauge the
6 health of PAWC's meters, provide information on how accurately the meters are
7 functioning, and mitigate zero or estimated reads, which lead to lost revenue. Meter Ops
8 monitors over 20 key attributes for each meter, including manufacturer, size, installation
9 date, location (both on a map and whether it is located inside or outside), customer
10 information, and historical data such as past alarms, work orders, customer contacts and
11 visits, and reading and billing information.

12 Finally, the Company has deployed the S1V application to track water quality
13 samples taken in the field and document the chain of custody until results are produced.
14 S1V is also a sampling planning tool that provides reminders to sample collectors regarding
15 the date, location and type of sample to be taken to ensure that samples are not missed. It
16 is GIS capable, so employees can more easily route themselves to the sampling locations.
17 Once fully developed, the app will produce reports for submission to regulating authorities
18 and provide analytical capability to internal staff to better understand our sampling
19 program. The system is being used by all staff for the collection and reporting of
20 compliance samples and has improved staffing efficiency significantly. In addition, we are
21 working with a third-party vendor called Waterly to standardize collection and reporting
22 of production data for our water and wastewater operations tied to our SCADA
23 system. Enhanced benefits of the program will include validating entries that may be

1 outside an expected range and real time alerting if processes are trending out of
2 specifications. Real time visibility on any device will allow for a decreased amount of time
3 needed for administrative tasks. The efficiency created will increase accessibility for
4 Water Quality and production staff to provide transparency of process monitoring,
5 reporting, and auditing.

6 These technological advancements will continue to improve customer experience
7 and satisfaction as efficiently as possible.

8 **Q. How will employees working in the field access this information?**

9 A. These new applications are compatible with computers, smart phones and tablets. Our
10 employees will be able to access all of their Company applications on their phone, laptop
11 or tablet and see the location of facilities near them.

12 **Q. What are some benefits of field workers having smart phones and tablets?**

13 A. Smart phones and tablets allow employees to work with technologies that are more mobile,
14 intuitive, user-friendly and familiar. Providing smartphone and tablet access to various
15 applications also supports more efficient operations, improves communication, and further
16 bolsters our safety program. In addition to accessing system maps as discussed above,
17 employees will be able to communicate more efficiently through a messaging platform that
18 is currently used across the business by employees with computer and smartphone access.
19 Smartphones and tablets also provide the added benefit of a camera. Employees can take
20 pictures of equipment and fittings that can be stored in our GIS system. Employees also
21 use smartphones and tables for the 8-1-1 PA One Call program to verify that we have
22 properly marked the location of the Company's underground facilities. Workers are also
23 required to complete on-line job site set up forms before they initiate work. The online

1 form steps a worker through a wide variety of safety categories, such as ensuring a mark-
2 out ticket was obtained (if required), confined space permit requirements, and ensuring
3 Lock Out/Tag out is performed on any energized equipment. Material data sheets are also
4 available through the new work order management systems. Embedding this functionality
5 in the online work order provides more assurance that employees are following the right
6 safety procedures.

7 **Q. How is the Company using technology to enhance its communications with**
8 **customers?**

9 A. Customer value is an integral component of our technology and innovation considerations.
10 In addition to the technology-based improvements in water quality monitoring and
11 treatment, water usage monitoring, leak detection and energy efficiency, among others, the
12 Company has also made enhancements to its customer communication technology.

13 In 2020, American Water launched “myWater” app, where PAWC customers can
14 more easily access their accounts through a newly developed, mobile-friendly account
15 management site. This application allows customers to make payments, view their water
16 usage history and receive real-time alert notifications. Customers are also able to report
17 emergencies and receive status updates directly on the app. As we continued to see more
18 enrollments in our online account management site, we realized PAWC needed to update
19 its interface and allow customers to view their information more easily. We launched the
20 myWater platform in direct response to feedback from our customers, who told us they
21 want to manage their accounts online more efficiently.

22 Customers now have better functionality and more options to view their account on
23 computers or smart phones. Through the end of 2021, 54% of our customers have enrolled

1 in myWater and 23% have signed up for paperless billing. Over 24% of the Company's
2 customers use the auto-pay function, which is a convenient and efficient way for us to
3 collect bills and for customers to save time.

4 We recently updated myWater. In addition to the various features customer have
5 come to rely upon, our customers can now quickly view bill details, review service alerts
6 in the customer's area, and sign up for payment assistance online.

7 We also continue to use the Code Red system, a customer-facing cloud-based
8 platform, which allows the Company to directly communicate with customers and issue
9 timely notifications in the event of a water quality issue (boil water advisories, hydrant
10 flushing, do not use orders, etc.). In 2022, we enhanced this effort by connecting the Code
11 Red System to the Customer Notification Map, which linked directly to our MapCall work
12 management system for real-time customer updates. on emergency shutdowns, planned
13 shutdowns and boil water notifications. The user-friendly customer advisory map allows
14 our customers to view active water service disruptions in the customer's area, planned
15 service outages, hydrant flushing notices and boil water advisories.

16 **Q. How is the concept of increasing and enhancing operational efficiency relevant to this**
17 **case?**

18 A. Increasing and enhancing operational efficiency not only reduces expenses, but also is a
19 more environmentally friendly way of conducting business. When water is used
20 efficiently, it reduces capital and operating costs related to the provision of water and
21 wastewater services, while also helping to protect and preserve our natural resources.
22 Increasing and enhancing water efficiency saves customers money in the long run, protects
23 the environment, supports integrated resource planning, and enhances the economy.

1 **Q. What is the Company's goal?**

2 A. Our goal is to provide quality water and wastewater services as efficiently as possible, and
3 by doing so, to increase the value of our services. Below I provide more detail on how the
4 Company's investments and efficiency improvements aim to advance these goals.

5 **Operating and Maintenance Expense**

6 **Q. What is PAWC's forecasted O&M expense for the fully projected future test year**
7 **("FPFTY") ending December 31, 2023?**

8 A. PAWC's total O&M expense for the FPFTY is approximately \$269 million.

9 **Q. How does the Company's O&M expense claim for water operations in this case**
10 **compare to PAWC's last rate case at Docket No. R-2020-3019369?**

11 A. As explained by Ms. Lori O'Malley (PAWC Statement No. 5), the overall O&M expense
12 level claim in this case represents a 2.26% annual increase over the level of O&M expenses
13 claimed in the last base rate case, plus an additional 4.84% annual increase that is
14 attributable to the 8 acquisitions since the last base rate case.

15 **Q. Why has the Company experienced higher O&M expense levels since its last base rate**
16 **case?**

17 A. We have seen an overall increase in the cost of supplies, which has been exacerbated by
18 supply chain shortages. The most impactful increase in supply costs to O&M expense has
19 been the cost of chemicals. Due to the volatility of the chemical supply market, driven by
20 both materials and transportation, we have been required to pay significantly higher prices
21 from suppliers unwilling to commit to long-term agreements. We have also been impacted
22 by the increased costs of fuel for our vehicles and generators. The Company has also

1 experienced increased O&M expense from employee-related costs including wage
2 increases, training, and development.

3 As PAWC has grown over time, many of the systems we acquired require
4 significant work to address outstanding operational issues. In our efforts to provide
5 excellent water and wastewater quality and service, particularly in newly-acquired systems,
6 we incur increased expenses related to maintenance of assets and operating the facilities.
7 These efforts will marginally increase operating expenses to improve operational integrity
8 and mitigate operational risk.

9 **Reducing Water Loss**

10 **Q. What is non-revenue water (“NRW”)?**

11 A. Non-revenue water is the difference between system delivery and water sales. Typically,
12 NRW is measured as a volume, or a percentage of system delivery based on a 12-month
13 rolling average. NRW is not just leakage, but also includes water for beneficial uses such
14 as firefighting, flushing new water mains, and annual hydrant flushing, as well as theft, and
15 meter inaccuracies. To avoid any ambiguity, American Water, based in part on guidance
16 from the American Water Works Association, measures its reduction in water loss in terms
17 of NRW rather than Unaccounted for Water (“UFW”).² In contrast to UFW, which can be
18 defined in a variety of ways across the water industry, NRW is consistently calculated by
19 subtracting the number of gallons of water sold from the number of gallons of water treated.

² The AWWA began to discourage the use of the term Unaccounted for Water (UFW) 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 **Q. Please describe the Company’s program to reduce NRW.**

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

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

- 13 • Monitoring night flows within the different district metering areas across its
14 systems (unexpected usage during off-peak periods can indicate leakage).
- 15 • Metering water usage within various parts of a water district as another indicator of
16 possible leakage; the addition of District Metered Areas (DMA) working in
17 conjunction with advanced metering infrastructure customer metering to assist in
18 lost water identification within an operating district.
- 19 • Using NRW-trained crew to find and report leaks daily, which are then promptly
20 repaired.
- 21 • In conjunction with the state training lead, PAWC provides NRW and leak
22 detection training for our new and current employees, including hands-on
23 equipment training.
- 24 • Using NRW crews periodically in a “SWAT”-type approach to sweep larger areas
25 of a particular system for leaks.
- 26 • Implementation of leak detection specialists to help locate leaks throughout
27 PAWC’s service territory when needed in the case of an emergency.

- Using the Company's MapCall work management system to capture all work done by our crews, including main break repairs so that patterns can be analyzed geographically (this will allow us to identify future main and service replacement projects).
- Usage of MapCall for more accurate monthly reporting and monitoring of all NRW use; and documenting all unaccounted-for water loss and authorized consumption in total gallons.
- Training meter readers and other field personnel to identify and report possible theft-of-service situations (such as evidence of occupancy or other activity in premises with no registered consumption) and raising public awareness and understanding of the operational and financial consequences of NRW.
- Asking local municipalities to develop theft-of-service ordinances and to enlist citizens and law enforcement to help address this problem.
- Annual and Semi-Annual testing and calibration of our production delivery meters per AWWA M36 manual standards.
- Metering all automatic blow-offs for water quality flushing and new water main installation flushing to help account for all authorized consumption water loss.

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

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

A. Since 2016, PAWC has installed approximately 12,000 leak detection sensors in the distribution system. Approximately half of these sensors were installed since the Company's last base rate case filing. These active acoustic listening devices are cellular - based and can transmit their findings to us daily for analysis. This transmittal eliminates

1 the need to deploy resources to patrol the areas to collect the data, which allows for more
2 timely analysis of the collected data. This technology also allows us to better identify those
3 areas that need the most attention, resulting in more efficient deployment of repair crews.
4 We will add an additional 2,248 acoustic cellular data loggers in 2022 across PA.

5 Since 2016 these data loggers have helped pinpoint 2,282 non-surfacing leaks that
6 would have otherwise been unknown, allowing for quick repair by field operations staff.
7 Our leak detection specialists use a variety of state-of-the-art equipment in the field to
8 locate and pinpoint leaking mains such as ground listening microphones, leak correlators,
9 and line locating devices.

10 **Q. How has the Company improved its fleet management?**

11 A. With a fleet of over 1,100 vehicles and other rolling equipment, it is imperative that the
12 Company has a program to manage its fleet. Our capital program typically replaces over
13 120 vehicles per year. We have two positions dedicated to ensuring our fleet is working
14 optimally. These employees work hand-in-hand with our senior operations managers as
15 well as the end-users to optimize both initial cost and lifetime costs for every vehicle in the
16 PAWC fleet. Each year, they conducted fleet summits that included frontline employees
17 and supervisors to collect ideas on how to build a better vehicle specifications program.
18 This results in continuous improvement to better meet the needs of the end user.
19 Additionally, fleet managers serve as the liaison with the American Water Works Service
20 Company fleet team who ensures overall competitive pricing and leveraging of national
21 buying and negotiating power for both new vehicles and repair services. Our fleet
22 personnel are held accountable for reducing expenses, when possible, without negatively
23 affecting our ability to serve our customers and safety.

As part of the capital planning process, we identify vehicles that are nearing the end of their depreciable life for replacement, generally targeting smaller replacement vehicles with better fuel consumption and lower initial and lifecycle costs. The mix of vehicle types varies year to year based on business need, and during the COVID-19 pandemic, based on availability of chassis from major manufacturers. For example, in 2020, more than 60% of vehicles were lighter duty, and in 2021, that number was reduced to 35%. A summary of the Company's recent historical and planned vehicle replacements follows:

Year	Capital Spend	Vehicles Replaced
2020	\$8.9M	144
2021	\$12.3M	146
2022 (plan)	\$11.5M	148
2023 (plan)	\$10.5M	145

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 in order 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.

Damage Prevention Program

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

1 A. We have over 200 employees that perform underground locate requests in response to
2 PA811 efforts. In 2020 and 2021 the Company completed 166,000 and 171,000 PA811
3 tickets respectively. Very few of our employees do underground locates as their primary
4 job, and it is imperative to closely track and monitor for performance to keep all parties
5 aligned. We have an Underground Damage Prevention Committee that meets once per
6 month to discuss performance trends, AVRs, technical issues and training programs. The
7 cross functional committee is made up of managers for each operating region, GIS team
8 members, Legal and Business Performance who administers the program.

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

10 The company's performance is very good with over 99.99% of tickets completed on time
11 during 2021 and a steadily decreasing number of tickets that are responded to late of only
12 0.7% in 2021. There are various time frames within which different types of tickets must
13 be completed. Emergency tickets are to be completed as soon as practical and routine
14 tickets must be completed within 3 days. We track both completion of tickets and
15 timeliness, i.e., completed within the applicable statutory time frame for response. Any
16 missed opportunity is discussed with local management which has enabled the organization
17 to continually improve.

18 **Advanced Metering Infrastructure**

19 **Q. What is the Company's strategic approach to implementing advanced metering**
20 **infrastructure ("AMI")?**

21 A. The Company is taking an approach that strategically selects areas for concentrated AMI
22 efforts based on local needs and opportunities. As of January 2022, 21% of the Company's
23 customers are equipped with AMI technology, with Scranton customers comprising the

majority of AMI customers. The Company also adopted cellular AMI technology, and all length of service meter and faulty meter replacements will be upgraded to AMI throughout the Company's service areas. We expect that 31% and 42% of the Company's customers will be equipped with AMI by the end of 2022 and the end of 2023, respectively. However, this progress may be impacted if in-home appointments are hampered by future COVID-related restrictions.

Q. What are some of the benefits of AMI technology?

A. AMI provides a variety of benefits stemming from PAWC's ability to collect consumption and interval data from the meter and transmit it to a computer network at any given time. These benefits include improving safety, operations and customer service.

Q. How does AMI improve safety and operations?

A. With AMI, it is no longer necessary for employees to walk or drive by meter routes in order to gather consumption data. As our AMI deployment continues, AMI has the potential to:

- Increase efficiency by reducing time spent reading meters.
- Reduce workplace safety hazard exposures associated with meter reading activities for our employees.
- Reduce environmental impacts associated with having to make monthly trips to obtain meter readings; and
- Align our workforce to move positions from meter reading to other positions to better serve our customers.

In addition, PAWC can use AMI data to uncover irregularities that may signal a leak, meter tampering or water theft. With the implementation of a meter data management system, the Company will be able to collect, organize and analyze large quantities of meter data to support its water loss reduction efforts and improved customer billing more efficiently.

1 **Q. How will AMI improve the overall customer experience?**

2 A. The use of AMI increases billing accuracy and reduces the likelihood of estimated bills by
3 automatically providing timely accurate reads through the network. Removal of potential
4 human error also reduces the need to obtain re-reads. In addition, AMI makes it possible
5 for customers to view their personal consumption more frequently than monthly, allowing
6 them to monitor their usage for conservation purposes or to identify and address unusually
7 high usage. AMI also includes functionality that eases the turn-on and turn-off processes
8 for customers. For select locations, an AMI meter can have its own valve that can be
9 remotely opened or closed to turn-on and turn-off service in a timely manner without
10 having to send someone out to do it manually. AMI is especially well-suited for detecting
11 leaks on a customer's service line. Utilizing AMI, the Company can monitor continuous
12 usage of accounts and the Company will notify a customer if their meter detects continuous
13 flow for more than 24 hours. This saves the customer money, saves water, and potentially
14 eliminates leak adjustments that are often requested by customers with hidden leaks.

15 **Q. Are there other benefits associated with the remote turn-on and turn-off**
16 **functionality?**

17 A. Yes. Not only does this capability ease customer service requests, but it also eliminates
18 potential safety hazards associated with opening meter tiles or having to enter a customer's
19 home. This technology also eliminates challenges associated with shared service lines.
20 Currently, customers on shared service lines cannot request cessation of their service and
21 the Company cannot terminate service for any reason without also turning off service to
22 other customers. PAWC has approximately 20,000 shared service lines in its Scranton
23 district. Not being able to turn off service to individual customers on such service lines

(1) prevents customers from having their service turned off for any reason; (2) prohibits the Company from lawfully terminating service to delinquent customers, potentially leading to large uncollectible amounts; and (3) can result in water waste due to leaks on customer-owned facilities if not timely addressed by the customer. Consequently, a variety of issues can arise for a large subset of the Company's customers in the Scranton district, each of which can be mitigated using the individual valves available on AMI meters.

Energy Efficiency

Q. Please describe the importance of electricity to the water and wastewater business.

A. It takes a significant amount of energy to extract, treat, and deliver clean water to our customers and to collect, treat, and dispose of wastewater.³ A large portion of a typical water utility's total energy consumption is used to pump water. As pumps age, they wear and become less efficient. As a result, more power is required to pump the same volume of water.

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.

³ The electric and water sectors are closely aligned: the treatment and delivery of water and wastewater services requires a significant amount of energy, while energy extraction and production require a significant amount of water.

1 A. ***Competitive Energy Procurement.*** PAWC has actively procured electricity supplies
2 across its operations for several years. The Company has used competitive bidding,
3 including reverse auction platforms, to procure electricity supplies in the West Penn Power,
4 Duquesne Light, Met Ed, PECO, Penelec, Penn Power and PPL service territories. The
5 supply contracts that resulted from the bidding process are based on “shaped” fixed pricing
6 for a short-term period, typically two or three years. The aggregate annual electricity
7 supply covered by such contracts accounts for over 90% of the Company’s annual
8 electricity consumption. By aggressively bidding electricity supply, the Company has
9 taken full advantage of the deregulated electricity supply market. The Company
10 recognized in 2015 the historically low prices available in the energy market and negotiated
11 extensions of the supply agreements through the end of 2019 to lock in low energy prices.
12 Similarly, in 2017, the Company again took advantage of low energy prices to secure
13 favorable supply agreements through the end of 2021. These agreements have
14 subsequently been extended or renegotiated through the end of 2023 to take advantage of
15 the continued historically low energy prices. The Company will continue competitive
16 procurements in the future to obtain the lowest-cost energy available for the benefit of
17 customers.

18 ***Energy Efficiency Upgrades.*** In 2011, the Company embarked on a
19 comprehensive program to reduce electricity consumption at its water pumping facilities,
20 which account for over 75% of PAWC’s overall energy consumption. The objectives of
21 the program are to reduce energy costs and greenhouse gas emissions that are associated
22 with inefficient power consumption. The Company has performed “water-to-wire”
23 efficiency testing (i.e., the efficiency of a pump and motor together) of its largest pumping

1 facilities to identify opportunities to improve the efficiency of motors and pumps. From
2 2011 through 2017, the Company systematically refurbished and/or replaced pumps or
3 motors at more than 26 of its pumping stations, from which we are continuing to receive
4 benefit. These stations include all the top-20 highest energy-consuming facilities in the
5 Company's operations. The Company continues to monitor these large stations to ensure
6 that pumping efficiencies remain at acceptable levels and, in the event further upgrades are
7 required to maintain or efficiently achieve greater efficiencies, PAWC will plan capital
8 projects, as needed, to implement such upgrades.

9 ***Lighting Upgrades.*** Since 2009, the Company has upgraded the lighting and
10 switches at more than 55 treatment plants, pumping stations and office buildings/operations
11 centers. These projects consisted of replacing existing metal halide and T12 fluorescent
12 fixtures with new, high-efficiency T8 fluorescent and/or LED fixtures, installing high-
13 efficiency lamps, installing new high-efficiency outdoor LED lighting, and/or installing
14 new switches with occupancy-sensor controls. The projects have payback periods of about
15 two years and provide energy savings and improved lighting for workspaces well into the
16 future.

17 ***Energy Use Monitoring and Demand Response.*** PAWC uses an American Water
18 enterprise-wide application to monitor its energy accounts across the state. This
19 monitoring tool provides "before and after" benchmarking capabilities to help the
20 Company assess the success of various efficiency initiatives. The Company has also
21 installed real-time electricity meters and dashboards at 19 of its largest pumping facilities.
22 The dashboard provides our operators with real-time visibility of their electricity
23 consumption and wire-to-water efficiency, and also provides our engineers with discrete

1 energy efficiency data on these large units to monitor and plan for future efficiency
2 upgrades.

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

12 *Act 129 Rebates.* PAWC has been working with its electric utilities since the 2010
13 inception of the programs for energy efficiency and conservation (“EE&C”) those utilities
14 instituted to comply with Act 129. When electric utilities were developing their EE&C
15 programs, the Company participated in stakeholder meetings with their service providers
16 to provide input from the water and wastewater industries. As the EE&C programs were
17 introduced by the electric utilities, PAWC reviewed its capital projects for eligibility under
18 the rebate programs and applied for, and received, several rebates. So far, the Company
19 has received over 40 rebates for more than \$1,020,000.

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

21 A. The benefits of PAWC’s efforts to improve energy efficiency are three-fold. Improved
22 energy efficiency (1) provides more efficient, higher quality service; (2) reduces operating
23 costs through reduced energy consumption; and (3) reduces carbon and other emissions.

1 Through the comprehensive energy efficiency programs outlined above, the Company has
2 been able to keep its fuel and power expense line flat to declining. In fact, the Company's
3 2021 fuel and power expense was less than the Company's 2010 fuel and power expense,
4 notwithstanding the numerous acquisitions and organic customer growth the Company has
5 experienced over that more than 10-year period.

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

7 A. The Company has a long history of exploring and implementing cost-effective beneficial
8 uses for its treatment residuals, rather than relying on costly landfill disposal. The
9 Company has been able to implement beneficial use practices at 32 of the Company's
10 35 surface water treatment plants. On a dry weight basis, approximately 95% of the
11 Company's water treatment residuals are beneficially used across the state, at a cost far
12 lower than conventional disposal at a landfill. The Company recently implemented capital
13 improvement projects at the Ellwood City and Norristown water treatment plants and the
14 Clarion wastewater treatment plant to improve the residuals dewatering process. This
15 process lowers the overall weight of the product to be transported and disposed of; and
16 thus, the associated costs as well. Since its completion in Norristown in 2016, the new
17 centrifuge dewatering process has reduced annual waste disposal costs by 30%, or
18 approximately \$56,000 per year. A new volute press process at the Clarion wastewater
19 treatment plant has improved the percentage solids reduction from an original range of
20 12%-18% to greater than 16%-22%, thus reducing the overall disposal costs. The new
21 centrifuge process in Ellwood City, completed in 2019, has resulted in a disposal cost
22 saving of over 90%.

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

2 A. The Company has implemented changes in two districts to control purchased water
3 expenses. These two districts, Connellsville-Uniontown and Glen Alsace have historically
4 had the highest purchased water expenses of all of the Company's districts. In
5 Connellsville-Uniontown, the Company negotiated a long-term purchased water
6 agreement with a new supplier that provides long-term cost savings and certainty on future
7 rate increases. This agreement went into effect in February 2017 and is currently saving
8 over \$30,000 per month over the prior agreement. More recently, we are maximizing all
9 extra capacity from our Brownsville treatment plant by pumping it to Uniontown to reduce
10 the purchased water load. We also increased our leak detection activities in Uniontown to
11 minimize water that we purchased. Finally, we addressed a pressure problem in Uniontown
12 that was the source of water main breaks. The Company is continually investigating
13 potential capital upgrades to be able to shift even more load to the lower-cost provider in
14 the longer term.

15 **Employee Levels and Compensation**

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

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

1 The Company continually strives to find more efficient and cost-effective ways to
2 operate and maintain its business. As part of that effort, we strive to manage our cost
3 structure as efficiently as possible, including employee costs. We recognize our duty to
4 staff our business in a manner consistent with the provision of safe, reliable and affordable
5 utility service. This requires a constant evaluation of the right mix of internal and contract
6 labor, straight time versus overtime, training programs, and supplementing or, when
7 prudent, replacing labor with technology. In this vein, we continue to evaluate costs and
8 expenses going forward, always looking for the best solution for the unique and changing
9 challenges we face. A substantial portion of PAWC's cost structure is associated with the
10 Company's cost of labor, and as a position becomes vacant in our organization, we look to
11 the value of that position. We review the overall need for that position and consider, among
12 other things, whether it should be transferred to another area, modified, or even eliminated.
13 Cost control and improved business performance are the goals of these efforts. We
14 continue to evaluate the new roles that will be created as new regulatory requirements are
15 promulgated, and the appropriate positions that PAWC will need to optimize recent
16 technology and most effectively serve our customers.

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

18 A. We have identified 1,226 in the FPFTY equivalent employees as the appropriate staffing
19 level for the Company's water and wastewater operations. The number of employees is
20 based upon each department and each functional area's need to provide safe, adequate,
21 efficient, and reliable service to the Company's customers. Service needs and related
22 resource requirements are consistent with meeting regulatory requirements, tariff

requirements, industry standards, service requests, customer needs, and providing adequate support to PAWC's business operations.

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

A. PAWC aims to offer compensation that is on par with that offered by the companies that PAWC competes with for employees. Therefore, PAWC targets its total direct compensation (base and variable compensation) for each role at the Company near the market median (50th percentile) for that role.

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

A. There are three classifications of employees: collective bargaining unit ("CBU") hourly employees, non-collective bargaining unit ("non-CBU") hourly employees and exempt employees.

Q. How is variable compensation provided to exempt and non-CBU employees?

A. Variable compensation is provided to exempt employees through the Company's Annual Performance Plan ("APP") and Long-Term Performance Plan ("LTPP"). In 2016, the APP was expanded to include non-CBU hourly employees. In 2019, the APP was further expanded to include CBU hourly employees, as part of national benefits negotiations that took place in 2018.

Q. Please generally describe the purpose of the APP and the LTPP.

A. The plans are designed to provide compensation for operational and financial performance, and to focus plan participants on delivering safe and reliable water and wastewater services. Copies of the plans, which are marked as confidential and proprietary, are provided as

1 Filing Requirement III.22 (Volume 6b) of the Company's responses to the Commission's
2 filing requirements.

3 **Q. Does the Company's compensation plan benefit customers?**

4 A. Yes. As I mentioned, the plan is designed to provide compensation for performance and
5 to focus plan participants on delivering safe, reliable and affordable water and wastewater
6 services. The compensation plan includes components of financial, operational, and
7 individual measures. The operational components measure performance that can most
8 directly influence customer satisfaction, health and safety, environmental performance, and
9 operational efficiency. Customers derive a direct benefit from our focus on these key
10 measures in the plan. Further, well-grounded financial measures keep the organization
11 focused on improved performance at all levels of the organization, particularly in
12 increasing efficiency, decreasing waste, and boosting overall productivity. All the aspects
13 of overall performance benefit customers by rewarding superior performance in every
14 function. This superior performance supports our increased O&M efficiency resulting in
15 a workforce that is incented to find smarter, more efficient ways to deliver water and
16 wastewater services.

17 Finally, a financially healthy utility focused on efficiency and customer satisfaction
18 can attract the capital investments necessary to provide safe and reliable service and to
19 maintain the technological expertise necessary to operate the Company and comply with
20 increasing water quality standards. A financially healthy utility is very much in the interest
21 of PAWC's customers, as it helps ensure PAWC the ability to provide safe and reliable
22 service at the lowest reasonable cost.

1 **Q. Are there other benefits of variable pay?**

2 A. Yes, there are several. Variable pay provides a means of focusing our employees on the
3 organization's goals and provides a means of measuring attainment of those goals.
4 Aligning employees with the Company's goals supports accountability to meet their goals
5 and develops a healthy and positive corporate culture that in turn creates a highly motivated
6 and productive workforce. Variable pay that is aligned with the Company's strategic goals,
7 such as APP and LTPP, imparts that sense of purpose to employees that serves as the base
8 for providing high quality service to customers.

9 **Employee Development**

10 **Q. Describe the Company's commitment to employee development.**

11 A. PAWC values the growth and development of its employees. In support of this, a training
12 goal of 25 hours or more has been set for all employees. The Company increased this goal
13 from 20 hours in 2021 to further incent employee growth. LEARN, American Water's
14 learning management systems provides a one-stop shop for registering for instructor-led
15 courses and participating in e-learning. In addition to the Company's focus on providing
16 employees with relevant training geared towards their primary job responsibilities, there
17 are opportunities for technical, professional, management and leadership development for
18 career advancement opportunities. There are over 200+ eLearning course around business,
19 leadership, and professional development available in LEARN.

20 All employees have been assigned the following safety courses for 2022: Blood
21 Born Pathogens and Fire Safety and Prevention, which are an annual requirement. In
22 addition, An Employees Right to Know, Slips, Trips and Falls and Stop Work Authority
23 are on a three-year training reoccurrence cycle. We consider these courses core to our

1 training program and additional courses are assigned based on the employee's specific job
2 tasks. - PAWC has also developed an Operator Training Academy aimed at developing
3 the skills of our treatment plant operators, which consists of both virtual and live sessions.
4 While designed for operators, the program is offered to all employees that wish to develop
5 their understanding of the Production and Treatment processes.

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

7 A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY
COMMISSION

v.

PENNSYLVANIA-AMERICAN WATER
COMPANY

DOCKET NOS. R-2022-3031672 (WATER)
R-2022-3031673 (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: April 29, 2022


Jim Runzer

Statement No. 3

Aiton

PAWC STATEMENT NO. 3

DIRECT TESTIMONY

OF

BRUCE W. AITON

WITH REGARD TO

**PENNSYLVANIA-AMERICAN WATER COMPANY'S
PLANT ADDITIONS; RISKS ASSOCIATED WITH WATER QUALITY / QUANTITY AND
ENVIRONMENTAL REGULATIONS; LEAD SERVICE LINE REPLACEMENT;
STORMWATER FEE FEASIBILITY STUDY; AND MIDDLESEX INTERCONNECTION**

DOCKET NOS.

R-2022-3031672 (WATER)

R-2022-3031673 (WASTEWATER)

DATE: April 29, 2022

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 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”) 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 America Water Works Association and Water Environmental
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 explain the Company’s capital investment planning process. Second, I will
20 describe and support the additions to the Company’s water and wastewater utility plant and

1 equipment that will be placed in service during the future test year (“FTY”) ending
2 December 31, 2022 and the fully projected future test year (“FPFTY”) ending
3 December 31, 2023. Third, I will describe the risks associated with: maintaining safe and
4 adequate water quantity and water quality and complying with applicable drinking water
5 and environmental regulations associated with owning and operating facilities for
6 supplying water and wastewater services to the public; complying with environmental
7 regulations applicable to owning and operating facilities for furnishing wastewater service
8 to the public; and the challenges climate change could create for water and wastewater
9 utilities. Ms. Bulkley, in PAWC Statement No. 13, discusses why investors’ perceptions
10 of such risks should be considered in establishing a reasonable rate of return on equity for
11 the Company in this case. Fourth, I will describe PAWC’s proposed modifications to its
12 lead service line replacement plan previously approved by the Pennsylvania Public Utility
13 Commission (“Commission”). Fifth, I will explain the Company’s efforts to evaluate the
14 feasibility of adopting a stormwater fee for its combined sewer system (“CSS”) customers.
15 Finally, I will address certain issues raised by the Commission at Docket Nos. A-2021-
16 3025160 and U-2021-3025162 related to the Company’s emergency interconnection
17 agreement with the Middlesex Township Municipal Authority (“MTMA”).

18 **The Company’s Capital Investment Planning Process**

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

20 A. The Company uses a standardized Capital Program Management (“CPM”) process to
21 manage its capital investments. PAWC conducts planning studies that assess necessary
22 improvement projects and prioritize those projects within the study area. Further, each

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

18 **Q. How does the Company's construction planning process impact its claim for plant**
19 **additions?**

20 A. The Company's claim for plant additions consists of the projects scheduled for completion
21 during the FTY (2022) and the FPFTY (2023). The overwhelming majority of the
22 Company's claimed projects will be constructed and completed as planned. However, as

1 the years progress, some projects may be substituted for others initially included in the
2 budget due to unanticipated events requiring an immediate capital addition, such as plant
3 or equipment that has experienced failure and needs to be replaced or delay in permitting
4 of a specific project. In general, the overall cost of plant construction will be consistent
5 with the values filed. If a major investment project were to encounter a delay and could
6 not be completed during the test year, the Company would eliminate that project from its
7 claim for plant additions and may or may not necessarily make a substitution. If the delay
8 did not extend materially beyond the future test year and the project otherwise satisfied the
9 applicable criteria, the Company could consider including the project as a claim for
10 construction work in progress. Often, where one project may lag for a variety of reasons,
11 another may be completed early, thereby offsetting another project's delay such that the
12 overall program remains consistent.

13 **Description of Claimed Plant Additions**

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

15 A. The Company has undertaken gross plant additions (including projects funded by customer
16 advances and contributions) to be completed by December 31, 2022, that are estimated to
17 total \$474,450,075. The investment for 2022 reflects an increased level of investment as
18 compared to the 2022 projection in the Company's last base rate case due to rising material
19 costs and increased investment in acquired systems. The Company has also undertaken,
20 or will undertake, gross plant additions (including projects funded by customer advances
21 and contributions) to be completed by December 31, 2023, that are estimated to total
22 \$653,457,094. Thus, the total gross plant additions for 2022 and 2023 are \$1,127,907,169.

1 When projected retirements of \$142,527,791 are considered for 2022-2023, the combined
2 net increase in plant additions for those two years is estimated to be \$985,379,378.

3 **Q. In general terms, could you explain why the Company is planning to spend over**
4 **\$1.12 billion on infrastructure investment through the fully projected future test**
5 **year?**

6 A. Pennsylvania's water and wastewater infrastructure requires significant upgrade and repair.
7 In its 2018 Report Card for Pennsylvania's Infrastructure, the American Society of Civil
8 Engineers concluded that the Commonwealth's water and wastewater infrastructure
9 received grades of D and D-, respectively.¹ A funding gap of \$10.2 billion over the next
10 decade exists for water systems to make all the necessary repairs and improvements
11 required to avoid "health risks, environmental impacts, and financial losses."² Similarly,
12 a funding gap of \$8.4 billion over the next decade exists for wastewater systems in order
13 to properly address combined and sanitary sewer overflows, repair existing systems,
14 upgrade systems to meet current regulatory requirements, and build new required
15 facilities.³ The Company's planned infrastructure investment through the FPFTY and
16 beyond is intended to continue to address these infrastructure concerns in the
17 Commonwealth, as well as to meet several environmental and public health standards
18 described later in my testimony.

1 Report Card for Pennsylvania's Infrastructure, Pennsylvania State Council of the American Society of Civil Engineers (available at https://infrastructurereportcard.org/wp-content/uploads/2021/07/ASCE-PA-report_2018.pdf).

2 *Id.* at 29.

3 *Id.* at 125.

1 **Q. What types of projects are included in the Company’s total gross plant additions for**
2 **2022 and 2023?**

3 A. The projects that comprise the Company’s claim for plant additions are set forth by
4 applicable property account and PAWC Project Number in the portion of PAWC Exhibit
5 No. 3-C that I am sponsoring, along with the estimated completion date and associated
6 retirement for each project. As shown in Exhibit No. 3-C, the Company’s claimed plant
7 additions vary between what may be characterized as small, routine projects, such as the
8 installation of individual distribution mains, to substantially larger projects, such as the
9 upgrade and rehabilitation of the Butler Water Treatment Plant (“WTP”), to satisfy new
10 regulations to ensure the removal of cryptosporidium; safety and reliability projects
11 including the installation of emergency power generation equipment and pipeline
12 reinforcements; water storage tank projects; and system acquisition improvements.

13 **Q. Does Exhibit No. 3-C also reflect the Company’s acquisitions in 2022 and 2023?**

14 A. Yes. Exhibit No. 3-C reflects the asset cost, reserve and depreciated cost by plant account
15 and year for the acquired assets for systems which the Company will acquire in 2022 and
16 2023, including water acquisition Creekside and wastewater acquisitions Foster, Upper
17 Pottsgrove, and York.⁴

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

⁴ Because York is being recorded on a net basis consistent with the Joint Petition for Settlement at Docket No. A-2021-3024681, the amount shown in Exhibit No. 3-C reflects the net value of the acquired assets.

1 A. Yes. While there are hundreds of individual plant additions detailed in Exhibit No. 3-C,
2 the larger individual components of the Company's claim for plant additions are described
3 below. Water system projects are presented first by year of anticipated completion,
4 followed by wastewater system projects also by year of planned completion. In the
5 following summary, PAWC will indicate if a project is required by either the Pennsylvania
6 Department of Environmental Protection ("DEP") or the United States Environmental
7 Protection Agency ("EPA").

8 **2022 Projects**

9 **1. McClane Farm Road (I24-210033)**

10 This project is in the Company's McMurray system in Washington County. The project
11 will replace approximately 4,877 linear feet ("LF") of old 8" cast iron main along McClane
12 Farm Road. The main serves Maplevue Service gradient and is also a supplemental feed
13 to the Paxton Farm Road booster station. The total estimated cost of the project is
14 \$2,536,680.

15 **2. Milton High Service Pumps and Clearwell Modifications (I24-710016)**

16 The existing Milton WTP, operating at its permitted plant capacity of 6.0 million gallons
17 per day ("MGD"), is not capable of meeting 1-log inactivation during winter conditions.
18 At pH 8.3 and temperature 0.5 °C, the plant is only capable of achieving a 0.29 log removal
19 inactivation in the existing clearwell and pre-chlorination has led to elevated settled
20 turbidity. The project is to construct a second clearwell and new high service pumping
21 station that will achieve the required contact time and thereby achieve the inactivation of

1 potentially harmful bacteria. The new clearwell will also enable the original clearwell to
2 be taken out of service for cleaning and structural evaluation. The project will also include
3 the replacement of the existing backwash water pumps and a new generator. The total
4 estimated project cost is \$7,488,182.

5 **3. White Deer Creek Contact Clearwell Tank (I24-710021)**

6 The White Deer WTP has a single 0.5 million gallon (“MG”) contact tank that is used for
7 disinfection of source water prior to that water entering the distribution system. However,
8 since there is only one contact tank, it cannot be taken out of service for maintenance or
9 repairs. The project will install a second tank to provide operational flexibility and allow
10 for the existing tank to be taken out of service for maintenance and rehabilitation. The total
11 estimated cost of the project is \$1,502,941.

12 **4. Becks Run Raw Water Pumping Station (I24-110061)**

13 The project will upgrade the HVAC facilities at the Hays Mine Becks Run raw water
14 pumping station to keep up with the additional heat load of variable frequency drive units
15 (“VFD”). The new system will include a roof-mounted air handling unit and four-fan coil
16 units mounted in the VFD room. This improvement will provide full system redundancy
17 and operational efficiencies. The total estimated cost of the project is \$1,330,000.

18 **5. Aldrich WTP Additional Wastewater Clarifier (I24-110046)**

19 Currently, the Aldrich WTP has one wastewater clarifier, which does not have sufficient
20 capacity to meet the plant’s needs under all operating conditions. For example, during

1 storm events, the storm runoff causes high turbidity in the source water and creates a high
2 solids loading in the river supply and causes high backwash conditions in the purification
3 units. This high solids loading may overload the existing wastewater clarifier. In addition,
4 when the existing clarifier is removed from service for maintenance, process wastewater is
5 discharged directly to the lagoons that discharge to the Monongahela River. To address
6 these conditions, a second wastewater clarifier will be constructed to provide adequate
7 capacity for current operations and to accommodate the increased wastewater flow
8 generated from the filter-to-waste improvements. The total estimated cost of the project is
9 \$12,740,000.

10 **6. Hays Mine WTP Superpulsator Motor Control Center (“MCC”) and**
11 **Transformers (I24-110057)**

12 The Hays Mine WTP is in the Pittsburgh system. The project is to replace obsolete electric
13 equipment that poses a risk to safety and reliability. Specifically, the project includes
14 replacement of the existing MCC, three transformers, panels, and conduit, as well as
15 removal of existing HVAC equipment. The total estimated cost of the project is
16 \$1,248,781.

17 **7. Watres/Mill Creek Main Replacement (I24-910046)**

18 The Watres Water Treatment Plant supplies potable water to several municipalities in
19 Luzerne County in the Wilkes-Barre Area service territory. One of the finished water
20 mains that conveys water from the plant to the service area is a 16” cast iron (“CI”) pipe
21 installed in approximately 1895. The main follows the alignment of Mill Creek from the

1 intersection of Jumper Road and Westminster Road for approximately 7,900 feet until it is
2 behind the Mill Creek development and near where it crosses Route 81. This 7,900-foot
3 section of pipe, which is located adjacent to Mill Creek, is extremely difficult to
4 access. From a maintenance standpoint, it is not feasible to make repairs in this area. The
5 goal of this project is to replace the section of 16" CI pipe adjacent to Mill Creek with a
6 20" ductile iron ("DI") cement lined pipe located where the new DI pipe can be reasonably
7 maintained. The future 20" main is proposed to be aligned in the 50' right-of-way of
8 Jumper Road until it reaches the Mill Creek development. The line will then be in the
9 right-of-way on Mill Creek Road, and then Briar Creek Road, until reaching its "tie-in"
10 location to the existing 16" water main (near Route 81). The approximate distance of new
11 main is 10,200 feet. The total estimated cost for the project is \$3,398,396.

12 **8. San Souci Parkway (I24-910061)**

13 The Sans Souci Parkway distribution main serves approximately 12,000 customers in the
14 Hanover and Nanticoke area in Luzerne County. The existing main is made of early 1900s
15 vintage CI pipe that has a history of leaks and breaks. The scope of the project is to replace
16 approximately 10,500 feet of CI pipe (dual run) with approximately 6,030 feet of new DI
17 pipe and approximately forty service renewals along the Sans Souci Parkway ahead of a
18 Pennsylvania Department of Transportation road reconstruction project on the Sans Souci
19 Parkway scheduled in 2023/2024. The total estimated cost of the project is \$2,782,676.

1 **9. Saw Creek Treatment Buildings (I24-680022)**

2 The project will replace the existing treatment buildings for Wells 4, 5, 9, and 10A in the
3 Saw Creek system. These structures were installed over 40 years ago, have reached the
4 end of their useful lives, are in poor condition, have reliability and safety concerns, and are
5 undersized. The treatment facility for Wells 4 and 5 will be relocated from the Well 5 site
6 to the Well 4 site, which is larger and more easily accessible. The treatment facility for
7 Wells 9 and 10A will remain at the Well 10A site on Decker Road at the Company's
8 operations center in Saw Creek Estates. The total estimated cost of this project is
9 \$1,374,844.

10 **10. Lake Scranton Filter Rehabilitation (I24-91XX31)**

11 This project is required by DEP. The Scranton Area WTP provides potable water to
12 approximately 50,000 customers in and around the City of Scranton. The project will
13 replace the filter media installed over 30 years ago that have reached the end of their useful
14 lives. Other improvements include replacement of valve actuators, level controllers, and
15 headless and flow cells. This project expected to improve filter run-times and rinse times,
16 which leads to a significant increase in overall treatment efficiency and operational cost
17 savings. The total estimated cost of the project is \$1,800,000.

18 **11. Exeter Wastewater Treatment Plant ("WWTP") Improvements (I24-130001)**

19 The project is required by DEP. The project includes the installation of an above ground
20 electrical room to relocate all electric (MCC, supervisory control and data acquisition
21 ("SCADA") systems, electrical panels) for those return activated sludge ("RAS") pumping

1 stations. The Company will also replace all mechanical and HVAC equipment located in
2 the RAS pumping stations. The estimated cost for this project is \$2,271,982.

3 **12. Pocono Additional Source Development (I24-570007)**

4 The project will provide additional sources of supply in the Pocono district to provide
5 increased system reliability. The plans to develop and upgrade Wells 2 and 4 to increase
6 supply by an additional 217 gallons per minute (“GPM”) of capacity into the Pocono Main
7 Gradient. The project also includes new raw water piping from Well 2 to a new treatment
8 facility at the Well 4 site, and new finished water piping to connect those wells to the
9 Pocono System Main Gradient. The total estimated cost of this project is \$2,346,000.

10 **13. Scranton WWTP Solids Handling Improvements (I24-920028)**

11 The Scranton WWTP currently utilizes belt presses to lower the water content in the waste
12 sludge prior to disposal at a landfill. This technology can only achieve approximately 14%
13 solids resulting in higher handling and disposal costs. The project will replace the existing
14 aged belt presses with a dual centrifuge system to achieve greater than 20% solids. The
15 project also includes improvements to the overall sludge handling process with upgrades
16 to the sludge conveyors, the existing sludge holding tank, the polymer feed system, and
17 improvements to the dewatering building. The total estimated cost of this project is
18 \$6,772,000.

1 **14. Scranton WWTP Disinfection Improvements (I24-920030)**

2 The Scranton WWTP currently utilizes gaseous chlorine for disinfection and sulfur dioxide
3 for dechlorination, which are both toxic gasses. For safety reasons and for more effective
4 treatment during high wet weather flow, the plant will be removing its gas chlorine
5 disinfection system and converting to a UV and sodium hypochlorite disinfection system.
6 The total estimated cost of this project is \$6,875,120.

7 **15. Butler WTP Compliance and Electrical Improvements (I24-330011)**

8 The project is a DEP requirement to comply with the Long Term 2 Enhanced Surface Water
9 Treatment Rule (“LT2”). The project will consist of improvements necessary to maintain
10 compliance with new regulations related to cryptosporidium risk. The Butler WTP is
11 planning to utilize filter performance credits to meet the 1-log additional inactivation
12 required by LT2. To achieve this level of treatment, improvements are required at the
13 WTP. The necessary improvements include the addition of filter-to-waste improvements,
14 including a second wastewater holding tank and post-caustic chemical feed. Additionally,
15 the Company will update and move the primary MCCs at the plant from a lower level in
16 the plant to ground level and adding emergency power generation to improve safety and
17 reliability. The total estimated cost of the project is \$12,981,484.

18 **16. Pitt-McKeesport Boulevard Main Replacement (I24-110065)**

19 The project is in the Pittsburgh system in Allegheny County. The project will replace
20 approximately 3,600 LF of CI main installed around 1909 along Pitt-McKeesport

1 Boulevard to provide more reliable water service. The existing water main serves
2 approximately 200 customers directly within the 3,600 LF project area and conveys water
3 to over 1,000 customers and has been subject to multiple breaks leading to lengthy water
4 service interruptions to the major businesses and residents. The total estimated cost of the
5 project is \$2,289,996.

6 **17. McKeesport East Shore Force Main Replacement (I24-120013)**

7 The East Shore Force CI main along Walnut Street in McKeesport was installed in 1960,
8 has reached the end of its useful life, resulting in unauthorized sanitary sewer discharges.
9 The main has been repaired multiple times prior to PAWC acquiring the McKeesport
10 wastewater system in 2017 and twice since acquisition. The project will replace
11 approximately 1500 LF of the McKeesport East Shore Force main with DI piping and
12 PAWC will rehabilitate the remaining 4000 LF of the existing main with a cure-in-place
13 liner designed for pressure applications. The total estimated cost of the project is
14 \$4,603,386.

15 **18. West Milton Booster Pump Station (“BPS”) (I24-710010)**

16 This project will replace the West Milton BPS to improve reliable supply for existing
17 customers and help meet projected demand increases. The West Milton BPS supplies
18 customers in the Milton distribution system, including major customers such as Bucknell
19 University. The existing BPS has reached the end of its useful life. One pump is
20 operational with no backup pump or backup power supply. Additionally, the existing
21 pump station building is in the 100-year floodplain. A new pump station is proposed on a

1 parcel located outside of the floodplain. A new discharge pipeline will connect the
2 replacement BPS to the existing distribution system. The total estimated project cost is
3 \$2,783,341.

4 **19. Turbotville WWTP Replacement (I24-890001)**

5 The Turbotville wastewater system has an existing WWTP that is in poor condition and
6 has reached the end of its useful life. To maintain regulatory compliance, the Company is
7 constructing a new extended aeration activated sludge WWTP. The total estimated project
8 cost is \$8,696,020.

9 **20. Mecklem BPS Replacement (I24-310013)**

10 The Mecklem BPS is in the New Castle system. The pump station needs to be replaced
11 due to a combination of age and condition of the existing pump station and increased
12 customer count in Jackson Township. The existing pump station has a rated capacity of
13 4.1 MGD. The new pump station will have a capacity of 4.83 MGD. The total estimated
14 cost of the project is \$3,670,279.

15 **21. Jackson Township Gradient Improvements (I24-310020)**

16 The project is to design and construct a 650,000-gallon elevated tank, a pump station, and
17 1,200 LF of 12-inch and 16-inch main and add a 1,500 GPM BPS to create a new pressure
18 gradient in Jackson Township, Butler County. This area of the system has experienced
19 high growth, which has also resulted in pressure issues in the area. The project will address

1 the pressure issues and ensure adequate supply to the area of growth. The estimated cost
2 of the project is \$6,150,000.

3 **22. Rock Run WTP Improvements (I24-650016)**

4 The project is a DEP requirement. The project includes installing a UV system to comply
5 with LT2 in addition to other improvements including the change out of the filter media to
6 Granular Activated Carbon (GAC), providing chlorine dioxide for pretreatment, and other
7 improvements to HVAC, filter aid, chemical tube clogging and corrosion prevention. The
8 estimated cost of the project is \$7,533,728.

9 **23. Outfall #68 South Sixth Avenue (I24-920031)**

10 The Scranton CSS is required to maintain compliance with the Scranton Wastewater Long-
11 Term Control Plan (“LTCP”) as required by EPA. One of the main components of the
12 LTCP is the construction of upstream storage and flow management structures to alleviate
13 the uncontrolled outflow of the combined wastewater into the Lackawanna River during
14 wet weather conditions. This project includes the installation of a 20,000-gallon off-line
15 storage facility at Outfall #68 to reduce typical year combined sewer overflow (“CSO”)
16 events at this location from 23 to 6. The total estimated cost of the project is \$1,800,000.

17 **24. Pocono Farms Well 7 Tank & BPS Improvements (I24-570008)**

18 This project includes the replacement of the 200,000-gallon storage tank at Pocono Farms
19 Well #7 as it is in poor condition and has limited usable storage. A new 200,000-gallon
20 steel storage tank and other site improvements, including a new chlorine contact main,

standby generator, and booster pumps to improve storage capacity and reliability will be installed. The total estimated cost of this project is \$1,200,000.

25. Kane Transmission Mains (I24-460008)

This project will include replacement of two aged transmission mains. The Kane system has two primary transmission mains from the WTP – one that feeds the system near Main Street and another near the storage tank to the north part of town. Both transmission mains are aged cast iron and were installed in 1908. The project will replace these two (2) 10-inch transmission mains. The overall estimated cost of the project is \$2,150,000.

26. Punxsutawney South Main Elevated Tank (I24-420007)

The South Main gradient within the Punxsutawney system does not have any storage and has a storage deficit of approximately 0.4 MG. The South Main gradient accounts for approximately 15% of the total Punxsutawney system water sales and includes mostly commercial and industrial customers. The construction of a 0.5 MG elevated tank in the South Main gradient is recommended. The overall estimated cost of the project is \$4,000,000.

27. Paint Township Waterline (I24-430002)

The Paint Township Waterline Loop system was installed in 2011 and consists of approximately five miles of mostly 12” DI main. The system was acquired by PAWC in 2015. PAWC has had to maintain a vigorous flushing program since acquisition to maintain sufficient water quality within the Paint Township system. Testing has indicated

1 that nitrification and water age are contributing factors to the water quality issues. The
2 project will include the installation of approximately 7,150 LF of 12” DI main to be
3 installed from the end of the Paint Township water system, along SR 66, to the intersection
4 of SR 322. The project will loop the dead-end system back into the main Clarion gradient.
5 The project will also include cleaning the inside of the existing mains and installation of
6 automated blow-offs at the remaining dead-end areas of the system. A control valve station
7 will also be installed to direct more flow through the Paint Township system to help reduce
8 water age. The total estimated cost of the project is approximately \$3,100,000.

9 **28. Paint-Elk WWTP Disinfection and Plant Lift Station (I24-380004)**

10 The Paint Elk WWTP located in Shippenville currently utilizes gaseous chlorine for
11 disinfection. The Company is focused on eliminating chlorine gas facilities and plans to
12 install a new liquid sodium hypochlorite system at the Paint Elk WWTP for disinfection.
13 The second aspect of the project will involve replacement of lift station that has reached
14 the end of its useful life with a more efficient pumping system. The overall estimated cost
15 of the project is \$1,400,000.

16 **29. Berkshire Ave Main Replacement (I24-110064)**

17 The project is in the Pittsburgh system in Allegheny County. The project will replace
18 approximately 3,700 LF 6” CI pipe along Berkshire Avenue with 8" DI pipe to reduce the
19 number of main breaks, improve system reliability and customer service. PAWC expects
20 to replace customer-owned lead service lines (“LSLs”) as part of this project in accordance
21 with the Company’s LSL Replacement Plan (“Replacement Plan”) approved by the

Commission at Docket No. P-2017-2606100. The total estimated project cost is approximately \$1,850,000.

30. Findley Township Municipal Authority (“FTMA”) Improvements (I24-210030)

The FTMA Improvement project will address pressure and flow constraints within the McMurray District and provide an interconnection with FTMA. The project consists of replacing the existing 12" main on SR 980 with a 24" main, constructing a new transmission main in McDonald, upgrading to the SR 980 BPS, completing a new main extension on Ridge Road, and constructing a new chemical feed station. The total estimated project cost is \$9,700,000.

31. Hiller Reservoir Liner and Cover Replacement (I24-250007)

The cover and liner on the Hiller Reservoir in the Company’s Butler system needs to be replaced due to normal wear and tear. The project includes the installation of a new ground storage tank to maintain the system while the reservoir is out of service and to also provide future contingency in the case of emergency. Concrete repairs to the reservoir are also anticipated once the liner is removed. The total estimated project cost is approximately \$1,350,000.

1 **32. Control Valves Old Washington (I24-110039)**

2 The project will install three additional control valves between the Pittsburgh and
3 McMurray service areas to improve system control operations. The Rock Ridge storage
4 tanks drain quickly during large main breaks and have difficulty refilling due to water
5 circumventing the high points in the system where the tanks are located. The estimated
6 total cost of the project is approximately \$1,200,000.

7 **2023 Projects**

8 **1. Connellsville Pressure Improvement (I24-230013)**

9 This project will expand the current Snyder Street Gradient to serve the Frisbee Circle area
10 as well as the Breakiron Gradient, which includes a series of system improvements and
11 changes including adding open/close valves at multiple locations; installing a check valve;
12 installing new main to connect the existing mains; and replacing the existing pumps at the
13 new Snyder Street BPS with larger pumps. The total estimated project cost is \$2,110,000.

14 **2. Hays Mine Solids Handling Equipment Replacement (I24-110012)**

15 The Hays Mine WTP, located in the Pittsburgh District, will require replacement of the
16 existing belt filter presses. The parts needed for this maintenance project have significant
17 cost because the units are over thirty years old. Currently, parts have been taken from the
18 fourth unit to maintain the remaining three units. The total estimated project cost is
19 \$8,952,452.

1 **3. McMurray System Flow Monitoring (I24-210011)**

2 This project will aid in the analysis and reduction of non-revenue water by creating
3 additional defined metering zones. The project consists of constructing four (4) metering
4 stations on Venetia Road, Washington Pike, Sugar Camp, and Boyce Road. The total
5 estimated project cost is \$1,297,727.

6 **4. Evans Street CSO Relocation (I24-120016)**

7 Rising water levels in the Monongahela River require the relocation of the CSO outlet in
8 order to avoid increased siltation in the overflow pipes and retain accessibility for
9 maintenance and inspection. The total estimated project cost is \$4,145,901.

10 **5. Steelton Water Treatment Plant Filter Improvements (I24-140001)**

11 As a new acquisition, an assessment was done on the Steelton WTP. A number of
12 deficiencies were identified to address safety and regulatory treatment requirements. These
13 deficiencies will be addressed through Filter Improvements (replacing filter media and
14 rehabilitating filter underdrain systems), Chemical System Improvements (installing
15 secondary containment, level monitoring and addressing safety and reliability issues),
16 Corrosion Control (addition of an Orthophosphate System), and Filter Backwash
17 Improvements (modifications to reduce the amount of backwash water sent to the sewer
18 system). The total estimated project cost is \$3,100,000.

1 **6. Hays Mine Filter Renovations Phase I (I24-110034)**

2 The existing filters at the Hays Mine WTP range in age from 70 to 115 years old. Limited
3 accessibility in the pipe gallery causes safety and operational challenges, for this reason
4 renovations to the system are necessary. The Phase 1 Filter Renovations involve
5 rehabilitating and upgrading Filters 15 to 30, including increasing filter capacity, adding
6 air scour, replacing the hydraulically operated valves with motor operated valves, adding
7 a second feed to the backwash tank, improving the filter backwash waste handling,
8 installing new SCADA equipment for all filters, and adding dehumidification in the pipe
9 gallery. The total estimated cost of the project is \$10,850,000.

10 **7. Lake Scr. 48” Transmission Main/Tunnel Rehab (I24-910048)**

11 The Scranton Area WTP provides potable water to approximately 50,000 homes in and
12 around the City of Scranton. The original 48” cast iron transmission main was installed in
13 1909 and was then supplemented in 2018 with the installation of a 42” transmission main
14 to reliably supply the Scranton area with finished water. Recently, the 48” cast iron main
15 experienced a significant leak within the tunnel. Efforts to safely locate the leak on the 48”
16 main have been exhausted and the line has been taken out of service. Currently, the sole
17 method of conveying finished water from the WTP to our customers is via the 42” main.
18 This project will include rehabilitation and replacement of the existing 48” pipe within the
19 tunnel. The estimated cost of the project is \$5,000,000.

1 **8. Sugar Notch Pump Station Improvements (I24-91XX30)**

2 The Sugar Notch Pump Station includes two sets of pumps that convey finished water to
3 maintain pressure and tank levels in the Sugar Notch, Georgetown and Flat Road zones of
4 the southern Wilkes-Barre Area system. The pump station building is antiquated and has
5 several structural issues, the station pipe and valving is severely corroded, the existing
6 pumps are in need of upgrade and the station requires manual operation on a regular basis
7 to react to issues within pressure zones. Due to the critical nature of the system and lack
8 of available space within the existing station, this project will include the construction of a
9 new pump station building consisting of adequately sized pumps, properly configured
10 valves, associated pipe work and SCADA integration. The estimated cost of the project is
11 \$1,500,000.

12 **9. Scranton WW Emergency Generator (I24-91XX07)**

13 The Scranton WWTP has a dual electrical feed into the plant; however, both are provided
14 by the same substation, and the plant does not otherwise have comprehensive emergency
15 backup power. In the event of an extended power outage, the plant's main systems would
16 not be able to operate. The project scope includes the installation of a new standby
17 emergency generator system that will provide adequate electrical generation to all critical
18 treatment equipment. The total estimated cost of the project is \$2,000,000.

1 **10. Mid-Monroe Well Development (I24-680024)**

2 The project will develop a new groundwater source for the Mid-Monroe Water System in
3 the Lehman-Pike District. The system is currently supplied by four bedrock wells that have
4 recurring problems with reduced yield due to fouling caused by naturally occurring iron
5 and manganese build up and rehabilitation efforts have experienced decreasing levels of
6 effectiveness. The current system does not have adequate capacity and is unable to meet
7 maximum day demands in the system with the existing total production capacity.
8 Distribution storage is currently used to meet maximum day demands. The project will
9 provide an additional groundwater source to augment existing supplies and enhance system
10 resiliency. The project's total estimated cost is \$1,100,000.

11 **11. Montrose WTP Phase II Upgrades (I24-540011)**

12 The project at the Montrose Water Treatment Plant includes rehabilitation to the two steel
13 filter vessels. The rehabilitation will include the replacement of the filter underdrains,
14 installation of an air scour system, reconfiguration of the pipe gallery, improvements to the
15 HVAC system in the operator and lab areas and connecting the plant to the public sewer
16 system. The total project cost is estimated at \$2,250,000.

17 **12. Exeter WWTP Final Clarifier (I24-13XX09)**

18 The project is to rectify conditions in a new acquisition. The project includes the removal
19 and installation of new clarifier scrapper, sludge removal, baffles and drive assemblies for
20 the four existing clarifiers. New clarifier mechanisms are necessary because the

mechanisms in the existing clarifiers are corroded and do not work reliably. The estimated project cost is \$2,000,000.

13. Scranton Area WTP Generator Upgrades (I24-910079)

The project will provide backup emergency generators to seven surface water treatment plants located in the Scranton/Wilkes-Barre Service Territory, including Ceasetown, Nesbitt, Crystal Lake, Watres, Brownell, Fallbrook and Forest City. The existing generators at these plants are undersized and unable to support full plant operation during power outages, including backwashes and water recycle. The estimated cost of this project is \$6,500,000.

14. Fallbrook Waste Handling Improvements (I24-910007)

The purpose of this project is to improve the waste handling ability at the Fallbrook Water Treatment Plant. The existing lagoons that handle backwash water from the filters and waste from the dewatering of the tube settlers are currently undersized. Carryover from the lagoons enters Fallbrook Reservoir because the lagoons are undersized, which results in the need to periodically dredge the back end of the reservoir. The scope of the project is to increase the size of the lagoons and install new settling equipment. The total estimated project cost is \$1,140,000.

15. Outfalls #004, 031, & 032 - Wells Street & Leggetts Creek (I24-920037)

The project is being designed and constructed as part of the Scranton Long Term Control Plan in the Scranton Wastewater system as required by EPA. The project will provide

84,000 gallons of off-line storage during wet weather events near Wells Street and Leggetts Creek. The project will reduce the total number of overflow events from each outfall and the total volume discharged to the waterways to meet regulatory compliance. The total estimated cost of the project is \$3,500,000.

16. New Castle WTP Improvements – LT2 (I24-310018)

The project is required by DEP. The project includes installing UV light disinfection to comply with the LT2 and the addition of a fifth filter. The addition of a filter is necessary to achieve reliable capacity when one filter is out of service. This project will also include major electrical improvements such as the replacement of the medium voltage service entrance and switchgear and a medium voltage emergency generator. The total estimated cost of the project is \$13,800,000.

17. Punxsutawney West End Reservoir Site – Tanks (I24-420008-01, 02)

The project will consist of the construction of two new ground storage tanks at the site of the existing West End Reservoir. The first tank will be constructed adjacent to the existing tank. The existing tank will then be demolished. The second tank will be constructed within the footprint of the existing tank. The estimated total cost of the project is \$4,900,000 with approximately \$3,000,000 allocated for tank one and \$1,900,000 allocated for tank two.

1 **18. Kinzua Road WWTP Improvements – Sequencing Batch Reactor (“SBR”)**
2 **Improvements (I24-190001-03)**

3 The Kinzua Road WWTP in the Kane WW district needs several improvements that were
4 outlined in the Corrective Action Plan implemented in accordance with a Consent Order
5 and Agreement issued September 30, 2020, with the DEP. The project includes SBR
6 upgrades including aeration, electrical and SCADA improvements. The overall estimated
7 cost of the project is \$2,500,000.

8 **19. Duquesne Hydraulic Improvements (I24-120011)**

9 The project includes the design and permitting of the improvements needed in the
10 Duquesne WW system. Collection system issues to be addressed as part of these
11 improvements include undersized mains, stormwater connections, and flow restrictions
12 due to alignment issues. The Company’s plan is to decrease stormwater flow, increase
13 main size and redesign the areas with flow restrictions. The total estimated cost of the
14 project is \$1,235,200.

15 **20. McKeesport White Street Interceptor Upgrades (I24-120020)**

16 The White Street Interceptor is undersized, resulting in backups and uncontrolled
17 discharges. The project will consist of analyzing the interceptor’s hydraulics to determine
18 the proper pipe sizing and implement an upgrade to the pipe collection system. The total
19 estimated cost of the project is \$1,050,000.

1 **21. Frackville Center Street WTP Upgrade (I24-740001)**

2 This project is required under new DEP regulations. The project will upgrade the
3 Frackville Center Street WTP with treatment systems to remove compounds known as per-
4 and polyfluoroalkyl substances (“PFAS”) iron, and manganese and to convert from
5 chlorine gas to sodium hypochlorite disinfection. Two of the four wells supplying the
6 Center Street WTP have been taken out of service due to PFAS concerns. A pilot study
7 was completed to select the appropriate PFAS treatment technology. A new treatment
8 building will be installed to house pressure filters for iron and manganese removal and
9 granular activated carbon contactors for PFAS removal. The new treatment building will
10 include a sodium hypochlorite chemical room, electrical room, transfer pumps and
11 backwash supply pumps. Backwash supply and wastewater equalization tanks are included
12 in the project. The total estimated project cost is \$10,024,352.

13 **22. White Deer WTP Solids Handling (I71-0008)**

14 The project will upgrade the solids handling facilities at the Milton White Deer WTP. The
15 current clarifier and sludge drying beds have design limitations that prevent their operation
16 as hybrid lagoons and drying beds. The proposed improvements will modify the existing
17 sludge drying beds and wastewater clarifier; add a new filter-to-waste tank, chemical feed
18 system, and lagoon effluent pump station; combine outfalls; and modify yard piping. The
19 total estimated project cost is \$3,380,169.

1 **23. Emigh Run System Improvements (I24-720003)**

2 The project focuses on improving supply reliability of the Philipsburg distribution system.
3 The existing Emigh Run BPS supplies a large area which includes twenty-one pressure
4 gradients. Currently, the Emigh Run BPS is supplied by a single 12-inch line located in
5 corrosive soils. The proposed improvements include installing approximately 10,500 feet
6 of new 12-inch line and installing two BPS to create an alternate supply from the Windy
7 Hill Gradient to the Spring Valley Gradient. The total estimated project cost is \$3,197,971.

8 **24. Berwick Salem BPS Replacement (I24-730002)**

9 The project will replace the Berwick Salem BPS to improve reliable supply for existing
10 customers and help improve fire flow. The existing Salem BPS is in poor condition and is
11 located within the 100-year floodplain as well as in an underground vault that requires
12 entry into a confined space for servicing pumps. The existing Salem BPS is a single pump
13 that provides no redundancy and there is no fire pump. The proposed project will install a
14 replacement pump station in a new location outside the floodplain. A 2,200-foot main
15 extension is required to connect the proposed pumping station to the distribution system.
16 The total estimated project cost is \$1,629,956.

17 **25. West Chester BPS (I24-650010)**

18 The project involves the installation of a new above ground water BPS to increase capacity
19 to serve the East Fallowfield zone including fire flow events. The project will also include

1 the replacement of an aging below grade station that is near the end of its useful life. The
2 estimated cost of the project is \$2,000,000.

3 **26. Coatesville WWTP - Digester Addition (I 24-670009)**

4 The existing aerobic digesters at the Coatesville WWTP are nearing rated capacity. The
5 project includes the design, permitting and construction of a third aerobic digester. The
6 proposed digester will have enhanced aeration capabilities, screening, covers, and odor
7 control. The estimated cost of the project is \$10,816,537.

8 **27. Lake Scranton 2.5 MG Tank (I24-910082)**

9 The Scranton Area WTP utilizes two 2.5 MG storage tanks for chlorine contact time and
10 system storage. However, with an average daily demand of nearly 20 MGD, the current
11 storage could be emptied in six hours, which creates compliance risk. A third 2.5 MG
12 storage tank will be installed to improve customer service reliability and maintain the
13 required adequate chlorine contact under all conditions. The total estimated project cost is
14 \$3,250,000.

15 **28. Ceasetown Rt 29 - 18-inch Main (I24-910074)**

16 The existing 18" suspended stream crossing and pressure reducing valve ("PRV") station
17 along SR 29 are past their useful life and are at risk of failure. In addition, the Company
18 has identified additional concerns arising from a potential break along this 18" main which
19 would be difficult to access and repair due to its location along the streambed and could
20 result in service interruptions to the Shickshinny/Mocanaqua service area in Luzerne

County. This project includes the replacement and relocation of the 18" main along SR 29 to a more accessible location, removal of the existing stream crossing, and replacement of the existing PRV station to eliminate the risk of failure and improve ease of maintenance and operation. The total estimated project cost is \$3,800,000.

29. Kane Water Treatment Plant Improvement Project (I24-460006)

The Kane WTP utilizes three pressure filters to remove iron and manganese. The project will include the rehabilitation of the three existing pressure filters, consisting of painting the interior and exterior of the filters, replacing the underdrain piping, adding air scour, and replacing the media. The Company will also make piping, valve and instrumentation improvements. Other improvements to the Kane WTP will include the addition of automated valving and instrumentation for Spring No. 5 and caustic feed improvements, including new pipe, day tank and feed pumps. Conversion of gas chlorine to sodium hypochlorite is also included in the scope of the project. The overall estimated cost of the project is \$1,600,000.

30. Two Lick Creek WTP Electrical Improvements and New Backwash Tank (I24-410007)

The Two Lick Creek WTP needs electrical, pump and tank improvements. The project will include electric upgrades where aged switch gear will be replaced and change from 2400-volt switch gear to 480-volt switch gear. Two high service pumps will also be replaced as part of the improvements. Additionally, the project includes the construction of a second filter backwash tank to expand filter backwash capacity and enable one tank to

1 be taken out of service for maintenance and painting. The added redundancy and upgraded
2 electrical system will also enhance plant reliability. The overall estimated cost of the
3 project is \$5,584,000.

4 **31. Warren WTP Improvement Project (I24-45XX01)**

5 The Warren WTP serves the community of Warren and parts of the surrounding townships.
6 The plant was constructed over one hundred years ago and needs improvement to increase
7 operational efficiency. To replace the current gaseous chlorine system for disinfection, a
8 new liquid sodium hypochlorite system will be installed at the plant. In addition, the plant's
9 current MCC has reached its useful life and needs replacement. Other improvements
10 include the installation of more efficient hydro-solids pumps with VFDs and above ground
11 chemical injection plumbing. The overall estimated cost of the project is \$1,500,000.

12 **32. Clarion WWTP - Toxic Gas and Alkalinity Feed (I24-470008)**

13 The Clarion WWTP located in Clarion PA utilizes chlorine gas for disinfection. The first
14 aspect of the project is to construct a new UV disinfection system and demolish the existing
15 chlorine system. The second aspect of the project includes the construction of a post
16 aeration facility in the form of cascade aeration. The WWTP has an effluent dissolved
17 oxygen ("DO") limit that has been difficult to achieve in the summer months. To meet the
18 limit, the DO within the process is kept higher than desired. The addition of cascade
19 aeration will eliminate this operational challenge. The overall estimated cost of the project
20 is \$3,350,000.

33. Scranton WWTP Building Improvements – Phase I (I24-920024)

The scope of this project is to construct and renovate office and operations space at the Scranton WWTP. Phase I of the project will construct office, garage and operating facilities for the collections department of the wastewater system. The total estimated cost for this portion of the project is \$7,606,646.

34. Scranton WWTP Building Improvements – Phase II (I24-920024-02)

The scope of this project is to construct and renovate office and operations space at the Scranton WWTP. Phase II of the project will construct office, garage, laboratory and operating facilities for the treatment department of the wastewater system. The total estimated cost for this portion of the project is \$7,695,272.

35. Mill Street Regulator Bypass - Williams Bridge BPS (I24-910049-03)

The existing Mill Street pumping station located in the Scranton area system includes pumps which service the Williams Bridge Gradient and Williams Bridge tank. Currently there is no way to serve this gradient if these pumps or the pipe supplying these pumps fail. This project includes a new 2.5 MGD pumping station and 1,400 feet of pipe to provide redundant supply to the existing Mill Street pumping station and supply pipe, which are critical assets in the Scranton area water system. The total estimated cost of the project is \$2,389,000.

1 **36. Saw Creek Wells 2 & 3 Iron and Manganese Removal Improvements**
2 **(I24-680029)**

3 The project is a DEP requirement. There are elevated levels of naturally occurring iron
4 and manganese in the raw water in Wells 2 and 3 in the Saw Creek water system in the
5 Lehman Pike District that are above both the DEP secondary maximum contaminant levels
6 and EPA Health Advisory limits. Due to these elevated manganese levels, Well 2 is
7 normally operated at a reduced flow and Well 3 is not normally used, thus impacting the
8 adequacy and reliability of the water system. This project includes the construction of a
9 new iron and manganese removal treatment facility so that Wells 2 and 3 can be used to
10 their full capacity. This will both improve the water quality in the system and increase the
11 useable well supply, while meeting the DEP and EPA regulations for iron and manganese
12 concentrations in the finished water supply. The total estimated cost of the project is
13 \$3,485,000.

14 **37. Pine Ridge Well 5 (I24-680023)**

15 The Pine Ridge water system, located in the Lehman-Pike District, is currently supplied by
16 four groundwater wells, but does not have a reliable source of supply. When the largest
17 well is out of service, the remaining wells cannot meet the average daily demand of the
18 system. The purpose of this project is to locate and develop a new, adequate groundwater
19 well source and associated treatment system to improve the reliability and resiliency of
20 service to our customers in the Pine Ridge system. The total estimated cost of the project
21 is \$1,075,000.

1 **38. Outfall #027 Scranton Sewer System (I24-920022)**

2 The project is required by EPA. Washington-Locust Outfall #027 is a proposed off-line
3 combined wastewater storage system being designed and constructed as part of Phase C of
4 the Scranton Long Term Control Plan in the Scranton Wastewater system. This project
5 will provide a new 211,000-gallon off-line storage facility system to collect 90% of the
6 combined WW storm surges, and then gradually pump the collected wastewater back into
7 the CSS after the wet weather event has passed. This structure is to be located along the
8 Lackawanna River near its confluence with Meadow Brook in South Scranton. The project
9 will provide a new inlet structure, two large diameter pipes installed horizontally acting as
10 storage vessels, and a discharge pump station. The total estimated cost of the project is
11 \$4,250,000.

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

13 The project is a DEP requirement. Lake Montrose Dam is a High Hazard Dam and is
14 subject to DEP regulations which require dams of this size and hazard classification to pass
15 the full possible maximum flood (“PMF”). DEP currently shows the dam as passing only
16 17% of the PMF. The project will provide additional spillway capacity to meet current
17 dam safety regulations. The estimated cost of the project is \$4,525,571.

18 **40. Construct Storage - Terry Lane, Royersford System (I24-640010)**

19 The project will obtain suitable land and construct a 0.75 MG elevated Storage Tank with
20 an overflow elevation of 470 feet to match the existing system gradient. The project will

1 upgrade controls at the existing Terry Lane and Merlin Hills BPSs. Additionally, the
2 project will replace the existing hydraulic variable speed Pump No. 1 at the Merlin Hills
3 booster with a VFD unit of the same 0.46 MGD. The estimated cost of the project is
4 \$2,906,711.

5 **41. Second 16" Main to East Norriton Twp. BPS (I24-51XX05)**

6 The project will install a water BPS at the existing East Norriton tank site, which will take
7 water from the Dekalb pressure zone and transfer water to the Church Road Tank pressure
8 zone to provide a secondary feed into the Church Road zone for reliability. The estimated
9 cost of the project is \$4,000,000.

10 **42. Summit Lake Outlet Works Rehab (I24-910071)**

11 The project is a DEP requirement. Summit Lake Dam is classified as a high hazard dam
12 by the DEP. DEP regulations require high hazard dams to have upstream closure. The
13 existing outlet works excessively, which prevents inspection of the outlet pipe through the
14 dam. The Summit Lake Dam Outlet Modifications include a new intake, valves, trash rack,
15 catwalk, slip lining of the outlet pipe and downstream energy dissipation structure. The
16 estimated cost of the project is \$1,268,000.

17 **43. Dunmore #7 Dam Rehabilitation (I24-910005)**

18 The project is a DEP requirement. Dunmore Dam No. 7 is classified as a high hazard dam
19 by the DEP. DEP regulations require high hazard dams to pass the full PMF. Dunmore
20 Dam No.7 currently does not have the capacity to pass the full PMF. The rehabilitation

1 project will increase the spillway capacity to safely convey the full PMF. The estimated
2 cost of the project is \$11,100,000.

3 **44. Griffin Dam Rehabilitation (I24-910028)**

4 The project is a DEP requirement. Griffin Dam is classified as a high hazard dam by the
5 DEP. DEP regulations require dams of this size and hazard classification to pass the full
6 PMF. The existing dam does not pass the full PMF. The project will rehabilitate the
7 structure to meet current DEP regulations. The estimated cost of the project is
8 \$10,832,134.

9 **45. Maple Lake Outlet Works Rehabilitation (I24-910068)**

10 The project is a DEP requirement. Maple Lake Dam is classified as a high hazard dam by
11 the DEP. DEP regulations require high hazard dams to have upstream closure. The
12 rehabilitation project will address the outlet works deficiency. The Maple Lake Dam
13 Outlet Modifications include a new intake, valves, trash rack, catwalk, slip lining of the
14 outlet pipe and downstream energy dissipation structure. The estimated cost of the project
15 is \$1,521,500.

16 **46. Marshwood Dam Outlet Works Rehabilitation (I24-910070)**

17 The project is a DEP requirement. Marshwood Dam is classified as a high hazard dam by
18 the DEP. DEP regulations require high hazard dams to have upstream closure facilities on
19 the outlet works. Marshwood Dam does not have upstream closure capabilities on the
20 outlet works. The project includes upgrades such as a new intake, new valves, access

1 catwalk to the new valves, trash rack, slip lining of the outlet pipe and downstream energy
2 dissipation structure. The estimated cost of the project is \$1,312,000.

3 **47. Stoney Garden Reservoir Spillway Replacement (I24-560007)**

4 The project is a DEP requirement. Stoney Garden Dam has a severely deteriorated
5 spillway, seepage issues, potential embankment stability issues and has 100-year-old outlet
6 works and piping. Rehabilitation of the dam includes replacing the deteriorated spillway;
7 adding seepage drainage facilities; flattening downstream dam embankment for stability;
8 and upgrading outlet works, which includes the replacement of the 100-year-old CI pipe
9 from the dam to the WTP. The estimated project cost is \$6,821,000.

10 **48. Gardner Creek Outlet Works Rehabilitation (I24-910069)**

11 The project is a DEP requirement. The Gardner Creek Dam is classified as a high hazard
12 dam by the DEP. DEP regulations require high hazard dams to have upstream closure.
13 The rehabilitation project will address the outlet works deficiency. The Gardner Creek
14 Dam Outlet Modifications include a new intake, valves, trash rack, slip lining of the outlet
15 pipe and downstream energy dissipation structure. The estimated project cost is
16 \$2,066,000.

17 **49. Curtis Dam Rehabilitation (I24-910008)**

18 The project is a DEP requirement. Curtis Dam is classified as a high hazard dam by the
19 DEP. DEP regulations require dams of this size and hazard classification to pass the full
20 PMF. DEP currently shows the dam as passing only 26% of the PMF. The project will

1 provide additional spillway capacity to meet current dam safety regulations. The estimated
2 cost for this project is \$12,270,760.

3 **Q. Please explain in general terms the other types of improvements that the Company**
4 **will make in its water and wastewater systems during the FTY.**

5 A. The Company will replace or upgrade approximately 51,552 existing meters at various
6 points throughout its water distribution system at an estimated cost of approximately
7 \$16.07 million, exclusive of meters associated with projects previously described. Meters
8 are routinely replaced as they approach 20 years of age in the case of 5/8 inch meters and
9 at various other ages for larger size meters. Meters are also replaced due to failures or
10 malfunctions or to incorporate new meter technology.

11 The Company is also planning to replace approximately 13,190 Company-owned
12 old water service lines and 1003 wastewater laterals at an estimated cost of approximately
13 \$2 million. In conjunction with its main replacement projects in 2022, PAWC anticipates
14 replacing 1,091 customer-owned LSLs under the Replacement Plan. I will discuss the
15 modifications PAWC is proposing to its Replacement Plan based on the EPA's recent
16 updates to the Lead and Copper Rule ("LCR") and the Commission's rulemaking to
17 implement Act 120 of 2018 ("Act 120")⁵ later in my direct testimony. Additionally,
18 services are replaced for a variety of reasons, including leakage discovered through the
19 Company's leak detection program and other actions to maintain the quality of water
20 service. Pressure and water quality problems can result from old service lines made from

⁵ See *Rulemaking to Implement Act 120 of 2018 at 52 Pa. Code Chapters 65 and 66*, Docket No. L-2020-3019521 (Final Rulemaking Order entered Mar. 14, 2022) ("Act 120 Final Rulemaking Order").

1 obsolete materials, such as galvanized iron. When municipal paving projects are being
2 planned, the Company reviews its records and determines if there are any obsolete services
3 that should be replaced along the street. Service replacement costs are minimized by doing
4 the service replacements before repaving occurs.

5 The Company also plans to replace approximately 74.9 miles of various
6 diameter water mains and 15.8 miles of sewer mains at a total cost of approximately
7 \$220 million. This construction is being done for a variety of reasons including improving
8 flow capabilities, preventing water quality degradation, systematically replacing aging
9 distribution system infrastructure, enhancing system reliability and minimizing service
10 disruptions to customers caused by main breaks. The Company anticipates that additional
11 developer projects of over \$4.34 million in total will occur in 2022, which will be funded
12 by developer advances.

13 **Q. Please describe in general terms the types of improvements that the Company will**
14 **make in its water and wastewater systems during the FPFTY.**

15 A. The following routine improvement activities planned for 2023 will be conducted for the
16 same reasons these projects are undertaken in 2022. The Company will install
17 approximately 11,500 new meters and replace or upgrade approximately 54,855 existing
18 meters at various points throughout its distribution system at an estimated cost of
19 approximately \$19.6 million, exclusive of meters associated with projects previously
20 described.

21 The Company is also planning to replace approximately 13,575 old water service
22 lines and 1200 wastewater laterals at an estimated cost of approximately \$20 million,

1 exclusive of services associated with projects previously described. The Company plans
2 to replace approximately 91 miles of various diameter water pipes and approximately
3 20 miles of sewer main at a cost of approximately \$188 million, exclusive of the larger
4 pipeline investment projects previously described. The Company anticipates that
5 additional developer projects totaling more than \$9.5 million will occur in 2023, which will
6 be funded by advances.

7 **Risks Associated with Furnishing Public Water and Wastewater Service**

8 **Public Water Service**

9 **Q. Please provide an overview of the risks associated with furnishing safe and adequate**
10 **water quantity and water quality and complying with drinking water and**
11 **environmental regulations that apply to PAWC's water supply facilities and**
12 **operations.**

13 **A.** Water supply utilities are subject to a complex array of regulations at the federal, state and
14 river basin commission levels with respect to water quantity, water quality and other
15 environmental aspects of their facilities and operations.

16 With respect to water sources and the quantity of water that can be withdrawn,
17 PAWC's surface water and groundwater sources are subject to a combination of common
18 law riparian rights and groundwater rights coupled with regulatory regimes administered
19 by the DEP, the Susquehanna River Basin Commission ("SRBC") and Delaware River
20 Basin Commission ("DRBC"). DEP administers the 1939 Water Rights Act,⁶ which
21 requires that public water supply agencies wishing to withdraw water from surface sources,

⁶ 32 P.S. §§ 631-641.

1 or to acquire rights in surface sources, first obtain a permit. Water systems with sources
2 developed prior to 1939 were accorded “orders of confirmation” confirming grandfathered
3 withdrawals, but subsequent changes to those systems and/or increased withdrawals may
4 trigger permitting requirements and possible loss of the “order of confirmation.” Both
5 SRBC and DRBC are empowered to review and approve projects having a substantial
6 effect on basin water resources.⁷ Pursuant to their project review authority, SRBC and
7 DRBC review proposed surface and groundwater withdrawals that may have a “substantial
8 effect” on basin waters (which are defined in both basins to include withdrawals of greater
9 than 100,000 gallons per day from any source or combination of sources). Such project
10 review is focused on determining consistency with Commission-adopted comprehensive
11 plans and “the proper conservation, development, management or control of the water
12 resources of the basin.” In administering their permitting programs, DEP, SRBC and
13 DRBC apply varying policies imposing limitations on withdrawals or requirements for
14 conservation releases from reservoirs to protect stream flows.

15 Pennsylvania, overall, does not currently suffer serious constraints on its supply of
16 usable water.⁸ However, that assessment does not apply uniformly to all parts of the state.
17 The legacy of coal mining, the effect of oil and gas drilling, run-off from high-intensity
18 agricultural land use, and contamination from inadequate or malfunctioning on-lot septic
19 systems create challenges to obtaining adequate supplies of water in various areas of
20 Pennsylvania. Today, as in the past, these factors continue to drive requests by

⁷ DRBC Compact § 3.8; SRBC Compact § 3.10(2).

⁸ 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 homeowners for PAWC to extend its facilities to serve areas that do not have a public water
2 supply. Under the Commission's regulations on water utilities' responsibility for main
3 extensions, PAWC is required to make a significant investment to extend its facilities to
4 serve bona fide applicants.

5 Additionally, as explained above, there are multiple levels of authorization and
6 regulation that apply to a public water system that wants to add a new source of supply or
7 increase its withdrawals from existing sources. These factors add to the costs and lead-
8 time for obtaining new, or increasing existing, water sources to meet new demands that
9 may arise in portions of the Company's system. These are additional risk factors that can
10 directly affect PAWC's ability to furnish safe, adequate and reliable service, and increase
11 the costs PAWC incurs to provide that service.

12 Drinking water quality is addressed by a combination of federal regulation
13 established under the Safe Drinking Water Act of 1973 coupled with state regulation under
14 the Pennsylvania Safe Drinking Water Act. The federal act established the EPA as the
15 federal regulatory authority on drinking water. Under that authority, EPA has created
16 standards for contaminant levels in drinking water and a series of mandatory treatment
17 method standards, coupled with monitoring and reporting requirements, and public
18 notification mandates in the event of contaminant level or treatment method non-
19 compliance.⁹ In turn, Pennsylvania has adopted the federal regulatory standards, plus some
20 even more stringent rules, as codified in 25 Pa. Code Ch. 109, which are administered by
21 DEP.

⁹ See 40 C.F.R. Parts 141-143.

1 In recent years, there has been an increase in public concern over potential
2 contaminants that laboratories can now identify at levels that, in the past, could not be
3 detected which certain experts suggest might have health effects. The EPA and state
4 drinking water regulators have responded by increasing their own research and, in some
5 cases, imposing or proposing more stringent regulatory standards, such as with respect to
6 the family of compounds known as per- and polyfluoroalkyl substances (“PFAS”), which
7 include the chemicals perfluorooctanesulfonic acid (“PFOS”) and perfluorooctanoic acid
8 (“PCOA”). On February 22, 2021, the EPA issued two actions to address PFAS in drinking
9 water¹⁰. The EPA indicated that they were reproposing the Fifth Unregulated Contaminant
10 Monitoring Rule (UCMR 5) to allow for the collection of data on 29 PFASs and assist it
11 in determining what PFAS are found in drinking water systems and the level that they are
12 present. In addition, the EPA reissued the final regulatory determinations for PFOA and
13 PFOS under the Safe Drinking Water Act (SDWA). The DEP recently initiated a
14 rulemaking to adopt new maximum contaminant levels (“MCL”) for PFOS and PCOA that
15 are stricter than under federal regulations. The Company intends to comply with these
16 MCLs and meet all related requirements for monitoring, reporting, and notification upon
17 adoption of the DEP’s proposed rules. In general, the Company proceeds cautiously based
18 on the best available information and prepares to achieve treatment levels for such
19 compounds that can reasonably be anticipated based on current research and actions
20 contemplated by regulators, which the Company carefully studies and monitors. The
21 continued evolution of drinking water regulations and best practices requires PAWC to

¹⁰ EPA Takes Action to Address PFAS in Drinking Water, available at <https://www.epa.gov/newsreleases/epa-takes-action-address-pfas-drinking-water>.

1 operate dynamically and be prepared to respond to new contaminants of concern quickly,
2 which can create certain business risks for PAWC.

3 As the result of conditions that arose in Flint, Michigan and other jurisdictions
4 across the country, increasing scrutiny is being placed at all levels concerning lead
5 concentrations in water systems and adoption of more stringent requirements under the
6 recently revised LCR. The lead issue arises not from constituents in source water, but
7 rather from the leaching of lead from older pipes and joints into the water as it passes
8 through the distribution lines and household service lines. While controlling of the
9 corrosivity of the water can, in many cases, avoid excessive lead concentrations, the fact is
10 that the plumbing in many older communities (such as those throughout much of PAWC's
11 service territory) contain the type of copper and galvanized pipes with solder joints where
12 lead contamination is an increased risk. Consequently, the Pennsylvania General
13 Assembly has determined that it is in the public interest for water utilities to replace
14 customer-owned LSLs "concurrent[ly] with a scheduled utility main replacement
15 project."¹¹ In addition, as recognized by the Commission, physical replacement of the
16 entire LSL is emerging as a best practice in the water utility industry to improve public
17 health protection from lead in drinking water.¹² In fact, the EPA recently promulgated

¹¹ 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."

¹² 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.

1 updates to the LCR that strengthen the requirements for LSL replacement as of June 17,
2 2021.¹³

3 The Company is at the forefront of the water industry in proactively eliminating the
4 risks posed by the presence of LSLs. PAWC was the first water utility for whom the
5 Commission approved a plan for replacing LSLs pursuant to Act 120. PAWC's efforts to
6 eliminate a potential source of elevated lead levels at the customer's tap under its
7 Replacement Plan require the dedication of management time and resources and the
8 commitment of significant investment capital. These factors, in addition to the demands
9 the Company already faces to rehabilitate, replace, and enhance aging infrastructure and
10 meet evolving regulatory demands, add to risk factors that PAWC faces to assure that it
11 meets its statutory obligation to furnish safe, adequate and reliable water service.

12 Finally, upstream releases of chemicals represent a significant risk and concern for
13 the Company. One recent example of such an event was the discovery of a long-term
14 release of 1,4 Dioxane into waterways. While this release did not impact PAWC's systems,
15 the incident illustrates this significant risk faced by water suppliers and the importance of
16 their ability to operate dynamically to prepare for and respond to future chemical releases
17 by third parties.

¹³ See *National Primary Drinking Water Regulations: Lead and Copper Rule Revisions*, 86 Fed. Reg. 4198 (Jan. 15, 2021) ("Revised LCR"); see also 86 Fed. Reg. 4198 (Mar. 12, 2021) (delaying effective date of the Revised LCR from March 16, 2021 to June 17, 2021).

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A. Like the provision of public water supply service, the operation of wastewater collection and treatment systems entails a range of environmental regulatory risks. Each of the wastewater systems acquired by the Company over the past several years have come with significant regulatory compliance challenges. For example, in the case of Delaware Sewer, the age and condition of the existing treatment works created a need for system upgrades to prevent future violations of discharge requirements.

One risk associated with operating wastewater systems is that effluent limitations imposed on WWTP discharges are stringent and can become more stringent over time. The Clean Water Act requires wastewater systems to obtain and comply with National Pollutant Discharge Elimination System (“NPDES”) permits, which, in Pennsylvania, are issued by

1 DEP. NPDES permits establish stringent effluent limits based upon the stricter of:
2 (1) technology-based effluent limits; and (2) water quality-based effluent limits.

3 PAWC has faced significant regulatory compliance challenges with each of the
4 wastewater systems the Company acquired over the past several years. For example,
5 PAWC is investing \$2.8 million in the wastewater system acquired from Delaware Sewer
6 Company to prevent future NPDES permit violations. Evolving permitting requirements,
7 such as changes to NPDES permit discharge levels for copper and zinc in the wastewater
8 system the Company acquired from Borough of Kane Authority in 2020, further complicate
9 the permitting and compliance process for the Company. More stringent effluent limits
10 may be imposed when technology evolves or stream conditions change, engendering
11 requirements for significant capital improvements and/or increased operating costs for
12 enhanced treatment performance. Every five (5) years, NPDES permits are up for renewal,
13 and in any such renewal more stringent limits may be triggered.

14 Another risk for PAWC is that several Pennsylvania streams, including those where
15 PAWC is operating wastewater systems, are parts of watersheds that are classified as
16 “impaired” (meaning their instream quality does not meet state standards). Such impaired
17 waters are subject to the development and imposition of Total Maximum Daily Loads
18 (“TMDLs”) for parameters that contribute to the instream conditions. A prime example is
19 the Chesapeake Bay watershed, which includes the entire Susquehanna River Basin, where
20 a TMDL has been established for sediments (total suspended solids) and nutrients
21 (phosphorous and nitrogen). Where TMDLs are established by EPA or DEP, stringent
22 waste load allocations are made to point-source discharges (such as WWTPs), and

1 allocations are also made to non-point sources, such as agriculture and urban runoff. In
2 the case of the Chesapeake Bay TMDL, for example, every WWTP in the Susquehanna
3 Basin has been accorded an annual “cap load” for total nitrogen and total phosphorous –
4 where any cap loading exceedance irrespective of the cause (such as increased flows and
5 loadings from system customers or high stormwater flows entering the system) – can lead
6 to stiff penalties and other enforcement actions.

7 Wastewater systems also face significant regulatory and environmental liability
8 risks. Non-compliance with wastewater system effluent limits and other permit conditions
9 can result in severe penalties. Regulatory violations open the operator to not only
10 governmental agency enforcement actions, but also citizen suits in which both injunctive
11 relief and civil penalties can be imposed. Currently, violation of effluent limit or other
12 permit conditions may result in administrative penalties of up to \$23,989 per day and court-
13 imposed penalties of up to \$59,973 per day.

14 Another risk arises from PAWC’s Scranton, McKeesport and Kane CSSs where
15 both storm water and sanitary/industrial wastewaters flow in the same sewer lines. CSSs
16 incur high flows during and after storms, which may exceed the system conveyance and/or
17 treatment capacity, with excess untreated wastewater discharged to receiving streams
18 through CSO outfalls. In many cases, separation of CSSs into separate sanitary and storm
19 systems is logistically and economically infeasible.

20 EPA’s CSO Control Policy,¹⁴ which applies to publicly owned treatment works
21 (“POTWs”) (i.e., those systems owned or operated by state or local governmental

¹⁴ 59 Fed. Reg. 18687 (April 19, 1994), available at: <https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf>.

1 agencies), while recognizing that CSOs cannot be entirely eliminated, seeks to reduce
2 them. Although the federal Clean Water Act generally requires that all wastewater be
3 treated with at least secondary treatment prior to discharge, the CSO Control Policy
4 provides an exception for POTWs. Currently, the CSO Control Policy, by its terms, does
5 not provide similar exceptions for non-publicly owned sewage systems. However, some
6 utilities (including PAWC) have obtained EPA's agreement to continue to apply the CSO
7 Control Policy's exception to systems that were formerly POTWs and were acquired by
8 non-public entities. EPA's recognition of such exceptions must be obtained by negotiation
9 on a case-by-case basis and typically entails entering into court-approved consent decrees
10 or agency consent orders that impose stringent capital improvement and operating
11 obligations on the non-public owner of the wastewater system.

12 Under the CSO Control Policy and applicable NPDES permits, operators of CSSs
13 must develop and implement LTCPs, consisting of collection system and treatment plant
14 improvement projects designed to reduce CSOs to no more than four (4) events per year
15 and/or capture and treatment of 85-90% of annual storm water flows. These LTCP
16 requirements often involve very substantial multi-year capital expenditure programs. The
17 impact of LTCP mandates on customers' rates can also be significant and, in what are often
18 economically depressed communities, may require rate increases that approach or exceed
19 EPA's "affordability" criteria for water/wastewater system rates.

1 CSS operators must adopt and implement a Nine Minimum Controls Plan,¹⁵
2 consisting of a series of actions that address the management of storm water and
3 constituents in storm water runoff, including regulation of storm water connections,
4 regulation of land development/erosion and sedimentation activities, control of industrial
5 and other dischargers, catch basin maintenance, and street sweeping, etc.

6 Moreover, even where systems being acquired do not involve combined sewers,
7 high rates of I&I¹⁶ during wet weather can surcharge the system and exceed the hydraulic
8 or treatment capacity of the WWTP. System upgrades to reduce I&I may require major
9 capital expenditures. This was the case with the Clarion wastewater system, which PAWC
10 acquired in 2008. PAWC was required to enter into a Consent Order with DEP to
11 implement a series of collection system and WWTP improvements for the Clarion
12 wastewater operations on a schedule that was enforced by stipulated penalties in the event
13 of any unexcused delay.

14 **Challenges Climate Change May Create**

15 **Q. Does climate change pose additional risks for water supply and wastewater system**
16 **utilities such as PAWC?**

17 A. Yes. Whatever the debate may be concerning the causes of climate change, water supply
18 and wastewater utilities face the reality of changing climatic conditions and attendant
19 stresses on water resources. Although climate models for the northeastern U.S. generally

¹⁵ 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>.

¹⁶ 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 predict overall annual precipitation amounts to remain similar to average historic
2 experience, increasingly intense storms and repeated, extended dry periods are
3 anticipated.¹⁷ That means we can expect more droughts of varying degrees of severity and
4 more frequent and intense high-flow events and floods – which impact water and
5 wastewater utilities.

6 Water supply systems are fundamentally resource-dependent and, therefore, the
7 effects of climate change pose a significant on-going risk and create challenges with regard
8 to maintaining a reliable water supply during the full range of potential future conditions,
9 including even what might be assumed to be “normal” periods. The safe yields of water
10 supply sources have historically been evaluated based on historical climatic patterns, data
11 from so called “droughts of record” or dry period frequency analysis. However, changing
12 climatic conditions suggest that historical hydrologic data (which in many cases only
13 reflect 50-100 years of rainfall and stream flow measurement collection – a quite short
14 period in geologic or climatic time) may not accurately predict future conditions. Thus,
15 the calculated safe yield of streams, reservoirs and groundwater wells are put in question
16 as the effects of climate change are experienced across the northeastern United States.
17 Thus, in response to climate change, water supply systems must address the risks posed to
18 the reliability and resilience of their sources.

¹⁷ R. Horton, G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz, 2014: Ch. 16: Northeast. Climate Change Impacts in the United States: The Third National Climate Assessment, (J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds.), U.S. Global Change Research Program (2014); *see also*, J. Shortle, *et al*, Pennsylvania Climate Impacts Assessment Update (May 2015), available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-108470/2700-BK-DEP4494.pdf>.

While droughts are the major challenge for water supply systems, heavy precipitation and high-flow events are the concern of wastewater systems. As mentioned previously, wastewater systems of all types are impacted by storm water – directly in the case of CSSs and indirectly (but nevertheless significantly) by I&I in “sanitary only” systems. The prediction of increased intensity of strong storms and high rainfall events in the northeastern United States portends challenges to wastewater systems which must, in turn, cope with and treat higher peak flows while avoiding exceedance of effluent limitations and reducing the potential for untreated overflows. An additional challenge related to high intensity rain events is higher levels and frequency of flooding. Flooding has the potential to impact both water and wastewater treatment facilities which are often located in proximity to water ways.

Lead Service Line Replacement

Q. Provide a summary of PAWC's Commission-approved Replacement Plan.

A. Each year, PAWC will replace, at its expense, up to 1,800 customer-owned LSLs (1) encountered as part of the Company’s ongoing main and/or service line replacement work (“Part 1”) and (2) at a customer’s request, subject to certain conditions, including verification of the presence of a LSL on the property and the Company’s determination of when the replacement will occur based on various factors (“Part 2”). Part 1 will avoid creating a risk of exposing customers to elevated lead levels in their drinking water from PAWC’s extension of its infrastructure rehabilitation program into areas where LSLs are more likely to exist. This risk arises from a “partial” replacement, which physically disturbs, but leaves in place, the customer’s segment of a service connection. Part 2 of the

1 Replacement Plan will proactively remove any possible risk of lead exposure from Service
2 Pipes in areas where the stability of the existing LSLs will not be disturbed by main
3 replacements. The Replacement Plan incorporates customer outreach and communications
4 to educate PAWC customers about the risks of lead in drinking water and the opportunity
5 to participate in Part 2 of the Company's Replacement Plan.

6 To mitigate the impact of the Replacement Plan on customer rates, PAWC set a
7 budget cap of \$6 million per year on the amounts expended to replace customer-owned
8 LSLs. In addition, and consistent with Act 120, PAWC provides reimbursement to
9 customers who replaced LSLs at their own cost within one year of commencement of a
10 project under the Replacement Plan. In 2020 and 2021, PAWC replaced 8 and
11 68 customer-owned LSLs, respectively, at a total cost of \$0.88 million (\$37,144 in 2020
12 and \$0.85 million in 2022). Please note that PAWC's work has been limited to date due to
13 impacts of the COVID-19 pandemic and the Company's inability to enter homes to perform
14 the work.

15 **Q. Is the Company proposing any changes to the Replacement Plan in this case?**

16 A. Yes. PAWC is proposing the tariff revisions to modify the Company's Replacement Plan
17 based on the Revised LCR and the Act 120 Final Rulemaking Order. First, PAWC is
18 proposing tariff revisions to allow the Company to replace customer-owned galvanized
19 service lines connected to a Company-owned lead gooseneck or other upstream lead
20 material as required by the Revised LCR. This requirement will likely more than double
21 the number of service lines subject to replacement. The Company intends to begin
22 replacing these galvanized service lines in 2022. Second, the Company is proposing to

1 increase the annual cap on customer-owned service line replacements and budgetary
2 allotment for those replacements. The pace of LSL replacements and annual budgetary
3 allotment of \$6 million reflected in the Company's PUC-approved Replacement Plan was
4 based on PAWC's estimate of the number of LSLs remaining on its system as of May 2017
5 indicated by preliminary surveys of the Company's "tap cards". A tap card is a hard copy
6 record of the location and data related to each service tap into the main. These sources are
7 not always entirely accurate because homeowners may have replaced their LSLs without
8 notifying PAWC. To that end, the Company is developing a service line inventory in
9 accordance with the Revised LCR and Act 120 Final Rulemaking Order to identify and
10 categorize service lines by material directly associated with lead (e.g., "lead," "non-lead,"
11 "lead status unknown" and "galvanized requirement replacement").¹⁸ Based on the
12 additional service line material identified since the Company's initial estimate of LSLs and
13 the addition of certain galvanized service lines to the Replacement Plan, PAWC is
14 proposing to increase the annual budgetary allotment for the Replacement Plan from
15 \$6 million to \$15 million and the annual cap on replacements from 1,800 to 5,400 service
16 lines.

17 **Stormwater Fee Feasibility Study**

18 **Q. Did the Company make any commitments regarding evaluating the feasibility of**
19 **stormwater fees for its CSSs in its last base rate case?**

¹⁸ See 40 C.F.R. § 141.85; Act 120 Final Rulemaking Order, pp. 37-42. The regulations regarding LSL replacement programs at 52 Pa Code §§ 65.51 to 65.62 adopted in the Act 120 Final Rulemaking Order will become effective 60 days after publication in the *Pennsylvania Bulletin*.

1 A. Yes. As part of the settlement approved in the last rate case, the Company agreed to
2 propose potential recovery and rate methodology options for stormwater costs of its CSSs
3 in its next base rate filing.

4 **Q. Has the Company satisfied this settlement obligation?**

5 A. Yes. The Company engaged Gannett Fleming, Inc. to perform a Stormwater Fee
6 Feasibility Study (“Feasibility Study”), which is included as Exhibit No. 14-A. Nathan
7 Walker is offering testimony in this proceeding sponsoring the Feasibility Study. The
8 Feasibility Study identifies the different methodologies that could theoretically be used by
9 the Company to develop a separate stormwater fee and calculates potential stormwater fees
10 for the Company’s CSS customers.

11 **Q. Is the Company proposing to begin charging a stormwater fee to its CSS customers**
12 **in this proceeding?**

13 A. No. The Feasibility Study identifies several regulatory, technical, administrative, and
14 implementation challenges associated with the Company charging its customers a
15 stormwater fee.

16 **Q. Is the Company’s adoption of a stormwater fee feasible from an operational**
17 **perspective?**

18 A. No, I do not believe it would be reasonable or feasible for the Company to charge
19 stormwater fees to CSS customers. Based on my review of the Feasibility Study and my
20 understanding of the Company’s operations, I have several concerns with the adoption of
21 a stormwater fee that relate to community coordination, data management, collections, and
22 customer service and billing processes, which are summarized below.

Community Coordination

In order to calculate stormwater fees for customers, the Company would be tasked with obtaining significant property record data regarding its Kane, McKeesport, and Scranton service areas. The Company would be required to enter into agreements with nearly two dozen municipalities, townships, and counties in order to access the data required to calculate an accurate stormwater fee based on the impervious area of a property. This data would also need to be updated at regular intervals by all municipalities, townships, and counties to ensure that the Company's stormwater fees remain accurate over time due to land development changes. It is unlikely the Company could successfully convince all municipalities, townships, and counties to provide it with regular access to this information. I would expect these localities to raise cost, staffing, resource, and possibly confidentiality and privacy concerns in response to such a request by the Company. Moreover, some municipalities may already have plans to begin charging a stormwater fee to their residents, and residents located near the boundary of the Company's CSS could end up being charged duplicative stormwater fees as a result. There is simply no benefit to municipalities, townships, and counties to agree to provide this information to the Company, and I would expect many local entities to reject this request. Without this data from the relevant municipalities, townships, and counties, there is no way for PAWC to develop a stormwater fee based on impervious area.

Data Management

If the Company theoretically were able to convince all municipalities, townships, and counties to provide property record data to the Company, the Company would experience

1 several data management challenges. The Company does not currently have any
2 information technology (“IT”) system or business procedures in place to maintain and
3 review this data. The Company would need to manually cross-reference this property
4 record data with aerial imagery to ensure it is accurate and current. At regular intervals,
5 the Company would also be required to update this data based on information provided by
6 municipalities, townships, and counties and develop a process for adjusting stormwater
7 fees across its CSS footprints. This process would be entirely new to the Company, and
8 I would expect significant additional resources, time, and staffing to be required to support
9 the IT changes and procedures required to determine these fees and update them based on
10 current impervious area data for all properties.

11 **Collections**

12 As a regulated public utility, the Company’s relationship to its customers is contractual in
13 nature, *i.e.*, the Company can only provide service to a customer upon customer request.
14 Unlike municipalities who have the authority to charge a stormwater fee to property owners
15 based on property records, the Company cannot charge a “stormwater contributor” who are
16 not otherwise customers of PAWC. Similarly, the Company’s primary tool for collections
17 is disconnecting service for non-payment. Because it is not a municipality, the Company
18 does not have the power to impose a lien on the property of its customers for non-payment.
19 The limitations on the Company’s billing and collection authority as compared to a
20 municipality are significant with respect to stormwater fees. Simply put, the Company has
21 no way to disconnect stormwater service and therefore, it would be prohibitively difficult
22 for the Company to pursue customers for non-payment. It is my understanding from

1 counsel that the Company could theoretically sue its customers for non-payment, but the
2 typical resources associated with such lawsuits are cost-prohibitive. The adoption of a
3 stormwater fee takes away the main collection tool used by the Company, which would
4 likely lead to a significant increase in the Company's uncollectible accounts. It would be
5 unfair for other customers to be required to pay for the increased uncollectible accounts
6 expenses caused by a separate stormwater fee.

7 **Customer Service and Billing**

8 Finally, I am concerned that imposing a stormwater fee on a subset of customers would
9 create customer service and billing issues. Additional customer service training and
10 scripting changes would be required, which would be increasingly complicated considering
11 that only certain wastewater customers would be eligible for the stormwater fees. I would
12 expect customers of our Scranton, McKeesport, and Kane systems to raise concerns
13 regarding the fairness of charging stormwater fees to them, so the Company likely would
14 need to engage in extensive customer education regarding billing. Customer confusion and
15 related disputes inevitably would increase as a result of this change. Significant IT and
16 staffing changes likely would be needed to address these customer service and billing
17 issues.

18 **Q. Do you have any other comments about stormwater fees at this time?**

19 A. Yes. For all the reasons addressed above, I would like to reiterate that I do not believe it
20 is reasonable for the Company to charge a stormwater fee. When a municipality charges a
21 stormwater fee, the purpose of the stormwater fee is to fund upgrades to its stormwater
22 facilities. By contrast, the major upgrades associated with the Companies' CSSs are

1 focused on reducing sewage overflows. In other words, it is the sewage component and
2 the prevention of overflows that contain sewage rather than stormwater causing the
3 Company to incur the vast majority of costs related to these systems. Accordingly, it is
4 more appropriate for the Companies' CSS customers to be charged a wastewater fee rather
5 than a stormwater fee.

6 **Middlesex Interconnection**

7 **Q. Please summarize the issues raised by the Commission at Docket Nos. A-2021-**
8 **3025160 and U-2021-302516 related to the Company's emergency interconnection**
9 **agreement with MTMA.**

10 A. Ordering Paragraph No. 5 in the Commission's Order entered November 18, 2021
11 approving the Company's application for a Certificate of Public Convenience for Approval
12 of the Right to Offer, Render, Furnish and Supply Water Service to the Public in Middlesex
13 Township, Cumberland County, Pennsylvania and Request for a Certificate of Filing for
14 an Emergency Interconnection Agreement between the Company and Middlesex
15 Township Municipal Authority (the "Middlesex Application") states "That in
16 Pennsylvania-American Water Company's next rate case that proposes to include in rate
17 base any facilities installed to provide water service in this Application's requested
18 territory, Pennsylvania-American Water Company shall provide testimony that separately
19 identifies this Application and that further justifies the inclusion of these facilities in rate
20 base, including by providing a calculation of Pennsylvania-American Water Company's
21 minimum required investment for this main extension, in a similar fashion to the equation
22 in the Commission's regulations at 52 Pa. Code §65.21(3)."

1 **Q. Were the facilities installed pursuant to the Middlesex Application for the purpose of**
2 **providing water service to MTMA?**

3 A. No. The main extension and emergency interconnection with MTMA was at the request
4 of the Company and for the benefit of its customers. The Company maintains multiple
5 emergency interconnections across its systems in order to maintain adequate and reliable
6 service during main breaks or other emergencies. This particular area of the
7 Mechanicsburg system has been growing and an outage would impact an increasing
8 number of customers. The ability to also provide water to MTMA on an emergency basis
9 was ancillary. The Middlesex Application was filed only because the location of the
10 interconnection vault was outside of the Company's certificated service territory and there
11 was a potential for water to also be provided to MTMA on an emergency basis. Since
12 being placed in service in February 2022, the Company has received water from MTMA
13 on only one occasion and has not provided any water to MTMA. These facilities are
14 properly included in rate base because they have benefited the Company's customers
15 through increased reliability. Given that the main extension was not initiated by a request
16 from MTMA or installed for the purposes of serving MTMA, but rather to improve the
17 reliability of the Company's Mechanicsburg system, a calculation of the Company's
18 minimum required investment similar to the equation in the Commission's regulations at
19 52 Pa. Code § 65.21(3) is inapplicable.

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

21 A. Yes, it does.


Bruce W. Aiton

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-2022-3031672 (WATER)

R-2022-3031673 (WASTEWATER)

DATE: April 29, 2022

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 base rate case at Docket No.
4 R-2020-3019369. In addition, I have testified before the West Virginia Public Service
5 Commission on behalf of an American Water subsidiary, West Virginia-American Water.

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

7 A. The purpose of my testimony is to explain the portions of the Company’s principal
8 accounting exhibit, Exhibit No. 3-A, that I am sponsoring, which relate to the Company’s
9 claims for rate base, depreciation and amortization, taxes other than income, and
10 acquisitions in rate base since its last base rate case. Additionally, my testimony supports
11 the Company’s claim for rate case and regulatory expense, as well as the allocation of
12 common costs between water and wastewater operations. I will also describe changes that
13 the Company is proposing to make to its water and wastewater tariff in this case. Finally,
14 I will discuss the Company’s rate structure and rate design proposal.

15 **The Development of the Combined**
16 **Water and Wastewater Revenue Requirement**

17 **Q. Please explain how the Company developed its revenue requirement in this case.**

18 A. The total Company revenue requirement was developed based on six separate revenue
19 requirements, defined as follows:

- 20 • Water Operations,
- 21 • Wastewater Sanitary Sewer Systems (“SSS”) General Operations,
- 22 • Royersford Wastewater (“WW”) Operations,
- 23 • Upper Pottsgrove WW Operations,

- York WW Operations, and
- Wastewater Combined Sewer Systems (“CSS”) Operations.

In this case, the Company is distributing a portion of the revenue requirements for its wastewater operations to the revenue requirements of its water operations as shown on Exhibit No. 3-A on the Revenue Requirement Summary. The allocation of a portion of wastewater revenue requirements to water revenue requirements by utilities that provide both forms of service was authorized by amendments to the Public Utility Code made by Act 11 of 2012. Those amendments provide the Commission a reasonable means of moderating the rate impact of significant investments needed to improve the service, reliability and environmental compliance of acquired wastewater systems. The Commission approved the allocation of a portion of the Company’s wastewater revenue requirements to water revenue requirements in the Company’s last three base rate proceedings. In the Company’s last base rate case, Docket No. R-2020-3019369, the Commission approved a settlement that allocated 50% of the Company’s wastewater revenue requirement increase to the water revenue requirement in the rates that went into effect on January 1, 2022.

For the Company’s six revenue requirements identified above, the Company has prepared six detailed revenue requirement studies that set forth the Company’s claims for rate base, depreciation, operating and maintenance expenses, taxes and pro forma revenues for a historic test year ending December 31, 2021 (“HTY”), a projected future test year ending December 31, 2022 (“FTY”), and a fully projected future test year ending December 31, 2023 (“FPFTY”). In Exhibit No. 3-A, the historic test year data are generally identified by the title or heading “Present Rates at December 31, 2021” and the

FTY and FPFTY are generally identified by the title or heading “Present Rates at December 31, 2022,” and “Present Rates at December 31, 2023,” respectively.

Q. Why did the Company prepare separate revenue requirements?

A. The Company developed revenue requirements for its base water, wastewater sanitary sewer systems and wastewater combined sewer systems, and also developed individual revenue requirements as required by previous settlements for certain acquisitions under Section 1329 of the Public Utility Code. Separate revenue requirements were developed for Royersford WW Operations, Upper Pottsgrove WW Operations, and York WW Operations acquisitions independently, as agreed to in the settlements of these acquisitions.^{1 2} Additionally, the Joint Petition for Non-Unanimous Settlement (the “Settlement”), which was approved by the Commission in the Company’s last base rate case, provides that the Company is not required to provide a separate study for each

¹ See *Application of Pennsylvania-American Water Company – Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough’s Wastewater System Assets*, Docket No. A-2020-3019634 (Opinion and Order entered on May 7, 2021) (Hereinafter *Royersford Order*); *Application of Pennsylvania-American Water Company – Wastewater Division (PAWC-WD), under Sections 1102 and 1329 of the Pennsylvania Public Utility Code, 66 Pa C.S. §§ 1102(a) and 1329 (relating to enumeration of acts requiring certificate and valuation of acquired water and wastewater systems), or approval of: (1) the transfer, by sale, of substantially all of the wastewater system assets, properties and rights of Upper Pottsgrove Township related to its wastewater collection and conveyance system; (2) the right of PAWC-WD to begin to offer or furnish wastewater service to the public in Upper Pottsgrove Township, Montgomery County, and a portion of Douglass Township, Berks County, Pennsylvania; and (3) the use for ratemaking purposes of the lesser fair market value or the negotiated purchase price of the Upper Pottsgrove Township assets related to its wastewater collection and treatment system*, Docket No. A-2020-3021460 (Opinion and Order entered on September 15, 2021) (Hereinafter, *Upper Pottsgrove Order*); *In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, to Pennsylvania-American Water Company, of substantially all of the assets, properties and rights related to the wastewater collection and treatment system owned by the York City Sewer Authority and operated by the City of York, (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in the City of York, Pennsylvania, and to three bulk service interconnection points located in North York Borough, Manchester Township and York Township, York County, Pennsylvania, and (3) the rights of Pennsylvania-American Water Company to begin to offer and furnish Industrial Pretreatment Program to qualifying industrial customers in Manchester Township, Spring Garden Township and West Manchester Township, York County, Pennsylvania*, Docket No. A-2021-3024681 (Joint Petition for Approval of Unanimous Settlement of All Issues filed February 1, 2022 and approved by Opinion and Order dated April 14, 2022) (Hereinafter, *York Order*).

² Settlement of the Valley Township water and wastewater proceedings did not require a separate cost of service study.

combined stormwater system. The Company has included one Wastewater CSS Operation study for Scranton, McKeesport and Kane wastewater systems, as permitted under the Settlement.³

Rate Base

Q. What are the Company's rate base claims in this proceeding?

A. The total Company rate base claim in this proceeding is shown below for each of the six revenue requirements:

Rate Base	2023 Proposed
Water Operations	\$4,034,404,746
Wastewater SSS General Operations	\$372,166,500
Royersford WW Operations	\$12,794,355
Upper Pottsgrove WW Operations	\$13,829,945
York WW Operations	\$233,085,970
Wastewater CSS Operations	\$479,444,857
Total:	\$5,145,726,373

The calculations of these amounts are shown in Exhibit No. 3-A under the respective rate base sections for each revenue requirement.

Q. What are the elements of the Company's rate base claims?

A. PAWC's rate base claims consist of several elements. The first and largest element is the depreciated original cost of net plant in service. To this amount, three items have been added to each of the rate base claims: (1) materials and supplies; (2) cash working capital; and (3) accrued taxes net of prepaid taxes.

For Water Operations, items four and five described below were added:

³ Joint Petition for Non-Unanimous Settlement of Rate Investigation ("Joint Petition for Non-Unanimous Settlement") at ¶ 28, Docket No. R-2020-3019369.

1 (4) the unamortized balance of the Commission-approved⁴ utility plant acquisition
2 adjustments associated with the Company's acquisitions of the water assets of the former
3 Pennsylvania Gas & Water Company ("PG&W"), Lake Spangenberg Water Company, the
4 Fernwood Community Water System, and the Olwen Heights Water Service Company,
5 Inc., as well as the unamortized balance of the Commission-approved acquisition
6 transaction and closing costs for the Company's acquisitions of the water assets of the
7 Steelton Borough Authority and Municipal Authority of the Borough of Turbotville. In
8 addition, the Company is seeking approval for recovery of the transaction and closing costs
9 associated with its acquisitions of the water systems from Valley Township and SLIBCO
10 Utilities, as well as its planned acquisition of the Creekside Homeowner's Association
11 water system, which will be completed prior to the end of the FPFTY. These acquisition
12 transaction and closing costs are similar to the acquisition transaction and closing costs
13 approved by the Commission for the Steelton Borough Authority and the Borough of
14 Turbotville acquisitions; and

15 (5) the unamortized balance of additional costs incurred by the Company relative
16 to its position as receiver of the Winola Water Company, Docket No. P-2018-3006216,
17 which are discussed in more detail below.

18 For the Wastewater SSS General Operations rate base claim, a fourth item was added:

19 (4) the unamortized balance of the Commission-approved utility plant acquisition
20 adjustments associated with the Company's acquisitions of the wastewater assets of the

⁴ References in this testimony to Commission authorized balances and amortizations of acquisition adjustments can be found at Docket No. R-2020-3019369, Joint Petition for Non-Unanimous Settlement of Rate Investigation, Appendix E, approved by Order entered February 25, 2021, unless specifically stated otherwise.

1 former Clean Treatment Sewage Company, the Borough of New Cumberland, and
2 Delaware Sewer Company, as well as the unamortized balance of the Commission-
3 approved acquisition transaction and closing costs for the Company's acquisitions of the
4 wastewater assets of Sadsbury Township, Exeter Township, Delaware Sewer Company,
5 and the Borough of Turbotville. In addition, the Company is seeking approval for recovery
6 of the acquisition transaction and closing costs associated with the acquisition of
7 wastewater assets of Valley Township and the planned acquisition of wastewater assets of
8 Foster Township, Docket Nos. A-2020-3020178 and A-2021-3028676, respectively. As
9 discussed in the direct testimony of my colleague, Mr. Grundusky (PAWC St. No. 7), the
10 Foster Township acquisition will be completed prior to the end of the FPFTY. These
11 acquisition transaction and closing costs are similar to the acquisition transaction and
12 closing costs approved by the Commission and previously discussed in my testimony.

13 For Royersford WW Operations, a fourth item was added: (4) the Company is seeking
14 approval for recovery of the acquisition transaction and closing costs associated with the
15 Company's acquisition of the wastewater assets of the Royersford Borough, Docket No.
16 A-2020-3019634. These acquisition transaction and closing costs are similar to the
17 acquisition transaction and closing costs discussed previously.

18 For Upper Pottsgrove WW Operations, a fourth item was added: (4) the Company is
19 seeking approval for recovery of the acquisition transaction and closing costs associated
20 with the Company's planned acquisition of the wastewater assets of Upper Pottsgrove
21 Township, Docket No. A-2020-3021460, which will be completed prior to the end of the
22 FPFTY. These acquisition transaction and closing costs are similar to the acquisition
23 transaction and closing costs discussed previously.

1 For York WW Operations, a fourth item was added: (4) the Company is seeking approval
2 for recovery of the acquisition transaction and closing costs associated with the Company's
3 planned acquisition of the wastewater assets of the City of York, Docket
4 No. A-2021 3024681, which will be completed prior to the end of the FPFTY. These
5 acquisition transaction and closing costs are similar to the acquisition transaction and
6 closing costs discussed previously.

7 For the Wastewater CSS Operations rate base claim, a fourth item was added: (4) the
8 unamortized balance of the Commission-approved transaction and closing costs associated
9 with the Company's acquisitions of the wastewater assets of the Sewer Authority of the City
10 of Scranton, the Municipal Authority of the City of McKeesport, and the Borough of Kane
11 Authority.

12 For the calculation of the Water Operations rate base claim, seven items have been
13 deducted: (1) a net offset to cash working capital requirements to reflect the timing of the
14 payment of interest and preferred dividends; (2) unamortized investment tax credits that
15 were generated prior to 1971; (3) a thirteen-month average of extension deposits in
16 suspense; (4) contributions-in-aid-of-construction ("CIAC") and customer advances for
17 construction ("CAC") associated with the Company's acquisition of the water assets of the
18 former Citizens Utilities Water Company of Pennsylvania ("Citizens"); (5) balance of the
19 regulatory liability for the federal income tax savings associated with the 2017 Tax Cuts
20 and Jobs Act ("TCJA") for January 1, 2018 through June 30, 2018 (the "Stub Period") and
21 the unamortized balance of the Negative Deferred Tax Credit reconciliation from
22 January 28, 2021 through December 31, 2021; (6) other deductions (as described below);
23 and (7) accumulated deferred taxes.

1 For the calculation of the Wastewater SSS General Operations and Wastewater CSS
2 Operations rate base claims, three items have been deducted: (1) a net offset to cash
3 working capital requirements to reflect the timing of the payment of interest and preferred
4 dividends; (2) the balance of the regulatory liability for federal income tax savings
5 associated with the TCJA Stub Period relating to Wastewater SSS General and Scranton
6 WW CSS Operations; and (3) accumulated deferred taxes.

7 For the calculation of the Royersford, Upper Pottsgrove, and York WW Operations rate
8 base claims, two items have been deducted: (1) a net offset to cash working capital
9 requirements to reflect the timing of the payment of interest and preferred dividends; and
10 (2) accumulated deferred taxes.

11 **Q. Has the Company made an adjustment to the balance of the regulatory liability for**
12 **the TCJA Stub Period tax savings approved for amortization in the last case as it**
13 **relates to the interest accrual?**

14 A. Yes. The Company made an adjustment to the projected interest accrual on the regulatory
15 liability for the TCJA Stub Period tax savings using the actual interest at the residential
16 mortgage lending rate specified by the Secretary of Banking in accordance with the Loan
17 Interest and Protection Law, 41. P.S. §§ 101, *et seq.*, which was lower than the amount
18 projected in 2020. Detail on this adjustment can be found in the PAWC Exhibit No. 3-C.

19 **Q. Please describe the Rate Base deduction for the Negative Deferred Tax Credit.**

20 A. In accordance with PAWC Tariff Water-PA P.U.C. No. 5, page 40 (Negative Surcharge
21 for Deferred Tax Credit), the Company will file, on April 30, 2022, a reconciliation of the
22 difference between the total credits provided to customers for bills rendered through
23 December 31, 2021 and the amount of \$9,560,000. The calculated difference of \$208,073,

1 plus applicable interest, has been included as a deduction to rate base. The Company is
2 seeking approval of this adjustment in this proceeding, along with an amortization period
3 of three years.

4 **Q. Please explain how the depreciated original cost of net plant for the FPFTY was**
5 **determined.**

6 A. Net plant is the total utility plant in service less CIAC, CAC, and excluded property.
7 Depreciated original cost is the original cost less accrued depreciation. The original cost
8 of net utility plant as of the end of the FPFTY consists of the amount recorded in PAWC's
9 plant accounts at December 31, 2021, plus projected additions, net of retirements, through
10 December 31, 2022 and 2023, respectively less CIAC and CAC. The original cost of plant
11 in service at December 31, 2021, and the original cost of claimed additions and retirements,
12 shown by detailed plant account, are set forth in Exhibit No. 3-A under the respective rate
13 base sections for each revenue requirement study. Mr. Aiton discusses the more significant
14 plant additions in his direct testimony (PAWC Statement No. 3).

15 I will address the water and wastewater acquisitions that the Company has consummated
16 since its last base rate case. The accrued depreciation at December 31, 2022 and 2023,
17 respectively, related to net plant in service was determined by the Company's depreciation
18 consultant, John J. Spanos (PAWC Statement No. 11), and is shown in Exhibit No. 3-A
19 under the respective rate base sections for each revenue requirement study.

20 **Q. Do the continuing property records, as maintained by the Company and augmented**
21 **by depreciated original cost studies and fair market value appraisals for acquisitions,**
22 **accurately reflect additions and retirements to plant in service?**

1 A. Yes, they do. For the fair market value acquisitions of Valley Township water and
2 wastewater systems and the Borough of Royersford, the Company used the reproduction
3 cost and associated accumulated depreciation shown in the appraisal provided by the
4 Company's Utility Valuation Expert ("UVE") in each respective acquisition proceeding
5 (Docket Nos. A-2020-3019859, A-2020-3020178, and A-2020-3019634). Because the
6 reproduction cost net of accumulated depreciation was greater than the ratemaking rate
7 base approved by the Commission in each case, the Company scaled the reproduction cost
8 and associated accumulated depreciation of each acquisition to equal the ratemaking rate
9 base approved by the Commission. The Journal Entries associated with each fair market
10 value acquisition are provided in Exhibit No. 3-C. Preliminary depreciated original cost
11 studies were completed and filed with the Commission for the planned acquisitions of
12 Foster Township wastewater assets, and Creekside Homeowner's Association water
13 system, Docket Nos. A-2022-3031020 and A-2021-3028676, respectively. For the planned
14 fair market value acquisition of Upper Pottsgrove Township wastewater assets, the
15 Company's filing reflects the utility plant in service and depreciation reserve based on the
16 appraisal provided by the Company's UVE, Docket No. A-2020-3021460. The
17 Company's filing for the future fair market value acquisition of the City of York
18 wastewater assets reflects the net value of the assets at the ratemaking rate base agreed to
19 by the parties in the Joint Petition for Approval of Unanimous Settlement of All Issues,
20 filed with the Commission on February 1, 2022, Docket No. A-2021-3024681.

21 **Q. Are the data shown on the Company's continuing property records an accurate basis**
22 **for developing the original cost of property?**

23 A. Yes, they are.

1 **Q. Do the Company's rate base claims include the cost of water and wastewater assets**
2 **that were acquired since the Company's last base rate case?**

3 A. Yes, the Company's rate base claims include the depreciated cost of assets acquired since
4 the Company's last base rate case, which includes the water assets acquired from Valley
5 Township⁵ and the wastewater assets of: (1) the Borough of Royersford; and (2) Valley
6 Township. Exhibit No. 3-A provides a list of the Commission orders approving each of
7 the acquisitions listed above.

8 **Q. Do the Company's rate base claims include the cost of water and wastewater assets**
9 **that are to be acquired during the pendency of this proceeding?**

10 A. Yes, the Company's rate base claims include the cost of water assets to be acquired from
11 Creekside Homeowner's Association and the wastewater assets to be acquired from Upper
12 Pottsgrove Township, Foster Township and City of York.

13 **Q. Has the Company made any adjustments to its historic test year end CIAC and CAC**
14 **balances?**

15 A. Yes, it has made adjustments to those balances for its Water Operations, Wastewater SSS
16 General Operations, and Wastewater CSS Operations. The December 31, 2021 CIAC
17 balance for Water Operations has been increased to reflect \$1,294,592 of additional
18 contributions projected to be received through the end of the FPFTY. The CAC balance
19 has been adjusted to reflect \$7,545,408 of additional advances projected to be received
20 through the FPFTY, and decreased for \$5,000,000 of refunds anticipated to be paid during
21 2022 and 2023 with respect to customer advances received in prior years.

⁵ The Company's rate base claims do not include the cost of water assets acquired from SLIBCO Utilities for \$1.00. However, the Company's rate base claims do include the transaction and closing costs associated with acquiring the SLIBCO Utilities assets, as described above.

1 For the Wastewater SSS General Operations, the December 31, 2021 CIAC balance has
2 been increased to reflect \$674,678 of additional contributions projected to be received
3 through the FPFTY. In addition, \$2,173,197 of contributions associated with the planned
4 Foster Township acquisition has been included for the FTY.

5 For the Wastewater CSS Operations, the December 31, 2021 CIAC balance has been
6 increased to reflect \$32,000 of additional contributions projected to be received through
7 the FPFTY.

8 These calculations are shown in Exhibit No. 3-A under the respective rate base sections for
9 the revenue requirements of Water Operations, Wastewater SSS General Operations, and
10 Wastewater CSS Operations.

11 The Company does not anticipate any changes to the CAC balances for its Wastewater SSS
12 General Operations or Wastewater CSS Operations. In addition, the Company does not
13 anticipate any changes to the CIAC and CAC balances for its remaining operations.
14 Therefore, no adjustments to the December 31, 2021 balances for those operations are
15 required.

16 **Q. Has the Company excluded from its rate base certain property recorded in its utility**
17 **plant accounts?**

18 A. Yes. The amount of \$1,558,014 has been excluded from the Company's rate base claim
19 for Water Operations as shown in Exhibit No. 3-A under the corresponding rate base
20 section. For the most part, the excluded amount represents the original cost of utility plant
21 in service for which the Company received relocation reimbursement payments from the
22 Commonwealth of Pennsylvania. The remainder of the excluded amount consists of

1 certain allowance for funds used during construction (“AFUDC”) accruals that the
2 Company agreed to remove from rate base pursuant to a stipulation approved in the
3 Company’s rate proceeding at Docket No. R-00932670.

4 **Q. Please explain the addition to rate base for materials and supplies.**

5 A. In accordance with procedures previously approved by the Commission, the Company’s
6 materials and supplies claims were determined by averaging the monthly balances of the
7 materials and supplies account for the thirteen months ended December 31, 2021. The
8 calculations of the materials and supplies claims are shown in Exhibit No. 3-A under the
9 respective rate base sections for each revenue requirement study. The Company’s
10 materials and supplies claim for the Royersford WW Operations, Upper Pottsgrove WW
11 Operations, and York WW Operations were derived as follows: (1) monthly balances of
12 the materials and supplies accounts for PAWC’s Wastewater SSS General Operations for
13 the thirteen months ended December 31, 2021 were summed and the total divided by the
14 number of customers in those wastewater districts to determine the average materials and
15 supplies balance per customer; and (2) the average materials and supplies balance per
16 customer was multiplied by the total number of customers served by the water and
17 wastewater systems. The calculation of this adjustment is shown in Exhibit No. 3-A under
18 the respective rate base sections for materials and supplies.

19 **Q. Please explain the Company’s claim for cash working capital.**

20 A. The cash working capital requirement is calculated by multiplying the net lag days (revenue
21 lag days less expense lag days) by the average operating expenses per day (total operating
22 expenses / 365 days). All calculations have been made to two decimal places. In
23 accordance with Commission policy, uncollectible accounts expense and amortizations

1 were subtracted from total operating expenses before performing the calculation. The
2 calculation of the gross cash working capital requirement is shown in Exhibit No. 3-A
3 under the respective rate base sections for cash working capital for each of the Company's
4 revenue requirements.

5 **Q. How were the revenue and expense lags determined?**

6 A. Revenue and expense lags were determined by a lead-lag study. The revenue lag consists
7 of three components: (1) the lag from the midpoint of the service period to the end of the
8 service period, i.e., the meter-read date; (2) the time required for bill preparation and
9 mailing; and (3) the lag in receipt of payment. The first component was calculated as
10 follows: the sum of the number of service days relative to each customer bill in the last
11 quarter of the HTY was calculated. That figure was divided by two to determine the
12 interval from the midpoint to the end of the service period. The average of the service days
13 for the period October through December 2021 was then computed, resulting in a service
14 lag period of 15.04 days.

15 The second component is billing lag. The billing lag of two days used for this calculation
16 was proposed by a witness for the Commission's Bureau of Investigation and Enforcement
17 and agreed to by the Company in a prior base rate case at Docket No. R-2013-2355276.

18 The third component, the collection lag, requires a further calculation to determine the
19 average length of time that revenues are outstanding before payment. This calculation was
20 performed as follows: (1) daily accounts receivable balances for the twelve months ended
21 December 31, 2021 were summed and the total divided by the number of days in 2021 to
22 determine the average accounts receivable balance per day; (2) the Company's total

1 revenue for the twelve months ended December 31, 2021 was divided by the number of
2 days in 2021 to determine the average revenue billed per day; and (3) the average accounts
3 receivable balance per day was divided by the average revenue billed per day. The result
4 of the division in (3), above, yields the number of days on average that billed revenue was
5 outstanding prior to receipt of payment, which in the study was 39.06 days. This is a
6 standard calculation used by other water utilities in Pennsylvania. Finally, 0.78 days of
7 “Lockbox Collection Lag” was added to the revenue lag, which represents the time
8 between the collection of customer remittances to a post office box and the deposit of those
9 funds into the Company’s bank account. The total revenue lag for this study, when the
10 items above are combined, is 56.89 days.

11 The expense lag was based upon a comprehensive lag study. Using procedures approved
12 by the Commission in prior proceedings and data obtained from the Company’s centralized
13 accounts payable system, samples of expense vouchers for each category of expense were
14 analyzed to determine the lag between the receipt of goods or services and the applicable
15 payment due date. A summary of the expense lags by category is shown in Exhibit No. 3-A
16 under the corresponding rate base section. These lag calculations reflect an addition for
17 “Check Float,” which represents the average amount of time that it takes for a vendor to
18 deposit a payment from the Company. For the Labor and Service Company calculations,
19 an addition of 0.09 days was included, which has the same purpose as the “Check Float,”
20 but is instead calculated by taking a weighted average of direct deposit and check payments
21 to employees. The detailed calculations of the revenue and expense lag days appear in the
22 response to Question No. FR V. 8 of the Commission’s Standard Filing Requirements.

1 **Q. Please explain the addition to rate base for accrued and prepaid taxes.**

2 A. This addition to rate base reflects the fact that, on balance, taxes are paid in advance. The
3 lead/lag in payment of Pennsylvania corporate net income tax is based on four equal
4 payments throughout the year. The General Assessment tax lead was calculated based
5 upon actual payment dates in 2021. The lead/lag day calculations for the payment of taxes
6 imposed by the Public Utility Realty Tax Act (“PURTA”) and federal income tax were
7 based upon statutory payment schedules. The lag for local property taxes was determined
8 using the regular expense lag calculation, which was discussed above. Payments are made
9 by check, and the average payment was a lead of (31.87) days, adjusted to (22.09) when
10 Check Float was accounted for. The calculations of the lead/lag days for the
11 aforementioned taxes are set forth in Exhibit No. 3-A in the respective rate base sections
12 for each of the Company’s revenue requirements. The net lead/lag days for each tax are
13 then applied to the pro forma tax amounts, as shown in the applicable section of Exhibit
14 No. 3-A, to calculate the overall working capital effect which, in this instance, is positive
15 for all operations. Thus, the average net lead in payment of these taxes constitutes an
16 addition to cash working capital requirements and, therefore, is reflected as a rate base
17 addition.

18 **Q. Please explain the addition to rate base for acquisition adjustments.**

19 A. There are two types of acquisition adjustments claimed by the Company in this case. The
20 first type represents utility plant acquisition adjustments (“UPAA”). The second type
21 represents acquisition transaction and closing costs. These are further broken down to
22 adjustments that were approved in prior base rate cases and adjustments that the Company
23 is proposing in this case. The applicable rate base claims and docket numbers are shown

on Exhibit No. 3-A under the rate base section entitled Acquisition Adjustments. Exhibit No. 3-C provides additional support, including a copy of Appendix E of the Joint Petition for Settlement at Docket No. R-2020-3019369, for those acquisition adjustments approved in the Company's last base rate case. In this case, the Company is seeking approval of the acquisition transaction and closing costs for the Valley Township water and wastewater system acquisitions, the SLIBCO Utilities water system acquisition, and the Borough of Royersford wastewater system acquisition. Additionally, the Company is seeking approval of the estimated acquisition transaction and closing costs associated with the planned acquisitions of the Creekside Homeowner's Association water system, and the Foster Township, Upper Pottsgrove Township, and City of York wastewater systems.

Q. Please describe the adjustments made to the transaction cost balances approved in the last rate case for the Delaware Sewer Company and Borough of Kane wastewater acquisitions.

A. The total transaction and closing cost estimates at December 31, 2020 that were approved by the Commission for the Delaware Sewer and Kane wastewater systems were reconciled to the actual balances on the Company's books at the time of this filing. This resulted in a reduction to the originally authorized balances by \$42,281 for Delaware Sewer and \$323,559 for Kane. In addition, the Company is seeking approval to modify the original 40-year amortization period for Kane transaction costs to a 10-year period, given the significant reduction to the overall balance. Supporting detail for these adjustments can be found in the Company's Exhibit No. 3-A and Exhibit No. 3-C pages for Wastewater SSS General Operations and Wastewater CSS Operations for Delaware Sewer and Kane, respectively.

1 **Q. Please explain the addition of receivership costs related to Winola Water Company**
2 **to rate base for water?**

3 A. The fifth addition to Water Operations, shown in Exhibit No. 3-A in the corresponding rate
4 base section, is the unamortized balance of the Company's receivership costs related to
5 Winola Water Company. The Commission appointed the Company as receiver of Winola
6 Water Company in Docket No. P-2018-3006216. *See* Pa. Pub. Util. Comm'n v. Winola
7 Water Company, Docket No. P-2019-3006216 (November 29, 2018 Ex Parte Emergency
8 Order at Appendix A, Section 2(b)). Subsequently, in the Company's last base rate case,
9 *see* Docket No. R-2020-3019369, the Commission approved the amortization of the
10 Company's unamortized receivership costs incurred as of December 31, 2020. The
11 Company, in this case, is seeking approval to amortize \$145,165 in receivership costs that
12 were not included in the Company's claim for receivership costs in the last rate case due
13 to when the costs were incurred.

14 **Q. Please explain the items that were deducted from rate base for the Company's water**
15 **and wastewater operations.**

16 A. Two items were deducted from rate base for the Company's water and wastewater
17 operations. The first deduction, which offsets cash working capital requirements, relates
18 to the average net lag in payment of interest on long-term debt and dividends on preferred
19 stock. The deduction was calculated using procedures previously approved by the
20 Commission and is set forth in Exhibit No. 3-A in the corresponding rate base section for
21 each of the Company's revenue requirements.

22 The second deduction is for accumulated deferred taxes as addressed by Company Witness
23 Melissa Ciullo in her direct testimony, PAWC Statement No. 8.

1 **Q. Were additional items deducted from rate base for the Company’s water operations?**

2 A. Yes. Four rate base deductions apply only to the Company’s water operations. The first
3 item is unamortized investment tax credits generated prior to 1971. These amounts are
4 shown in Exhibit No. 3-A under the respective rate base sections. Investment tax credits
5 accrued in 1971, and thereafter, are amortized to income and are not permitted to be
6 deducted from rate base under the requirements of Section 46(f) of the Internal Revenue
7 Code.

8 Another item deducted from rate base for water operations, shown in Exhibit No. 3-A under
9 the respective rate base sections, is a thirteen-month average of extension deposits in
10 suspense. The Company requires applicants for water service to advance a portion of the
11 cost to construct main extensions needed to serve them under specified conditions, as more
12 fully set forth in the Company’s tariff. At the completion of the project, accounting entries
13 are made to adjust the estimated costs of construction to the actual costs of construction.
14 The difference is recorded in the extension deposit in suspense account until it is either
15 refunded to the party that made the advance, or an additional amount owed is collected. In
16 its final Order at Docket No. R-891208, the Commission agreed with the Office of
17 Consumer Advocate (“OCA”) that an average balance of such funds should be reflected in
18 rate base, and the Company has made this adjustment, shown in Exhibit No. 3-A, to comply
19 with that determination.

20 The third rate base offset for Water Operations comprises CIAC and CAC booked by
21 Citizens prior to its acquisition by PAWC. The Joint Petition for Settlement at Docket No.

1 R-2009-2097323 (“Citizens Joint Petition for Settlement”), as approved by the
2 Commission for ratemaking purposes, provided as follows:

3 (i) \$14,147,208, or 40%, of the December 31, 2009, balance of
4 the net customer advances for which Citizens retained the refund
5 liability upon the Company’s acquisition of Citizens’ water
6 utility assets will be deemed deducted from the Company’s rate
7 base; (ii) \$8,895,830 (100%) of the December 31, 2009 balance
8 of the net contributions in aid of construction the OCA proposed
9 to attribute to PAWC from its acquisition of Citizens’ water
10 assets will be deducted from PAWC’s rate base; (iii) in future
11 base rate cases, the foregoing balances, adjusted to reflect
12 accumulated amortization, will be deducted for ratemaking
13 purposes until such balances are fully amortized; and (iv) the
14 applicable depreciation rate for PAWC’s transmission and
15 distribution mains will be used to calculate the amortization of
16 such balances for ratemaking purposes to offset the portion of
17 depreciation expense on gross plant in service that is related to
18 these advances and contributions.
19

20 The adjustments that were made to implement the terms of the Citizens Joint Petition for
21 Settlement, set forth above, are detailed in Exhibit No. 3-A under the rate base section.

22 The final rate base deduction is for the Commission approved amortization associated with
23 an equipment discount.

24 **Q. Do the adjustments explained above constitute all of the adjustments necessary to**
25 **establish the Company’s rate base?**

26 **A.** Yes, they do.

27 **Depreciation And Amortization Expense**

28 **Q. Have adjustments been made to the annual depreciation expense recorded on the**
29 **Company’s books at December 31, 2021?**

1 A. Yes. Adjustments to booked amounts were made to a full annual amount of the
2 depreciation accrual for the Company's plant in service as of December 31, 2021 and for
3 plant to be added during 2022 and 2023. The annual accrual was determined largely on a
4 Straight-Line Average Remaining Life basis. The adjustments to reflect the annual accrual
5 for depreciation related to plant in service in 2021, 2022, and 2023 are shown in Exhibit
6 No. 3-A under the respective rate base sections, and, as noted previously, are explained
7 and sponsored by Mr. Spanos.

8 For Water Operations, a reduction to depreciation was made for CIAC and CAC associated
9 with the Company's acquisition of the water assets from Citizens, Joint Petition for
10 Settlement at Docket No. R-2009-2097323.

11 **Q. Please explain the Company's claim for "Amortizations" that appears in Exhibit**
12 **No. 3-A.**

13 A. The amortization claims for each of the revenue requirements are described as follows and
14 are reflected on Exhibit No. 3-A under the respective rate base sections:

15 For Water Operations, nine amortization claims are made:

16 (1) amortization of the UPAA for PG&W and for other UPAA amounts as
17 previously approved by the Commission which include the Commission-approved utility
18 plant acquisition adjustments associated with the Company's acquisition of the water assets
19 of the former PG&W, Lake Spangenberg Water Company, the Fernwood Community
20 Water System, the Olwen Heights Water Service Company, Inc., Indian Rocks Property
21 Owners Association, North Fayette County Municipal Authority, the Wildcat Park
22 Corporation, and the Municipal Authority of the Borough of Turbotville, plus the proposed
23 negative UPAA adjustment for the planned Creekside Homeowner's Association

1 acquisition. The Company is proposing to extend the amortization period for those
2 amortizations which are currently due to end at December 31, 2023, or January 28, 2024,
3 in order to reflect a more appropriate ongoing annual level of expense in proposed rates.
4 The detail of the amortizations can be found in Exhibit No. 3-A. Additionally, the
5 Company has included the previously Commission approved amortizations of the
6 transaction and closing costs associated with the acquisitions of the Borough of Turbotville
7 and Steelton Borough Authority, as well as the proposed amortization of the transaction
8 and closing costs associated with the water system acquisitions of Valley Township and
9 SLIBCO Utilities, and the planned acquisition of Creekside Homeowner's Association as
10 part of this claim;

11 (2) amortization of equipment discount, as previously described in my testimony;

12 (3) amortization of SFAS 109 regulatory assets – AFUDC as previously approved
13 by the Commission;

14 (4) amortization of receivership costs for Winola Water Company, Docket No. R-
15 2020-3019369 as previously discussed in my testimony;

16 (5) amortization of the TCJA Stub Period and deferred taxes, as previously
17 discussed in my testimony and in the direct testimony of Melissa Ciullo (PAWC Statement
18 No. 8). The Company is proposing a new three-year amortization period for the TCJA
19 Stub Period December 31, 2022 balance, which is currently due to end at January 28, 2024,
20 in order to reflect a more appropriate ongoing annual level of expense in proposed rates.
21 Additionally, as previously discussed in my testimony, the Company has included the
22 three-year amortization of the reconciliation of the negative surcharge for deferred tax

1 credits as required under the PAWC Tariff Water – PA P.U.C. No. 5, page 40. This
2 reconciliation covers the period from January 28, 2021 through December 31, 2021;

3 (6) Commission-approved amortization of DEP Safe Drinking Water fees,
4 reflecting an updated amortization period of three years on the balance as of December 31,
5 2022;

6 (7) post-in-service AFUDC for new plant additions made after the acquisition of
7 Steelton Borough Authority. *See* 66 Pa.C.S. §1329(f);

8 (8) deferred depreciation associated with the Steelton acquisition (*see* 66 Pa.C.S.
9 §1329(f)), as approved at Docket No. R-2020-3019369. The Company also proposes a
10 new three-year amortization period, similar to the TCJA Stub Period; and

11 (9) PAWC’s claimed amortization of the deferred financial impacts authorized in
12 the Commission’s September 15, 2021 Order at Docket No. P-2020-3022426 associated
13 with the COVID-19 emergency response, and as discussed by Company witness Cas Swiz
14 in PAWC Statement No. 9.

15 For Wastewater SSS General Operations, five amortization claims are made:

16 (1) Commission-approved utility plant acquisition adjustments associated with the
17 Company’s acquisition of the wastewater assets of the former Clean Treatment Sewage
18 Company, the Borough of New Cumberland, Delaware Sewer Company, and the Borough
19 of Turbotville, as well as the amortization of the acquisition adjustment for the planned
20 acquisition of Foster Township, Docket No. A-2021-3028676. For the former Clean
21 Treatment Sewage Company, the Company is proposing a new three-year amortization
22 period, which is currently due to end on December 31, 2023, in order to reflect a more
23 appropriate ongoing annual level of expense in proposed rates. Additionally, the Company

1 has included the previously approved amortizations of the transaction and closing costs
2 associated with the acquisitions of the Borough of Turbotville, Sadsbury Township, Exeter
3 Township, and Delaware Sewer Company. In addition, the Company is claiming
4 amortization of the acquisition transaction and closing costs associated with the Valley
5 Township acquisition and the planned acquisition of the wastewater assets of Foster
6 Township;

7 (2) Commission-approved amortization of post-in-service AFUDC for new plant
8 additions made after the acquisition for Sadsbury Township and Exeter Township. The
9 Company also proposes a new three-year amortization period, similar to what was
10 proposed for the amortization of the Steelton Borough Authority post-in-service AFUDC.
11 Additionally, the Company claims the amortization of post-in-service AFUDC for new
12 plant additions made after the acquisition of Valley Township, Docket No. A-2020-
13 3020178;

14 (3) Commission-approved amortization of deferred depreciation associated with
15 the acquisitions of Sadsbury Township and Exeter. The Company also proposes a new
16 three-year amortization period, similar to what was proposed for the amortization of the
17 Steelton Borough Authority deferred depreciation. Additionally, the Company claims the
18 amortization of deferred depreciation associated with the acquisition of Valley Township,
19 Docket No. A-2020-3020178;

20 (4) PAWC's claimed amortization of the deferred financial impacts authorized in
21 the Commission's September 15, 2021 Order at Docket No. P-2020-3022426 associated
22 with the COVID-19 emergency response, and as discussed by Company witness Cas Swiz
23 in PAWC Statement No. 9; and

1 (5) amortization of the TCJA Stub Period and deferred taxes, as described above.

2 For Royersford WW Operations, three amortization claims are made:

3 (1) acquisition transaction and closing costs associated with the Company's
4 acquisition of the wastewater assets of Royersford Borough, Docket No. A-2020-3019634;

5 (2) post-in-service AFUDC for new plant additions made after the acquisition; and

6 (3) deferred depreciation associated with the acquisition.

7 For Upper Pottsgrove WW Operations, the only amortization claim being made is
8 the acquisition transaction and closing costs associated with the Company's planned
9 acquisition of the wastewater assets of Upper Pottsgrove Township, Docket No. A-2020-
10 3021460. These costs are based on the estimates at the time of the application filing and
11 will be updated with actual costs after closing.

12 For York WW Operations, three amortization claims are made:

13 (1) acquisition transaction and closing costs associated with the Company's
14 planned acquisition of the wastewater assets of the City of York, Docket No. A-2021-
15 3024681. These costs are based on the estimates at the time of the application filing and
16 will be updated with actual costs after closing;

17 (2) post-in-service AFUDC for new plant additions made after the acquisition; and

18 (3) deferred depreciation associated with the acquisition.

19 For Wastewater CSS Operations, three 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
22 Scranton, the Municipal Authority of the City of McKeesport, and the Borough of Kane
23 Authority;

1 (2) deferred depreciation associated with the acquisition of the Municipal Authority
2 of the City of McKeesport. The Company proposes a new three-year amortization period,
3 similar to what was proposed for the amortization of the Steelton Borough Authority
4 deferred depreciation, and

5 (3) PAWC's claim of amortization of deferred costs associated with a stormwater
6 fee feasibility study, as described by Company Witness Bruce Aiton (PAWC Statement
7 No. 3).

8 **Q. Please describe the adjustments made to the Company's December 31, 2020**
9 **amortization expense balances approved by the Commission at Docket No. R-2020-**
10 **3019369.**

11 A. First, and as previously discussed in my testimony, the Company adjusted the transaction
12 cost balances approved for the Delaware Sewer and Kane wastewater acquisitions and the
13 Winola water system acquisition. This resulted in an adjusted annual amortization expense
14 for each system, as reflected in Exhibit Nos. 3-A and 3-C for Wastewater SSS General,
15 Wastewater CSS Operations, and Water Operations. Next, the Company adjusted the post-
16 in-service AFUDC and deferred depreciation costs associated with the Steelton water
17 acquisition, and the Sadsbury, Exeter and McKeesport wastewater acquisitions, to
18 reconcile to the actual balances on the Company's books at December 31, 2020 compared
19 with the estimated December 31, 2020 balances that had previously been approved by the
20 Commission. The adjustment to the McKeesport post-in-service AFUDC balance at
21 December 31, 2020 resulted in a full amortization of the remaining balance at
22 December 31, 2022. Exhibit No. 3-C includes a schedule detailing these adjustments.

1 **Property Taxes and General Assessments**

2 **Q. Please explain the adjustments to claims for property taxes.**

3 A. PURTA tax is imposed on certain real property dedicated to utility water service in
4 Pennsylvania based upon the fair market value of such property, as determined by applying
5 per-county common level ratios to the assessed values of the property. In Pennsylvania,
6 property taxes imposed on real property not subject to PURTA are administered at the
7 county level. In every county, the sum of local tax rates (school taxes, municipal taxes and
8 county taxes) is applied to the assessed value of each property. However, each county has
9 its own system for determining assessed value. The Company's claims for its Water
10 Operations, Wastewater SSS General Operations, and Wastewater CSS Operations were
11 calculated based on the ratio of actual 2021 tax liability to tax base. This ratio was applied
12 to the Company's pro forma claim for property tax eligible utility plant at December 31,
13 2022 and December 31, 2023. These calculations are detailed in Exhibit No. 3-A,
14 Pennsylvania Property Tax under the section for Taxes, Other Than Income. The
15 Company's claim for its Royersford, Upper Pottsgrove and York WW operations is
16 included as part of the Misc. Expense Adjustments in Exhibit No. 3-A, and are described
17 by Company Witness Lori O'Malley (PAWC Statement No. 5).

18 **Q. Please explain the adjustment for General Assessments.**

19 A. The General Assessments are imposed on regulated utilities to provide funding for the
20 Commission and Damage Prevention Committee, the Office of Consumer Advocate, and
21 the Office of Small Business Advocate. The General Assessment rates are applied to a tax
22 base consisting of revenue from water and wastewater service. To calculate pro forma
23 General Assessments, the current assessment rates from the fiscal year July 1, 2021 to

June 30, 2022 were applied to a tax base consisting of pro forma sales revenue under present and proposed rates as shown on Exhibit No. 3-A under the respective rate base sections. The Company will update these adjustments with the new General Assessment rates once they are available. Backup for the calculation of these adjustments is provided in the Company's Exhibit No. 3-A under the respective rate base sections.

Rate Case and Regulatory Expense

Q. Please explain the adjustment for regulatory and rate case expense.

A. These adjustments are being made to reflect and normalize the costs related to this rate case and to recover the annual amounts necessary to amortize other regulatory expenses that were incurred by the Company with the Commission's prior approval.

The costs for preparing and litigating this rate filing consist of the costs associated with the Company's consultants, outside legal counsel and any charges from the AWWSC revenue analytics team. Costs for customer communications, mailings, legal notices, administrative fees, and miscellaneous expenses associated with this application are also part of the regulatory expense adjustment. Some of these costs have already been incurred. The Company's claim reflects its total costs, both incurred to date and estimated to be incurred through the completion of this case. PAWC proposes that these costs be normalized over a two-year period, which reflects the period of time since the Company's last base rate filing. Detail of the cost categories included in the projected rate case expense can be found in the Rate Case Expense section of Exhibit No. 3-B.

Q. Please identify the additional claims for regulatory expense the Company is making in this case.

1 A. The Company is claiming for recovery three other categories of regulatory expense. First,
2 the Company is continuing the ten-year amortization of the costs it incurred for a Customer
3 Class Demand Study performed in accordance with the terms of the Commission-approved
4 settlement of PAWC's rate proceeding at Docket No. R-2011-2232243. The costs of that
5 study were approved for recovery via a ten-year amortization, beginning in January 2018,
6 as part of the Company's 2017 base rate case at Docket No. R-2017-2595853. Second, the
7 Company is continuing the ten-year amortization of the costs incurred for the preparation,
8 filing, litigation and resolution by settlement of the Company's petition at Docket
9 No. P-2017-2606100 for approval of a plan to replace customer-owned lead service pipes.
10 Those costs were approved for recovery via a ten-year amortization, beginning in January
11 2021, as part of the Company's last base rate case, Docket No. 2020-3019369. Third, the
12 Company is claiming for recovery of the costs associated with performing a stormwater
13 fee feasibility study, which was conducted in order to assess potential recovery and rate
14 methodology options for stormwater costs of combined sewer systems, as required under
15 the approved settlement at Docket No. R-2020-3019369. Company witness Nathan Walker
16 describes the study in more detail as part of PAWC Statement No. 14. The Company
17 proposes to amortize those costs over three years beginning on the effective date of the
18 base rates established in this case.

19 **Q. Has the Company allocated the pro forma rate case and regulatory expense?**

20 A. Yes. The Company uses an allocation factor based on customer counts to apportion the
21 projected rate case and regulatory expense to the individual water and wastewater
22 operations for which separate revenue requirement studies have been provided in Exhibit
23 No. 3-A. The allocation factor will be explained in more detail below. The Rate Case

Expense section of Exhibit No. 3-B shows the costs allocated to each separate revenue requirement study from applying this allocation factor.

Allocation of Costs Between Water and Wastewater Operations

Q. Please describe the Company’s approach to allocating costs between water and wastewater operations in this rate proceeding.

A. The Company is proposing to allocate costs between water and wastewater operations utilizing the same allocation methodology the Company used in its last base rate case at Docket No. No. 2020-3019369.

Q. Please describe the cost categories that fall under the term “common costs”.

A. The costs classified as “common costs” include Service Company expenses (including postage and customer accounting costs), insurance other than group, rate case expense and regulatory expense, and the costs associated with the PAWC Corporate Headquarters (Capital Campus) located in Mechanicsburg, Pennsylvania.

Q. What is the methodology used by the Company to allocate common costs between its water and wastewater operations?

A. The Company allocates the above categories based on four different factors, as shown in Schedule SDG-1.

Factor 1 – Customers (for Service Company and Customer Accounting). This factor was calculated based on the number of customers as of December 31, 2021. In allocating costs to PAWC, the Service Company identifies customers that receive both water and wastewater service from the Company. These accounts are not treated as two separate customers in the customer-count used to allocate Service Company costs. Instead, each

1 dual service customer is assigned the value of 1.05 in the count of total Company customers
2 and the value of 0.05 in the count of wastewater customers. PAWC used the same
3 convention in allocating costs between water and wastewater operations. The dual service
4 customers counted in the manner explained above plus wastewater-only customers are
5 summed to arrive at the wastewater customer count used for the customer-based allocation.

6 Factor 2 – Customers (for Rate Case and Regulatory Expense). This calculation is based
7 on the total number of customers for each water or wastewater system and allows for
8 subsets of allocations based on water and wastewater SSS, water and wastewater SSS and
9 wastewater CSS customers. The breakdown of this level is necessary, as there are certain
10 rate case expense components which only relate to specific customer types. For example,
11 cost of service and rate design activities are completed for water and wastewater SSS
12 customers, but separately for wastewater CSS customers. The application of this allocation
13 factor is shown in the Rate Case Expense section of Exhibit No. 3-B.

14 Factor 3 – Customers (for PAWC’s Corporate Headquarters (Capital Campus)). This
15 allocation is based on each water or wastewater system’s percentage of the Company’s
16 total customers as of December 31, 2021.

17 Factor 4 – Depreciated Cost of Utility Plant in Service (for Insurance Other Than Group).
18 This factor is based on the depreciated original cost of total net utility plant in service as of
19 December 31, 2021 for each water or wastewater system. The percentages of utility plant
20 are applied to the pro forma Insurance Other Than Group expenses claimed by the
21 Company to determine the portion of total expenses allocated to water and wastewater

1 operations. The Company's expense for Insurance Other than Group consists of property,
2 vehicle and general liability, which closely aligns with plant assets.

3 **Proposed Water and Wastewater Tariffs**

4 **Q. Please discuss the proposed changes to the Rules and Regulations shown in the**
5 **proposed Water Tariff.**

6 A. The Company is proposing changes to the Rules and Regulations in its Water Tariff, which
7 include the following:

- 8 1. The Company expands the terms and conditions under private fire service-
9 unmetered regarding the responsibility for maintenance of qualified private fire
10 hydrants.
- 11 2. The Company modified Distribution System Improvement Charge applicability to
12 reflect its planned acquisition of the Creekside Homeowner's Association water
13 system.
- 14 3. The Company is eliminating the Negative Surcharge for Deferred Tax Credit and
15 the Recoupment Surcharge.
- 16 4. The Company's low-income discounts have been modified to a tiered discount
17 structure, as discussed in the testimony of Charles Rea, PAWC Statement No. 10.
- 18 5. Regarding Rule 2.16 Service Pipe, the Company proposes an updated definition
19 describing lead service pipe in order to comply with the new Lead and Copper Rule,
20 as further discussed by Company witness Mr. Aiton in PAWC Statement No. 3.
- 21 6. The Company adds a new Rule 3.6 Owner or Landlord Responsibility for Service,
22 proposing that if a building is master metered, the Company may require the
23 building owner or landlord to establish a single account for the building at the

1 master meter in the name of the building owner or landlord, even where there are
2 existing meters for individual tenants behind the master meter.

3 7. The Company adds a new Rule 3.7 Acquired Customers, proposing that upon
4 acquisition of a water system where the Company is already a wastewater service
5 provider, the Customer of record for water service shall be the same as the
6 Customer of record for wastewater service, where applicable.

7 8. Regarding Rule 4.9.1 Replacement of Lead Service Pipes, the Company proposes
8 to increase the annual replacement of lead service pipes to 5,400 and to change the
9 budget for service pipe replacements from \$6 million to \$15 million, as further
10 discussed by Company witness Mr. Aiton in PAWC Statement No. 3.

11 9. Regarding Rule 5.4 Outside Meter Installations (Meter Box/Vaults), the Company
12 proposes to add the right to relocate a meter box/vault for a Customer's property.

13 10. Regarding Rule 7.2 Prior Company Debts, the Company proposes to change the
14 language regarding what the Company uses as evidence of an Applicant's or
15 Customer's liability for any indebtedness to the Company for previous service.

16 11. Regarding Rule 7.9 Denial of Service, the Company proposes to add clarification
17 that the denial of service provision applies only to residential customers.

18 12. Regarding Rule 8.5 Application for Public Fire Hydrant Service, the Company
19 proposes to add WBS Element and Project Description to the Public Fire Hydrant
20 Agreement, along with updates to the signature lines.

21 13. Regarding Rule 10.6 Payment Arrangement, the Company proposes to include
22 clarifying language that the payment arrangement provision applies only to
23 residential customers.

- 1 14. Regarding Rules 12.5 Termination of Service for Nonpayment of Bills and 12.7
2 Protection from Abuse Order, the Company proposes to add language to clarify that
3 termination of service for nonpayment and protection from abuse order provisions
4 are applicable only to residential customers.
- 5 15. Regarding Rule 15.1 Liability for Damages, the Company proposes to modify the
6 limitation of liability requirements and clarify that this limitation of liability shall
7 not apply to Company conduct which is found to be willful, wanton or reckless,
8 consistent with the Commission’s final order in the Company’s last base rate case.
- 9 16. Regarding Rule 21.2 Application for Qualified Private Fire Hydrant (“QPFH”), the
10 Company proposes to adopt “clean-up” changes to the QPFH Agreement, adding
11 WBS Element, Project Description, Premise Number, Premise Description, and
12 Business Partner Number, and edits to the signature line. The Company further
13 proposes to include “successors, agents and assigns” to the definition of an
14 Applicant for a QPFH and to add an option for developers to install QPFHs
15 pursuant to a Water Facilities Line Extension Agreement.
- 16 17. Regarding Rule 26.4 Municipal Class of Service, the Company proposes to change
17 the language to clarify the eligibility for public schools and colleges.
- 18 18. The Company proposes to include a new Revenue Stabilization Mechanism (“RSM
19 “) as further discussed by Company witnesses Everette and Rea in Statement Nos. 1
20 and 10, respectively.

1 **Q. Please discuss the proposed changes to the Rules and Regulations shown in the**
2 **proposed Wastewater Tariff.**

3 A. The Company is proposing changes to the Rules and Regulations in its Wastewater Tariff,
4 which include the following:

- 5 1. The Company proposes to correct the service locations in the Kane District to
6 include portions of Wetmore Township, as approved by the Commission's June 18,
7 2020 Order at Docket No. A-2019-3014248 and confirmed by Secretarial Letter
8 dated October 28, 2020 approving Supplement No. 23 to Tariff Wastewater-PA
9 P.U.C. No. 16.
- 10 2. The Company proposes to add "by the Company" on pages 11.2, 11.3, 11.5, 11.6,
11 and 11.10 to permit customers who are metered by non-Company water providers
12 to be charged a flat rate. Receipt of metered consumption data from third parties
13 has proven to often be untimely and unreliable. It also requires a manual process
14 and significant resources to administer.
- 15 3. The Company's low-income discounts have been modified to a tiered discount
16 structure, as discussed in the testimony of Charles Rea, PAWC Statement No. 10.
- 17 4. Under the Schedule of Rates and Miscellaneous Fees and Charge, the Company
18 proposes to permit the Company, at its option, to enter into a negotiated Service
19 Agreement that limits the application of the capacity reservation fee for flow
20 stabilization reasons or to attract and retain bulk customers which have a viable
21 competitive alternative to service by the Company.
- 22 5. Under the Schedule of Rates Miscellaneous Fees and Charges, the Company
23 proposes to delete the references to special capacity charges applicable to Valley

1 and Sadsbury Townships. Also under this section, the Company proposes to
2 include a definition of the application of the capacity reservation fee for bulk
3 customers in the Company's York wastewater service territory.

4 6. Regarding Section A.26 Equivalent Dwelling Units (EDU), the Company proposes
5 modifications to the equivalent dwelling unit definition.

6 7. Regarding Section C.1 Service Application Required, the Company proposes to add
7 account name requirements for wastewater customers. Similarly, the Company
8 proposes a new Section C.5, adding Owner or Landlord Responsibility for Service.

9 8. The Company adds a new Section C.6 Acquired Customers, proposing to clarify
10 that acquired wastewater customers should be the same customer of record as for
11 water service, where applicable.

12 9. With respect to Sections E.5 and E.7, the Company proposes to add language to
13 clarify that termination of service for nonpayment and protection from abuse order
14 provisions are applicable only to residential customers.

15 10. With respect to Section F.7, the Company proposes to clarify that the payment
16 arrangement provision applies only to residential customers.

17 11. The Company adds a new Section F.8, proposing to add Termination of Free
18 Service Under Certain Contracts and Other Instruments.

19 12. Regarding Section G.2 Prior Company Debts, the Company proposes to change the
20 language clarifying what the Company uses as evidence of an Applicant's or
21 Customer's liability for any indebtedness to the Company for previous service.

22 13. Regarding Section G.6 Denial of Service, the Company proposes to clarify that the
23 denial of service provision applies only to residential customers.

1 14. Regarding Section I.2, the Company proposes deleting the provision related to
2 liability for damages and combining with Section Q.

3 15. Regarding Section Q Liability of Company (General), the Company proposes to
4 modify the limitation of liability requirements and clarify that this limitation of
5 liability shall not apply to Company conduct which is found to be willful, wanton
6 or reckless, consistent with the Commission's final order in the Company's prior
7 base rate case.

8 16. The Company is proposing several changes to the Industrial Pretreatment Program
9 ("IPP") rules, which are incorporated in Sections A, C, E, T, U, V and W of the
10 Wastewater Tariff, in order to better align with the Environmental Protection
11 Agency's Model Pretreatment Ordinance and to promote consistent IPP
12 requirements throughout the Company's service territory.

13 17. The Company proposes to include a new RSM as further discussed by Company
14 witnesses Everette and Rea in Statement Nos. 1 and 10, respectively.

15 **Q. Has the Company provided a redlined version of the proposed tariffs?**

16 A. Yes, the Company has provided a redlined version of its proposed tariffs showing all
17 changes made relative to its current Water and Wastewater Tariffs, which include the
18 changes to the rules described above, the Company's proposed rate changes, and the
19 consolidation of rate zones, discussed in more detail in the testimony of Charles Rea,
20 Statement No. 10.

Rate Structure and Rate Design Proposal

Q. Please discuss the Company's rate zones in effect following the last base rate case.

A. A large majority of the Company's customers are now being billed under the same set of rates for metered service. This consolidation represents the continued implementation of the Commission-approved concept of Single Tariff Pricing. Water Rate Zone 2 (Winola), Rate Zone 3 (McEwensville), Rate Zone 4 (Turbotville), and Rate Zone 5 (Steelton) continue to have separate rate schedules.

Additionally, Wastewater Rate Zone 2 (New Cumberland), Rate Zone 3 (Scranton), Rate Zone 4 (Kane), Rate Zone 5 (Franklin), Rate Zone 6 (McKeesport), Rate Zone 7 (Sadsbury), Rate Zone 8 (Turbotville), and Rate Zone 9 (Exeter) continue to have separate rate schedules.

Q. Please summarize the rate zones that have been created since the last rate case.

A. Since the last case, the following water rate zones have been created through acquisitions: Zone 6 (Valley) and Zone 7 (SLIBCO). The following wastewater zones have been created through acquisitions: Zone 10 (Royersford) and Zone 11 (Valley). The Company will, upon completion of the planned acquisitions I described previously in my testimony, add an additional water rate zone for the Creekside water acquisition and an additional three wastewater rate zones for the Foster, Upper Pottsgrove, and York wastewater system acquisitions.

1 **Q. Does the Company propose the consolidation of water and wastewater rates in this**
2 **proceeding?**

3 A. Yes. The Company proposes consolidation of certain water and wastewater rate zones and
4 changes to the current water and wastewater rate structure. Please refer to the direct
5 testimony of Company witness Charles Rea (Statement No. 10) for a detailed explanation
6 of the Company's proposals.

7 **Q. Did the Company employ any of the authority provided by amendments to the Public**
8 **Utility Code made by Act 11 of 2012 in developing its rate design in this case?**

9 A. Yes, in this case the Company is proposing to incorporate wastewater revenue requirements
10 into its water revenue requirement. Combining water and wastewater revenue
11 requirements and the resulting rate design are discussed in the direct testimony of Company
12 witness Ashley Everette (PAWC Statement No. 1) and the direct testimony of Company
13 witness Charles Rea (PAWC Statement No. 10).

14 **Q. Please summarize the Company's commitments regarding rate increases for certain**
15 **acquisitions.**

16 A. The following systems acquired by the Company in 2016 are subject to rate increase
17 requirements or limitations: The Borough of New Cumberland wastewater system, which
18 is part of the Company's Wastewater SSS General Operations, and the Scranton
19 wastewater system, which is part of the Company's Wastewater CSS Operations.

20 In the New Cumberland application proceeding at Docket No. A-2016-2544151, the
21 Commission approved a settlement that provided the following guidelines regarding the
22 increases that the Company would propose for this system:

1 In PAWC's second and third base rate filings following closing of the Transaction,
2 PAWC shall propose revenue allocations and rate structures which equalize, in a
3 gradual manner, the wastewater base rates for System customers with PAWC's
4 system average wastewater base rates (Rate Zone 1) by the
5 effective date of rates resulting from the respective second and third base rate filings
6 following closing of the Transaction.⁶

7 As part of the resolution of the Company's last base rate case, the New Cumberland service
8 charge was equalized with the Zone 1 service charge and the New Cumberland block rate
9 structure was consolidated into a single volumetric rate. The current filing is the third base
10 rate case filing following the close of the New Cumberland transaction. In compliance
11 with the above-referenced Settlement, PAWC proposes to move the rates for the New
12 Cumberland system to equal the Rate Zone 1 rates in this case.

13 In the Scranton application proceeding, the Commission approved the Amended Asset
14 Purchase Agreement, which provided that PAWC would not propose rate increases that
15 would be equal to an amount greater than a 1.9% Compounded Annual Growth Rate
16 ("CAGR") increase in annual revenues over a ten-year period relative to the starting
17 amount of annual revenues. As part of the resolution of the Company's last base rate case,
18 revenues from the Company's Scranton operations were increased by 33.65%. The pro
19 forma revenues at present rates exceed the level of increase PAWC is permitted to propose
20 under the CAGR provision during the ten years following closing of the acquisition. As
21 such, and in compliance with the Settlement, the Company is not proposing an increase to
22 the wastewater rates of the Scranton system.

⁶ *Application of Pennsylvania American Water Company for approval of 1) the transfer of substantially all of the Borough of New Cumberland's assets, properties and rights related to its wastewater collection and treatment system to PAWC; 2) the right of PAWC to begin to provide wastewater service to the Borough of New Cumberland and 3) for PAWC to provide wastewater service to three residential customers in Lower Allen Township, Cumberland County, Pennsylvania, Docket No. A-2016-2544151 (Joint Petition for Approval of Unanimous Settlement of All Issues filed on September 2, 2016 and approved by Order entered on October 27, 2016).*

1 **Q. Please summarize the Company’s commitments regarding rate increases for certain**
2 **acquisitions since the last rate case.**

3 A. The Royersford Wastewater, Valley Water, and Valley Wastewater systems were acquired
4 by the Company in 2021. Additionally, the Company expects to close on its acquisition of
5 the Upper Pottsgrove wastewater assets, the Foster Township wastewater assets, and the
6 York City Sewer Authority assets in 2022.

7 In the Royersford, Valley Water and Wastewater, Upper Pottsgrove, and York application
8 proceedings, the Commission approved settlements, which are discussed below, providing
9 that the Company would propose certain rate increases for these systems.⁷

10 **Royersford**

11 The Royersford Settlement (p. 6) provided for the following regarding the proposed rate
12 increase:

13 PAWC will propose to move the Royersford system to its cost of service or 1.7x
14 the current Royersford wastewater rate, whichever is lower, based on a separate
15 cost of service study for Royersford's system; provided, however, that PAWC will
16 not be obligated to propose Royersford wastewater rates in excess of PAWC's
17 proposed Rate Zone 1 system-average rates. The current average Royersford rate is
18 \$30.00 per month based on 3,630 gallons of monthly usage.

⁷ *Royersford Order*, supra note 1.; *Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of Valley Township’s assets, properties, and rights related to its water treatment and distribution system to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish water service to the public in Valley Township, and in a portion of West Caln and East Fallowfield Townships, Chester County, Pennsylvania and Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of Valley Township’s assets, properties, and rights related to its wastewater collection and conveyance system to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in Valley Township, and limited portions of East Fallowfield Township, Sadsbury Township, and West Caln Township, Chester County, Pennsylvania, Docket Nos. A-2020-3019859 and A-2020-30201778, respectively (Joint Petition for Approval of Unanimous Settlement of All Issues filed April 3, 2021 and approved by Opinion and Order entered on October 28, 2021); Upper Pottsgrove Order*, supra note 1; *York Order*, supra note 1.

PAWC may propose an effective date for new rates for Royersford wastewater customers that is different from the effective date of new rates for other customers.

Valley Water

The Valley Settlement (p. 8-9) provided for the following regarding the rate increase:

- A. PAWC will propose to move Valley's Water System to 2.0x the current Valley water rate or PAWC's proposed Rate Zone 1 system-average water rates, whichever is lower.
- B. PAWC may propose an effective date for new rates for Valley water customers that is different from the effective date of new rates for other customers.

Valley Wastewater

The Valley Settlement (p. 8) provided for the following regarding the rate increase:

- A. PAWC will propose to move Valley's Wastewater System to 1.25x the current Valley wastewater rate or PAWC's proposed Rate Zone 1 system-average wastewater rates, whichever is lower.
- B. PAWC may propose an effective date for new rates for Valley wastewater customers that is different from the effective date of new rates for other customers.

Upper Pottsgrove

The Upper Pottsgrove Settlement (p. 7) provided for the following regarding the rate increase:

PAWC will propose to move the Township's system to its cost of service, based on a separate cost of service study for the Township's system; provided, however, that PAWC will not propose Upper Pottsgrove wastewater rates in excess of PAWC's proposed Rate Zone 1 system-average rates. The Joint Petitioners acknowledge, however, that PAWC may agree to rates other than those proposed for Township customers in the context of a settlement of the base rate case. OCA, I&E, OSBA and Upper Pottsgrove reserve their rights to fully address this proposal, and to make other rate proposals in the base rate case.

York

The York Settlement (p. 5) proposes the following regarding the rate increase for York:

In the first base rate case that includes System assets:

- a. PAWC will propose to move the System to 1.47x the current System rate or PAWC's proposed Rate Zone 1 system-average wastewater rates, whichever is lower.

1 b. PAWC may propose an effective date for new rates for the System that is different
2 from the effective date of new rates for other customers, provided that such
3 effective date is at least three years after the Closing.

4 **Q. Please summarize how the Company has complied with the above-referenced**
5 **Settlements.**

6 A. The Company proposes rates for the Valley Water and Wastewater, Royersford, Upper
7 Pottsgrove and York systems consistent with the revenue increases outlined in the
8 respective Settlements. Please refer to the testimony of Charles Rea (Statement No. 10)
9 for detail on the proposed increases for each of these systems.

10 **Q. In the Asset Purchase Agreements for the Royersford, Valley Water, Valley**
11 **Wastewater, York and Foster acquisitions, did the Company make agreements**
12 **regarding changes to base rates?**

13 A. Yes. Section 7.03 of the Royersford Asset Purchase Agreement (“APA”) provides as
14 follows:

15 The Base Rate shall not be increased until after the second anniversary of the
16 Closing Date.

17 Section 7.03 of the Valley Water and Wastewater APAs each provide as follows:

18 Buyer shall not propose to increase Base Rates until after the second anniversary
19 of the Closing Date.

20 Section 6.04 of the York APA provides as follows:

21 Buyer shall, subject to PaPUC approval in a future base rate proceeding, maintain
22 base rates for System customers for a minimum period of three (3) years from the
23 Closing Date.

24 Section 4.1 of the Foster APA provides as follows:

25 After Closing, Buyer will begin charging Seller's current rates (as of the date of this
26 Agreement) as Buyer's base rates (but not other charges, including those discussed
27 below) within Seller's service area (such service area being consistent with

Schedule 1), which shall not be increased by the Buyer until after December 31, 2024.

Q. Are the Company's commitments in its Settlements, as outlined above, consistent with the commitments in the above-referenced APA agreements?

A. Yes. The Settlements of the Royersford, Valley Water, Valley Wastewater, and York proceedings each provided that the Company would propose a certain level of increase for the acquired systems, but that the Company may propose a different effective date for the acquired system than for other customers. In this case, the Company is proposing the level of increases as required by the Settlements, and is proposing that each increase not take effect until the time periods specified in the respective APAs have elapsed; i.e. until May 2023 for Royersford, November 2023 for Valley Water and Wastewater, January 2025 for Foster, and approximately May 2025 for York.⁸

Q. Please summarize the Company's proposal with respect to the systems for which the Company has agreed to not increase rates for a certain period of time.

A. For Royersford, Valley Water, Valley Wastewater, Foster, and York, the Company requests that the Commission permit the Company to implement the proposed changes to rates consistent with the Company's agreements with each of these systems. The Company's pro forma tariff supplement reflects this proposal by showing each system's current rates as continuing to be effective until the end of the rate freeze period, and proposed rates taking effect on the date indicated on the pro forma tariff supplement.

⁸ The effective date of the increase for York will be dependent on the closing date of the York acquisition. The Company currently projects closing in May 2022.

1

Conclusion

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

3 **A. Yes, it does.**

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY
COMMISSION**

v.

**PENNSYLVANIA-AMERICAN WATER
COMPANY**

**DOCKET NOS. R-2022-3031672 (WATER)
R-2022-3031673 (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: April 29, 2022



Stacey D. Gress

Factor 1: Customers (for Service Company and Customer Accounting)

As of 12/31/21	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	677,153				677,153	97.5%
Wastewater SSS	38,142	33,936	1,697	4,206	5,903	0.9%
Royersford WW	1,487	1,469	73	18	91	0.0%
Wastewater CSS	42,348	32,279	1,614	10,069	11,683	1.7%
Total	759,130	67,684	3,384	14,293	694,830	100%

Factor 2: Customers (for Rate Case and Regulatory Expense)

As of 12/31/21 ¹	Total Customers	Allocation Factor	Water	WW SSS Only	W & WW SSS Only	WW CSS
Water Operations	677,228	87.4%	100.0%		94.6%	
Wastewater SSS	38,658	5.0%		100.0%	5.4%	
Royersford WW	1,487	0.2%				
Upper Pottsgrove WW	1,613	0.2%				
York WW	13,595	1.8%				
Wastewater CSS	42,348	5.5%				100.0%
Total	774,929	100.00%	100%	100%	100%	100%

¹ Includes Creekside HOA in Water and Foster Township WW in Wastewater SSS as of 12/31/2023.

Factor 3: Customers (for Pennsylvania-American Corporate Headquarters -Capital Campus)

As of 12/31/21	Total Customers	Allocation Factor
Water Operations	677,153	89.2%
Wastewater SSS	38,142	5.0%
Royersford WW	1,487	0.2%
Wastewater CSS	42,348	5.6%
Total	759,130	100%

Factor 4: Depreciated Utility Plant in Service (Insurance Other Than Group)

As of 12/31/21	Depreciated Utility Plant in Service	Percentage
Water Operations	4,412,304,592	84.7%
Wastewater SSS	372,944,085	7.2%
Royersford WW	12,783,594	0.3%
Wastewater CSS	409,933,356	7.9%
Total Net Utility Plant in Service	5,207,965,627	100%

¹ 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

	<u>Water Operations</u>	<u>Wastewater SSS General Operations</u>	<u>Royersford WW Operations</u>	<u>Upper Pottsgrove WW Operations</u>	<u>York WW Operations</u>	<u>Wastewater CSS Operations</u>	<u>Company Total</u>
Non-Depreciable Plant	25,203,146	6,261,251	3,101			4,463,355	35,930,853
Depreciable Plant	5,785,620,038	591,884,962	19,400,884			691,731,050	7,088,636,934
Total Utility Plant In Service	5,810,823,184	598,146,213	19,403,985	-	-	696,194,405	7,124,567,787
Deduct:							
Contributions In Aid Of Construction	250,393,243	41,742,743	-			11,570,599	303,706,585
Customer Advances For Construction	60,663,923	480,879	-			-	61,144,802
Excluded Property	1,558,014	-	-			-	1,558,014
Sub-Total	312,615,180	42,223,622	-	-	-	11,570,599	366,409,401
Net Utility Plant In Service	5,498,208,004	555,922,591	19,403,985	-	-	684,623,807	6,758,158,386
Accumulated Depreciation	1,085,903,412	182,978,506	6,620,391			274,690,451	1,550,192,760
Depreciated Utility Plant In Service	4,412,304,592	372,944,085	12,783,594	-	-	409,933,356	5,207,965,627
Percentage of Total	84.7%	7.2%	0.2%	0.0%	0.0%	7.9%	100.0%

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,
MISCELLANEOUS EXPENSE ADJUSTMENTS,
AND INFLATION**

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

DATE: April 29, 2022

PENNSYLVANIA-AMERICAN WATER COMPANY

DIRECT TESTIMONY OF LORI O'MALLEY

BACKGROUND

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, West Virginia-American Water Company and Iowa-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 expense; (2) Service Company expenses; and (3) miscellaneous expense
18 adjustments.

19 **Q. What methodology did the Company use in calculating its pro forma expense levels**
20 **in this case?**

21 A. In this case, the Company is presenting supporting data for a historic test year ended
22 December 31, 2021 ("HTY"), a future test year ending December 31, 2022 ("FTY"), and
23 a fully projected future test year ("FPFTY") ending December 31, 2023. The Company

1 began with the expenses recorded on its books of account for the HTY and made various
2 adjustments to reflect known and measurable changes that occurred during the HTY. For
3 the FTY and FPFTY, the Company made specific adjustments to certain expenses or
4 categories of expenses based on known and measurable changes (e.g., collective bargaining
5 agreements), projected changes in expenses or, in some cases for expenses that are
6 variable, relied upon historical averages to reflect a normalized level of expense. For
7 expenses that were not subject to such specific adjustments, PAWC used the average Gross
8 Domestic Product (“GDP”) Price Index forecast for future periods, as compiled by the Blue
9 Chip Economic Indicators, to capture anticipated future changes in those costs. The Blue
10 Chip forecast is based upon a survey of a wide range of financial professionals, including
11 bank, academic and corporate forecasters. The 2022 GDP Price Index is 4.03%, and the
12 2023 GDP Price Index is 2.48%.¹ All adjustments are detailed in PAWC Exhibit Nos. 3-A
13 and 3-B.

14 **Q. Please provide a brief overview of the Company’s operating and maintenance**
15 **(“O&M”) expense levels.**

16 A. Although the Company projects a modest increase to O&M expense going forward, the
17 Company’s current O&M expense remains nearly flat on a cost per customer basis when
18 compared to O&M expense from a decade ago. The overall O&M expense level claim in
19 this case represents a 2.3% annual increase over the level of O&M expenses claimed in the

¹ The United States Bureau of Labor Statistics (“BLS”) calculates two measures of inflation in the United States’ economy, which consist of the Consumer Price Index (“CPI”) and the GDP price index and implicit price deflator. The BLS computes the CPI to measure changes in the prices of goods and services purchased out-of-pocket by urban consumers, and computes the GDP price index and implicit price deflator to measure changes in the prices of goods and services purchased by consumers, businesses, government, and foreign persons and entities, but not importers. The Company has determined that the GDP price index and implicit price deflator is an appropriate measure of inflation for its projection of pro forma expenses in this case that are not subject to specific adjustments.

1 Company's last base rate case, which was filed in April 2020, plus an additional 4.8%
2 annual increase attributable to the 8 acquisitions since the Company's last base rate case.
3 There are numerous factors that contribute to the increase in operating expenses, including
4 those associated with enhanced maintenance activities discussed by Company witness Jim
5 Runzer, as well as the addition of multiple acquired systems since the last base rate case,
6 as addressed in the testimony of Company witness Bernard Grundusky.

7 **Q. Please explain how the adjustments you describe below apply to the revenue**
8 **requirement studies set forth in PAWC Exhibit No. 3-A.**

9 A. The adjustments I describe below apply to the expenses reflected in each of the six revenue
10 requirement studies that are set forth in PAWC Exhibit No. 3-A. Because the adjustments
11 apply to the expense claims set forth in each revenue requirement study, I will describe
12 those adjustments generally and not address the specific adjustments reflected in each
13 study.

14 **LABOR AND LABOR RELATED EXPENSES**

15

16 **Q. Please describe PAWC's labor and labor-related expenses.**

17 A. PAWC's labor and labor-related expenses are associated with employees who support
18 PAWC exclusively and, therefore, are on the payroll of PAWC. As Mr. Runzer explains,
19 PAWC's labor force is responsible for assuring the production of high-quality drinking
20 water, operating and maintaining the Company's production and treatment facilities and
21 its distribution and collection systems, monitoring water quality, providing engineering

1 services, and generally supporting the efficient management of all of the Company's
2 operations.

3 There are three classifications of PAWC employees: collective bargaining unit ("CBU")
4 hourly employees, non-collective bargaining unit ("non-CBU") hourly employees and
5 exempt employees. CBU hourly employees receive base pay, overtime pay, and, in some
6 cases, other compensation (such as shift premiums and meal allowances) and are also
7 eligible for performance pay. Non-CBU hourly employees receive base pay and overtime
8 pay and are eligible for performance pay. Exempt employees receive base pay and are
9 eligible for performance pay. Therefore, total wages or salaries for each classification of
10 employees includes fixed pay (base pay) and some form(s) of variable pay (e.g. overtime,
11 shift pay and performance pay) for eligible employees.

12 The labor and labor-related expenses that are discussed in my testimony include:

13 (1) Salaries and wages (including Annual and Long-Term Performance Pay)

14 (2) Group Insurance

15 (3) Other benefits, including:

16 a. 401k

17 b. Defined Contribution Plan ("DCP")

18 c. Pension and Other Post-Employment Benefits ("OPEBs") for certain
19 eligible employees

20 d. Employee Stock Purchase Plan ("ESPP")

21 (4) Payroll Taxes

22 These costs are described further in my testimony below.

1 **Q. Please describe the overall approach the Company has used to calculate labor and**
2 **labor-related expenses.**

3 A. PAWC's proposed labor and labor related expenses are reflected in the labor and labor-
4 related sections of Exhibit Nos. 3-A and 3-B. Pro forma labor and labor-related expenses
5 were calculated on a position-by-position basis, based on the Company's HTY authorized
6 number of employees, consisting of 1,263 full-time positions and one part-time position.
7 The labor expenses claimed for the FTY and the FPFTY reflect a full complement of
8 employees for each of the Company operations, as set forth in the table below:

PAWC Operations Employee Levels	2021	2022	2023
Water Operations	1,017.0	1,073.3	1,073.3
Wastewater SSS General Operations	45.0	43.5	43.5
Royersford WW Operations	2.0	2.0	2.0
Upper Pottsgrove WW Operations	-	2.2	2.2
York WW Operations	-	38.0	38.0
Wastewater CSS Operations	100.0	104.0	104.0
Total Company	1,164	1,263	1,263

9
10 The HTY labor hours were annualized and adjusted to a normalized level. These hours
11 were then multiplied by the actual 2022 wage rates by employee position to determine an
12 annualized level of expense. This amount was then adjusted using a historic three-year
13 average of base pay increases for non-CBU employees. To adjust the level of expense for
14 CBU employees, the most recent collective bargaining agreements ("CBAs") that remain
15 in effect were used to determine costs for each of the FTY and FPFTY. For those
16 bargaining units for which CBAs expired, with the exception of Utility Workers Union of
17 American, AFL-CIO System Local 537, a historic three-year average of contract wage
18 increases was used to determine projected costs for the FTY and FPFTY. For Local 537,

1 a 2% increase over the 3-year average of contract wage increases from 2016-2018 of 2.55%
2 was applied to arrive at an increase of 2.75% for the FTY and FPFTY. Because this
3 bargaining unit had not had a wage increase since May 18, 2018, this reflects a more
4 appropriate increase than one applied annually. In December 2017, the CBA for the
5 employees included in Local 537 was extended with rates effective May 18, 2018. There
6 have since been no further contract extensions. The Company's FPFTY annualizes the
7 effects of the increases calculated using the methodologies described above. The details of
8 these calculations, by employee position, are set forth in Exhibit No. 3-B.

9 Some labor and labor-related costs are capitalized and added to the costs of utility plant.
10 Therefore, a capitalization percentage is applied to total labor and labor-related costs to
11 calculate the portion of those costs that are recorded as capital costs. The Company has
12 calculated capitalization percentages based on the historic three-year average ratio of direct
13 labor dollars charged to capital to total direct labor costs. The capitalization percentages
14 calculated in that manner are 38.82% for the Company's water operations and 23.74% for
15 its wastewater operations. The complement of those percentages represents the portion of
16 labor and labor-related costs recorded as an expense.

17 **Salaries and Wages**

18 **Q. Please describe how the various components of pro forma salaries and wages are**
19 **calculated.**

20 A. Salary and wage expense has four components: (1) base pay; (2) overtime; (3) shift
21 premium and meal compensation pursuant to the terms of applicable CBAs; and (4) annual
22 and long-term performance compensation for eligible employees. Each component is
23 discussed in further detail below.

1 **Base Pay** – Base pay was calculated for the FTY by applying a three-year average of the
2 historical percentage increases to the annualized HTY wage rates. The wage rate projected
3 to be in effect for each month of the FTY is applied to the working hours for each month.
4 Regular working hours total 2,088 for all full-time hourly employees and 2,080 for all full-
5 time non-hourly employees. Wage rates for CBU employees were based on CBAs for each
6 month of the FTY and FPFTY. If wage rates have not been established by CBAs that will
7 be in effect the end of the FPFTY, the wage rates were adjusted using an annual increase
8 percentage equal to the historical three-year average of contracted increases. Non-CBU
9 employees' wage rates were based on the rates that became effective on March 7, 2022.
10 Those rates were adjusted through the FPFTY based on a three-year average of the
11 historical percentage increases and were annualized as of the end of FPFTY.

12 **Overtime** – Overtime was calculated by starting with the total HTY overtime hours by
13 position and multiplying those hours by the projected overtime wage rate for each
14 employee position. In addition, for Royersford, which PAWC acquired during the HTY,
15 the overtime hours for each employee position were annualized and were used to calculate
16 the applicable adjustments for overtime pay for the FTY and FPFTY.

17 **Shift Premium** – CBU employees' CBAs provide wage premiums for employees working
18 on uncommon shifts or when employees obtain certain licenses or complete certain
19 training. The actual total HTY amounts of shift premiums, licensing and training premiums
20 were determined on a per-employee basis and included in salary and wage expense for the
21 FTY and FPFTY.

1 **Meal Compensation** – CBU employees’ CBAs provide compensation for meals during
2 extended shifts and, therefore, meal compensation is included in salaries and wage expense.
3 A historical three-year average of meal compensation was determined on a per-employee
4 basis and included in salary and wage expense for the FTY and FPFTY.

5 **Performance Pay** – The last component of labor expense is the annual and long- term
6 performance compensation for eligible employees. Performance pay was calculated on a
7 position-by-position basis for eligible employees based on each position’s target percent,
8 or percentage of base salary that is provided if an employee achieves their performance
9 target, under both the Annual Performance Plan (“APP”) and Long Term Performance Plan
10 (“LTPP”). The target percent was multiplied by each eligible employee’s pro forma base
11 salary in the FTY and FPFTY, to determine the cost of compensation under the APP and
12 LTPP. In PAWC Statement No. 2, Mr. Runzer describes the performance pay program in
13 more detail.

14 **Group Insurance**

15 **Q. Please describe the components of the Company’s group insurance expense.**

16 A. Group insurance includes several insurance coverages that PAWC provides its employees.
17 These can be grouped into two primary categories: (1) basic life, short-term disability,
18 long-term disability and accidental death and disability insurance (“AD&D”); and
19 (2) medical, dental, prescription and vision insurance.

20 **Q. How was the pro forma adjustment for group insurance expense calculated?**

21 A. Costs were calculated for the pro forma adjustment as follows:

1 • Basic life, short- and long-term disability and AD&D. The starting point is the
2 2022 premium rates for each position under the applicable insurance plans for CBU
3 and non-CBU positions.

4 • Medical, dental, and vision insurance. The Company's cost for this category of
5 insurance is net of employee contributions. The total costs and employee
6 contributions vary by plan type (e.g. family, employee, or employee plus spouse).
7 Costs and contributions were calculated using the 2022 plan rates, on a position-
8 by-position basis, taking into account actual employee plan selections.

9 Once the 2022 cost level was established, a historical three-year average of the change in
10 Company costs for group insurance between 2019 and 2022 was applied to the annualized
11 amount for 2022 in order to adjust the insurance expense to the level appropriate for the
12 FPFTY.

13 **Q. What steps in general has American Water taken to manage the group insurance**
14 **benefit costs?**

15 **A.** Group insurance is obtained for employees of PAWC and its affiliates based on benefit
16 plans administered by American Water. American Water has been proactive in seeking
17 changes that improve how healthcare is delivered in order to control the costs of providing
18 health insurance to its employees. These efforts have included offering high-deductible
19 health plans and a telemedicine option, which lower the overall cost of health insurance
20 programs. For example, instead of an office or urgent care visit, for which providers charge
21 \$100 or more, employees have the option to consult with a physician remotely, at a cost to
22 the insurer of \$59 per visit. American Water also became a founding member of the Health

1 Transformation Alliance (“HTA”) in 2016 to help achieve the goal of providing higher
2 quality care at lower cost by identifying facilities and physicians that have better outcomes,
3 using American Water’s purchasing power to keep costs down, and helping every
4 employee become a more engaged consumer.

5 **Q. What is HTA and why is it better than the traditional approach to obtaining**
6 **healthcare coverage for employees?**

7 A. HTA is a cooperative comprising 50 major corporations that have come together to drive
8 change in the healthcare system. In addition to American Water, its members include
9 American Express Company, JPMorgan Chase, IBM Corporation, Verizon and Marriott
10 International Inc., and many more. Acting on its own, any single HTA member is unlikely
11 to change the trends in healthcare that are driving up costs. By working together, however,
12 HTA members can create more transparency to drive changes in the way healthcare is
13 delivered, and those changes can result in lower prices for prescription medicine and
14 medical services and produce better outcomes, which make health care more affordable.
15 To that end, the HTA has developed value-driven solutions in the areas of data and
16 analytics, pharmacy and medical services and consumer engagement specifically designed
17 to improve patient care and economic value. Lastly, American Water will review current
18 plan options, and when it is possible, add additional services to its plans to drive claims
19 down and lower rates. Because the Company’s health and welfare plans are self-funded,
20 when claims are lower, everyone saves. For example, in 2022, American Water added the
21 PrudentRx Copay program in partnership with CVS Caremark. This allows our active
22 employees and retirees to get any specialty medications that are on our Exclusive Specialty
23 Drug List for \$0 out-of-pocket cost to the employee and discounts to American Water.

1 **Other Benefits**

2 **Q. Please describe the components of other benefits the Company provides and how the**
3 **costs of those benefits were calculated.**

4 A. Other benefits PAWC provides include savings programs, such as 401k plans, DCP,
5 pension benefits, OPEBs, and the Company's ESPP. The costs of these benefits were
6 calculated on a position-by-position basis. The calculations of the costs included in the
7 Company's labor-related expense claims are described below.

8 **401k** – PAWC incurs 401k expense when it matches employee contributions to 401k
9 retirement accounts. The matching amounts are determined by each employee's benefit
10 group or hire date. For employees whose benefit group falls into an "original" category
11 (including CBU employees hired before 2001 and non-CBU employees hired before 2006),
12 the Company matches 50% of the first 5% of the employee's contribution (for a maximum
13 of 2.5%). For the remaining employees, the Company matches 100% of the first 3%, and
14 50% of the next 2% of the employee's contributions (for a maximum of 4%). Pro forma
15 401k costs were calculated for each position based on FTY wages, current employee
16 contribution levels, and the level of match for the benefit group.

17 **DCP** – DCP, or Defined Contribution Plan, is a retirement savings program for employees
18 not eligible for the defined benefit pension program. Under the DCP, PAWC contributes
19 an amount equal to 5.25% of an employee's base pay into a retirement account. The pro
20 forma DCP expense was calculated by multiplying the FTY and FPFTY regular time pay
21 of each eligible position by 5.25%.

1 **Pension** – Certain Company employees, upon retirement, are eligible for pension benefits
2 under a defined benefit plan. Covered employees include non-CBU employees hired
3 before January 1, 2006, and CBU employees hired before January 1, 2001. Consistent with
4 PAWC’s calculation of pension expense in its last base rate case, the Company calculated
5 its pension expense claim in this case in accordance with Financial Account Standards Board
6 Accounting Standards Codification Topic 715 or “ASC 715” (formerly Statement of
7 Financial Accounting Standards 87). The Company started with the report furnished by its
8 actuary, Willis Tower Watson, that furnished pension costs for 2022 determined in
9 accordance with ASC 715. From that report, the Company identified the service and non-
10 service cost components of its pension costs. The service cost portion was reduced by the
11 capitalization rate of 38.82% to determine the portion of total pension costs recorded as an
12 expense. The Company’s claim for OPEB expense is explained below.

13 In addition to the pro forma pension expense determined in the manner described above, the
14 Company’s claim reflects a credit for the annual amortization of a deferred pension asset that
15 was created when the Company began using the accrual method of accounting, based on
16 ASC 715, to calculate pension expense for ratemaking purposes in its last base rate case.
17 Prior to its last case, the Company’s pension expense claimed for ratemaking purposes had
18 been based on its cash contributions to its pension plan. The amortization of the deferred
19 pension asset is being continued at the level approved in R-2017-2595853. The ten-year
20 amortization began with the effective date of the rates set in that case and, therefore, will
21 expire in 2028.

22 **OPEB** – Certain PAWC employees are eligible for OPEBs upon their retirement
23 depending on their employment start date. Only non-CBU employees hired before

1 January 1, 2002, and CBU employees hired before January 1, 2006 are eligible for OPEBs.
2 The investments made to fund OPEBs are divided into three Voluntary Employees
3 Beneficiary Association Plans (“VEBAs”): Post-Retirement Medical Benefits/Bargaining
4 Unit, Post-Retirement Medical Benefits/Non-Bargaining Unit, and Life Insurance
5 Benefits. In 2016 and 2018, American Water negotiated a cap on benefits in the Bargaining
6 Unit and Non-Bargaining Unit VEBAs .

7 OPEB expense is based on the accrual cost recognized under ASC 715, as projected by
8 Willis Towers Watson for 2022. The Company adjusted its request to revise the expense
9 associated with the Bargaining Unit VEBA, as currently there is a balance in that account
10 subject to 100% tax if removed from the plan. The 38.82% capitalization rate was applied
11 the service cost component that will be charged to capital. As of January 1, 2023, the
12 balance associated with the Bargaining Unit VEBA is no longer subject to 100% tax,
13 therefore the associated OPEB expense is included in the projected costs for 2023.

14 In addition, for active bargaining unit employees covered under American Water’s
15 National Benefits Agreement who are not eligible for retiree medical benefits under the
16 OPEB plan, the Company makes an annual contribution of \$600 per employee to a separate
17 VEBA plan that is administered by the Utility Workers Union of America. That plan is
18 designed to reimburse eligible participants for certain health care expenses they incur in
19 retirement. A pro forma adjustment to reflect these contributions on behalf of eligible
20 employees of the Company’s Water Operations and Wastewater Combined Sewer System
21 (“CSS”) Operations has been made to the Company’s OPEB expense claim in this case.

1 **ESPP** – ESPP expense is incurred to fund the 15% discount on purchases of American
2 Water stock by employees that are enrolled in the ESPP. This expense was calculated
3 based on the FTY and FPFTY salaries and wages for each employee who participates in
4 the plan. The employees’ forecasted base compensation is multiplied by the percentage of
5 base compensation each employee has selected to devote to purchasing American Water
6 stock. That amount was then multiplied by the 15% discount on stock purchases to
7 determine the pro forma expense for the ESPP.

8 **Q. Please describe the Company’s payroll tax expense.**

9 **A.** Payroll tax expense consists of the federal and state taxes the Company pays based on its
10 employee’s salaries and wages. The Federal Insurance Contributions Act imposes taxes
11 on employers for Old Age Survivors and Disability Insurance (“OASDI,” or more
12 commonly “FICA”) and Hospital Insurance (or more commonly “FICA Medicare”). The
13 Company is also required to pay Federal Unemployment Tax (“FUTA”) and State
14 Unemployment Tax (“SUTA”). Pro forma payroll taxes were calculated on a position-by-
15 position basis using current 2022 tax rates and pro forma wages for the FTY and FPFTY.
16 The current 6.2% FICA tax rate will apply to wages of up to \$147,000 in 2022. The wage
17 ceiling for applying the FICA tax rate is estimated to increase to \$152,026 for the FPFTY,
18 based on a three-year average of historical actual increases in the wage ceiling for FICA
19 tax. For the FTY and FPFTY, the Company applied the FICA Medicare tax rate of 1.45%
20 to all wages, applied the SUTA tax rate of 1.712% to the first \$10,000 of wages, and applied
21 the FUTA tax rate to the first \$7,000 in wages.

1 **SERVICE COMPANY COSTS**

2 **Q. What kinds of services does PAWC obtain from the Service Company?**

3 **A.** The services provided by the Service Company include customer service, water quality
4 testing, environmental compliance, human resources, communications, technology and
5 innovation, finance, accounting, legal, engineering, supply chain, and risk management.
6 As part of the broad range of services summarized above, the Service Company provides
7 a variety of financial and accounting services for Pennsylvania-American that include
8 payroll, human resources data management, utility plant accounting, cash management,
9 general accounting and reporting, accounts payable, and tax accounting. As part of its
10 customer-service function, the Service Company operates customer service centers in
11 Alton, Illinois,² and Pensacola, Florida, that handle customer calls, billing, and collection
12 activities for PAWC and American Water's other public utility subsidiaries. The customer
13 service centers also handle customer inquiries and correspondence and process service
14 order requests.

15 In addition, the Service Company operates two Field Resource Coordination Centers
16 responsible for tracking and dispatching service orders for PAWC's field representatives
17 and distribution crews. The Service Company also operates the Central Laboratory located
18 in Belleville, Illinois, which employs chemists, laboratory technicians, analysts, and
19 support employees to perform water quality testing and research. The Central Laboratory
20 is certified by the United States Environmental Protection Agency, the Commonwealth of
21 Pennsylvania Department of Environmental Protection ("PADEP") and the regulatory

2 The lease for the customer service center in Alton, IL ends in July 2022. Thereafter all employees will work remotely.

1 agencies of other states in which American Water's subsidiaries provide service. The
2 Central Laboratory owns and uses state-of-the-art water testing equipment to test source
3 water and finished water for all of American Water's subsidiaries, including PAWC.

4 **Q. How do Pennsylvania-American's customers benefit from obtaining the services you**
5 **described from AWWSC?**

6 A. The Service Company provides PAWC access to highly trained professionals who possess
7 expertise in various specialized areas, whose background, experience and training are
8 focused on water utility operations and who work exclusively for American Water's
9 subsidiaries. Furthermore, the size of AWWSC and the scope of its operations have
10 enabled it to assemble a uniquely qualified group of professionals who, through AWWSC,
11 have a platform for sharing their extensive knowledge, expertise, experience and best
12 practices across the American Water system to the benefit of all of American Water's state-
13 regulated utilities and their customers. The Company benefits from getting these services
14 and tapping into the expertise of AWWSC's personnel at cost. The Company also benefits
15 from the size and breadth of American Water, which affords the Company increased
16 purchasing power that it could not obtain on its own, and provides access to discounts on
17 equipment and supplies needed for utility operations, including, for example, pipe, fittings,
18 and water treatment chemicals. In this way, Pennsylvania-American achieves costs savings
19 that it could not obtain if it were a stand-alone water company.

20 **Q. How does the Service Company charge PAWC for its services?**

21 A. The Service Company provides its services to PAWC at cost and issues monthly invoices.
22 Under the Service Company's billing system, costs can be billed as direct charges to a

1 single company or as charges reflecting an allocation among several companies. If the
2 Service Company can identify costs that relate exclusively to PAWC, 100% of those costs
3 are charged directly to Pennsylvania-American. Costs the Service Company incurs in
4 rendering services in common to a group of companies and not exclusive to Pennsylvania-
5 American are charged to each service recipient in the relevant group based on an allocation.

6 **Q. Please explain the direct charging of Service Company costs.**

7 **A.** Service Company personnel are instructed to charge their hours and any operational
8 expenses they incur directly to the entity for which they are performing service. In
9 addition, charges associated with the Central Laboratory and certain charges associated
10 with the customer service centers are directly charged based on specific volumes of work.

11 **Q. How are Service Company costs allocated to PAWC?**

12 **A.** Service Company costs are charged to PAWC and its affiliates using Tier One or Tier Two
13 allocation factors. The Tier One allocation factor represents the allocation of costs between
14 regulated and non-regulated companies. The allocation factors are based on cost-causation
15 drivers for a particular service and include operating revenues, net property, plant and
16 equipment and number of employees. The allocation is calculated using one or an
17 applicable combination of these allocation factors. If a combination of allocation factors
18 is used, each factor is equally weighted in the calculation. The Tier Two allocation factor
19 is used to allocate regulated company costs to the regulated businesses that benefit from a
20 service. Tier Two factors are primarily based on the number of customers served in the
21 immediately preceding calendar year.

1 **Q. What level of Service Company expense is Pennsylvania-American seeking in this**
2 **case and how was it calculated?**

3 **A.** The Company is seeking recovery of an expense of Service Company charges of
4 \$59.9 million for the FPFTY. The expense is divided into two categories consisting of
5 labor and labor-related expenses and all other expenses. For the labor and labor-related
6 portion, the expenses incurred for the HTY have been adjusted to annualize a base pay
7 increase in March 2021 of 3.07% for non-CBU employees of the Service Company, and
8 annual contract increases of 3.00% for CBU employees of the Service Company. For non-
9 CBU employees, the HTY level of base pay was further adjusted to annualize base pay
10 increases of 3.15% to calculate the base pay for the FTY and 2.99% to calculate the base
11 pay for the FPFTY. The FTY percentage increase reflects the actual average increase
12 effective March 7, 2022. The FPFTY percentage was calculated using a historical three-
13 year average. For CBU employees, the HTY level of base pay was further adjusted to
14 annualize annual contract increases of 2.75% to calculate the base pay for the FTY and
15 FPFTY. Additionally, adjustments were made to eliminate severance expense, to
16 normalize pension and OPEB costs, and to reflect the movement of employees between
17 PAWC and the Service Company.

18 **Q. Please explain the adjustment for employee movements between PAWC and**
19 **AWWSC.**

20 **A.** Three Service Company positions in Business Development were transferred to PAWC,
21 and two PAWC positions were transferred to Service Company during the HTY. The
22 difference is reflected as a reduction to Service Company expense.

1 **Q. What other adjustments were made to Service Company expense?**

2 A. Costs pertaining to lobbying, charitable contributions, penalties, and injuries and damages
3 have been removed and, therefore, are not included in the pro forma expenses reflected in
4 the Company's expense claim in this case. Additional adjustments were made for
5 depreciation, interest associated with capital leases, travel expense and the lease
6 termination of Customer Service Center in Alton, Illinois. Finally, an inflation adjustment
7 was applied for the FTY and FPFTY non-labor cost items excluding depreciation and
8 capital lease interest.

9 **MISCELLANEOUS EXPENSES**

10 **Q. Please explain what is included in the Miscellaneous Expense Adjustment.**

11 A. Exhibit No. 3-A sets forth items that are being adjusted or eliminated from the Company's
12 O&M claim in this proceeding.

13 First, I will discuss deductions reflected in the Miscellaneous Expense Adjustment.
14 The Company eliminated duplicative expense items such as pension and other post-
15 employment benefits that have been included in the development of the Company's claim
16 for the ongoing water expense levels (Exhibit No. 3-A Water Operations). Additionally,
17 donations, lobbying expenses, fines and COVID related costs incurred during the historic
18 test year were removed. Costs associated with temporary employees were excluded from
19 the Company's claim because the need for these employees will be significantly reduced
20 by the full-time staffing levels reflected in the salary and wage claim in this case. This part
21 of the adjustment assumes recognition in this proceeding of the requested staffing levels.
22 The Company has reduced per-book severance costs, as well as injuries and damages, to

1 reflect a normalized level that is based on a three-year average. An adjustment to annualize
2 the cost of credit card and e-check transaction fees has been included.

3 As discussed by Ashley Everette in PAWC Statement No. 1, the Company has
4 included costs related to the Arrearage Management Plan (AMP) and Low Income
5 Program. The total cost of discounts is based on the average number of H2O Discount
6 customers with arrears multiplied by the annual credits, assuming 100% participation rate.
7 The adjustment also includes monthly and start-up costs provided by Dollar Energy who
8 will facilitate the program.

9 For Water Operations, the Company removed prior year expenses for prepaid
10 NAWC – PA Chapter dues and for the Ohio River Valley Sanitation Commission in order
11 to not duplicate this expense. A one-time cost for legal fees was also removed. The
12 Company has adjusted per book injuries and damages to reflect a normalized level that is
13 based on a historic three-year average. Additionally, the Company has included an
14 adjustment in Exhibit No. 3-A to reflect the allocation of a portion of the cost of the Capital
15 Campus in Mechanicsburg from Water Operations to Wastewater SSS General Operations,
16 Royersford Wastewater Operations, Upper Pottsgrove Wastewater Operations, York
17 Wastewater Operations, and Wastewater CSS Operations.

18 Second, the Miscellaneous Expense Adjustment also includes additions to the
19 Company's O&M claim for water operations. The Company has adjusted per book
20 severance, conference and registration costs to reflect a normalized level that is based on a
21 historic three-year average. The Company also added costs associated with the revolving
22 line of credit because the costs were reclassified from interest expense to operating costs.
23 For Wastewater SSS General Operations and Wastewater CSS Operations, the Company

1 participates in the Nutrient Credit Trading program facilitated by the Department of
2 Environmental Protection. The program provides a cost-efficient way for National
3 Pollutant Discharge Elimination System (NPDES) permittees in the Chesapeake Bay
4 Watershed to meet their effluent cap load limits for nutrients. The need to purchase nutrient
5 credits fluctuates from year to year, therefore the Company has adjusted the per book costs
6 to reflect a normalized level that is based on a historic five-year average.

7 The Company also made adjustments to annualize the O&M expenses not fully
8 recognized in the HTY for the Company's acquisitions, as follows:

9 **Water Operations:** the water assets of Valley Township (acquired November 19,
10 2021), SLIBCO/GCC Cooperative (acquired November 19, 2021), Findlay
11 Township Municipal Authority (anticipated bulk water agreement in 2022) and
12 Creekside Development (anticipated acquisition in 2022)

13 **Wastewater SSS General Operations:** the wastewater assets of the Delaware
14 Sewer Company (acquired May 13, 2021), Valley Township (acquired November
15 19, 2021) and Foster Township (anticipated acquisition in 2022)

16 **Wastewater SSS Royersford Operations:** the wastewater assets of Royersford
17 Borough (acquired May 25, 2021)

18 **Wastewater SSS Upper Pottsgrove Operations:** the wastewater assets of Upper
19 Pottsgrove (anticipated acquisition in 2022)

20 **Wastewater SSS York Operations:** the wastewater assets of the City of York and
21 York City Sewer Authority (anticipated acquisition in 2022)

22 Details supporting these adjustments are provided in Exhibit No. 3-B.

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

24 **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-2022-3031672 (WATER)
R-2022-3031673 (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: April 29, 2022



Lori O'Malley

Statement No. 6

Markward

**DIRECT TESTIMONY
OF
THOMAS MARKWARD**

**WITH REGARD TO
PENNSYLVANIA-AMERICAN WATER COMPANY'S
O&M EXPENSES INCLUDING: PURCHASED POWER, PURCHASED WATER,
CHEMICALS, WASTE DISPOSAL, CHANGE IN WATER CONSUMPTION,
TRANSPORTATION, INSURANCE OTHER THAN GROUP, AND RENT**

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031672 (WASTEWATER)**

DATE: April 29, 2022

PENNSYLVANIA-AMERICAN WATER COMPANY

DIRECT TESTIMONY OF THOMAS MARKWARD

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

2 A. My name is Thomas Markward. 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, Inc. as a Principal Regulatory
6 Analyst.

7 **Q. Please summarize your educational background and professional experience.**

8 A. I graduated from LaSalle University with a Bachelor of Science degree in Accounting.
9 I began my employment with American Water in November 2011 as an Accountant III,
10 where I supported utility plant accounting in preparing monthly journal entries, account
11 reconciliations and variance analysis. In November 2014, I was promoted to the role of
12 Accountant IV where I was responsible for the management of the monthly accounting
13 close process, as well as the analysis and recording of asset acquisitions and associated fair
14 value assessments. In November 2018, I was promoted to my current position as a
15 Principal Regulatory Analyst where my current duties include the preparation and
16 presentation of regulatory filings and related activities for Pennsylvania-American Water
17 Company (“PAWC” or “Company”) and West Virginia-American Water Company.

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

19 A. The purpose of my testimony is to explain the portions of Exhibit No. 3-A that I am
20 sponsoring, which relate to PAWC expense claims for the following: purchased power,
21 purchased water, chemicals, transportation, insurance other than group policies, and rent.

1 Additionally, my testimony explains the adjustment necessary to account for changes in
2 customer water consumption. Other components of the Company's claim for operating
3 and maintenance ("O&M") expenses are addressed in the direct testimony of
4 Lori O'Malley (PAWC Statement No. 5).

5 **Q. Please explain the development of pro forma O&M expenses as set forth in Exhibit**
6 **No. 3-A that you are sponsoring.**

7 A. In general, amounts recorded on the Company's books for the historic test year ended
8 December 31, 2021 ("HTY") were used as a starting point. Book data were adjusted to
9 reflect the effects of known and measurable changes that occurred during the HTY and to
10 reflect changes that are projected to occur by the end of the future test year ending
11 December 31, 2022 ("FTY"), and by the end of the fully projected future test year ending
12 December 31, 2023 ("FPFTY"). Consistent with prior filings, the Company made specific
13 adjustments to certain expenses for the FTY and FPFTY based on known and measurable
14 changes and projected changes in expenses based upon the Company's actual experience.
15 Certain O&M expenses for which specific adjustments were not made were increased by
16 applying inflation factors of 4.03% and 2.48% for the FTY and FPFTY, respectively, to
17 reflect cost levels the Company is expected to incur in those years. The inflation factors
18 were derived from the 2022 and 2023 Blue Chip forecasts of the average annual Gross
19 Domestic Product ("GDP") Price Indices. Ms. O'Malley explains in more detail the GDP
20 Price Indices the Company is using in this filing.

1 **Purchased Power Expense**

2 **Q. Please explain the methodology used to forecast purchased power expense.**

3 A. Purchased power expense is incurred for treating, pumping and delivering water and
4 collecting and treating wastewater. In order to forecast purchased power expense, HTY
5 expenses were adjusted to remove closed accounts and credit balances, to annualize
6 electricity expense for active accounts, and to reflect known changes in the prices charged
7 by the Company's electricity generation suppliers ("EGSs") and in the rates of the electric
8 distribution companies ("EDCs") that furnish distribution service. Changes experienced
9 during the HTY and projected to occur during the FTY and FPFTY were used to derive the
10 expense levels for those years. Additionally, adjustments were made to annualize
11 electricity expenses for Royersford Wastewater to reflect a full year of costs for the FTY
12 because the Company acquired the system in 2021.

13 The Company has contracted with multiple EGSs to supply the Company's electric
14 generation through 2023. I used the prices under those contracts to calculate electric
15 expense for the FTY and FPFTY, including rate reductions effective during those periods
16 under new contracts that the Company successfully obtained through its competitive
17 procurement process described by PAWC witness Jim Runzer in PAWC Statement No. 2.
18 For the distribution and transmission portions of the Company's bills, the applicable EDC's
19 distribution and transmission rates and applicable riders and surcharges/credits in effect as
20 of December 31, 2021 were reflected to determine total purchase power expense. The
21 purchased power adjustments are summarized in Exhibit No. 3-A, and supporting
22 workpapers are provided in Exhibit No. 3-B.

1 **Purchased Water Expense**

2 **Q. Please explain the methodology used to forecast purchased water expense.**

3 A. Purchased water expense is composed of two components, contractual usage and
4 diversion rights. The annualized usage levels from all contracted suppliers in the HTY
5 were priced at the applicable supplier's rates effective in the FTY, and those rates were
6 used to annualize purchased water expense for the FTY. For the FTY, diversion rights
7 expenses in the HTY, which are not based on contracted annual pricing terms or usage
8 levels, were adjusted by the inflation factor of 4.03%. For the FPFTY all purchased water
9 expenses as of the FTY were increased by the inflation factor of 2.48%. The purchased
10 water adjustments are summarized in Exhibit No. 3-A and supporting workpapers are
11 provided in Exhibit No. 3-B.

12 **Chemical Expense**

13 **Q. Please explain the methodology used to forecast chemical expense.**

14 A. PAWC uses various chemicals for water and wastewater treatment. In order to obtain the
15 best available pricing, the Company participates in American Water's system-wide
16 competitive bidding process and enters into unit-price contracts with the successful bidders
17 for the chemicals needed at its water and wastewater treatment facilities throughout
18 Pennsylvania. Chemical usage levels were adjusted in three respects. First, adjustments
19 were made to eliminate the chemicals that are no longer being used as of January 2022 and
20 to add chemicals the Company will begin using for the first time in 2022. Second, usage
21 was increased to reflect the chemicals that are needed at the treatment plants associated
22 with the following systems which were acquired in 2021: Delaware Sewer Company,
23 SLIBCO, Valley Water and Wastewater, and Royersford Wastewater. Third, usage levels

1 were adjusted based on known and measurable changes that occurred in the HTY or
2 changes that are projected to occur in the FTY and FPFTY.

3 Contract prices effective at January 1, 2022, were applied to the adjusted levels of chemical
4 usage to project the FTY expense claim. Due to current volatility in the market for
5 chemicals, many vendors have deviated from annual contracts and have moved to quarterly
6 or semi-annual contracts. As a result, usage for the FTY was broken down quarterly and
7 the expense was adjusted by the annual inflation factor of 4.03% (1.01% quarterly) for
8 those contracts scheduled to expire in 2022 and due for renewal. To determine chemicals
9 expense for the FPFTY, FTY chemical costs were increased by 15.55% based on input
10 from our suppliers and indexes related to current volatility in the market. Challenges being
11 faced today such as national driver shortages and shortages in shipping containers and
12 chloride gas cylinders are predicted to continue well into 2023. If the Company enters into
13 new unit-price chemical contracts before the close of the record in this case, it will update
14 its claims to reflect any material price changes. The adjustments for chemical expenses for
15 all of the Company's water and wastewater systems are summarized in Exhibit No. 3-A,
16 and supporting workpapers are included in Exhibit No. 3-B.

17 **Change in Consumption**

18 **Q. Please explain the adjustment necessary to account for changes in customer water**
19 **consumption.**

20 **A.** Exhibit No. 3-A sets forth an adjustment to operating expenses to reflect changes in power
21 and chemical costs due to changes in pro forma water consumption, including the decline
22 in residential and commercial usage discussed in detail by Mr. Rea in PAWC Statement

No. 10. The adjustment was calculated by computing the ratio of HTY power and chemical costs to actual HTY consumption. This ratio was then applied to the projected change in consumption between the HTY and FTY, and the FTY and FPFTY. The adjustment was applied to both existing water and wastewater operations. Supporting details are included in Exhibit No. 3-B.

Transportation Expense

Q. Please explain the methodology used to forecast transportation expense.

A. Transportation expense includes the fleet management cost per vehicle, costs for fuel expense, titling and registration fees, maintenance expense, and reimbursement for Company use of personal vehicles. The forecast of the fleet management expense is based on the number of vehicles claimed in FTY and FPFTY. The changes in the number of vehicles from the HTY level are reflected in the forecast of costs for fuel expense, titling and registration fees, and maintenance expense. Additionally, these costs, along with the reimbursement for personal use of Company vehicles, were adjusted by the inflation factors for the FTY (4.03%), and FPFTY (2.48%). A portion of the transportation costs is capitalized and, therefore, excluded from O&M expense. The Company's adjustments to transportation expense are shown in Exhibit No. 3-A. Detailed supporting calculations are provided in Exhibit No. 3-B.

Q. Was there a pro forma adjustment that specifically relates to the cost of gasoline used to operate the fleet?

1 **A.** Yes. The Company proposes an increase for the cost of gasoline due to information
2 obtained from the Energy Information Administration, which contains the official energy
3 statistics of the U.S. Government.¹ The Company used the Central Atlantic (PADD 1B)
4 for the Weekly Central Atlantic Regular All Formulations Retail Gasoline Prices (Dollars
5 per Gallon) to calculate the average price for 2022 as of March 28, 2022 over the average
6 annual price for the twelve months ended December 31, 2021 to obtain an increase of
7 \$0.67 per gallon, or 21.91%.

8 **Insurance Other Than Group**

9 **Q.** **Please explain the methodology used to forecast insurance other than group**
10 **insurance.**

11 **A.** PAWC incurs costs related to several types of insurance, including Auto Liability, General
12 Liability, Excess Liability and Workers' Compensation. The Company also has other
13 policy coverages such as Directors and Officers Liability, Employment Practices and
14 Cyber Crime policies. The FTY expense represents an increase from the HTY based upon
15 a number of drivers. The HTY was adjusted using insurance premiums actually incurred,
16 and projected to occur, during the twelve months ending December 31, 2022, adjusted by
17 the five-year average of actual retroactive adjustments. An equipment discount credited
18 against Insurance Other than Group expense was moved to a regulatory liability in the HTY
19 and the associated amortization is reflected as a deduction from rate base, as discussed by
20 PAWC witness Gress in Statement No. 4. The FTY expenses were then adjusted by
21 applying a five-year average of 6.44% with exception of claims amounts which were held

¹ See <https://www.eia.gov/petroleum/gasdiesel/>.

1 at 2022 levels to arrive at the FPFTY costs. Next, the new Workers' Compensation
2 premium costs were multiplied by the capitalization rate to eliminate the portion of that
3 cost not charged to operating expenses. The insurance other than group expense for FTY
4 and FPFTY was allocated between water and wastewater operations based on allocation
5 Factor 4 (Depreciated Utility Plant in Service). The development of the capitalization
6 percentage and the factors used to allocate common costs between water and wastewater
7 operations is discussed in further detail by Company witnesses Gress (PAWC Statement
8 No. 4) and O'Malley (PAWC Statement No. 5). The Company's adjustments to insurance
9 other than group expense are shown in Exhibit No. 3-A. Detailed supporting calculations
10 are provided in Exhibit No. 3-B.

11 **Rent Expense**

12 **Q. Please explain the Company's adjustment to rent expense.**

13 A. The Company's specific adjustments to rent expense reflect changes projected to occur in
14 the FTY and FPFTY in current lease agreements for water and combined sewer system
15 operations. The Company's adjustment to rent expense is shown in Exhibit No. 3-A.
16 Detailed supporting calculations 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**

**DOCKET NOS. R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

VERIFICATION

I, **Thomas Markward**, 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: April 29, 2022



Thomas Markward

Statement No. 7

Grundusky

**DIRECT TESTIMONY
OF
BERNARD J. GRUNDUSKY, JR.**

**WITH REGARD TO
PENNSYLVANIA-AMERICAN WATER COMPANY'S
ACQUISITIONS AND WASTEWATER CAPACITY RESERVATION FEE DISCOUNT**

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

DATE: April 29, 2022

PENNSYLVANIA-AMERICAN WATER COMPANY
DIRECT TESTIMONY OF BERNARD J. GRUNDUSKY, JR.

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Bernard J. Grundusky, Jr. and my business address is 852 Wesley Drive, Mechanicsburg, Pennsylvania 17055.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Pennsylvania-American Water Company ("PAWC" or the "Company") as the Senior Director of Business Development.

Q. WHAT ARE YOUR RESPONSIBILITIES AS PAWC'S SENIOR DIRECTOR OF BUSINESS DEVELOPMENT?

A. I develop and maintain necessary contacts to stay abreast of new business opportunities. In addition, I guide the business development team in the preparation of proposals, policies, strategies, and closings for acquisitions, and other related business ventures. Finally, I participate in developing PAWC's short- and long-range plans. These responsibilities necessitate that I maintain a working knowledge of regulatory and technical developments, new technologies and current trends as they affect the water and wastewater utility industries, and that I be familiar with legislation, regulation and public policy affecting business opportunities.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EDUCATION AND EXPERIENCE.

A. I received a Bachelor of Science (B.S.) degree in Accounting from Pennsylvania State University in August of 1990 and a Master of Business Administration degree (MBA) from

1 Lebanon Valley College in 1995. My experience in the waterworks industry began in
2 March 1991 when I was employed as a Rate Analyst in the Rates and Revenue Department
3 of the American Water Works Service Company. As a Rate Analyst, I was responsible for
4 preparing financial analyses and written testimony to support PAWC rate increase requests.
5 On July 1, 1995, I was promoted to Senior Rate Analyst. On October 16, 1996, I was
6 promoted to Financial Analyst in PAWC's Administration Department. My principal
7 duties in that capacity included the preparation and administration of the revenue, operating
8 and maintenance budgets and assistance in the preparation of the capital budgets; the
9 review of results of operations by budget categories; and the annual review and refinement
10 of budgeting techniques. On July 1, 1997, I was promoted to Intermediate Financial
11 Analyst, and, on July 1, 1998, I was promoted to Senior Financial Analyst. On January 1,
12 1999, I transferred to PAWC's Business Development Department. On July 1, 2000, I was
13 promoted to Manager of Business Development. On April 1, 2009, I was promoted to the
14 position of Senior Manager of Business Development for PAWC. On September 30, 2013,
15 I was promoted to the position of Director of Business Development for PAWC. On
16 May 21, 2018, I was promoted to Senior Director of Business Development. I have been
17 in that position since then and am currently the Senior Director of Business Development.

18 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PENNSYLVANIA**
19 **PUBLIC UTILITY COMMISSION ("COMMISSION")?**

20 A. Yes. I have previously testified before the Commission as a company witness for several
21 rate cases in the early to mid-1990's and as a company witness for PAWC's 2013, 2017
22 and 2020 base rate case filings. I also testified before the Commission as a company
23 witness in PAWC's acquisition of The Borough of New Cumberland wastewater system at

Docket No. A-2016-2544151, PAWC's acquisition of The Sewer Authority of the City of Scranton at Docket No. A-2016-2537209, PAWC's acquisition of the Municipal Authority of the City of McKeesport wastewater system at Docket No. A-2017-2606103, PAWC's acquisition of the Exeter Township wastewater system at Docket No. A-2018-3004933 and recently in PAWC's acquisition of the City of York's wastewater system at Docket No. A-2021-3024681.

Q. WHAT IS THE SCOPE OF YOUR TESTIMONY?

A. I will discuss the water and wastewater system acquisitions that PAWC has included in this base rate case and the Company's proposed wastewater economic development capacity reservation fee discount.

ACQUISITIONS INCLUDED IN THIS BASE RATE CASE

Q. WHAT ACQUISITIONS ARE BEING INCLUDED FOR THE FIRST TIME IN BASE RATES IN THIS BASE RATE CASE?

A. PAWC has included the following acquisitions in this base rate case:

- (1) Borough of Royersford (wastewater);
- (2) Valley Township Water;
- (3) Valley Township Wastewater;
- (4) SLIBCO Utilities, Inc (water);
- (5) Upper Pottsgrove Township (wastewater);
- (6) City of York (wastewater);
- (7) Foster Township (wastewater); and
- (8) Creekside Homeowners Association (water).

PAWC also completed the following water and wastewater system acquisitions since its last base rate case: Kane Borough Authority (wastewater), Delaware Sewer Company (wastewater) and Winola Water Company (water). However, those acquisitions were reflected in the base rates established by the Commission-approved settlement of PAWC's 2020 base rate case.¹

Q. PLEASE PROVIDE A DETAILED DESCRIPTION OF THESE ACQUISITIONS.

A. Borough of Royersford ("BOR") – The BOR wastewater collection and treatment system (the "BOR System") was acquired by PAWC on May 25, 2021. The BOR System consists of a wastewater collection system and wastewater treatment plant (WWTP) that provides wastewater service to approximately 1,600 customers in Royersford and 16 customers in Upper Providence Township. In addition, the BOR System provides service to customers in Limerick Township via a bulk service interconnection located in Royersford. PAWC provides the water service to BOR customers.

The public benefits of this acquisition include promotion of the Commission's policy favoring regionalization and consolidation of water/wastewater systems and the General Assembly's policy goals when it enacted Section 1329; Commission regulation of the system, giving customer access to the Commission, the Office of Consumer Advocate ("OCA"), the Bureau of Investigation and Enforcement ("I&E"), and the Office of Small Business Advocate ("OSBA"); improvements to the BOR System by PAWC post-closing to address both service and environmental issues; enhanced customer service and customer assistance programs.

¹ See *Pa. P.U.C. v. Pennsylvania-American Water Co.*, Docket Nos. R-2020-3019369 and R-2020-3019371 (Joint Petition for Non-Unanimous Settlement of Rate Investigation approved by Opinion and Order entered Feb. 25, 2021), Appendix E (Amortizations).

1 The Commission approved this acquisition by Opinion and Order entered May 7,
2 2021 at Docket No. A-2020-3019364. Pursuant to 66 Pa. C.S. § 1329(c), the Commission
3 approved a rate base addition of \$13,000,000 associated with PAWC’s acquisition of the
4 BOR System. Consistent with the Asset Purchase Agreement between BOR and the
5 Company and the Commission’s May 7, 2021 Opinion and Order, as explained in the direct
6 testimony of Company witness Stacy D. Gress (PAWC Statement No. 4), PAWC has
7 proposed that the rate increase for BOR customers would not be effective until two years
8 following the closing date or May 25, 2023.

9 **Valley Township – Wastewater (“VTWW”)** – The VTWW wastewater collection system
10 (“VTWW System”) was acquired on November 19, 2021. The VTTW System is a
11 wastewater collection system serving approximately 2,900 customers in Valley Township
12 and limited portions of East Fallowfield, Sadsbury and West Caln Townships, Chester
13 County, Pennsylvania. It is a sanitary-only collection system.

14 The VTWW System is interconnected with PAWC’s existing Coatesville
15 wastewater system, and all sewage collected by the VTWW System ultimately flows into
16 PAWC’s Coatesville system for treatment and disposal. Valley Township had been a bulk
17 wastewater customer of PAWC since PAWC’s acquisition of the City of Coatesville
18 Authority’s water and wastewater system assets in March 2001. As the VTWW System is
19 interconnected with PAWC’s Coatesville wastewater system, the VTWW System is
20 operated and managed by PAWC’s Coatesville operations.

21 The public benefits of this transaction include: promotion of the Commission’s
22 policy favoring regionalization and consolidation of water/wastewater systems and the
23 General Assembly’s policy goals when it enacted Section 1329; Commission regulation of

1 the system, giving customers access to the Commission, the OCA, I&E, and the OSBA;
2 and enhanced customer service and customer assistance programs.

3 The Commission approved this acquisition by Opinion and Order entered October
4 28, 2021 at Docket No. A-2020-3020178. Pursuant to 66 Pa. C.S. § 1329(c), the
5 Commission approved a rate base addition of \$13,950,000 associated with PAWC's
6 acquisition of the VTWW System. As explained by Ms. Gress, consistent with the Asset
7 Purchase Agreement between Valley Township and the Company and the Commission's
8 October 28, 2021 Opinion Order, PAWC has proposed that the rate increase for VTWW
9 customers would not be effective until two years following the closing date or November
10 19, 2023.

11 **Valley Township – Water (“VTW”)** – The VTW water system (“VTW System”) was
12 acquired on November 19, 2021. The VTW System provides water service to
13 approximately 1,670 customers in a Valley Township and limited portions of West Caln
14 and East Fallowfield Townships, Chester County, Pennsylvania. The VTW System is
15 supplied by Township-owned wells and bulk water purchased from PAWC. Valley has a
16 water treatment plant, a 150,000-gallon elevated tank, and approximately twenty-two miles
17 of water mains. The water sources and the water system customers are metered.

18 The VTW System is interconnected with PAWC's existing Coatesville water
19 system. Valley Township had been a bulk water customer of PAWC since PAWC's
20 acquisition of the City of Coatesville Authority's water and wastewater system assets in
21 March 2001. The VTW System is operated and managed by PAWC's Coatesville
22 operations.

1 The public benefits of this transaction include: promotion of the Commission's
2 policy favoring regionalization and consolidation of water/wastewater systems and the
3 General Assembly's policy goals when it enacted Section 1329; Commission regulation of
4 the system, giving customers access to the Commission, the OCA, I&E, and the OSBA;
5 and enhanced customer service and customer assistance programs.

6 The Commission approved this acquisition by Opinion and Order entered October
7 28, 2021 at Docket No. A-2020-3019589. Pursuant to 66 Pa. C.S. § 1329(c), the
8 Commission approved a rate base addition of \$7,325,000 associated with PAWC's
9 acquisition of the VTW System. As explained by Ms. Gress, consistent with the Asset
10 Purchase Agreement between Valley Township and the Company and the Commission's
11 October 28, 2021 Order, PAWC has proposed that the rate increase for VTW customers
12 would not be effective until two years following the closing date or November 19, 2023.

13 **SLIBCO Utilities, Inc ("SUI")** - The SUI water system ("SUI System") was acquired on
14 November 19, 2021. SUI is a nonprofit, nonstock corporation and was organized by the
15 Scranton Lackawanna Industrial Building Company to own and manage a water
16 distribution system that provides water service to eight commercial customers and six fire
17 hydrants within the Glenmaura Corporate Center in Moosic Borough and the City of
18 Scranton. The SUI System assets include approximately 1,800 feet of 16-inch diameter
19 ductile iron main, 5,570 feet of 12-inch diameter ductile iron cement lined main, six and
20 eight-inch diameter ductile iron service lines, eight meters, two 16-inch diameter gate
21 valves, five 12-inch diameter gate valves, six fire hydrants, one 410,000-gallon storage
22 tank, 1.8 acres of land, easements and other appurtenances. The SUI System is

1 interconnected with and obtains water from PAWC's Scranton water system. The SUI
2 System is operated and managed by PAWC's Scranton water system operations.

3 The public benefits of this transaction include: promotion of the Commission's
4 policy favoring regionalization and consolidation of water/wastewater systems;
5 Commission regulation of the system, giving customers access to the Commission, the
6 OCA, I&E and the OSBA.

7 The Commission approved this acquisition by Order entered November 15, 2021
8 at Docket No. A-2020-3023369. The purchase price for the SUI System was \$1.

9 **5. Upper Pottsgrove Township ("UPT")** – UPT is a First Class Township that owns
10 and operates a wastewater collection system ("UPT System"). The UPT System provides
11 wastewater service to approximately 1,500 customers in Upper Pottsgrove Township,
12 Montgomery County and small portion of Douglass Township, Berks County,
13 Pennsylvania. The UPT System consists of a sewer collection system with four pump
14 stations. It has approximately 71,500 ft. of sewer main, and approximately 480 manholes.
15 It is a sanitary-only collection system. UPT is party to an agreement with the Borough of
16 Pottstown and Pottstown Borough Authority (together, "PBA") pursuant to which UPT's
17 wastewater flow is transported to PBA's treatment plant for treatment and disposal. At
18 closing, PAWC will take assignment of the PBA agreement through an assignment and
19 assumption agreement with PBA and UPT which has been filed with the Commission
20 pursuant to 66 Pa. C.S. § 507 and issued a Certificate of Filing. The UPT wastewater
21 system will be operated and managed by PAWC's Royersford and Exeter wastewater
22 system operations.

1 The public benefits of this acquisition include: promotion of the Commission’s
2 policy favoring regionalization and consolidation of water/wastewater systems and the
3 General Assembly’s policy goals when it enacted Section 1329; Commission regulation of
4 the system, giving customers access to the Commission, the OCA, I&E, and OSBA;
5 improvements to the system post-closing, addressing both service and environmental
6 issues; and enhanced customer service and customer assistance programs.

7 The Commission approved this acquisition by Order entered September 15, 2021
8 at Docket No. A-2020-3021460. Pursuant to 66 Pa. C.S. § 1329(c), the Commission
9 approved a rate base addition of \$13,7500,000 associated with PAWC’s acquisition of the
10 UPT wastewater system. The acquisition is expected to close during the second quarter of
11 2022.

12 **York City Sewer Authority (“York”)** – PAWC’s application to acquire the City of
13 York/York City Sewer Authority wastewater collection, conveyance and treatment system
14 (“York System”) was approved by the Commission by Order entered April 14, 2022 at
15 Docket No. A-2021-3024681 (“York Order”). As discussed below, PAWC has included
16 this acquisition in the instant base rate case because this proceeding is PAWC’s “next”
17 base rate case after closing on the acquisition. The York Order establishes the amount that
18 PAWC is to include in its rate base in its “next” base rate case as a result of the acquisition.
19 Additionally, it is prudent and fair for the Commission to integrate the York System into
20 the larger PAWC system, and to address expenses associated with the operation and
21 maintenance of the system, as soon as reasonably possible to avoid regulatory lag.

22 The York System is a sanitary wastewater system that provides wastewater to the
23 City of York and treatment and conveyance service to several surrounding municipalities.

1 The York System is comprised of a 26 million gallon per day treatment plant,
2 approximately 65,000 linear feet of interceptor mains and approximately 489,000 linear
3 feet of collection mains and other system assets. The York system serves approximately
4 13,800 direct customers and approximately 30,000 indirect customers served by the
5 surrounding municipalities served under bulk municipal agreements. The municipalities
6 receiving bulk treatment and conveyance services are: Manchester, West Manchester,
7 Spring Garden, York and Springettsbury Townships, North York and West York Borough,
8 York County Pennsylvania. The West York Borough sewer system was acquired by the
9 York Water Company in 2016. PAWC has negotiated new Wastewater Treatment and
10 Conveyance agreements with Manchester, West Manchester, Spring Garden and York
11 Townships, North York Borough and York Water Company, as well as a new agreement
12 with Springettsbury Township. The six Wastewater Treatment and Conveyance
13 Agreements and the Springettsbury Township agreement have been filed with the
14 Commission pursuant to 66 Pa. C.S. § 507 for issuance of Certificates of Filing.

15 Public benefits of the transaction include: promotion of the Commission's policy
16 favoring regionalization and consolidation of water/wastewater systems and the General
17 Assembly's policy goals when it enacted Section 1329; Commission regulation of the
18 system; giving customers access to the Commission, the OCA, the I&E and the OSBA;
19 and enhanced customer service and customer assistance programs for York's customers.
20 PAWC will also make capital improvements to the system to address service and
21 environmental issues.

22 The York Order approves the amount agreed to in settlement to be added to
23 PAWC's rate base, as a result of the acquisition, which is \$231,500,000. The transaction

1 is expected to close while the record is still open in this proceeding. Including the York
2 acquisition in the instant proceeding, rather than forcing PAWC to wait until the following
3 base rate case, will significantly reduce regulatory lag, thereby mitigating one factor that
4 hinders municipal acquisitions pursuant to Section 1329.

5 **Foster Township (“FT”) – Wastewater** – FT is a Second Class township which owns,
6 maintains and operates a wastewater collection system on the west end of Foster Township
7 (“FT West End System”), Luzerne County, Pennsylvania. Currently pending before the
8 Commission is PAWC’s application pursuant to 66 Pa. C.S. §1102 for approval to acquire
9 the FT West End System. The FT West End System provides wastewater service to
10 approximately 544 active customer premises. Wastewater treatment is provided by the
11 Borough of Freeland Municipal Authority pursuant to a bulk treatment agreement which
12 will be assumed by PAWC at closing. The FT West End System is a sanitary-only
13 collection system with four pump stations. It has approximately 55,000 ft. of sewer pipe
14 and approximately 231 manholes. The FT West End System will be operated and managed
15 by PAWC’s Scranton wastewater operations.

16 The public benefits of this transaction include: promotion of the Commission’s
17 policy favoring regionalization and consolidation of water/wastewater systems; the system
18 is now subject to Commission regulation, giving customers access to the Commission, the
19 OCA, I&E, and the OSBA; and enhanced customer service and customer assistance
20 programs. Consistent with the Asset Purchase Agreement between Foster Township and
21 PAWC, PAWC has proposed that the rate increase for FT customers would not be effective
22 until January 1, 2025.

1 PAWC filed its Application for Commission approval to acquire the FT West End
2 System on September 22, 2021 at Docket No. A-2021-3028676. The protest period has
3 expired and there were no protests filed. The Application is under review by the
4 Commission's Bureau of Technical Utility Services ("TUS"). PAWC plans to close the
5 transaction shortly after it receives Commission approval. The purchase price for the
6 system is \$3,750,000. PAWC has filed an original cost study to determine the original cost
7 and accumulated depreciation of the FT West End System. The original cost study will
8 be updated after closing to reflect the original cost and accumulated depreciation as of the
9 closing date. PAWC will pay less than the depreciated original cost of the assets, therefore,
10 PAWC is proposing to amortize the difference between what was paid and the cost of the
11 assets, thus lowering expenses for the Company's existing customers.

12 PAWC has included this acquisition in the instant base rate case because the
13 Company expects the transaction to close in mid-2022 while the record is still open in this
14 proceeding. If approved by the Commission, the transaction will most certainly close
15 before the end of the fully projected future test year ("FPFTY") ending December 31, 2023.
16 Additionally, it is prudent and fair for the Commission to integrate the FT West End System
17 into the larger PAWC system, and to address expenses associated with the operation and
18 maintenance of the system, as soon as reasonably possible to avoid regulatory lag.

19 **Creekside Homeowners Association ("Creekside") – Water** – Currently pending before
20 the Commission is PAWC's application to acquire the Creekside water distribution and
21 treatment system ("Creekside System") pursuant to 66 Pa. C.S. § 1102. Creekside
22 Development is a residential development in Providence Township, Lancaster County.
23 The Creekside Homeowners Association owns, maintains and operates the water system

1 in Creekside Development. The Creekside water system is comprised of two wells, a
2 storage tank and a treatment facility, water distribution mains and private fire hydrants
3 currently serves approximately 25 residential customers as part of Phase 1 of the Creekside
4 Development.

5 Public benefits of the transaction include promotion of the Commission's policy
6 favoring regionalization and consolidation of water/wastewater systems; the system will
7 become subject to Commission regulation, giving customers access to the Commission, the
8 OCA, the I&E and the OSBA; and enhanced customer service and customer assistance
9 programs for Creekside's customers.

10 PAWC filed its Application for Commission approval of the Creekside acquisition
11 on February 23, 2022 at Docket No. A-2022-3031020. The protest period has expired and
12 there were no protests. TUS is currently reviewing the Application and PAWC plans to
13 close the transaction shortly after it receives Commission approval. The purchase price for
14 the system is \$151,580.16. PAWC has filed an original cost study to determine the original
15 cost and accumulated depreciation of the Creekside water system. The original cost study
16 will be updated after closing to reflect the original cost and accumulated depreciation as of
17 the closing date. PAWC will pay less than the depreciated original cost of the assets,
18 therefore, PAWC is proposing to amortize the difference between what was paid and the
19 cost of the assets, thus lowering expenses for the Company's existing customers.

20 PAWC has included this acquisition in the instant base rate case because the
21 Company anticipates that the transaction will close while the record is still open in this
22 proceeding. Unless the acquisition is not approved by the Commission, the transaction will
23 most certainly close before the end of the FPFTY. Additionally, it is prudent and fair for

1 the Commission to integrate the Creekside System into the larger PAWC system, and to
2 address expenses associated with the operation and maintenance of the system, as soon as
3 reasonably possible to avoid regulatory lag.

4 **Q. DID THE COMPANY PAY ANY OF VALLEY TOWNSHIP'S LEGAL OR**
5 **ENGINEERING FEES INCURRED AS PART OF THE TRANSACTION?**

6 A. Yes, pursuant to the Asset Purchase Agreements with Valley Township Water and
7 Wastewater, the Company paid \$70,000 in connection with its acquisition of the Valley
8 Township water system and \$70,000 in connection with its acquisition of the Valley
9 Township wastewater system for a total of \$140,000 as reimbursement for engineering and
10 legal fees incurred related to each transaction.

11 **Q. IS THE COMPANY SEEKING TO RECOVER THE ENGINEERING AND LEGAL**
12 **FEES REIMBURSED TO VALLEY TOWNSHIP?**

13 A. Yes. Valley Township's engineering and legal fees are part of the transaction and closing
14 costs of the acquisition and are appropriately included in rate base as a cost of organization
15 of newly acquired service territory to be charged to NARUC Account 301.

16 **Q. PLEASE DESCRIBE ANY COMMISSION-APPROVED SETTLEMENT**
17 **COMMITMENTS FOR EACH OF THE ABOVE-REFERENCED ACQUISITIONS**
18 **THAT RELATE TO THE INSTANT BASE RATE FILING AND YOUR**
19 **UNDERSTANDING OF HOW THE FILING COMPLIES WITH THOSE**
20 **COMMITMENTS.**

21 A. At the outset, it should be noted that, in the settled Section 1329 proceedings discussed
22 above (BOR, VTW, VTWW, UPT and York), PAWC, the statutory advocates, and the

1 other parties to the proceedings agreed that PAWC could include certain amounts in rate
2 base in this proceeding as a result of Section 1329 acquisitions. The Commission approved
3 those agreements. Additionally, customer notice was provided to the acquired customers
4 and PAWC's legacy customers in the application proceedings. As a result, rate base issues
5 related to the Section 1329 acquisitions should not be re-litigated in this proceeding.

6 On other issues resolved in the settled Section 1329 proceedings discussed above
7 (such as transaction and closing costs, accrual of Allowance for Funds Used During
8 Construction ("AFUDC") for post-acquisition improvements not recovered through the
9 Distribution System Improvement Charge ("DSIC") for book and ratemaking purposes,
10 and deferred depreciation related to post acquisition improvements not recovered through
11 the DSIC for book and ratemaking purposes), PAWC, the statutory advocates and the other
12 parties to the proceedings only agreed that PAWC could include a claim for those expenses
13 in this proceeding. On those issues, the parties reserved their rights to litigate the
14 reasonableness of those claimed expenses. Nevertheless, I note that Section 1329 expressly
15 permits the recovery of such expenses.

16 Additionally, it should be noted at the outset that PAWC included claims in this
17 proceeding relating to the acquisition of UPT, York, FT and Creekside. PAWC, at the time
18 of filing of this rate case, also provided notice of this rate case to customers of those entities
19 even though closing on those acquisitions has not yet occurred.

20 **BOR** – The instant base rate filing includes an additional base rate amount of \$13,000,000
21 for this acquisition, as agreed-to by the parties and approved by the Commission. The
22 instant base rate filing also includes a cost-of-service study that removes all costs and
23 revenues associated with the operations of the BOR system, as well as a cost-of-service

1 study for the BOR system. The instant base rate case also reflects claims for rate recovery
2 of the BOR transaction and closing costs delineated on Exhibit No. 3-A, as well as PAWC's
3 outside legal fees associated with the BOR acquisition identified on Exhibit No. 3-C.

4 In the settlement, PAWC agreed to establish a rate zone for BOR and to move the
5 BOR system to its cost of service or 1.7 times the current BOR wastewater rates, whichever
6 is lower, provided that such rates for BOR customers do not exceed the proposed Rate
7 Zone 1 system-average wastewater rate. In this case, PAWC has proposed an increase
8 equal to 1.7 times the current BOR wastewater rates. Please refer to Ms. Gress' direct
9 testimony for the proposed increases.

10 **VTW** – The instant base rate filing includes a \$7,325,000 addition to rate base as a result
11 of this acquisition, as agreed-to by the parties and approved by the Commission. The
12 instant base rate filing also includes a request for the recovery of transaction and closing
13 costs related to the VTW acquisition, separately identifying PAWC's outside legal fees.
14 Please refer to Exhibit No. 3-A for the request for transaction and closing costs and Exhibit
15 No. 3-C for identification of outside legal expenses for each Section 1329 acquisition
16 included in this rate case.

17 In the settlement, PAWC agreed to propose to increase the rates of the VTW System
18 to an amount equal to 2.0 times the current Valley Township water rates or PAWC's
19 proposed Rate Zone 1 system-average water rates, whichever is lower. The parties further
20 agreed that PAWC may propose an effective date for new rates for Valley water customers
21 that is different from the effective date of new rates for other customers. In this case,
22 PAWC has proposed an increase equal to 2.0 times the current VTW rates to become
23 effective on November 19, 2023.

1 **VTWW** – The instant base rate filing includes an \$13,950,000 addition to rate base as a
2 result of this acquisition, as agreed-to by the parties and approved by the Commission. The
3 instant base rate filing also includes a request for the recovery of transaction and closing
4 costs related to the VTWW acquisition, separately identifying PAWC’s outside legal fees.

5 In the settlement, PAWC agreed to increase the rates of the VTWW System to an
6 amount equal to 1.25 times the current Valley wastewater rates or PAWC’s proposed Rate
7 Zone 1 system-average wastewater rates, whichever is lower. The parties further agreed
8 that PAWC may propose an effective date for new rates for Valley wastewater customers
9 that is different from the effective date of new rates for other customers. In this case,
10 PAWC has proposed an increase equal to 1.25 times the current VTWW rates to become
11 effective on November 19, 2023.

12 **UPT** – The base rate filings include a \$13,750,000 addition to rate base as a result of this
13 acquisition, as agreed-to by the parties and approved by the Commission. In addition,
14 PAWC has prepared a cost-of-service study that removes all costs and revenues associated
15 with the operations of the UPT system, as well as a separate cost-of-service study for the
16 UPT System. The instant base rate case also includes a request for the recovery of
17 transaction and closing costs related to the UPT acquisition, separately identifying
18 PAWC’s outside legal fees.

19 PAWC agreed that it will propose to move the UPT System to its cost-of-service
20 based on a separate cost of service study for the UPT System; provided, that PAWC will
21 not propose wastewater rates for UPT customers in excess of PAWC’s proposed Rate Zone
22 1 system-average rates. In this base rate case, PAWC has proposed rates for UPT equal to
23 Zone 1 wastewater rates.

1 **York** – The instant base rate filing includes an additional to rate base in the amount of
2 \$231,500,000 as a result of this acquisition, as agreed-to by the parties and approved by
3 the Commission. Consistent with the settlement, this base rate filing also includes a cost-
4 of-service study that removes all costs and revenues associated with the operations of the
5 York System, as well as a separate cost-of-service study for the York System. The instant
6 base rate case also includes a request for transaction and closing costs related to the York
7 acquisition, separately identifying PAWC’s outside legal fees.

8 In the settlement, PAWC agreed to establish a rate zone for York and to propose
9 moving the York System to 1.47 times the current York wastewater rates or PAWC’s
10 proposed Rate Zone 1 system-average wastewater rates, whichever is lower. The parties
11 further agreed that PAWC may propose an effective date for new rates for the York System
12 that is different from the effective date of new rates for other customers provided that such
13 effective date is at least three years after closing. In this case, PAWC has proposed rates
14 1.47 times the current York System rates to be effective three years following the date the
15 acquisition closes, which PAWC anticipates will be in the second quarter of 2025.

16 **Q. PLEASE EXPLAIN YOUR UNDERSTANDING OF THE PENNSYLVANIA**
17 **LEGISLATURE’S INTENT IN ENACTING SECTION 1329 OF THE CODE.**

18 A. The General Assembly supported and encouraged the sale of municipal water and
19 wastewater systems at valuation levels higher than traditional original cost measures.
20 Some communities desire to monetize their assets to address other public needs. Due to
21 the age of many municipal systems, however, traditional original cost measures produced
22 very low sales prices, discouraging many transactions. By enabling the sale of municipal
23 assets to public utilities at higher valuations, the General Assembly intended to encourage

1 these transactions. This result also promotes the regionalization and consolidation of
2 water and wastewater systems. The Legislature also intended to improve the maintenance
3 and replacement of public infrastructure, and to promote environmental stewardship, by
4 facilitating transfers to public utilities with extensive technical expertise and financial
5 resources.

6 **Q. PLEASE EXPLAIN THE RATE-MAKING IMPLICATIONS OF A SECTION 1329**
7 **PROCEEDING.**

8 A. In a Section 1329 proceeding, the Commission establishes the amount that the acquiring
9 public utility can put into rate base in its next base rate case as a result of the acquisition.
10 In addition, the acquiring utility can include a claim for transaction and closing costs
11 incurred because of the transaction in its next base rate case. The acquiring utility may also
12 accrue AFUDC for post-acquisition improvements not recovered through the DSIC for
13 book and ratemaking purposes and defer depreciation related to post acquisition
14 improvements not recovered through the DSIC for book and ratemaking purposes. Finally,
15 the selling utility's cost of service is to be incorporated into the revenue requirement of the
16 acquiring public utility during the acquiring company's next base rate case.

17 **Q. WHAT IS YOUR UNDERSTANDING OF THE TERM "NEXT BASE RATE**
18 **CASE," AS USED IN SECTION 1329?**

19 A. Section 1329(d)(5) states "The selling utility's cost of service shall be incorporated into
20 the revenue requirement of the acquiring public utility as part of the acquiring utility's next
21 base rate case proceeding." My understanding from PAWC counsel is that the statute
22 should be construed using the ordinary definition of "next," which is "in the time, place or

1 order nearest or immediately succeeding.” Webster’s New Collegiate Dictionary 774
2 (1977). So, for example, for the UPT acquisition, which was approved by the Commission
3 on September 15, 2021, and is expected to close in the second quarter of 2022, the instant
4 base rate case would be the “next” base rate case because PAWC’s 2020 rate case was
5 concluded on February 25, 2021. Therefore, this is the first base rate case in which PAWC
6 should include UPT’s assets.

7 Similarly, for the York acquisition, the Commission’s order approving the
8 acquisition was entered on April 14, 2022, and closing is expected to occur shortly
9 thereafter. Since the instant proceeding will be ongoing at that time, for the York
10 acquisition, the “next” base rate case will be the instant rate proceeding – this proceeding
11 is the rate proceeding immediately following the Commission’s approval of the acquisition
12 and the company’s closing on the acquisition. Therefore, this is the first base rate case in
13 which PAWC should include York’s assets.

14 **Q. BASED ON YOUR EXPERIENCE WITH THE IMPLEMENTATION OF**
15 **SECTION 1329 AND PAWC’S COMPLETED AND PENDING SECTION 1329**
16 **ACQUISITIONS, WHY IS IT IMPORTANT TO AVOID DELAY IN INCLUDING**
17 **COMMISSION-APPROVED SECTION 1329 RATE BASE ADDITIONS IN RATE**
18 **BASE?**

19 **A.** There can be a considerable delay between the date a public utility closes on a Section 1329
20 acquisition (expending significant capital) and the date that the public utility is able to place
21 the Commission-approved rate base addition for that transaction into rate base. The
22 monetary impact is significant, considering the large investments that public utilities are

1 not able to recover for years. This regulatory lag provides a disincentive for an acquiring
2 utility to engage in Section 1329 acquisitions, which undermines the Legislative intent
3 behind Section 1329. Section 1329 would be ineffective if willing sellers could not find
4 willing buyers, due to the lengthy delay between closing on a transaction and the recovery
5 of those costs. The intended public benefits of acquisitions of municipal water and
6 wastewater systems – including the monetization of municipal assets, regionalization and
7 consolidation of systems, and remediation of environmental problems – are being impeded.

8 **Q. DOES THE COMMISSION HAVE THE ABILITY TO ADDRESS THE PROBLEM**
9 **OF LAG IN RATE RECOVERY OF SECTION 1329 ACQUISITIONS?**

10 A. Yes. The Commission should interpret Section 1329 to permit recovery for Section 1329
11 acquisitions that close while a base rate case is pending. For example, with respect to the
12 York acquisition (as discussed above), the Commission should consider the instant base
13 rate proceeding to be the “next base rate case” under Section 1329(c)(1)(i) when rate base
14 for acquired system can be incorporated into the public utility’s rate base. If the
15 Commission does not construe Section 1329 in a way that reduces regulatory lag and does
16 not permit public utilities to take the steps necessary to reduce regulatory lag, public
17 utilities may become less willing to engage in acquisitions or they may file base rate cases
18 more frequently. Neither result advances the public interest and the intent of the
19 Legislature in implementing Section 1329 would be impeded.

1 **WASTEWATER CAPACITY RESERVATION FEE**

2 **Q. IS THE COMPANY PROPOSING ANY CHANGES TO THE APPLICATION OF**
3 **THE CAPACITY RESERVATION FEE PROVISIONS SET FORTH AT PAGE 12**
4 **OF ITS WASTEWATER SERVICE TARIFF?**

5 A. Yes. PAWC is proposing tariff changes to limit the application of wastewater capacity
6 reservation fees to qualifying bulk customers. As shown in the proposed Wastewater
7 Tariff, PAWC is proposing to add a new provision that authorizes the Company to enter
8 into negotiated service agreements that establish discounted capacity reservation fees
9 designed to achieve flow stabilization and retain or attract bulk wastewater users for which
10 the customer has a viable alternative to service from the Company. These service
11 agreements will be subject to Commission review and approval.

12 **CONCLUSION**

13 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

14 A. Yes. However, I reserve the right to supplement my testimony as additional issues or facts
15 arise during the course of this proceeding.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY
COMMISSION**

v.

**PENNSYLVANIA-AMERICAN WATER
COMPANY**

**DOCKET NOS. R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

VERIFICATION

I, **Bernard J. Grundusky, Jr.**, 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: April 29, 2022



Bernard J. Grundusky, Jr.

Statement No. 8

Ciullo

PAWC STATEMENT NO. 8

**DIRECT TESTIMONY
OF
MELISSA CIULLO**

**WITH REGARD TO
PENNSYLVANIA-AMERICAN WATER COMPANY'S
INCOME TAXES, EXCESS ACCUMULATED DEFERRED INCOME TAX**

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

DATE: April 29, 2022

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., and its consolidated subsidiaries, including Pennsylvania-American
8 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 Hawaii Public Services Commission.

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

4 A. My testimony addresses (1) the Company's computation of income tax expense in
5 compliance with Act 40 of 2016 ("Act 40"), which added Section 1301.1 to the
6 Pennsylvania Public Utility Code, and (2) the amortization of excess accumulated deferred
7 income taxes ("EADIT").

8 **Computation of Income Taxes Consistent With Act 40**

9 **Q. What changes were made by Act 40?**

10 A. Act 40 became law on June 12, 2016, and became effective on August 11, 2016.
11 Section 1301.1(a) specifies how the Commission is to compute income tax expense for
12 ratemaking purposes. In addition, Section 1301.1(b) states how any incremental internally-
13 generated funds produced by the application of Section 1301.1(a) should be used by an
14 affected utility pending the December 31, 2025 "sunset" of Section 1301.1(b).

15 **Q. What does Section 1301.1 direct the Commission to do in calculating income tax**
16 **expenses for ratemaking purposes?**

17 A. In summary, Section 1301.1(a) provides that current and deferred income taxes of a
18 Pennsylvania utility are to be calculated for ratemaking purposes based only on the income,
19 deductions, and credits of the utility itself. Therefore, the Commission may not calculate
20 a utility's current and deferred income taxes for ratemaking purposes by taking into account
21 income, deductions (including taxable losses), or credits of the utility's parent or affiliated
22 companies with which it joins in filing a consolidated Federal income tax return. This is

generally referred to as a “stand-alone” computation of income tax expense because it reflects income tax expense of the utility “standing alone” and without regard to the taxable income, deductions, or credits of other companies in the same consolidated group.

Q. How does Section 1301.1(a) change prior Commission practice?

A. Section 1301.1(a) terminates the practice of making a “consolidated tax adjustment” (“CTA”) when calculating a utility’s Federal income taxes for ratemaking purposes in Pennsylvania. As directed by prior decisions of Pennsylvania appellate courts,¹ the Commission, until Act 40 became effective, was required to calculate CTAs employing the “Modified Effective Tax Rate Method,” which the Commission described as follows:

[U]nder the Modified Effective Tax Rate Method, which was approved under *Barasch II*, *supra*, the consolidated tax savings generated by the non-regulated companies of a corporate group are allocated to the regulated and non-regulated members of the group having positive taxable incomes.²

As calculated under the Modified Effective Tax Rate Method, a CTA captured a portion of the tax benefits of deductions – including taxable losses – of unregulated affiliates of public utilities and gave those benefits to the utilities’ customers (as lower income tax expense than the utilities would have on a “stand-alone” basis), even though the utilities’ customers did not pay the expenses that gave rise to those tax benefits. With the enactment of Act 40, Pennsylvania joined the vast majority of other jurisdictions, including the Federal Energy Regulatory Commission, that do not make CTAs for ratemaking purposes.

¹ *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*”).

² *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 Section**
14 **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 2016
17 through 2020, 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 \$3.1 million
19 corresponding to the CTA calculated in the manner I described above. In addition, PAWC
20 witness Ashley E. Everette (PAWC Statement No. 1) addresses the Company’s investment
21 of 50% of the differential in a manner that complies with Section 1301.1(b)(1).

22 **Excess Accumulated Deferred Income Taxes (EADIT)**

23 **Q. Please discuss the concept of ADIT.**

24 A. Generally speaking, Accumulated Deferred Income Tax (“ADIT”) is the result of
25 temporary timing differences between when an item of income or expense is reported on a

1 company's tax return and when that item is recognized by a company for financial
2 reporting purposes under generally accepted accounting principles ("GAAP"). For a
3 utility, such as PAWC, that maintains its books of account in accordance with GAAP and
4 uses book data as the basis for developing its revenue requirement for ratemaking purposes,
5 book-tax timing differences can also result in differences between when items of income
6 or expense are reflected in the utility's rates charged to customers and when the utility pays
7 to the Internal Revenue Service ("IRS") the taxes associated with an item of income or
8 obtains a tax deduction for an item of expense. The accumulated difference between the
9 income and expenses recognized per books and the income and expenses recognized for
10 tax reporting purposes as of the end of the applicable accounting period is multiplied by
11 the statutory tax rate that will apply to the reversal of that timing difference in order to
12 calculate the estimated ADIT balance as of the calculation date. The components of ADIT
13 are classified as either deferred income tax liabilities or deferred income tax assets.
14 Generally, a deferred tax liability ("DTL"), i.e., a tax liability that will be payable to the
15 taxing authority in the future, occurs when PAWC realizes the tax benefit of a deduction
16 before the expense that gave rise to that deduction is recognized on its books of account.
17 However, in this scenario, the tax benefit realized by PAWC is only temporary; it will
18 reverse in the future when PAWC recognizes the underlying expense for financial reporting
19 purposes but does not receive a corresponding tax deduction (since that deduction will have
20 already been taken in an earlier tax year). Thus, the tax liability has not been eliminated,
21 it is merely deferred. Because the Company obtains the tax benefit before the associated
22 expense is recorded on its books of account, a deferred tax furnishes a temporary cash-flow
23 benefit (i.e., reduced taxes). The time-value of that cash-flow benefit is recognized for

1 ratemaking purposes by deducting the associated deferred tax from the utility's rate base,
2 which effectively treats the deferred tax as zero-cost capital.³ It is important to note that
3 although the funds made available by DTLs are not investor-supplied, neither are they
4 customer-supplied. As explained above, those funds are, in fact, provided by the
5 government and, conceptually, correspond to an interest-free loan. Conversely, a deferred
6 tax asset ("DTA"), i.e. a tax benefit that will be realized in the future, occurs when PAWC
7 realizes the tax benefit of a deduction in an annual accounting period that occurs after it
8 recognizes the item of expense on its books. In this scenario, PAWC incurs an expense in
9 one tax year but does not receive the corresponding tax deduction until a subsequent tax
10 year. This produces a cash-flow detriment, and the associated time-value cost to PAWC
11 is typically recognized by recording DTAs as offsets to deferred tax liabilities. The DTA
12 will reverse in the future accounting period when PAWC gets a tax deduction for which
13 there is not a corresponding expense recognized per books. Thus, all deferred taxes,
14 whether they are DTLs or DTAs, reverse over time and converge to zero over the lives of
15 the underlying items giving rise to the cumulative deferred tax balance. Most utilities,
16 including the Company, carry a net deferred tax liability.

17 **Q. Did the corporate income tax reduction enacted by the Tax Cuts and Jobs Act of 2017**
18 **("TCJA") affect PAWC's ADIT balances?**

19 **A.** Yes. The reduction in corporate income taxes caused by the TCJA resulted in the Company
20 having a balance of EADIT. At December 31, 2017, PAWC had a net DTL balance

³ This assumes that the tax deduction can be monetized by reducing taxes otherwise payable to the taxing authority. If the deduction is not monetized because, for example, a company does not have any tax liability for the applicable tax year, a net operating loss is produced, which does not reduce the utility's rate base.

1 produced by the Company and its customers having temporarily benefitted from deductions
2 for accelerated tax depreciation deductions from income that was subject to a federal
3 corporate income tax rate of 35%. The TCJA reduced that tax rate to 21% effective January
4 1, 2018. As a result, a portion of the Company's DTL balance might become a permanent
5 tax benefit that will be realized over the life of the underlying property. That portion of
6 the Company's DTL balance that is no longer expected to be payable to the federal
7 government due to enactment of the TCJA is EADIT. The reduction in the tax rate has no
8 impact on the accumulated book-to-tax difference that exists, so the EADIT balance is only
9 a permanent benefit to the extent the federal tax rate remains at 21% for the entire period
10 over which the accumulated book-tax difference will reverse. If the tax rate were to
11 increase, the Company's ADIT balance would increase, and its EADIT balance would
12 decrease. Under applicable provisions of the Internal Revenue Code, portions of the
13 EADIT balance attributable to deductions that are subject to the requirement for
14 normalization must be returned to customers (amortized for book reporting and ratemaking
15 purposes) over a period determined by the Average Rate Assumption Method ("ARAM"),
16 which generally corresponds to the remaining life of the assets that gave rise to those
17 deductions. Violating the normalization requirement could result in a utility's loss of
18 eligibility to use accelerated forms of depreciation in calculating its Federal income tax
19 liability. The EADIT balances subject to the normalization requirement are referred to as
20 protected. EADIT balances that arise from deductions that are not subject to normalization
21 requirements need not conform to ARAM-determined amortization periods and are
22 referred to as unprotected.

1 **Q. Will the Company’s EADIT balance be returned to its customers?**

2 A. Yes, the Company’s EADIT balance will be returned to customers through rates over time.
3 The Commission, in its Opinion and Order in the Company’s last base rate case,⁴ approved
4 the amortization of PAWC’s protected EADIT over a period that conforms to ARAM in
5 order to conform to Internal Revenue Code’s normalization requirements and approved
6 PAWC’s amortization of unprotected EADIT over twenty years. In addition, as part of the
7 Company’s Non-Unanimous Settlement in that case (the “Settlement”), the Company
8 agreed to provide customers annual bill credits of \$10.5 million in 2021 and 2022 in the
9 form of a negative surcharge, to flow-back to customers all EADIT that the Company
10 amortized per books during the period from January 1, 2018 through December 31, 2020.⁵

11 **Q. Did the Company use the methods and amortization periods set forth in the**
12 **Settlement to amortize its EADIT balance?**

13 A. Yes, it did. However, as explained below, the base rates and bill credits approved in
14 PAWC’s last case have returned more EADIT to customers than contemplated utilizing the
15 amortization to which the parties agreed to in the Settlement. That agreed upon
16 amortization is set forth in Appendix E to the Settlement. If not corrected in the manner
17 explained below, amortizing PAWC’s total EADIT balance at a rate faster than that set
18 forth in Appendix E could have adverse consequences for PAWC going forward because

⁴ See *Pa. Pub. Util. Comm’n v. Pennsylvania-America Water Co.*, Docket Nos. R-2020-3019369 and R-2020-3019371 (Opinion and Order entered Feb. 25, 2021).

⁵ *Id.* See also *Joint Petition for Non-Unanimous Settlement of Rate Investigation*, Docket Nos. R-2020-3019369 and R-2020-3019371, ¶¶ 23-25.

1 the IRS could view the additional amortization as a violation of the Internal Revenue
2 Code's normalization requirements for protected EADIT.

3 **Q. Please explain how the accelerated amortization of EADIT occurred.**

4 A. In its prior base rate case, as initially filed, the Company proposed: (1) to amortize
5 protected EADIT and plant-related unprotected EADIT over the ARAM period; (2) to
6 amortize non-plant related EADIT over 20 years; and (3) to amortize the \$17,855,412 of
7 EADIT that had been amortized per books during the period from January 1, 2018 through
8 December 31, 2020 (the "catch-up" amount) over a 3-year period at an annual rate of
9 \$5,951,804. Pursuant to the terms of the Settlement, the Company agreed to accelerate the
10 amortization period for the catch-up amount to 2 years and also agreed to accelerate the
11 amortization period for all unprotected EADIT (both plant-related and non-plant related)
12 to 20 years. As previously noted, to reflect the 2-year amortization of the catch-up amount
13 being returned to customers, the Company agreed to provide a \$10.5 million annual bill
14 credit, for a total of \$21 million over 2021 and 2022. The \$10.5 million annual credit
15 results in an annual reduction in EADIT of \$7.46 million after adjusting for the state and
16 Federal tax benefits PAWC receives from the associated reduction in net income.⁶ Thus,
17 in total, the Company provided an annual amortization of \$13.41 million (\$5.95 million
18 reflected in the revenue requirement used to establish base rates + \$7.46 million returned
19 to customers through the annual credit). However, the annual catch-up period amortization
20 shown on page 5 of Appendix E was \$12.03 million. Thus, the annual expense shown on

⁶ PAWC's composite Pennsylvania (9.99%) and Federal (21%) income tax rate is 28.89 %, calculated as follows: $0.0999 + [(1.0 - .0999) \times 0.21]$. Accordingly, the after-tax cost of \$10.5 million in annual bill credits is \$10.5 million $\times (1.0 - 0.2889)$, or 0.71. Thus, the associated after-tax cost of \$10.5 million of annual bill credits is \$7.46 million (\$10.5 million $\times 0.71$).

Appendix E understates the Settlement credit by \$1.38 million annually (\$13.41 million - \$12.03 million), or \$2.76 million over the two-year period of the Settlement credit.

Q. How does the Company propose correcting for the additional EADIT amortization that was factored into the revenue requirement to set rates in PAWC's last base rate case?

A. The Company proposes to correct for the additional EADIT amortization by reducing the balance of the unprotected EADIT by \$2.76 million as of the beginning of the Fully Projected Future Test Year in this case to reflect the fact that an excess EADIT benefit in that amount has already been accounted for in the revenue requirement from the prior rate case.

Q. Why is it important to make the proposed adjustment to the unprotected EADIT balance in this case?

A. By specifically identifying the excess amortization that occurred under the rates established in PAWC's last case as related solely to unprotected EADIT and making an appropriate adjustment to correct for that accelerated amortization in this case, PAWC will be able to clearly demonstrate to the IRS that it did not intentionally amortize an additional amount of protected EADIT. An intentional, uncorrected excessive amortization of protected EADIT could be viewed as a violation of the normalization requirements of the Internal Revenue Code and jeopardize PAWC's eligibility to use accelerated methods of depreciation for tax purposes going forward. Adjusting the unprotected EADIT balance that will be amortized in this and future cases over the remainder of the 20-year amortization period for unprotected EADIT will avoid the potential for a normalization

1 violation while also ensuring that customers receive the exact amount of the EADIT benefit
2 that results from the reduction in the Federal corporate income tax rate from 35% to 21%.

3 **Conclusion**

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

5 A. Yes, it does.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PENNSYLVANIA PUBLIC UTILITY
COMMISSION**

v.

**PENNSYLVANIA-AMERICAN WATER
COMPANY**

**DOCKET NOS. R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

VERIFICATION

I, **Melissa Ciullo**, 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: April 29, 2022



Melissa Ciullo

Statement No. 9

Swiz

**DIRECT TESTIMONY
OF
J. CAS SWIZ**

**WITH REGARD TO
PENNSYLVANIA-AMERICAN WATER COMPANY'S
UNCOLLECTIBLE ACCOUNTS EXPENSE ADJUSTMENT AND PROPOSED
TRACKING MECHANISM; COVID-19 FINANCIAL IMPACT DEFERRAL
AMORTIZATION**

**DOCKET NOS.
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)**

DATE: April 29, 2022

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 of Regulatory Services. Service Company is a wholly owned subsidiary
8 of American Water Works Company, Inc. (“American Water”) that provides services to
9 Pennsylvania-American Water Company (“PAWC” or “the Company”).

10 **Q. Please summarize your educational background and professional experience.**

11 A. I am a 2001 graduate of the University of Evansville with a Bachelor of Science degree in
12 Accounting, and a 2005 graduate of the University of Southern Indiana with a Master of
13 Business Administration. From 2001 to 2003, I was employed by ExxonMobil Chemical
14 as a Product and Inventory accountant. From 2003 through 2020, I was employed by
15 Vectren Corporation and CenterPoint Energy in various accounting and regulatory roles.
16 Most recently, I was Director, Regulatory and Rates with responsibility for leading and
17 executing the regulatory strategy of CenterPoint Energy’s Indiana and Ohio electric and
18 gas jurisdictions. In November 2020, I was hired by the Service Company within
19 Regulatory Services.

1 **Q. What are your duties as Senior Director of Regulatory Services?**

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. No, I have not.

11 **Q. Have you previously submitted testimony before other regulated jurisdictions?**

12 A. Yes. During my employment at Vectren, I submitted testimony on behalf of Vectren
13 Corporation, a CenterPoint Energy Company, in Indiana before the Indiana Utility
14 Regulatory Commission in various docketed proceedings supporting accounting and rate
15 design requests, most recently in Cause Nos. 45378, 44429, and 44430. In addition,
16 I submitted testimony on behalf of Vectren Corporation in Ohio before the Public Utility
17 Commission of Ohio in various docketed proceedings, most recently in Case Nos. 20-0099-
18 GA-RDR, 20-0101-GA-RDR, and 18-0298-GA-AIR.

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

20 A. The purpose of my testimony is two-fold. First, I will identify and describe PAWC’s claim
21 for uncollectible accounts expense as presented in the Company’s principal accounting
22 exhibits. I will also discuss PAWC’s proposal to establish a tracker and deferral accounts
23 to reflect differences that occur, between base rate cases, in the annual amount of

1 uncollectible accounts expense reflected in base rates and the actual annual amount of
2 uncollectible accounts expense the Company incurs. The differences, which could be
3 positive or negative, would be reflected in rates in a subsequent rate case. Second, I will
4 support the Company's request to recover the deferred amounts recorded to the regulatory
5 asset for incremental COVID-19 related financial impacts authorized by the Commission's
6 September 15, 2021 Order at Docket No. P-2020-3022426 ("COVID-19 Deferral
7 Accounting Order").

8 **Uncollectible Accounts Expense**

9 **Q. Please describe the Company's proposed level of uncollectible accounts expense**
10 **reflected in PAWC's revenue requirement for the fully projected future test year**
11 **("FPFTY") ending December 31, 2023.**

12 Consistent with prior rate cases, PAWC calculated its claim for uncollectible accounts
13 expense using a three-year historic average ratio of net write-offs as a percentage of sales
14 revenues. As shown in Table 1 below, the uncollectible accounts rate (1.205%) was
15 calculated by using the Company's actual write-off experience for 2017 through 2019
16 divided by PAWC's total billed revenues for the same three years.

17 **Table 1**

	2017	2018	2019	Three-Year Average
Net Write-Off Activity	\$ 7,629,139	\$ 8,772,003	\$ 8,423,765	\$ 8,274,969
Total Billed Revenues	\$ 664,021,630	\$ 709,490,271	\$ 687,296,135	\$ 686,936,012
Average Write-Off Percentage	1.149%	1.236%	1.226%	1.205%

18
19 Applying the three-year average rate of net write-offs to the FPFTY level of total Company
20 revenues for water and wastewater operations results in an annual level of uncollectible

1 expense reflected in new base rates established at the conclusion of this proceeding, as
2 shown on Exhibit No. 3-A, Calculation of Uncollectible Accounts Expenses.

3 **Q. Why is it reasonable and appropriate to exclude 2020 and 2021 from the three-year**
4 **average percentage of net write-offs used to calculate uncollectible expense in this**
5 **proceeding?**

6 A. The Company used a three-year historic average for 2017-2019 period to normalize the
7 rate of uncollectible accounts to pre-COVID-19 levels. In response to the COVID-19
8 emergency, the Company implemented several measures to help customers deal with the
9 financial impact of the pandemic, including ceasing service terminations for non-payment
10 from March 12, 2020 through March 31, 2021. The Company resumed collections
11 activities on April 1, 2021, at which point the customer account would be evaluated for
12 disconnection if payment was not received within 90 days from the last billing period.
13 Because of this timeline, in many instances overdue account balances dating back to March
14 2020 were not written off until late summer 2021, or roughly 150-180 days after collection
15 activities resumed. As a result and as shown in Table 2, PAWC experienced variances in
16 monthly net write-offs in 2020 and 2021 compared to pre-pandemic levels.

Table 2¹

Net Write-Off's	2017	2018	2019	2020	2021
Jan	\$ 716,536	\$ 685,641	\$ 912,390	\$ 764,828	\$ 349,586
Feb	\$ 559,995	\$ 692,680	\$ 618,529	\$ 346,622	\$ 297,714
Mar	\$ 662,432	\$ 592,584	\$ 499,215	\$ 606,378	\$ 484,338
Apr	\$ 303,116	\$ 332,690	\$ 480,307	\$ 404,114	\$ 305,722
May	\$ 597,020	\$ 600,851	\$ 568,274	\$ 418,735	\$ 424,310
Jun	\$ 558,589	\$ 913,277	\$ 472,574	\$ 549,243	\$ 499,818
Jul	\$ 591,294	\$ 813,965	\$ 558,600	\$ 410,939	\$ 596,656
Aug	\$ 891,413	\$ 910,428	\$ 1,099,073	\$ 200,884	\$ 1,502,577
Sep	\$ 630,558	\$ 938,943	\$ 822,732	\$ 268,270	\$ 1,405,223
Oct	\$ 830,307	\$ 870,953	\$ 831,211	\$ 189,356	\$ 720,472
Nov	\$ 638,288	\$ 699,334	\$ 684,167	\$ 359,632	\$ 942,686
Dec	\$ 649,591	\$ 720,657	\$ 876,692	\$ 386,722	\$ 1,103,004
Annual	\$ 7,629,139	\$ 8,772,003	\$ 8,423,765	\$ 4,905,724	\$ 8,632,107

Q. Did PAWC create a regulatory asset for its incremental uncollectible accounts expense related to COVID-19 emergency?

A. Yes. On May 13, 2020, the Commission issued a Secretarial Letter² that recognized the additional costs and other financial impacts that the COVID-19 emergency imposed on utilities as life sustaining businesses, including the increased costs directly resulting from the service-termination moratorium established by the Emergency Order issued by PUC Chairman Gladys Brown Dutrieuille on March 13, 2020.³ The May 2020 Secretarial Letter directed utilities to track incremental COVID-19 related expenses and any government assistance that would offset those expenses and permitted utilities to establish a regulatory

¹ Table 2 presents net write-offs for 2017 through 2021. The disconnection moratorium period is highlighted in green.

² *COVID-19 Cost Tracking and Creation of Regulatory Asset*, Docket No. M-2020-3019775 (Secretarial Letter issued May 13, 2020) ("May 2020 Secretarial Letter").

³ *Public Utility Service Termination Moratorium Proclamation of Disaster Emergency-COVID-19*, Docket No. M2020-3019244 (Emergency Order ratified Mar. 26, 2020) ("Emergency Order").

1 asset for uncollectible accounts expenses attributable to compliance with the Emergency
2 Order.

3 Consistent with the approval granted by the Commission in the May 2020
4 Secretarial Letter, which was affirmed by the COVID-19 Deferral Accounting Order,⁴
5 PAWC established a regulatory asset to record its COVID-19 related incremental bad debt
6 expense equal to the amount above the uncollectible expense level reflected in rates. I will
7 discuss the deferred amounts of uncollectible accounts expense later in my direct
8 testimony.

9 **Q. Please describe the Company's proposal to establish a tracker mechanism for**
10 **uncollectible accounts expense.**

11 A. Due to the impacts of the COVID-19 emergency, the annual level of uncollectible expense
12 included for recovery in PAWC's base rates is difficult to forecast. Specifically, since
13 2020, PAWC has experienced material increases in unpaid account balances and aging
14 accounts receivable from customers, as shown in Table 3 below.

15 **Table 3**

Receivables Balance as of December 31			
Aging Category	2021	2020	2019
Current	\$ 29,962,859	\$ 29,490,102	\$ 31,858,759
31-150 Days	\$ 17,097,845	\$ 27,830,991	\$ 17,001,532
>150 Days	\$ 25,584,544	\$ 19,943,113	\$ 11,702,429
Total	\$ 72,645,248	\$ 77,264,206	\$ 60,562,720

16
17 As of December 31, 2021, the Company has experienced an approximate 20% increase in
18 overall unpaid account balances from 2019 (pre-COVID-19 emergency), with arrearages
19 that are more than 150 days overdue up nearly 119% from the level in 2019. While the

⁴ See May 2020 Secretarial Letter, p. 2; COVID-19 Deferral Accounting Order, pp. 49-50.

1 Company resumed collections activities and service terminations for non-payment in April
2 2021, unpaid customer account balances accumulated during PAWC's moratorium on
3 service disconnections, and the ongoing effects of the COVID-19 emergency on customers,
4 along with rising U.S. inflation rates, continue to impact the Company's accounts
5 receivable. Therefore, PAWC is proposing a tracker mechanism and deferral account for
6 its uncollectible accounts expense.

7 **Q. What is the difference between a tracker mechanism and a rate adjustment clause**
8 **established under Section 1307 of the Code?**

9 A. Under the mechanism proposed by PAWC, the differences between the uncollectible
10 accounts expense included in the Company's rates and its actual uncollectible accounts
11 expense will be tracked and recorded in a deferral account. The net balance in the account
12 would represent a deferral – either as a regulatory liability or regulatory asset – that would
13 be credited to, or recovered from, customers in a subsequent base rate case by means of an
14 appropriate amortization. In contrast, a rate adjustment mechanism established under
15 Section 1307 of the Code typically involves billing customers a charge calculated to
16 recover a projected annual cost. Annually (or more frequently), the amount billed to
17 customers is reconciled to the utility's actual cost and the difference is either recovered
18 from or refunded to customers through the experience or "E" factor of the formula for the
19 rate adjustment clause. In that way, customer rates are periodically adjusted to reflect
20 changes in actual costs and the reconciliation of prior-period over or under-collections.

21 Under a rate adjustment clause, customer rates are subject to change between base
22 rate cases. Under the tracker mechanism the Company is proposing for uncollectible
23 accounts expense, variations between projected and actual expenses will be recorded and

1 deferred, but customer rates will not reflect the net impact of those variations until new
2 rates are authorized in a future base rate case.

3 **Q. Please explain how the proposed uncollectible expense tracker will work.**

4 A. The Company will track the difference between uncollectible accounts expense included
5 for recovery in its Commission-approved base rates and actual uncollectible accounts
6 expense recorded to National Association of Regulatory Utility Commissioners
7 (“NARUC”) Uniform System of Accounts (“USoA”) Account 670. Each month, one-
8 twelfth (1/12) of the amount authorized for recovery in base rates (“base level”) will be
9 compared to the Company’s actual monthly uncollectible accounts expense. Actual
10 uncollectible accounts expense above or below the base level will be credited or debited,
11 as applicable, each month in a deferral account (NARUC USoA Account 186.3) on the
12 Company’s general ledger. The Company will continue to defer the net balance recorded
13 in that account through the end of its next base rate case. PAWC will not accrue and defer
14 carrying costs on the deferred balance.

15 In its next base rate case, the net credit or debit balance in the deferral account,
16 which will represent either a regulatory asset or regulatory liability as applicable, will be
17 amortized to income over an appropriate period as either an increase or decrease,
18 respectively, to uncollectible accounts expense. In this way, any over-recovery of such
19 expense will be returned to customers, and any shortfall will be recovered by the Company.
20 In subsequent base rate cases, the amount of uncollectible accounts expense included for
21 recovery in base rates will be re-established using a three-year historic average of net write
22 offs as a percentage of sales revenues.

1 **Q. Are there advantages to customers if uncollectible accounts expense is recovered**
2 **through a tracking mechanism as proposed by PAWC?**

3 Yes. The tracking mechanism provides protection to both customers and the Company
4 from the variations between forecasted and actual uncollectible accounts expense that
5 occur. The tracking mechanism assures that risks and rewards are symmetrical. Neither
6 customers nor the Company would be required to bear more than the Company's actual
7 costs incurred for uncollectible accounts.

8 **Q. How will the regulatory asset for incremental COVID-19 related uncollectible**
9 **accounts expense authorized by the May 2020 Secretarial Letter and the COVID-19**
10 **Deferral Accounting Order transition to the tracking mechanism proposed by the**
11 **Company in this proceeding?**

12 A. As I explain further in my testimony, the Company is proposing to include the cumulative
13 deferred balance of its COVID-19 regulatory asset as of February 28, 2022 in base rates in
14 this proceeding, and will update that balance during the pendency of this proceeding as it
15 becomes available. The date the COVID-19 regulatory asset balance is captured for
16 inclusion in base rates will represent the cut-off period for transition to the tracking
17 mechanism proposed by the Company in this proceeding if approved. Any incremental
18 COVID-19 related uncollectible accounts expense above or below the amount embedded
19 in PAWC's base rates after this date will be recorded in the proposed uncollectible expense
20 deferral account.

1 **PAWC's COVID-19 Regulatory Asset**

2 **Q. Please summarize the financial impacts PAWC has experienced to meet the**
3 **challenges of furnishing essential services since March of 2020 and the COVID-19**
4 **Deferral Accounting Order.**

5 A. After Governor Tom Wolf issued the Proclamation of Disaster Emergency on March 6,
6 2020, PAWC initiated a comprehensive COVID-19 response so that it could continue to
7 furnish safe and reliable water and wastewater service while protecting the health and
8 safety of its customers and employees. First, the Company implemented several measures
9 to mitigate financial impacts on customers, including ceasing service terminations for non-
10 payment in accordance with the Emergency Order, reconnecting customers previously
11 disconnected for non-payment, and waiving all late fees and interest on past-due accounts.
12 In addition, the Company instituted various operational and workforce changes to protect
13 employees and customers from the threat posed by COVID-19. These measures had a
14 significant financial impact on the Company. To that end, on October 15, 2020, PAWC
15 filed a Petition at Docket No. P-2020-3022426 requesting that the Commission authorize
16 the Company to defer for accounting purposes specific expenses and revenue losses PAWC
17 incurred in ensuring continued water and wastewater service for its customers throughout
18 the COVID-19 emergency.

19 In the COVID-19 Deferral Accounting Order (pp. 12-13, 30-32, 42, 49-50), the
20 Commission authorized PAWC to record COVID-19 related direct costs and savings as a
21 regulatory asset, along with incremental COVID-19 related uncollectible accounts
22 expense, and carrying charges on the deferred amounts. The Commission rejected the
23 proposals of the Bureau of Investigation and Enforcement and the Office of Consumer

1 Advocate (“OCA”) to limit the types and amounts of COVID-19 expenses directly incurred
2 by PAWC.⁵ The Commission also found that the OCA’s proposal for an uncollectible
3 expense deferral “baseline” clearly conflicts with the Commission’s prescribed approach
4 for calculating deferrals in the May 2020 Secretarial Letter based on all uncollectible
5 accounts expense above the amount currently reflected in PAWC’s approved base rates.⁶
6 Finally, the PUC declined to establish a “hard cut-off date” after which no further
7 COVID-19 related amounts could be deferred.⁷

8 **Q. Please describe the Company’s claim for recovery of its COVID-19 regulatory asset**
9 **in this proceeding.**

10 A. As shown on Exhibit No. JCS-1, pages 1-2, the Company has recorded a net debit balance
11 of \$8,571,037 in its COVID-19 regulatory asset as of February 28, 2022 before carrying
12 costs, with an additional \$687,787 of carrying costs calculated on the deferral as explained
13 later in my testimony. PAWC proposes to include the full deferred balance with carrying
14 costs in base rates, amortized over three years. The Company is not proposing to include
15 the COVID-19 regulatory asset within its proposed rate base in this proceeding.

16 **Q. The amount included in Exhibit No. 3-A, Amortization Expense differs from the total**
17 **amount with carrying costs you cite above⁸. Can you please explain the difference?**

18 A. The amount included in Exhibit No. 3-A reflects the actual balance on PAWC’s general
19 ledger as of February 28, 2022, which includes carrying costs through February 2022 of

⁵ COVID-19 Deferral Accounting Order, p. 31.

⁶ COVID-19 Deferral Accounting Order, pp. 13-14.

⁷ COVID-19 Deferral Accounting Order, p. 48.

⁸ \$8,967,402 has been deferred as of February 28, 2022, amortized over three years, for an annual amortization of \$2,992,134.

1 \$405,364. As I explain further below, the carrying cost calculation included in Exhibit
2 No. JCS-1 (pages 1-2 and 6) reflects the assumption that the balance is not recovered in
3 rates until January 2023, at the earliest. As such, the carrying costs will continue to accrue
4 against the deferral until recovery begins. Absent any additional deferral of financial
5 impacts after February 2022, the carrying costs will grow to \$687,787 by January 2023.

6 **Q. Is PAWC continuing to defer activity to the COVID-19 regulatory asset after**
7 **February 28, 2022?**

8 A. Yes, PAWC continues to defer activity to the COVID-19 regulatory asset consistent with
9 the May 2020 Secretarial Letter and the COVID-19 Deferral Accounting Order. As
10 explained earlier in my testimony, the Company continues to defer incremental
11 uncollectible expense above or below the authorized level in base rates to both comply
12 with the existing authorization and with the Company's proposal in this proceeding.
13 PAWC will update the regulatory asset balance throughout the duration of this base rate
14 proceeding to capture any additional COVID-19 financial impacts.

15 **Q. Did PAWC calculate the incremental uncollectible accounts expense recorded in its**
16 **COVID-19 regulatory asset consistent with the methodology prescribed in the May**
17 **2020 Secretarial Letter?**

18 A. Yes. As of February 28, 2022, the Company has recorded \$8,667,342 for COVID-19
19 related incremental uncollectible accounts expense. As shown on Exhibit No. JCS-1,
20 page 3, PAWC calculated the \$8,667,342 deferred amount by reducing the actual level of
21 uncollectible accounts expense recorded in NARUC USoA Account 670 for the months
22 March 2020 through February 2022 – \$28,507,371 – by the amount of uncollectible
23 accounts expense embedded in PAWC's existing rates (prorated by month) – \$19,840,029.

1 For 2020, the amount of uncollectible expense embedded in PAWC's base rates is
2 determined from the Company's 2017 base rate case at Docket No. R-2017-2595853. To
3 calculate the baseline level of uncollectible expense for rates in effect from March 2020
4 through January 2021, the Company applied the 1.484% uncollectible rate proposed in its
5 initial filing⁹ to the revenues produced by the PUC-approved settlement of the PAWC's
6 2017 rate case.¹⁰ That calculation produces an annual \$10,672,121 baseline level of
7 expense, which was prorated for the months of March 2020 through January 2021.

8 The annual baseline uncollectible accounts expense embedded in PAWC's base
9 rates effective from February 1, 2021 through December 31, 2021 is \$9,234,800, calculated
10 as sales revenues permitted by the PUC's Final Order and Opinion entered on February 25,
11 2021 times the uncollectible rate of 1.20% proposed in the Company's 2020 base rate case
12 at Docket Nos. R-2020-3019369 and R-2020-3019371. This amount was prorated for the
13 eleven months ended December 31, 2021. For 2022, the annual uncollectible accounts
14 expense embedded in PAWC's base rates is \$9,475,297, calculated as the same
15 uncollectible rate multiplied by the sales revenues permitted by the PUC's Final Order and
16 Opinion.

17 **Q. How did PAWC calculate the COVID-19-related direct costs and savings recorded in**
18 **the COVID-19 regulatory asset?**

19 **A.** PAWC began to incur cost increases associated with the COVID-19 emergency in March
20 2020. The Commission-approved rates established in the Company's 2017 and 2020 rate
21 cases also did not include a "normalized" level of these costs due to the extraordinary

⁹ Docket No. R-2017-2595853, Exhibit No. 3-A, page 58.

¹⁰ Docket No. R-2017-2595853, Joint Petition for Settlement, Appendix C, Summary Proof of Revenues.

1 nature of these expenses and the rapidly evolving COVID-19 emergency. As a result,
2 PAWC is tracking and recording only those expense items (and cost savings) that the
3 Company has determined were incurred (or realized) as a direct result of the COVID-19
4 emergency. As of February 28, 2022, PAWC has recorded a net credit of \$(96,305) in its
5 COVID-19 regulatory asset for direct costs and savings. PAWC has not separately
6 recorded in the COVID-19 regulatory asset COVID-19 direct costs and savings
7 experienced from and after February 1, 2022 and those amounts are reflected in the
8 Company's expense accounts used to establish base rates in this proceeding.

9 Incremental direct costs associated with the COVID-19 emergency have been
10 identified within the Company's Enterprise Resource Planning ("ERP") system. Specific
11 tracking numbers within the ERP system were created to capture certain increased
12 operating and maintenance ("O&M") expenses related to the emergency, such as facility
13 preparedness, personal protective equipment, sanitizers, signage, rental equipment,
14 enhanced cleaning in areas where positive COVID-19 cases have been confirmed, etc. This
15 method of tracking and recording ensures that incremental, non-recurring costs triggered
16 by the COVID-19 emergency are not reflected in the O&M expense accounts used to
17 establish new rates in this proceeding. PAWC has recorded \$1,887,231 of COVID-19
18 related direct costs through February 28, 2022. Exhibit No. JCS-1, pages 4-5 show the
19 deferred amounts by O&M expense category.

20 As discussed above, PAWC has also tracked and recorded costs that have decreased
21 as a result of the COVID-19 emergency to offset the deferred amounts that PAWC claiming
22 for recovery in rates in this case. In particular, PAWC has offset the \$1,887,231 of direct
23 costs recorded in the COVID-19 deferral with the significant reduction in travel expenses

1 during the COVID-19 emergency.¹¹ The Company calculated these savings by comparing
2 actual expenses related to travel and conferences since the beginning of the COVID-19
3 emergency (March 2020) to the 2019 level of expenses. The total cost savings deferred
4 through February 28, 2022 is a credit of \$(1,983,536).

5 **Q. How did PAWC calculate the carrying costs on the deferred amounts recorded to the**
6 **COVID-19 regulatory asset as authorized by PUC in the COVID-19 Deferral**
7 **Accounting Order (p. 42)?**

8 A. PAWC used the Act 6 Residential Lending Rates as published monthly by the Pennsylvania
9 Department of Banking and Securities. The net balance in the COVID-19 regulatory asset
10 for each month was multiplied by the applicable monthly interest rate, with the total months
11 of interest expense representing the remaining period between the charge month and
12 January 2023, the first month PAWC expects the COVID-19 regulatory asset will be
13 recovered in rates. Exhibit No. JCS-1, page 6 shows the detailed calculation of the carrying
14 costs.

15 **Q. Is the calculation of carrying costs on the COVID-19 regulatory asset consistent with**
16 **other PAWC regulatory assets/liabilities?**

17 A. Yes. PAWC uses this same calculation in determining carrying costs in its quarterly
18 Distribution System Improvement Charge (“DSIC”).

19 **Q. Will these carrying costs change if PAWC defers any additional amounts to the**
20 **COVID-19 regulatory asset after February 28, 2022?**

¹¹ Travel and conference savings include both PAWC expenses and Service Company costs that would have been charged to PAWC.

1 A. Yes. As PAWC updates this balance throughout the duration of this base rate proceeding
2 to capture any additional COVID-19 financial impacts, the carrying costs through January
3 2023 (or actual effective date of rates in this proceeding) will be updated to include this
4 activity.

5 **Conclusion**

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

7 A. Yes, it does.

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	Reference	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
1	Incremental Expenses												
2	State	\$ 12,380	\$ 197,186	\$ 163,923	\$ 155,671	\$ 74,893	\$ 146,334	\$ 25,651	\$ 99,336	\$ 63,478	\$ 89,452	\$ 63,595	\$ 105,988
3	Service Company	\$ 1,484	\$ 11,399	\$ 33,430	\$ 9,766	\$ 48,838	\$ 65,138	\$ (4,119)	\$ 5,104	\$ 15,915	\$ 1,671	\$ 19,361	\$ 3,751
4	Total Incremental Expenses [Line 2 + Line 3]	\$ 13,864	\$ 208,585	\$ 197,353	\$ 165,437	\$ 123,731	\$ 211,472	\$ 21,532	\$ 104,440	\$ 79,393	\$ 91,123	\$ 82,956	\$ 109,739
5	Uncollectible Expense												
6	Total	\$ 1,016,737	\$ 636,818	\$ 1,208,140	\$ 1,307,389	\$ 1,410,490	\$ 1,628,689	\$ 865,566	\$ 1,394,054	\$ 1,685,556	\$ 1,013,276	\$ 2,908,471	\$ 1,637,196
7	Less: Authorized Base Level	\$ 745,981	\$ 491,985	\$ 758,788	\$ 832,425	\$ 846,299	\$ 1,241,168	\$ 1,037,330	\$ 1,090,691	\$ 872,979	\$ 964,761	\$ 993,574	\$ 688,916
8	Net Incremental [Line 6 - Line 7]	\$ 270,756	\$ 144,833	\$ 449,352	\$ 474,964	\$ 564,191	\$ 387,521	\$ (171,764)	\$ 303,363	\$ 812,577	\$ 48,515	\$ 1,914,897	\$ 948,280
9	Cost Savings												
10	PAWC Actual Travel and Conferences	\$ 78,288	\$ (30,269)	\$ 19,863	\$ 50,734	\$ (23,830)	\$ 28,289	\$ 32,836	\$ 9,487	\$ 10,263	\$ 52,725	\$ (8,697)	\$ 8,617
11	2019 Baseline Travel and Conferences	\$ 44,550	\$ 104,216	\$ 104,347	\$ 83,732	\$ 102,874	\$ 60,960	\$ 65,955	\$ 8,296	\$ 20,137	\$ 106,890	\$ 16,975	\$ 51,508
12	Incremental Savings - PAWC [Line 10 - Line 11]	\$ 33,739	\$ (134,486)	\$ (84,484)	\$ (32,997)	\$ (126,704)	\$ (32,671)	\$ (33,119)	\$ 1,191	\$ (9,873)	\$ (54,165)	\$ (25,672)	\$ (42,891)
13	Service Company Actual Travel and Conferences	\$ 24,303	\$ (13,311)	\$ 2,493	\$ 941	\$ 3,628	\$ 1,270	\$ 7,578	\$ 2,751	\$ 5,463	\$ 15,632	\$ 6,962	\$ 4,754
14	2019 Baseline Travel and Conferences	\$ 59,019	\$ 56,474	\$ 54,675	\$ 48,587	\$ 21,699	\$ 50,899	\$ 62,087	\$ 56,543	\$ 32,317	\$ 57,262	\$ 37,687	\$ 64,533
15	Incremental Savings - Service Company [Line 13 - Line 14]	\$ (34,716)	\$ (69,785)	\$ (52,182)	\$ (47,645)	\$ (18,071)	\$ (49,629)	\$ (54,508)	\$ (53,792)	\$ (26,854)	\$ (41,631)	\$ (30,725)	\$ (59,779)
16	Total Incremental Savings [Line 12 + Line 15]	\$ (978)	\$ (204,270)	\$ (136,666)	\$ (80,643)	\$ (144,776)	\$ (82,299)	\$ (87,627)	\$ (52,601)	\$ (36,727)	\$ (95,795)	\$ (56,397)	\$ (102,670)
17	Total Deferral Activity before Carrying Costs [Line 4 + Line 8 + Line 16]	\$ 283,642	\$ 149,148	\$ 510,039	\$ 559,758	\$ 543,146	\$ 516,693	\$ (237,859)	\$ 355,202	\$ 855,243	\$ 43,843	\$ 1,941,456	\$ 955,350
18	Carrying Costs	\$ 36,164	\$ 17,432	\$ 51,004	\$ 50,611	\$ 47,525	\$ 46,825	\$ (19,425)	\$ 27,972	\$ 64,856	\$ 3,425	\$ 145,609	\$ 68,666
19	Total Deferral Activity with Carrying Costs [Line 17 + Line 18]	\$ 319,806	\$ 166,580	\$ 561,043	\$ 610,369	\$ 590,671	\$ 563,518	\$ (257,284)	\$ 383,174	\$ 920,099	\$ 47,268	\$ 2,087,065	\$ 1,024,016

	Reference	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Actual Activity - through Feb-22		
1	Incremental Expenses														1	
2	State	\$ 87,896	\$ 79,111	\$ 27,199	\$ 64,861	\$ 29,402	\$ 22,136	\$ 21,299	\$ 30,191	\$ 23,695	\$ 19,936	\$ 45,310	\$ -	\$ 1,648,922	2	
3	Service Company	\$ 1,547	\$ 1,644	\$ 2,826	\$ 4,783	\$ 1,501	\$ 7,908	\$ (4,253)	\$ 3,650	\$ 3,611	\$ 3,354	\$ -	\$ -	\$ 238,309	3	
4	Total Incremental Expenses	[Line 2 + Line 3]	\$ 89,443	\$ 80,755	\$ 30,025	\$ 69,644	\$ 30,903	\$ 30,044	\$ 17,046	\$ 33,841	\$ 27,306	\$ 23,290	\$ 45,310	\$ -	\$ 1,887,231	4
5	Uncollectible Expense														5	
6	Total	\$ 510,996	\$ 50,607	\$ 1,721,040	\$ 912,404	\$ 1,807,117	\$ 1,847,288	\$ 1,004,672	\$ 704,249	\$ 850,656	\$ 703,732	\$ 1,401,341	\$ 280,887	\$ 28,507,371	6	
7	Less: Authorized Base Level	\$ 645,513	\$ 425,724	\$ 656,594	\$ 720,314	\$ 732,320	\$ 1,074,007	\$ 897,623	\$ 943,797	\$ 755,407	\$ 834,826	\$ 882,150	\$ 706,857	\$ 19,840,029	7	
8	Net Incremental	[Line 6 - Line 7]	\$ (134,517)	\$ (375,117)	\$ 1,064,446	\$ 192,090	\$ 1,074,797	\$ 773,281	\$ 107,049	\$ (239,548)	\$ 95,249	\$ (131,094)	\$ 519,191	\$ (425,970)	\$ 8,667,342	8
9	Cost Savings														9	
10	PAWC Actual Travel and Conferences	\$ 72,814	\$ (26,485)	\$ 20,279	\$ 51,799	\$ (6,141)	\$ 18,108	\$ 45,693	\$ (10,472)	\$ 24,245	\$ 78,271	\$ (9,542)	\$ -	\$ 486,878	10	
11	2019 Baseline Travel and Conferences	\$ 44,550	\$ 104,216	\$ 104,347	\$ 83,732	\$ 102,874	\$ 60,960	\$ 65,955	\$ 8,296	\$ 20,137	\$ 106,890	\$ 16,975	\$ -	\$ 1,489,368	11	
12	Incremental Savings - PAWC	[Line 10 - Line 11]	\$ 28,265	\$ (130,702)	\$ (84,067)	\$ (31,933)	\$ (109,015)	\$ (42,852)	\$ (20,262)	\$ (18,768)	\$ 4,109	\$ (28,618)	\$ (26,517)	\$ -	\$ (1,002,490)	12
13	Service Company Actual Travel and Conferences	\$ 6,502	\$ 183	\$ (5,041)	\$ 9,589	\$ 15,755	\$ 11,714	\$ 14,341	\$ 10,814	\$ 14,489	\$ 12,763	\$ 4,413	\$ -	\$ 157,984	13	
14	2019 Baseline Travel and Conferences	\$ 59,019	\$ 56,474	\$ 54,675	\$ 48,587	\$ 21,699	\$ 50,899	\$ 62,087	\$ 56,543	\$ 32,317	\$ 57,262	\$ 37,687	\$ -	\$ 1,139,031	14	
15	Incremental Savings - Service Company	[Line 13 - Line 14]	\$ (52,518)	\$ (56,291)	\$ (59,716)	\$ (38,998)	\$ (5,945)	\$ (39,184)	\$ (47,746)	\$ (45,729)	\$ (17,828)	\$ (44,499)	\$ (33,274)	\$ -	\$ (981,046)	15
16	Total Incremental Savings	[Line 12 + Line 15]	\$ (24,253)	\$ (186,992)	\$ (143,783)	\$ (70,931)	\$ (114,960)	\$ (82,036)	\$ (68,008)	\$ (64,497)	\$ (13,720)	\$ (73,117)	\$ (59,791)	\$ -	\$ (1,983,536)	16
17	Total Deferral Activity before Carrying Costs	[Line 4 + Line 8 + Line 16]	\$ (69,327)	\$ (481,355)	\$ 950,687	\$ 190,804	\$ 990,741	\$ 721,289	\$ 56,088	\$ (270,204)	\$ 108,835	\$ (180,921)	\$ 504,710	\$ (425,970)	\$ 8,571,037	17
18	Carrying Costs		\$ (5,084)	\$ (35,801)	\$ 71,302	\$ 13,595	\$ 66,875	\$ 45,982	\$ 3,178	\$ (14,355)	\$ 5,396	\$ (8,820)	\$ 21,450	\$ (16,595)	\$ 687,787	18
19	Total Deferral Activity with Carrying Costs	[Line 17 + Line 18]	\$ (74,411)	\$ (517,156)	\$ 1,021,989	\$ 204,399	\$ 1,057,616	\$ 767,271	\$ 59,266	\$ (284,559)	\$ 114,231	\$ (189,741)	\$ 526,160	\$ (442,565)	\$ 9,258,824	19

**Pennsylvania-American Water
Uncollectible Expense Baseline**

**Exhibit No. JCS-1
Page 3 of 6**

	March 2020 - January 2021	February 2021 - December 2021	January 2022 - December 2022
Authorized Level - Annual	\$ 10,672,121	\$ 9,234,800	\$ 9,475,297

	January	February	March	April	May	June	July	August	September	October	November	December	Total
3-Year Average - Monthly Allocation	9.310%	7.460%	6.990%	4.610%	7.110%	7.800%	7.930%	11.630%	9.720%	10.220%	8.180%	9.040%	100.000%

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
Baseline Amounts	\$ 745,981	\$ 491,985	\$ 758,788	\$ 832,425	\$ 846,299	\$ 1,241,168	\$ 1,037,330	\$ 1,090,691	\$ 872,979	\$ 964,761

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Baseline Amounts	\$ 993,574	\$ 688,916	\$ 645,513	\$ 425,724	\$ 656,594	\$ 720,314	\$ 732,320	\$ 1,074,007	\$ 897,623	\$ 943,797	\$ 755,407	\$ 834,826

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Baseline Amounts	\$ 882,150	\$ 706,857	\$ 662,323	\$ 436,811	\$ 673,694	\$ 739,073	\$ 751,391	\$ 1,101,977	\$ 920,999	\$ 968,375	\$ 775,079	\$ 856,567

Pennsylvania-American Water
Incremental Direct Costs

Exhibit No. JCS-1
Page 4 of 6

PAWC Direct Costs

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
1 Contract Services	\$ 39,514.63	\$ 2,563.54	\$ 8,571.32	\$ -	\$ 11,425.60	\$ 17,487.03	\$ 5,587.99	\$ 18,695.76	\$ 4,367.62	\$ 2,119.10	\$ 25,228.14	\$ -
2 Customer Education	\$ -	\$ -	\$ -	\$ -	\$ 722.92	\$ 817.75	\$ 7,546.30	\$ -	\$ -	\$ -	\$ -	\$ -
3 Employee Expenses	\$ 2,528.95	\$ 321.16	\$ -	\$ 1,490.95	\$ 5,261.58	\$ (4,463.39)	\$ 2,509.62	\$ 52.50	\$ -	\$ 1,021.63	\$ 438.29	\$ -
4 Janitorial	\$ 6,118.53	\$ 13,223.83	\$ 34,196.47	\$ 235.36	\$ 27,763.37	\$ 8,426.57	\$ 12,309.10	\$ 13,346.89	\$ 59,283.83	\$ 4,613.81	\$ 13,082.56	\$ 16,902.93
5 Lab Supplies	\$ -	\$ -	\$ 149.65	\$ 65.78	\$ 1,353.21	\$ 47,927.38	\$ 6,154.79	\$ 124.32	\$ -	\$ -	\$ -	\$ -
6 Materials and Supplies	\$ 19,059.29	\$ 34,958.42	\$ 42,105.98	\$ 7,539.93	\$ 116,824.85	\$ 46,609.70	\$ 97,282.63	\$ 29,546.22	\$ 73,199.93	\$ 14,216.56	\$ 23,464.74	\$ 11,768.93
7 Miscellaneous	\$ 1,974.43	\$ 1,593.92	\$ 1,840.02	\$ 1,196.85	\$ 23,183.77	\$ 39,528.09	\$ 488.71	\$ 6,825.02	\$ 121.02	\$ 3,147.54	\$ 207.93	\$ 1,187.66
8 Office Supplies	\$ 2,238.14	\$ 1,404.29	\$ -	\$ 1,850.80	\$ 7,003.19	\$ 1,649.82	\$ 1,343.06	\$ 6,302.10	\$ 2,772.38	\$ 531.87	\$ 1,189.93	\$ 331.54
9 Rental Costs	\$ -	\$ -	\$ -	\$ -	\$ 3,611.25	\$ (2,787.81)	\$ 1,703.96	\$ -	\$ -	\$ -	\$ -	\$ -
10 Security Services	\$ 27,901.75	\$ 9,412.80	\$ 2,588.52	\$ -	\$ -	\$ 5,066.81	\$ -	\$ -	\$ 6,588.96	\$ -	\$ (16.12)	\$ -
11 Transportation	\$ -	\$ -	\$ -	\$ -	\$ 36.01	\$ 3,660.95	\$ 20,744.50	\$ -	\$ -	\$ -	\$ -	\$ -
12 Total PAWC Direct Costs	\$ 99,335.72	\$ 63,477.96	\$ 89,451.96	\$ 12,379.67	\$ 197,185.75	\$ 163,922.90	\$ 155,670.66	\$ 74,892.81	\$ 146,333.74	\$ 25,650.51	\$ 63,595.47	\$ 30,191.06

Service Company Costs

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
13 Supply Chain	\$ 7,071.07	\$ 54,334.23	\$ 159,343.96	\$ 46,550.03	\$ 124,990.00	\$ 292,126.00	\$ (34,971.00)	\$ 16,277.74	\$ 53,866.96	\$ (34.00)	\$ 82,988.85	\$ 9,862.00
14 Communications & External Affairs	\$ -	\$ -	\$ -	\$ -	\$ 36,715.00	\$ 10,000.00	\$ -	\$ -	\$ 13,943.11	\$ -	\$ 1,468.76	\$ -
15 Facilities	\$ -	\$ -	\$ -	\$ -	\$ 29,427.89	\$ -	\$ 7,188.00	\$ -	\$ -	\$ -	\$ -	\$ -
16 Service Company Stipend	\$ -	\$ -	\$ -	\$ -	\$ 41,650.00	\$ 8,350.00	\$ 8,150.00	\$ 8,050.00	\$ 8,050.00	\$ 8,000.00	\$ 8,000.00	\$ 8,050.00
17 Total Service Company Costs	\$ 7,071.07	\$ 54,334.23	\$ 159,343.96	\$ 46,550.03	\$ 232,782.89	\$ 310,476.00	\$ (19,633.00)	\$ 24,327.74	\$ 75,860.07	\$ 7,966.00	\$ 92,457.61	\$ 17,912.00
18 PAWC Allocation	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.94%	20.94%
19 Total Service Company Costs to PAWC	\$ 1,484.00	\$ 11,399.00	\$ 33,430.00	\$ 9,766.00	\$ 48,838.00	\$ 65,138.00	\$ (4,119.00)	\$ 5,104.00	\$ 15,915.00	\$ 1,671.00	\$ 19,361.00	\$ 3,751.00

Pennsylvania-American Water
Incremental Direct Costs

Exhibit No. JCS-1
Page 5 of 6

PAWC Direct Costs

	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Total	
1 Contract Services	\$ -	\$ 833.38	\$ 4,075.19	\$ 4,647.47	\$ 1,954.83	\$ 3,161.10	\$ 5,186.20	\$ 1,600.00	\$ 158.40	\$ -	\$ 2,594.98	\$ -	\$ 159,772.28	1
2 Customer Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,086.97	2
3 Employee Expenses	\$ 991.80	\$ 915.25	\$ 52.99	\$ 6,616.63	\$ -	\$ -	\$ 9,680.18	\$ -	\$ 604.79	\$ -	\$ 370.00	\$ -	\$ 28,392.93	3
4 Janitorial	\$ 16,041.78	\$ 10,438.20	\$ 42,105.93	\$ 46,837.58	\$ 77,268.14	\$ 6,566.25	\$ 41,204.98	\$ 20,581.94	\$ 10,778.07	\$ 11,841.16	\$ 18,244.64	\$ -	\$ 511,411.92	4
5 Lab Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 173.84	\$ -	\$ 55,948.97	5
6 Materials and Supplies	\$ 5,591.83	\$ 9,205.82	\$ 24,509.60	\$ 8,796.38	\$ 10,674.13	\$ 11,507.76	\$ 7,654.62	\$ 5,701.47	\$ 8,026.51	\$ 11,852.56	\$ 21,967.27	\$ -	\$ 642,065.13	6
7 Miscellaneous	\$ 1,069.60	\$ (1,472.74)	\$ (790.71)	\$ 2,712.04	\$ 5,581.42	\$ 2,801.57	\$ 1,085.66	\$ 1,303.26	\$ 2,239.45	\$ 2,547.11	\$ 1,850.30	\$ -	\$ 100,221.92	7
8 Office Supplies	\$ -	\$ -	\$ 3,926.36	\$ 1,326.80	\$ 192.99	\$ -	\$ 49.54	\$ 215.77	\$ 328.82	\$ -	\$ 108.60	\$ -	\$ 32,766.00	8
9 Rental Costs	\$ -	\$ 16.56	\$ 8,013.00	\$ 6,257.85	\$ 6,383.60	\$ 3,162.16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,360.57	9
10 Security Services	\$ -	\$ -	\$ 24,096.03	\$ 10,701.04	\$ (22,944.08)	\$ -	\$ -	\$ -	\$ -	\$ (4,941.72)	\$ -	\$ -	\$ 58,453.99	10
11 Transportation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,441.46	11
12 Total PAWC Direct Costs	\$ 23,695.01	\$ 19,936.47	\$ 105,988.39	\$ 87,895.79	\$ 79,111.03	\$ 27,198.84	\$ 64,861.18	\$ 29,402.44	\$ 22,136.04	\$ 21,299.11	\$ 45,309.63	\$ -	\$ 1,648,922.14	12

Service Company Costs

	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Total	
13 Supply Chain	\$ (612.76)	\$ -	\$ -	\$ 9,134.31	\$ (9,134.00)	\$ 23,355.48	\$ (27,662.42)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 807,486.45	13
14 Communications & External Affairs	\$ -	\$ -	\$ 5,796.40	\$ 6,057.63	\$ 8,751.25	\$ 7,011.93	\$ -	\$ 10,631.85	\$ 10,642.51	\$ 9,916.13	\$ -	\$ -	\$ 120,934.57	14
15 Facilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,615.89	15
16 Service Company Stipend	\$ 8,000.00	\$ 7,850.00	\$ 7,700.00	\$ 7,650.00	\$ 7,550.00	\$ 7,400.00	\$ 7,350.00	\$ 6,800.00	\$ 6,600.00	\$ 6,100.00	\$ -	\$ -	\$ 171,300.00	16
17 Total Service Company Costs	\$ 7,387.24	\$ 7,850.00	\$ 13,496.40	\$ 22,841.94	\$ 7,167.25	\$ 37,767.41	\$ (20,312.42)	\$ 17,431.85	\$ 17,242.51	\$ 16,016.13	\$ -	\$ -	\$ 1,136,336.91	17
18 PAWC Allocation	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%	20.94%		18
19 Total Service Company Costs to PAWC	\$ 1,547.00	\$ 1,644.00	\$ 2,826.00	\$ 4,783.00	\$ 1,501.00	\$ 7,908.00	\$ (4,253.00)	\$ 3,650.00	\$ 3,611.00	\$ 3,354.00	\$ -	\$ -	\$ 238,309.00	19

PENNSYLVANIA AMERICAN WATER COMPANY
CARRYING COSTS ON COVID-19 DEFERRAL

DATE	UNCOLLECTIBLE EXPENSE	INCREMENTAL DIRECT COSTS	SAVINGS	TOTAL	[A]	[B]	INTEREST AMOUNT
					INTEREST RATE	NUMBER OF MONTHS	
March-20	\$ 270,756	\$ 13,864	\$ (978)	\$ 283,642	4.50%	34	\$ 36,164
April-20	\$ 144,833	\$ 208,585	\$ (204,270)	\$ 149,148	4.25%	33	\$ 17,432
May-20	\$ 449,352	\$ 197,353	\$ (136,666)	\$ 510,039	3.75%	32	\$ 51,004
June-20	\$ 474,964	\$ 165,437	\$ (80,643)	\$ 559,758	3.50%	31	\$ 50,611
July-20	\$ 564,191	\$ 123,731	\$ (144,776)	\$ 543,146	3.50%	30	\$ 47,525
August-20	\$ 387,521	\$ 211,472	\$ (82,299)	\$ 516,693	3.75%	29	\$ 46,825
September-20	\$ (171,764)	\$ 21,532	\$ (87,627)	\$ (237,859)	3.50%	28	\$ (19,425)
October-20	\$ 303,363	\$ 104,440	\$ (52,601)	\$ 355,202	3.50%	27	\$ 27,972
November-20	\$ 812,577	\$ 79,393	\$ (36,727)	\$ 855,243	3.50%	26	\$ 64,856
December-20	\$ 48,515	\$ 91,123	\$ (95,795)	\$ 43,843	3.75%	25	\$ 3,425
January-21	\$ 1,914,897	\$ 82,956	\$ (56,397)	\$ 1,941,456	3.75%	24	\$ 145,609
February-21	\$ 948,280	\$ 109,739	\$ (102,670)	\$ 955,350	3.75%	23	\$ 68,666
March-21	\$ (134,517)	\$ 89,443	\$ (24,253)	\$ (69,327)	4.00%	22	\$ (5,084)
April-21	\$ (375,117)	\$ 80,755	\$ (186,992)	\$ (481,355)	4.25%	21	\$ (35,801)
May-21	\$ 1,064,446	\$ 30,025	\$ (143,783)	\$ 950,687	4.50%	20	\$ 71,302
June-21	\$ 192,090	\$ 69,644	\$ (70,931)	\$ 190,804	4.50%	19	\$ 13,595
July-21	\$ 1,074,797	\$ 30,903	\$ (114,960)	\$ 990,741	4.50%	18	\$ 66,875
August-21	\$ 773,281	\$ 30,044	\$ (82,036)	\$ 721,289	4.50%	17	\$ 45,982
September-21	\$ 107,049	\$ 17,046	\$ (68,008)	\$ 56,088	4.25%	16	\$ 3,178
October-21	\$ (239,548)	\$ 33,841	\$ (64,497)	\$ (270,204)	4.25%	15	\$ (14,355)
November-21	\$ 95,249	\$ 27,306	\$ (13,720)	\$ 108,835	4.25%	14	\$ 5,396
December-21	\$ (131,094)	\$ 23,290	\$ (73,117)	\$ (180,921)	4.50%	13	\$ (8,820)
January-22	\$ 519,191	\$ 45,310	\$ (59,791)	\$ 504,710	4.25%	12	\$ 21,450
February-22	\$ (425,970)	\$ -	\$ -	\$ (425,970)	4.25%	11	\$ (16,595)

Total	\$ 8,667,342	\$ 1,887,231	\$ (1,983,536)	\$ 8,571,037			\$ 687,787
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[A] Interest Rates per Act 6 Residential Lending Rates.

2020 - <https://www.dobs.pa.gov/Documents/Act%206%20Rates/2020%20Act%206%20Monthly.pdf>

2021 - <https://www.dobs.pa.gov/Documents/Act%206%20Rates/Act%206%202021.pdf>

2022 - <https://www.dobs.pa.gov/For%20Media/Pages/Act-6-Information.aspx>