

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
WILLIAM C. PACKER**

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**Topics Addressed:**

**The Company's Need for Rate Relief  
Overview of the Principal Accounting Exhibits  
Certain Expense Claims  
PFAS Deferred Accounting Authorization  
Rate Base Claims  
Rate Design  
Proposed Capitalization Ratios  
Return on Equity Considerations  
And Various Other Matters**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 1**

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1 **I. INTRODUCTION AND BACKGROUND**

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

3 A. William C. Packer. My business address is 762 W. Lancaster Avenue, Bryn Mawr,  
4 Pennsylvania 19010.

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

6 A. I am employed by Essential Utilities, Inc. (“Essential”) as Vice President Regulatory  
7 Accounting and Regional Controller. In this position, I am the Regional Controller of Aqua  
8 Pennsylvania, Inc. (“AP”), and Aqua New Jersey, Inc. (“Aqua NJ”). Additionally, I  
9 oversee rate issues for all subsidiaries of Essential. Essential is the parent company of  
10 Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater, Inc. (“APW”) (collectively  
11 “Aqua PA” or the “Company”).

12 **Q. Please describe your education and business experience.**

13 A. I graduated from the Richard Stockton College of New Jersey in 1998 with a Bachelor of  
14 Science degree in Business Studies with a concentration in accounting. I began my 25-  
15 year career in the utility industry in September 1999, when I joined New Jersey American  
16 Water Company (“NJ American”) as a General Staff Accountant and held various positions  
17 in finance and accounting at NJ American. At NJ American, I had the opportunity to  
18 support the rate-making process by working closely with operating subsidiaries in 23 states.

19 I began my career with the Company in March 2005 where I was hired by Aqua NJ  
20 as Assistant Controller. I held this position until December 2006 when I transferred to  
21 Aqua America, Inc. and have held a variety of positions in finance and accounting. Since  
22 starting at the Company, I have been the chief accounting and revenue requirement witness  
23 in rate cases filed before the Pennsylvania Public Utility Commission (“PUC” or the

1 “Commission”) since 2008. In 2020, my role was expanded to include financial regulatory  
2 oversight, direction, and support of all Essential water and gas subsidiaries and is the  
3 current capacity in which I serve.

4 In addition to my corporate experience, after serving as a Council Member for a  
5 number of years, I was elected as Mayor of the Borough of Woodbury Heights in 2019 and  
6 continue to serve in this role. The Borough of Woodbury Heights is one of 565  
7 municipalities in the state and has a population of approximately 3,000. I have been an  
8 elected official since 2010 and the Borough owns and operates both its own water and  
9 wastewater utilities, thus giving me a unique perspective to the considerations  
10 municipalities face when it comes to providing utility service to its residents.

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

12 A. The purpose of my testimony is as follows: Section II of my direct testimony explains the  
13 Company’s need for rate relief; Section III introduces the other witnesses that provide  
14 direct testimony on behalf of Aqua PA and support various other aspects of the Company’s  
15 initial filing; Section IV identifies and describes the principal accounting exhibits (*i.e.*,  
16 Exhibits 1-A through 1-B (Water) and 1-C through 1-E (Wastewater)) submitted in support  
17 of Aqua PA’s proposed rate increase for water and wastewater operations, respectively;  
18 Sections V explain and support the Company’s operating expense; Section VI is the  
19 Company request for deferred accounting; Section VII is depreciation, taxes and other  
20 items; (8) Section VIII explains the Company’s rate base claims; Section IX describes the  
21 Company’s proposed capital structure; and Section X identifies additional factors the  
22 Commission should consider when determining the appropriate return on equity for Aqua  
23 PA, explains why Aqua PA is entitled to an equity allowance that recognizes exemplary

1 managerial performance, and recommends the appropriate return on equity to be utilized  
2 in this proceeding in light of the analysis of Mr. Paul R. Moul (Statement No. 7).

3 **Q. For which of the Company’s principal exhibits are you responsible?**

4 A. I am responsible for the primary accounting exhibits for water and wastewater operations,  
5 respectively, AP Exhibits 1-A through 1-E. In addition, I oversaw and assisted in the  
6 preparation of the backup volumes that contain responses to the Commission’s standard  
7 rate case filing requirements with respect to: A. Statement of Income, B. Operating  
8 Revenues, C. Operating Expenses, D. Taxes, E. Rate Base, G. Rate of Return, H. Rate  
9 Structure, J. Balance Sheet, and K. Other Data.

10 **II. AQUA PA’S NEED FOR RATE RELIEF**

11 **Q. Why is Aqua PA seeking rate relief at this time?**

12 A. The Company’s last consolidated water and wastewater base rate case was filed  
13 approximately three years ago at Docket Nos. R-2021-3027385, R-2021-3027386, et al.  
14 (“2021 Base Rate Case”). Rates established in that case became effective on May 19, 2022.  
15 Since March 31, 2023 (*i.e.*, the end of the fully projected future test year used in the 2021  
16 Base Rate Case), the Company will have invested over \$950 million in water and  
17 wastewater utility infrastructure through the fully projected test year (“FPFTY”) ending  
18 December 31, 2025. Investments in replacing old and installing new utility infrastructure  
19 account for approximately 60% of the requested need for rate relief in this application.

20 **Q. Please describe the Company’s level of investment since the 2021 Base Rate Case.**

21 A. Since the end of its last base rate case, the Company’s average capital expenditure program  
22 for water and wastewater operations has been approximately \$300 million annually.  
23 Indeed, the Company has been investing in new and replacement infrastructure for many

1 years at an accelerated rate to proactively address aging infrastructure and evolving  
2 regulatory requirements. The accelerated levels of investment, particularly since the  
3 establishment of the Distribution System Improvement Charge (“DSIC”), have enabled  
4 significant enhancements to the Company’s utility infrastructure. As a result, main breaks  
5 and water quality complaints have been reduced and AP’s unaccounted for water metrics  
6 have been improving overall.

7 For water operations, this investment includes replacement of lead service lines  
8 (“LSL”), per- and poly-fluoroalkyl (“PFAS”) remediation, distribution system mains, and  
9 appurtenances such as hydrants, service lines, and meters. For wastewater operations,  
10 much of this investment has been directed towards base wastewater operating systems  
11 (legacy systems) that were presented in the 2021 Base Rate Case.

12 Considering the investments that have been made, Aqua PA’s need for rate relief  
13 also includes recovery for an increase in annual depreciation expense, which is further  
14 explained and supported in the testimony of Aqua PA witness John Spanos, Statement No.  
15 6.

16 **Q. What are some of the other factors driving Aqua PA’s need for rate relief?**

17 A. In addition to needed infrastructure investment, Aqua PA has experienced increases in its  
18 O&M expenses since its 2021 Base Rate Case. Foremost, the substantial rates of inflation  
19 that have been experienced since the conclusion of the 2021 Base Rate Case have  
20 increased O&M expenses. O&M cost increases represents approximately 38% of the  
21 Company’s claim for additional rate relief in this filing.

22 **Q. Please elaborate specifically on the need for rate relief related to Aqua PA’s**  
23 **wastewater systems.**

1 A. Regarding wastewater operations, APW began to provide this service in 1996. Since then,  
2 APW has acquired and rehabilitated different types of wastewater systems, many of which  
3 are troubled for a variety of reasons. APW furnishes wastewater service to approximately  
4 57,000 customers. While small in comparison to Aqua PA’s water utility business, which  
5 services approximately 445,000 customers, the wastewater business requires a  
6 considerable amount of investment.

7 APW’s wastewater utility files on a consolidated basis for all its wastewater  
8 operations but also presents separately the wastewater system acquisitions acquired since  
9 the 2021 Base Rate Case as part of the Section 1329, 66 Pa.C.S. § 1329, Fair Market Value  
10 (“Section 1329”) acquisition process.

11 In this proceeding, the Company has proposed to continue to allocate a portion of  
12 its wastewater cost of service amongst its water customer base to moderate the rate increase  
13 impact to wastewater customers. The Company’s request for rate relief is necessary to  
14 provide a reasonable opportunity to have its wastewater operations earn a fair rate of return.

15 **Q. Please explain the changing circumstances impacting the Company regarding**  
16 **borrowing costs.**

17 A. Aqua PA maintains a solid A credit rating from Standard and Poor’s (“S&P”), which results  
18 in a lower cost of borrowing and directly benefiting customer rates. Since the 2021 Base  
19 Rate Case however, the historical trend of a declining and low interest rate environment  
20 has moved significantly in the opposite direction. Interest rates on both short- and long-  
21 term debt instruments have increased nationwide in response to the Federal Reserve’s  
22 actions to increase interest rates to combat high inflation. As a result of these  
23 circumstances, the cost of new borrowing for the Company is increasing as evidenced in

1 Exhibit 1-A through 1-E, Schedule E-1, showing the pro-forma capitalization structure and  
2 embedded cost of long-term debt. Specifically, since the 2021 Base Rate Case, the  
3 embedded cost of long-term debt has increased from 4.00% to 4.32% in this filing. Despite  
4 the changing interest rate environment, the Company is still able to secure competitive  
5 borrowing rates because of its investment grade credit rating. Additionally, the Company  
6 is continuing to pursue low interest loan opportunities through the Pennsylvania  
7 Infrastructure Investment Authority (“PENNVEST”) and the amount of PENNVEST loans  
8 is expected to grow as a percentage of the total Company long term debt portfolio in this  
9 high interest rate environment.

10 **Q. Please explain Aqua PA’s ongoing efforts to control O&M expenses.**

11 A. The Company continues to focus on cost saving measures and maximizing its purchasing  
12 power using national contracts, consolidated procurement efforts, and operating efficiency.  
13 Like many other utilities, costs in many areas have increased, consistent with the  
14 nationwide inflation trend and the Company will support those increases in this case. Mr.  
15 Duerr (Statement No. 11) highlights operational cost increases and measures and efforts to  
16 control and minimize costs.

### 17 III. INTRODUCTION OF OTHER WITNESSES

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

20 A. In addition to me, the following witnesses will be responsible for presenting testimony in  
21 the following areas:

- 22 • **Statement No. 2 – Renee T. Marquis.** Ms. Marquis’s testimony addresses  
23 certain expense adjustments, depreciation and taxes other than income,  
24 acquisitions, certain rate base issues, and the consolidation of rate zones.

- 1 • **Statement No. 3 – Christopher E. Manning.** Mr. Manning addresses certain  
2 expense adjustments contained in the Company’s principal accounting exhibits.
- 3 • **Statement No. 4 – Michael S. Ercolino.** Mr. Ercolino also addresses certain  
4 expense adjustments contained in the Company’s principal accounting exhibits.
- 5 • **Statement No. 5 – Constance E. Heppenstall.** Ms. Heppenstall explains the cost  
6 of service allocation study performed in this case, and support aspects of the  
7 Company’s proposed customer rate design. She also sponsors Exhibit Nos. 5-A  
8 (Parts I and II), 5-B (Parts I and II), and 5-C to the Company’s filing.
- 9 • **Statement No. 6 – John J. Spanos.** Mr. Spanos explains the depreciation  
10 exhibits prepared in support of this filing (*i.e.*, Exhibits 6-A, Part I through 6-E,  
11 Part I (the results of each depreciation study for the historic test year (“HTY”)),  
12 Exhibits 6-A, Part II through 6-E, Part II (the results of each depreciation study  
13 for the future test year (“FTY”)), and Exhibits 6-A, Part III through 6-E, Part III  
14 (the results of each depreciation study for the FPFTY)) and addresses issues  
15 related to depreciation.
- 16 • **Statement No. 7 – Paul R. Moul.** Mr. Moul testifies regarding the Company’s  
17 proposed costs of capital, and sponsors Exhibit 4-A in support of his  
18 recommendations.
- 19 • **Statement No. 8 – Panpilas Fischer.** Ms. Fischer addresses various income tax  
20 issues related to Aqua PA.
- 21 • **Statement No. 9 – Harold Walker.** Mr. Walker address cash working capital.
- 22 • **Statement No. 10 – Gregory Herbert.** Mr. Herbert address revenue and billing  
23 adjustments.
- 24 • **Statement No. 11 – Todd M. Duerr.** Mr. Duerr testifies regarding Aqua PA’s  
25 water and wastewater operations, LSLs, PFAS, troubled systems, and exemplary  
26 management performance.
- 27 • **Statement No. 12 – Micheal Convery.** Mr. Convery testifies regarding Aqua  
28 PA’s investment in water and wastewater, including PFAS and LSL capital  
29 projects.
- 30 • **Statement No. 13 – Rita F. Black.** Ms. Black testifies regarding Aqua PA’s  
31 universal service plan.

#### 32 IV. PRINCIPAL ACCOUNTING EXHIBITS

- 33 **Q. Were the exhibits entitled “Aqua Pennsylvania, Inc., Exhibit 1-A and 1-B, Revenue,**  
34 **Expense and Rate Base Claims” and “Aqua Pennsylvania Wastewater, Inc., Exhibits**

1 **1-C through 1-E, Revenue, Expense and Rate Base Claims” prepared by you or under**  
2 **your supervision?**

3 A. Yes, they were.

4 **Q. Why is Aqua PA presenting five separate revenue requirement studies, inclusive of**  
5 **Exhibit 1-A and 1-B (applicable to water operations) and Exhibits 1-C through 1-E**  
6 **(applicable to wastewater operations)?**

7 A. Aqua PA is presenting separate revenue requirement studies to comply with the terms and  
8 conditions of the Commission’s approvals of Aqua PA’s acquisitions of certain water and  
9 wastewater systems that are included for the first time in this case. The terms of the  
10 Commission’s approvals under Section 1329 provided that the Company would submit  
11 separate cost of service studies for those systems in its next base rate case.

12 **Q. Please explain the content of Exhibits 1-A and 1-B and 1-C through 1-E.**

13 A. Exhibits 1-A and 1-B and 1-C through 1-E are being submitted in support of Aqua PA’s  
14 proposed rate increase for water and wastewater operations, respectively. They present the  
15 Company’s pro forma revenue, expense and rate base data based on HTY (year ended  
16 December 31, 2023), FTY (year ending December 31, 2024), and FPFTY (year ending  
17 December 31, 2025). Data for the HTY were obtained from the Company’s books and  
18 records. For the FTY, revenues are based on the estimated number of customers served as  
19 of December 31, 2024. Correspondingly, for the FPFTY, revenues are based on the  
20 estimated number of customers served as of December 31, 2025. Operating expenses have  
21 been similarly adjusted to reflect FTY and FPFTY-end conditions. Aqua PA’s claimed  
22 rate base includes its estimated net Utility Plant in Service at December 31, 2024 and  
23 December 31, 2025.

1 **Q. Do you anticipate the need to make additional adjustments to the data set forth in**  
2 **Exhibits 1-A and 1-B or 1-C through 1-E?**

3 A. Not currently. Should adjustments or revisions become necessary the Company will  
4 provide updates accordingly.

5 **Q. Does Aqua PA propose to submit revised accounting exhibits to reflect any such**  
6 **adjustments or revisions?**

7 A. Yes. As it has consistently done in previous base rate proceedings, Aqua PA will submit,  
8 during the rebuttal phase of this case, exhibits to be identified as Exhibit 1-A(a) through  
9 Exhibit 1-E(e), which will correct any errors that may be identified, incorporate known  
10 changes and adopt any other appropriate adjustments that come to the Company's attention  
11 during the litigation process.

12 **Q. You indicated that the Company submitted data for HTY, FTY and FPFTY. What**  
13 **data set will the Company principally rely upon to support its proposed revenue**  
14 **increase?**

15 A. The Company will rely principally upon the data for its FPFTY as authorized by Section  
16 315 of the Public Utility Code, 66 Pa.C.S. § 315, which allows a utility to utilize either a  
17 FTY or a FPFTY when filing a base rate case.

18 **Q. How were the FTY and FPFTY data that appear in Exhibits 1-A through 1-E**  
19 **developed?**

20 A. Exhibits 1-A through 1-E were developed in the same manner that Aqua PA has used in  
21 prior cases. The actual results for the year ended December 31, 2023, as taken from Aqua  
22 PA's books and records, were used as the starting point for purposes of developing  
23 projected revenue and expense levels anticipated as of December 31, 2024, and December

1 31, 2025. Specific HTY, FTY, and FPFTY rate adjustments are set forth in the referenced  
2 exhibits. The FTY capital additions and retirements, described in the Rate Base section of  
3 my testimony, were added to the Utility Plant in Service at December 31, 2023 to arrive at  
4 the FTY amount. Correspondingly, the FPFTY capital additions and retirements were  
5 added to the Utility Plant in Service at December 31, 2024, to arrive at the FPFTY amount.  
6 The Utility Plant in Service, Accumulated Depreciation, Customer Advances for  
7 Construction (“CAC”), and Contributions In Aid Of Construction (“CIAC”) for the HTY,  
8 FTY, and FPFTY are shown in Exhibits 6-A through 6-E, Parts I, II, and III and  
9 summarized on Exhibits 1-A through 1-E on Schedules G-1 and G-6 respectively.

10 **Q. Please explain the data on Schedule A-2 of Exhibit 1-A through 1-E.**

11 A. Schedule A-2 of Exhibit 1-A and 1-B and Exhibit 1-C through 1-E shows the number of  
12 customers served at December 31, 2023, and anticipated to be served at December 31,  
13 2024, and December 31, 2025 by customer classification. Schedule A-2 of Exhibit 1-A  
14 and Exhibit 1-B indicates that the bills of most existing accounts and newly acquired  
15 accounts will be changed by Tariff Water-PA P.U.C. No. 4. In addition, Schedule A-2 of  
16 Exhibits 1-C through 1-E shows the bills of most accounts will be changed by Tariff Sewer-  
17 PA P.U.C. No. 4.

## 18 V. OPERATING EXPENSES

### 19 OVERVIEW OF ADJUSTMENTS

20 **Q. What is shown on Schedule C-3 of Exhibits 1-A through 1-E?**

21 A. This schedule summarizes the adjustments to operating expenses under present rates, the  
22 details of which are shown on Schedules C-4.1 through C-10.2 in Exhibits 1-A through 1-  
23 B and schedules C-4.1 through C-9.1 in Exhibits 1-C through 1-E. Most of these  
24 adjustments are self-explanatory. Additional supporting information is included in the

back-up books entitled “Balance Sheet” and “Operating Expense”. As shown in Schedule C-3 of Exhibit 1-A and Exhibit 1-B, these adjustments result in a net decrease in HTY operating expenses of \$512,297, an increase in the FTY operating expenses of \$10,022,409 and an increase in the FPFTY operating expenses of \$14,842,729 for water service. As shown in Schedule C-3 of Exhibits 1-C through 1-E, these adjustments result in a net increase in HTY operating expenses of \$1,762,418, in FTY operating expenses of \$2,141,979, and in FPFTY operating expenses of \$3,858,293 for wastewater service. I would note that these same adjustments are carried forward to the third, fifth, and seventh columns in Schedule A-1 of Exhibits 1-A through 1-E.

**Q. Mr. Packer, are you sponsoring each of the expense adjustments noted in Schedule C-3 of Exhibit 1-A through 1-E?**

**A.** No. The witnesses who are responsible for the expense adjustments are as follows:

<b>EXPENSE ADJUSTMENT</b>	<b>SCHEDULE</b>	<b>RESPONSIBLE WITNESS</b>	<b>EXHIBIT(S)</b>
General Price Level Adjustment	C-4.1	C. Manning	1-A to 1-E
Uncollectible Accounts	C-4.2	R. Marquis	1-A to 1-E
Additional Cost of Serving Customers	C-4.3	C. Manning	1-A and 1-C
Rate Case Expense	C-4.4	M. Ercolino	1-A to 1-E
Payroll	C-4.5	C. Manning	1-A to 1-E
Insurance Expense	C-4.6	C. Manning	1-A to 1-E
Management Service & Sundry	C-4.7	W. Packer	1-A to 1-E
Page Held for Future Use	C-4.8	N/A	1-A to 1-E
Miscellaneous Adjustment	C-4.9	C. Manning & W. Packer	1-A to 1-E
Specific Expenses Not Subject To Inflation	C-4.10	C. Manning	1-A to 1-E

Audit Fee Expense	C-4.11	M. Ercolino	1-A to 1-E
Adjustment to Amortization of Acquisition Adjustments	C-5.1	R. Marquis	1-A and 1-C
Amortization of New Negative Acquisition Adjustments	C-5.2	R. Marquis	1-C
Purchased Power Expense	C-6.1	C. Manning	1-A to 1-E
Chemical Expense	C-6.2	C. Manning	1-A to 1-E
Purchased Water Expense	C-7.1	C. Manning	1-A
Purchased Wastewater Treatment Expense	C-7.1	C. Manning	1-C to 1-E
Water Production Adjustment	C-7.2	C. Manning	1-A
Dredging Expense	C.7.3	C. Ercolino	1-A
Employee Group Insurance	C-8.1	W. Packer	1-A
Pension	C-8.2	W. Packer	1-A
Post-Retirement Benefits	C-8.3	W. Packer	1-A
401K	C-8.4	C. Manning	1-A
Remove Intracompany Benefits	C-8.5	W. Packer	1-A
Legal Expense	C-9.1	M. Ercolino	1-A
Eliminate NAWC Lobbying Expense	C-9.2	M. Ercolino	1-A
Eliminate Twin Lakes Expense	C-10.1	W. Packer	1-A
Eliminate Venango Expenses	C-10.2	W. Packer	1-A

1  
2 **Q. What services are provided by Aqua Services, Inc. (“Aqua Services”) and how are**  
3 **those services charged?**

4 A. The services cover a full range of corporate support services, including, but not limited to;  
5 accounting and financial, administration, communications, corporate secretarial, customer  
6 service and billing, engineering, financial, fleet, human resources, information systems,  
7 operation, rates and regulatory, risk management, water quality, legal, and purchasing,

1 contracts and sales of real estate. Please see the Attachment to OE6 for further details.  
2 Aqua Services' personnel keep time records and, where appropriate, their time and related  
3 overheads are directly assigned to the subsidiary for which they are working. Where costs  
4 incurred in rendering services in common to multiple companies, and not related  
5 exclusively to a particular company, they are allocated to all such companies based on the  
6 number of customers served by each company.

7 **Q. Please explain the adjustments on Schedule 4.7 of Exhibits 1-A through 1-E entitled**  
8 **“Management Service & Sundry”.**

9 A. The amounts listed in Schedule C-4.7 of Exhibits 1-A and 1-B summarize the Company's  
10 estimated additional annual payroll expense and the increase in the Company portion of  
11 employee group insurance premiums of the service company employees whose time was  
12 charged to AP during the test year. The same data are shown in Schedule C-4.7 of Exhibits  
13 1-C through 1-E for service company employees whose time was charged to APW during  
14 the test year.

15 **Q. Please explain the adjustments appearing on Schedule C-8.1 of Exhibit 1-A for**  
16 **Employee Group Insurance.**

17 A. Aqua PA provides healthcare coverage to all of its full-time employees. The adjustment  
18 utilizes the coverage level associated with the Company's present complement of  
19 authorized positions times the contract prices, less the employee co-pay, a vacancy credit,  
20 and an adjustment for the portion not charged to operations.

21 **Q. Please explain the adjustment to Pension Expense as shown in Schedule C-8.2 of**  
22 **Exhibit 1-A.**

1 A. In this case, the Company is requesting a pension expense allowance of \$2 million (for  
2 both the FTY and FPFTY), which, in my judgment and the guidance received from the  
3 Company’s pension actuary Willis Towers Watson, is a reasonable estimate of the annual  
4 amount that the Company will contribute to its pension funds on an ongoing basis. From  
5 that figure, I deducted the portion expected to be capitalized and not charged to operating  
6 expense. The capitalization percentage is the same as that used in the Payroll Expense  
7 adjustment in Schedule C-4.5 of Exhibit 1-A. This resulted in a net rounded expense  
8 decrease of \$2.7 million for the FTY and no change in the FPFTY level.

9 **Q. Can you explain the Company’s adjustment to Other Post-Employment Benefits**  
10 **(“OPEB”) recorded pursuant to Statement of Financial Accounting Standards**  
11 **(“FAS”) 106 that is shown in Schedule C-8.3 in Exhibit 1-A?**

12 A. Yes. The Company’s claim consists of two components: (1) the annual expense and (2)  
13 the amortization of the funding deficit or excess between FAS 106 and implicit authorized  
14 rate recovery over a three-year period beginning January 1, 2025 which is the beginning of  
15 the FPFTY. The summation of the two components identified above is reduced by the  
16 portion that is capitalized. The capitalization percentage is the same as that used in the  
17 Payroll Expense adjustment in Schedule C-4.5 of Exhibit 1-A. The annual expense for the  
18 Company’s employees is based on the Actuarial Valuation Report dated April 2024 for the  
19 Company’s Post Retirement Welfare Plan, which has been submitted in response to filing  
20 data request OE-14.

21 **Q. Please explain the adjustments in Schedule C-8.5 of Exhibits 1-A and Schedule C-8.1**  
22 **of Exhibits 1-B through 1-E.**

1 A. These adjustments reduce operating expenses for water base operations as presented in  
2 Schedule C-8.5 of Exhibit 1-A and increase expenses as presented in Schedule C-8.1 of  
3 Exhibits 1-B through 1-E which is an allocation of employee benefits and other general  
4 overheads necessary to reflect an appropriate amount of expenses attributable to those  
5 respective operations.

6 **ACQUISITIONS SINCE THE 2021 BASE RATE CASE**

7 **Q. Has the Commission requested that Aqua PA find solutions for small troubled water**  
8 **and wastewater systems in the Commonwealth?**

9 A. Yes. The Company is currently operating two systems under receivership orders, Twin  
10 Lakes Utilities, Inc. (“Twin Lakes”) and Venango Water Company (“Venango”), issued  
11 by the Commission. Since the last case, Aqua PA has acquired three systems – the  
12 Municipal Authority of the Borough of Shenandoah (“Shenandoah”), North Heidelberg  
13 Sewer Company (“NHSC”), and James Black Water Service Company – Bell Aire Acres  
14 (“Belle Aire Acres”), all of which were small troubled systems that I will discuss. Aqua  
15 PA is committed to being a leader in promoting consolidation in the water and wastewater  
16 industry. In many instances, systems become severely troubled and government officials,  
17 regulators, and communities ask us for our assistance. This involves a significant amount  
18 of time, commitment, and coordination within many departments throughout our  
19 Company. Despite the challenges that come with troubled systems, without consolidation  
20 into a larger organization, they would not be viable. The Company remains committed to  
21 being a solution in the Commonwealth. I will further elaborate on this topic related to the  
22 Commission’s determination of an appropriate equity return rate later in my testimony.  
23 Aqua PA’s request for continued regulatory asset treatment associated with the systems  
24 being operated under receivership is outlined below.

1 **Q. Please comment on the request by the PUC for AP to become the Receiver for**  
2 **Venango.**

3 A. Mr. Duerr provides more detail in his testimony (Statement No. 11). This was clearly a  
4 troubled system, and I am proud of the AP team that stepped in to provide safe drinking  
5 water to these Commonwealth residents. It is an example of AP's proactive, caring, and  
6 steadfast commitment to help solve problems of small utility systems.

7 **Q. Please explain AP's involvement with the Twin Lakes.**

8 A. On January 14, 2021, the PUC issued an order in Docket No. P-2020-3020914 naming  
9 Aqua PA as the Receiver for the Twin Lakes water system beginning January 15, 2021,  
10 and continuing through the pendency of a proceeding brought under Section 529 of the  
11 Public Utility Code, 66 Pa.C.S. § 529 ("Section 529"). By Order entered November 18,  
12 2021, the PUC directed AP to acquire the Twin Lakes water system. A series of appeals  
13 has followed that have continued to delay the acquisition. Since the January 14, 2021  
14 Order, AP has acted in the capacity directed by the PUC and continued to provide safe and  
15 adequate utility service to approximately 105 customers connected to the Twin Lakes water  
16 system. AP will continue in this capacity until the litigation is resolved.

17 **Q. Please explain APW's involvement with NHSC.**

18 A. APW agreed to become the Receiver for NHSC during the pendency of a proceeding under  
19 Section 529 on March 5, 2018. The Commission entered an Order dated February 9, 2018,  
20 at Docket No. M-2018-2645983 identifying APW as the Receiver and specifying certain  
21 duties for Aqua PA to perform during the Section 529 proceeding. On March 31, 2023,  
22 after significant work, focus and commitment from key stakeholders, APW closed on this  
23 acquisition and is serving these customers.

1 **Q. Please explain Aqua PA’s involvement with the Belle Aire Acres.**

2 A. On September 3, 2019, the PUC issued an order in Docket No. M-2019-3012563 naming  
3 AP as the Receiver for this system beginning September 11, 2019, and continuing through  
4 the pendency of the Section 529 proceeding. Since then, the AP has acted in that capacity  
5 directed by the PUC and continued to provide save and adequate utility service to the 19  
6 customers connected to the Belle Aire Acres system until such time the system is acquired  
7 by a capable public utility. After significant work, perseverance, and dedication by the key  
8 stakeholders, the AP closed on this acquisition on May 2, 2024.

9 **Q. Can you explain AP’s treatment in this case of Twin Lakes and Venango – the**  
10 **Receivership systems and any requests thereto?**

11 A. Yes. For the purposes of this rate case Aqua PA has adjusted revenues, expenses, and rate  
12 base to remove these systems from the consideration of its proposed based rate increase.  
13 However, Aqua PA does request that it receive approval to continue the deferred  
14 accounting treatment it was authorized in each of the proceedings to which Aqua PA was  
15 named Receiver. Aqua PA will continue the deferred accounting until its next base rate  
16 case following the final resolution of each of the two receiverships. When it files that base  
17 rate case, Aqua PA will present claims for any return on or return of investments and  
18 expenses incurred by Aqua PA until said rate relief. Given the fact that these systems have  
19 not been acquired by Aqua PA, I believe this request is reasonable.

20 **DEFERRED ACCOUNTING TREATMENT OF BAD DEBT DUE TO THE PANDEMIC**

21 **Q. Please discuss the PUC’s May 13, 2020 Secretarial Letter regarding COVID-19 Cost**  
22 **Tracking and Creation of Regulatory Asset?**

23 A. The May 13, 2020 Secretarial Letter (“Secretarial Letter”) responded to Governor Wolf’s  
24 March 6, 2020 Proclamation of Disaster Emergency (“Emergency Proclamation”). To that

1 end, the Commission issued an “Emergency Order”. The Emergency Order declared a  
2 termination moratorium for public utility services. Recognizing the pandemic in general  
3 and the termination moratorium specifically would likely increase costs to utilities (e.g.,  
4 uncollectible expense), the Commission then issued a Secretarial Letter dated May 13,  
5 2020, that directed public utilities to “account for prudently incurred incremental  
6 extraordinary, nonrecurring expenses related to COVID-19, which result from compliance  
7 with the Commission’s moratorium suspension.” Utilities also were specifically  
8 authorized to create regulatory assets for incremental uncollectible expenses (related to  
9 COVID-19) above those embedded in base rates.

10 **Q. Did Aqua PA make a claim for incremental COVID-19 expenses related to**  
11 **uncollectible accounts expense in its 2021 Base Rate Case?**

12 A. Aqua PA identified the deferred incremental uncollectible accounts expenses related to  
13 COVID-19 through the end of the HTY (March 31, 2021) in that case. However, the  
14 Company deferred seeking recovery of these expenses and requested to continue deferring  
15 incremental uncollectible accounts expense over and above its recovery levels such that  
16 they can be reviewed for reasonableness and recovered in this proceeding, The PUC  
17 authorized this continued deferral, because at the time of the 2021 Base Rate Case it was  
18 unknown whether additional expenses resulting from COVID-19 would be incurred, or  
19 whether any deferred amounts would subsequently be collected from customers.

20 **Q. Did the PUC direct a cut-off date for incremental uncollectible accounts expenses in**  
21 **the 2021 Base Rate Case?**

22 A. No. However, the Company ceased recording any adjustments to deferrals as of December  
23 31, 2022, which was one quarter prior to the end of the FPFTY in the last rate case.

1 **Q. What is the Company’s claim for deferred incremental uncollectible accounts expense**  
2 **resulting from COVID-19?**

3 A. The Company is requesting recovery of its deferred expenses occasioned by the COVID-  
4 19 pandemic over a two-year period beginning in the FPFTY in this application.  
5 Specifically, in Exhibits 1-A and 1-C, Schedule C-4.9, the Company is requesting an  
6 expense amortization of \$2,511,175 and \$419,962 annually for its water and wastewater  
7 operations respectively. The total recovery of deferred expense cost total \$5.862 million.

8 **Q. Is it appropriate for the Company to recover these deferred amounts?**

9 A. Yes. They represent costs incurred for uncollectable expense over and above recovery  
10 levels established prior rate cases going back to 2018. Absent deferral this would impair  
11 the Company’s opportunity to realize fair operating returns for service provided during an  
12 extremely difficult period nationally. Utility service is as an indispensable service, as such,  
13 utility companies like Aqua PA were expected to maintain safe, adequate, and reliable  
14 utility service, while other industries were shut down completely. The understandable  
15 difficulties many of our customers faced during this time economically were financially  
16 bridged during this period by virtue of the Emergency Order and termination moratorium.  
17 This was able to be accomplished through solid utility management and securing additional  
18 short-term liquidity through Aqua’s parent company Essential.

19 **VI. DEFERRED ACCOUNTING REQUEST PFAS TREATMENT COSTS**

20 **Q. Please explain the Company’s request for the Commission to authorize it to defer**  
21 **costs incurred associated with PFAS Treatment?**

22 A. The Company is seeking approval of its request to defer costs incurred that are not reflected  
23 in the cost of service rates resulting from this rate case, but are expected to be completed

1 during the calendar years 2026 and thereafter. This would include the cost of deferred  
2 depreciation on new assets placed in service, incremental O&M expenses incurred over  
3 FPFTY levels established in this filing, and a carrying cost of capital while the deferred  
4 amounts are not reflected in base rates charged to customers.

5 **Q. Why is the Company seeking this relief?**

6 A. Deferred accounting authorization is typically utilized for significant, non-recurring, type  
7 events affecting utilities, that absent deferred authorization, the economic impacts of the  
8 investments and expense incurred would significantly impair the Company's opportunity  
9 to realize a Commission authorized fair rate of return.

10 **Q. Are the costs expected to be incurred significant?**

11 A. Yes. Current estimates for capital investments to deal with PFAS treatment are  
12 approximately \$300 million, spent between 2024 and 2029. Additionally, incremental  
13 O&M expenses occasioned by PFAS solutions are estimated to be as much as five percent  
14 of the capital invested. Company witnesses Duerr (Statement No. 11) and Convery  
15 (Statement No. 12), provide greater details as to the scope of the PFAS challenges facing  
16 the Company and details on projects underway, a small portion of which are included in  
17 this case.

18 **Q. Is the Company pursuing any actions to offset costs expected for PFAS?**

19 A. Yes. We have pursued and received grant funds to offset approximately \$10 million of  
20 investments made for production wells in North Hills and Hatboro. Furthermore, we are  
21 actively seeking additional grant funds and low interest loans through PENNVEST.  
22 Finally, we are participants in class action lawsuits against the known major chemical  
23 manufacturing companies. We have no assurance of receipt of such further grants, loans

1 or litigation proceeds, and therefore have not projected such amounts in this case. To the  
 2 extent that any funds are received as a result of these efforts, it is expected that the majority  
 3 of such funds would be deferred as well, along with the costs I have outlined, with the  
 4 Commission deferral authorization we are seeking.

5 **VII. DEPRECIATION, TAXES AND OTHER ITEMS**

6 **Q. The next series of adjustments to Aqua PA's Statement of Income is found in**  
 7 **Schedules D-1 through D-2.5, E-1 through E-4, and F-1 through F-2 of Exhibits 1-A**  
 8 **through 1-E. Who are the responsible witnesses for these adjustments?**

9 A. The responsible witnesses for the adjustments are as follows:

<b>ADJUSTMENT</b>	<b>SCHEDULE</b>	<b>RESPONSIBLE WITNESS</b>	<b>EXHIBIT(S)</b>
Summary of Depreciation	D-1	R. Marquis & J. Spanos	1-A to 1-E
Summary of Adjustments To Taxes Other Than Income	D-2	R. Marquis	1-A to 1-E
PUC - General Assessment	D-2.1	R. Marquis	1-A to 1-E
OCA and OSBA - General Assessment	D-2.2	R. Marquis	1-A to 1-E
Public Utility Realty Tax	D-2.3	M. Ercolino	1-A to 1-E
Pennsylvania Property Tax	D-2.4	M. Ercolino	1-A to 1-E
Payroll Taxes	D-2.5	C. Manning	1-A to 1-E
Interest on Long-Term Debt	E-1	W. Packer	1-A to 1-E
Amortization of Debt Discount and Expense	E-2	W. Packer	1-A to 1-E
Other Interest Charges	E-3	W. Packer	1-A to 1-E
Interest During Construction	E-4	W. Packer	1-A to 1-E
Summary of Adjustment to Income Taxes	F-1	P. Fischer	1-A to 1-E

Computation of Federal and State Income Taxes Under Present and Proposed Rates	F-2	P. Fischer	1-A to 1-E
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**Q. Please explain your calculation of interest on long-term debt on Schedule E-1 of Exhibits 1-A and 1-B and Exhibits 1-C through 1-E.**

A. A calculation is made to synchronize the interest expense applicable to the long-term debt portion with the original cost rate base as of December 31, 2025. I have used the same capital structure as recommended by Mr. Moul for rate of return purposes (see Statement No. 7 and Exhibit 4-A). The projected weighted cost rate of long-term debt (for both water and wastewater) as of December 31, 2024 and December 31, 2025 is 4.24% and 4.32%, respectively. The synchronized interest was used to adjust the interest expense recorded for the year ended December 31, 2023 and the resulting adjustment carried forward to Schedule A-1 of Exhibits 1-A and 1-B and 1-C through 1-E.

**Q. The next adjustment is for amortization of debt discount and expense appearing on Schedule E-2 of Exhibits 1-A and 1-B and Exhibits 1-C through 1-E. Please explain this adjustment.**

A. This adjustment removes those costs because, consistent with the way these costs are reflected for ratemaking in Pennsylvania, their recovery has been reflected in the yield-to-maturity calculation of Aqua PA’s claimed long-term debt cost rate.

**Q. Schedule E-3 of Exhibits 1-A and 1-B and Exhibits 1-C through 1-E reflects decreases in other interest charges. Please explain this adjustment.**

A. Other interest charges for the year ending December 31, 2023 were principally for funds borrowed through bank loans to finance Aqua PA’s capital expenditures. The bank loans

1 outstanding are anticipated to be refinanced with long-term debt prior to the end of the  
2 FTY. Therefore, the interest on bank loans has been eliminated.

3 **Q. The last adjustment, on Schedule E-4 of Exhibits 1-A and 1-B and Exhibits 1-C**  
4 **through 1-E, is for interest during construction. Please explain this adjustment.**

5 A. For financial accounting purposes, interest during construction is recorded as income.  
6 However, for ratemaking purposes, it is reflected in the allowance for funds used during  
7 construction (“AFUDC”) and included in the original cost of utility plant. This adjustment  
8 is made to eliminate interest during construction as income and is consistent with the  
9 treatment accorded this item in Aqua PA’s previous base rate cases.

10 **VIII. RATE BASE**

11 **Q. Please describe the data presented in Schedule G-1 of Exhibits 1-A through 1-E.**

12 A. Those pages show Aqua PA’s claimed original cost measure of value as anticipated under  
13 present and proposed rates for the FTY and FPFTY.

14 **Q. Schedules G-2 through G-7 in Exhibits 1-A through 1-E set forth various components**  
15 **of the Company’s rate base claim. Please identify the responsible witnesses for these**  
16 **items.**

17 A. Witness responsibilities are as follows:

<b>ADJUSTMENT</b>	<b>SCHEDULE</b>	<b>RESPONSIBLE WITNESS</b>	<b>EXHIBIT(S)</b>
Utility Plant in Service & Accumulated Depreciation	G-2	J. Spanos & R. Marquis	1-A to 1-E
Utility Plant Acquisition Adjustments	G-3	R. Marquis	1-A and 1-C
Materials & Supplies	G-4	W. Packer	1-A
Cash Working Capital	G-5	H. Walker	1-A to 1-E

CIAC & CAC	G-6	J. Spanos & R. Marquis	1-A to 1-E
Deferred Income Taxes	G-7	P. Fischer	1-A to 1-E

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**Q. Please explain the addition in Exhibit 1-A for materials and supplies.**

A. As shown in Schedule G-4 of Exhibit 1-A, this amount was developed by averaging the monthly balances in the Materials and Supplies account for the thirteen months ended December 31, 2023. While Exhibit 1-C contains a schedule G-4, Aqua PA does not maintain a significant number of standby materials and supplies for wastewater operations and, therefore, material and supplies are expensed as they are purchased.

**Q. Has Aqua PA included a claim for cash working capital in rate base?**

A. Yes. Please refer to the testimony and exhibits of Mr. Walker (Statement No. 9). The results of Aqua PA’s lead/lag study yielded a positive result, thus Aqua PA, consistent with Commission practice, is making a claim for cash working capital. The calculations are included in Exhibit 1-A through 1-E, Schedules G-5.1, G-5.2, G-5.3, and G-5.4.

**IX. CAPITAL STRUCTURE RATIOS**

**Q. Mr. Moul’s proposed rate of return, as set forth in Exhibit 4-A, is based on a FPFTY-end capital structure consisting of 46.05% long-term debt and 53.95% common equity. How were these figures derived?**

A. Consistent with past practice, the starting point was Aqua PA’s actual capitalization at the end of the HTY. The respective amounts of long-term debt and common equity at December 31, 2023 were then adjusted to reflect anticipated changes during the FTY and FPFTY. In sum, Aqua PA’s total permanent capitalization is expected to increase by approximately \$447 million (net of depreciation) over that period.

**Q. What accounts for that increase?**

1 A. There are several factors. Aqua PA's long-term debt balance is anticipated to grow by  
2 nearly \$93 million because of the issuance of new and the retirement of existing debt series.  
3 The net effect of these financings is a slight increase in Aqua PA's embedded long-term  
4 debt cost rate from 4.24% to 4.32%. Aqua PA's common equity is projected to increase  
5 by \$354 million. Details regarding all these changes are provided on Schedule 5 of Exhibit  
6 4-A. Total capitalization and total rate base are both projected to be approximately \$5  
7 billion by the end of the FPFTY. Unfortunately, rising interest rates have resulted in an  
8 increase in long term debt costs of approximately \$7 million of the total requested revenue  
9 increase in this case.

#### 10 X. RETURN ON EQUITY CONSIDERATIONS

11 **Q. Please explain how Aqua PA derived its requested return on equity allowance.**

12 A. In Statement No. 7, Mr. Moul has recommended a return on common equity ("ROE") of  
13 at least 10.95%. His testimony and Exhibit 4-A offer a through explanation of his  
14 calculation methodology. The various methodologies used by Mr. Moul produced an ROE  
15 range of 10.58% to 13.80%. Looking only at the Discounted Cash Flow ("DCF") and Risk  
16 Premium ("RP") methods (which is reflective of past Commission practice) produces a  
17 narrower range of 10.58%-11.50%. Based on this range, Mr. Moul observes that the ROE  
18 being proposed in the calculation of the cost of service at 10.95% is notably at the lower  
19 end of the range he analyzed. As observed by Mr. Moul, an ROE of 10.95% is utilized  
20 for the purposes of calculating the Company's overall revenue requirement in this instant  
21 proceeding, which is certainly reasonable, and again, within Mr. Moul's range of ROEs I  
22 described earlier.

1 **Q. Please explain why you believe Aqua PA is entitled to an equity allowance that**  
2 **recognizes exemplary managerial performance.**

3 A. Aqua PA has consistently provided its customers with safe and reliable water and  
4 wastewater service at reasonable rates. This is the product of a mission based, dedicated,  
5 and knowledgeable workforce that is constantly seeking to improve quality and control  
6 costs. Aqua PA is committed to providing safe and reliable service to the community and  
7 protecting the environment. Aqua PA continues to accept the challenge of acquiring  
8 troubled or weaker water and wastewater systems in an effort to promote the Commission's  
9 goal of regionalization. Mr. Duerr also provides reasons and examples supporting an  
10 equity allowance that recognizes exemplary managerial performance.

11 **Q. Could you be more specific with respect to the measures undertaken by Aqua PA that**  
12 **you believe should enter the Commission's determination of an appropriate equity**  
13 **return rate?**

14 A. In my view, the Company's performance in the following areas fully supports a return of  
15 at least 10.95%:

16 **1. Water Quality**

17 AP has achieved significant compliance with all existing Federal and State drinking  
18 water standards in its water systems in Pennsylvania. AP provides filtration for all surface  
19 water sources and disinfection for all ground water sources and specialized treatment for  
20 specific contaminants where necessary.

21 AP has been a leader in the industry on several fronts. To proactively address  
22 customer owned LSLs, the Company filed its LSL application under Act 120 of 2018, P.L.  
23 738, No. 120, prior to the issuance of the Commission's final regulations promulgated

1 pursuant to Section 1311(b)(2) of the Public Utility Code, 66 Pa. C.S. § 1311(b)(2), to help  
2 customers address this issue sooner. AP successfully worked with stakeholders in an  
3 expedited fashion to help address customer-owned LSLs in one community where this  
4 issue occurred. AP has since expanded its LSL replacement program to remove lead and  
5 galvanized service lines throughout its footprint and to comply with regulations issued by  
6 the Pennsylvania Department of Environmental Protection (“PADEP”) and the U.S.  
7 Environmental Protection Agency (“EPA”).

8 In addition, AP continues to be a leader when it comes to addressing emerging  
9 contaminants. Managing emerging contaminants is a continuous process as science  
10 improves our ability to detect and understand the impacts of chemicals in use for decades  
11 as well as newly developed chemicals. In February 2020, AP announced that it is  
12 committed to installing mitigation technology at water treatment facilities where sources  
13 of water exceed 13 parts per trillion (“ppt”) for any PFAS substance. Setting a company-  
14 wide standard of 13 ppt, well below the then in place EPA non-enforceable health advisory  
15 level of 70 ppt is a significant benefit to our customers. I also highlight that AP worked to  
16 obtain a PENNVEST grant in the amount of \$5,217,178 for the Hatboro wells which  
17 addressed PFAS treatment. Grant funds received by the Company are treated as a CIAC  
18 which reduces rate base and future depreciation expense, thus a reduction customer rates.

19 Aqua PA operates a water-quality laboratory in Bryn Mawr that conducts thousands  
20 of tests annually on water and wastewater samples from Aqua PA’s systems across the  
21 Commonwealth. The laboratory has a national reputation in the field of testing for trace  
22 levels of compounds. In fact, the laboratory operates testing equipment that can detect  
23 down to the ppt level. Customer water quality is incredibly important to Aqua PA.

1 Therefore, Aqua PA maintains a Technical Services Department that is in the laboratory  
2 and is staffed to handle water quality complaints exclusively. Having this staff with ready  
3 access to the resources of Aqua PA’s laboratory allows for prompt response, investigations,  
4 and resolution of water quality complaints.

5 In March 2023, the Company was informed of an 8,000-gallon spill of hazardous  
6 chemicals near our Bristol Water Treatment Plant and just upstream of the Delaware River.  
7 The Company’s response to this incident was highly regarded as excellent and emergency  
8 lab testing services were performed for multiple entities impacted by this event. Company  
9 witness Mr. Todd Duerr (Statement No. 11) covers this in more detail in his testimony.

10 **2. Wastewater Treatment Compliance**

11 As I noted earlier, APW has been growing its wastewater utility service through the  
12 acquisition of systems that come in various states of compliance, need for repair and  
13 attention. It has demonstrated that it can be the solution to ever growing wastewater utility  
14 challenges and continues to make improvements to wastewater utility infrastructure as  
15 reflected by the capital additions included in its utility plant in service in this case, which  
16 include some larger-scale treatment plant upgrades.

17 The Company has a team of wastewater managers and operators that maintain and  
18 safely operate these wastewater systems. Our wastewater team has a deep bench of prior  
19 experience, including running the Philadelphia Long Term Combined Sewer Overflow  
20 (“CSO”) Program and Wet Weather Programs for the City of Philadelphia as well as  
21 industrial pretreatment and combined sewer system and management of consent orders and  
22 operating and managing the 20 million gallons per day City of Scranton wastewater  
23 treatment plant, which includes a CSO collection system.

1           **3.     System Reliability & Infrastructure Rehabilitation**

2           The Company continues to fulfill its obligation to provide safe and reliable utility  
3           service to its customers and the facts presenting in this application are no exception. The  
4           goal of reliable utility service is to achieve 24-hour per day uninterrupted service to all  
5           customers and, especially, to customers with specific health care and public safety needs  
6           such as hospitals, outpatient surgical centers, schools, and public and private fire protection  
7           systems.

8           The facilities that Aqua PA has installed over the years, combined with its  
9           professional operations and maintenance staff, assure that customers' needs are met, and  
10          that uninterrupted service is provided. Company witnesses Duerr and Convery (Statement  
11          Nos. 11 and 12) provide examples and greater detail of the below summarized  
12          infrastructure investments in the assets providing utility service to customers. These  
13          proactive measures include, but are not limited to:

- 14          •   Water Treatment Plant Investments:
  - 15                  ○ Crum Creek Water Treatment Plant – Pre-Treatment Facility
  - 16                  ○ Pickering Water Treatment Plant - Phase 1 Filter Additions
  - 17                  ○ Roaring Creek Water Treatment Plant – Bear Gap Rehab Primary Spillway
  - 18                  ○ Shenango Water Treatment Plant – Contact Basin
- 19          •   Distribution System Investments:
  - 20                  ○ 2,700 linear feet 36-inch, transmission pipe – Neshaminy to Bethayres
  - 21                  ○ 3,000 linear feet 12-inch ductile iron pipe – Coventry Lane
  - 22                  ○ 12,000 linear feet of 36-inch transmission pipe and interconnection –  
23                  Thorndale.

- 1                   ○ 2,000 linear feet of 20-inch ductile iron pipe and 1,000 linear feet of 16-in
- 2                   ductile iron pipe – South Oak Avenue & Providence Road
- 3                   ○ 3,900 linear feet of 16-inch distribution pipe – East Eagle Road
- 4                   • LSL Replacement Program:
- 5                   ○ The Company has an active LSL replacement program that it continues to
- 6                   make significant investments annually.
- 7                   • Process Control Systems:
- 8                   ○ The Company is reinforcing the security of our Supervisory Control and
- 9                   Data Acquisition (“SCADA”) servers by moving them to a new off-site
- 10                  location where both physical security and cybersecurity is improved.
- 11                  • Dam Efficiency Study:
- 12                  ○ The Company is currently evaluating two of our dams for the potential of
- 13                  low-impact hydro power generation.
- 14                  • PFAS Treatment:
- 15                  ○ Chalfont Well #11
- 16                  ○ Hatboro Wells #6 & #8
- 17                  ○ Perkiomen Woods
- 18                  • Wastewater Infrastructure Investments and Consolidation:
- 19                  ○ Penn Township Wastewater Treatment Plant Phase II
- 20                  ○ Deerfield Knoll Wastewater Treatment Plant to Pump Station
- 21                  (Consolidation)
- 22                  ○ Penn London Wastewater Treatment Plant to Pump Station (Consolidation)
- 23                  ○ Cheltenham Interceptor A

- 1           ○ Inflow and Infiltration investigations – Cheltenham and East Norriton
- 2           ○ Pump Station Upgrade – East Norriton

3           In each case these, and other, improvements have enhanced the efficiency,  
4 reliability, and the quality of service to customers. Aqua PA has invested, and will continue  
5 to invest, in its infrastructure to improve its systems.

6           **4. Customer Service**

7           Since the last rate case, Aqua PA has implemented mobile application access to  
8 customers through an ePortal, that enables customers to view their account, manage it, and  
9 access their consumption data. Customers can have real-time updates on service outages  
10 and visibility into service orders.

11           Our team developed a process for displaying disruptions on Aqua PA’s external  
12 website, with an interactive map-based solution. The new experience, and what our  
13 customers will have access to on Aqua PA’s externally facing, public website, will involve  
14 an external Geographical Information System Disruption Map that will allow them to see  
15 activity in their service area by simply entering a street address, city, zip code, or by using  
16 their smart phone's location. The map website will be updated every hour to provide our  
17 customers with the latest updates on disruptions to their service.

18           **5. Acquisition of Small Troubled Water and Wastewater Systems**

19           Aqua PA has acquired many community water systems previously owned and  
20 operated by entities within the public and private (private investor-owned or homeowners’  
21 associations) sectors. Upon acquiring these systems, Aqua PA made immediate  
22 improvements in quality, supply, and customer service. At the same time, existing  
23 customers have received the benefits of improved efficiency and the spreading of fixed

1 costs over a larger customer base. From a more macro viewpoint, the regionalization of  
2 water and wastewater systems will allow for consistent, reliable service, which, in turn,  
3 improves the economics and quality of life of the regions the Company serves.

4 Aqua PA intends to continue to provide solutions for the long-term water supply  
5 and wastewater treatment requirements in Pennsylvania. Since the conclusion of the  
6 Company's last rate case, it has completed its acquisitions of NHSC and Belle Aire Acres.  
7 Also, the Company currently serves as the PUC appointed receiver of the Venango and  
8 Twin Lakes systems.

#### 9 **6. Aqua Aid & Customer Assistance Programs ("CAP")**

10 Aqua PA voluntarily implemented a program in 1994 designed to facilitate the  
11 payment of water bills by its low-income residential customers. This program is called "A  
12 Helping Hand." It was the first program of its kind offered by any investor-owned water  
13 utility in Pennsylvania and has been looked at as a model by other utilities. This program  
14 provides water audits, appropriate repairs where necessary and, upon the identification of  
15 qualified customers, the partial forgiveness of prior arrearages or a grant. In the current  
16 proceeding, Aqua PA is continuing its comprehensive approach to address affordability for  
17 low-income customers.

18 Aqua PA voluntarily proposed, and the Commission approved, a robust and  
19 comprehensive CAP in the 2021 Base Rate Case, with a tiered structure similar to the  
20 structure in place at the Peoples Companies that provides the largest benefit to those with  
21 the least income. The CAP is available to both water and wastewater customers. Further  
22 details are covered in the testimony of Ms. Black (Statement No. 13).



**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
RENEE T. MARQUIS**

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**Topics Addressed:**

**Certain Expense Adjustments  
Depreciation and Taxes Other than Income  
Certain Components of Rate Base  
Acquisitions  
Consolidation of Rate Zones**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 2**

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1                   **I.       INTRODUCTION AND PURPOSE OF TESTIMONY**

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

3   A.     My name is Renee T. Marquis. My business address is 762 W. Lancaster Avenue, Bryn  
4         Mawr, Pennsylvania 19010.

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

6   A.     I am employed by Essential Utilities, Inc. (“Essential”) as Manager of Rates.

7   **Q.     On whose behalf are you providing this direct testimony?**

8   A.     I am providing this testimony on behalf of Aqua Pennsylvania, Inc. (“AP”) and Aqua  
9         Pennsylvania Wastewater, Inc. (“APW”) (collectively “Aqua PA” or the “Company”).

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

11 A.     I graduated from Widener University in 2004 with a Bachelor of Science degree in  
12         Business Administration with a concentration in Accounting. I also have my Master of  
13         Business Administration, with a concentration in Business Process Management, which  
14         was attained in 2016. Prior to joining Aqua PA, I worked for KPMG, LLP as a Senior  
15         Associate where I performed financial statement audits and reviewed internal control  
16         practices for a variety of clients. In 2009, I joined Widener University in the position of  
17         Senior Accountant, where I continued to utilize my background in financial accounting by  
18         performing various functions including, but not limited to, account reconciliations,  
19         variance analysis, and account analysis including property, plant, and equipment. In  
20         August of 2014, I joined Aqua Services, Inc. (“Aqua Services”) as a Director, Property  
21         Accounting, where I was responsible for oversight and administration of Aqua America  
22         Inc.’s (“Aqua America”) utility plant accounting subledger. In July of 2015, I was  
23         promoted to Manager of Rates and Planning at Aqua PA. In September of 2019, I was

1 promoted to Director of Investor Relations at Essential. In April of 2024, I returned to the  
2 Rates department as the Manager of Rates.

3 **Q. What are your duties as Manager of Rates?**

4 A. My duties as Manager of Rates primarily include assisting with the preparation and  
5 presentation of rate case filings for the subsidiaries of Essential. I report directly to the  
6 Vice President Rates and Regulatory Accounting and Regional Controller, with whom I  
7 assist in the oversight and direction of regulatory accounting matters for the Company.

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

9 A. The purpose of my testimony is to: (1) identify and describe certain adjustments of the  
10 Company's expense and rate base claims that I am sponsoring as presented in Exhibits 1-  
11 A through 1-B and Exhibits 1-C through 1-E in support of the Company's proposed rate  
12 increase for water and wastewater operations, respectively; (2) provide an overview of the  
13 Company's acquisitions since the end of its last water and wastewater base rate case; and  
14 (3) discuss proposed tariff changes.

15 **Q. For which of the Company's Exhibits are you responsible?**

16 A. I am responsible for portions of Exhibits 1-A through 1-B and Exhibits 1-C through 1-E  
17 including: (1) various operating expenses; (2) change in amortization acquisition  
18 adjustments; (3) amortization of new negative acquisition adjustments; (4) depreciation;  
19 and (5) taxes other than income, including general assessment fees. In addition, I am  
20 responsible for Exhibit 3, and I assisted in the preparation of the following backup volumes  
21 that contain responses to the Pennsylvania Public Utility Commission's ("Commission")  
22 standard rate case filing requirements: Statement of Income, Operating Revenue, Operating

1 Expense, Rate Base, Rate of Return, Rate Structure, Balance Sheet, and Other Data as all  
2 of these are indispensable to the rate case filing.

3 **Q. Are you including any other exhibits with your testimony?**

4 A. Yes. Attached to my Direct Testimony is RTM-1, RTM-2, and RTM-3.

## 5 II. CERTAIN OPERATING EXPENSES

6 **Q. Did you prepare any adjustments to the Company's Operating Expenses?**

7 A. Yes, I am responsible for the following adjustments: (1) Uncollectible Accounts; (2)  
8 Derivation of Uncollectible Accounts; (3) Change in Amortization of Acquisition  
9 Adjustments; and (4) Amortization of New Positive Acquisition Adjustments.

10 **Q. Please explain the adjustment to Uncollectible Accounts expense on Schedule C-4.2  
11 of Exhibits 1-A through 1-E.**

12 A. The Company's claims for uncollectible accounts expense were developed by applying the  
13 three-year average factor of net write-offs (as supported in Schedule C-4.2.i) to the Historic  
14 Test Year ("HTY"), Future Test Year ("FTY") and Fully Projected Future Test Year  
15 ("FPFTY") level revenues at present rates for both Exhibits 1-A and 1-C.

16 The annualized uncollectible accounts factor was calculated by utilizing the  
17 Company's actual write-off experienced for the three years ended December 31, 2023,  
18 divided by the Total Sales to General Customers for the three years ended December 31,  
19 2023. The three years included within the average calculations are for the twelve months  
20 ended December 31, 2021, December 31, 2022, and December 31, 2023. For water,  
21 Schedule C-4.2.i in Exhibit 1-A calculates an annualized uncollectible accounts factor of  
22 0.44006%. For wastewater, Schedule C-4.2.i in Exhibit 1-C calculates an annualized

1 uncollectible accounts factor of 1.05080%. Schedule C-4.2 also includes an adjustment  
2 for arrearage forgiveness as part of Aqua PA's customer assistance program.

3 **Q. Please explain the amortization of Acquisition Adjustments shown on Schedule C-5.1**  
4 **of Exhibit 1-A and 1-C.**

5 A. There are eight acquisition adjustments in Exhibit 1-A and nine acquisition adjustments in  
6 Exhibit 1-C that will be fully amortized by the end of the FPFTY.

7 **Q. Please explain the Amortization of New Negative Acquisition Adjustment on Schedule**  
8 **C-5.2 of Exhibit 1-C.**

9 A. The Company is proposing to amortize the negative acquisition adjustment involving the  
10 North Heidelberg acquisition that was closed after the completion of Aqua PA's last rate  
11 case. Listed on Schedule C-5.2 of Exhibit 1-C is the first year amortization of the new  
12 negative acquisition adjustment. A twenty-year amortization period was selected, similar  
13 to the treatment of prior acquisition adjustments approved by the Commission.

### 14 **III. DEPRECIATION AND TAXES OTHER THAN INCOME**

15 **Q. Please explain the Statement of Depreciation shown on Schedule D-1 of Exhibits 1-A**  
16 **through 1-B and Exhibits 1-C through 1-E.**

17 A. The Statement of Depreciation in Exhibits 1-A through 1-B and Exhibits 1-C through 1-E  
18 shows the Company's annual depreciation expense claims for the FTY and FPFTY for both  
19 water and wastewater assets. The annual provision for depreciation was computed by Mr.  
20 John Spanos for utility plant in service as of December 31, 2024 and December 31, 2025  
21 using the straight-line average remaining life method as set forth in Mr. Spanos's Exhibit  
22 Nos. 6-A through 6-E. The amount computed by Mr. Spanos (Statement No. 6) relates to  
23 utility plant in service, inclusive of customers' advances for construction ("CAC"),

1 contributions in aid of construction (“CIAC”) and any related retirements of assets.  
2 Comparing the Company’s claimed amount with the annualized depreciation expense for  
3 the year ended December 31, 2023, results in a FTY increase of \$4,595,747 and a FPFTY  
4 increase of \$3,878,754 for water assets; additionally, a FTY increase of \$828,692 and a  
5 FPFTY increase of \$609,726 for wastewater assets.

6 **Q. Please explain the summary provided in Schedule D-2 of Exhibits 1-A through 1-E.**

7 A. The schedules referenced show a summary of the adjustments to taxes other than income  
8 taxes for the HTY, FTY, and FPFTY at present rates and the FPFTY at proposed rates.  
9 Each of the adjustments is discussed below.

10 **Q. Please explain the adjustments for General Assessments within Exhibits 1-A through**  
11 **1-E.**

12 A. The adjustment set forth on Schedules D-2.1 and D-2.2 of Exhibits 1-A through 1-E are  
13 related to the General Assessments, which provide funding for Commission, Office of  
14 Consumer Advocate (“OCA”), Office of Small Business Advocate (“OSBA”), and the  
15 Damage Prevention Committee (“DPC”) and are based on the actual assessment factors  
16 billed for the period July 1, 2023 to June 30, 2024. The assessed rates were applied to Gross  
17 Utility Revenues at present rates for the FTY and FPFTY and at proposed rates for the  
18 FPFTY.

#### 19 **IV. CERTAIN COMPONENTS OF RATE BASE**

20 **Q. Please describe the data presented in Schedule G-2 of Exhibits 1-A and 1-B through**  
21 **1-E and identify who is responsible for this data.**

22 A. Schedule G-2 shows the Company’s actual utility plant in service as of December 31, 2023,  
23 and the projected utility plant in service per scheduled additions and retirements for the

1 twelve months ending December 31, 2024 and December 31, 2025. It also shows the  
2 Accumulated Depreciation for each year associated with the Utility Plant in Service. I  
3 worked with Mr. Spanos by providing him Company data on projected FTY and FPFTY  
4 additions and retirements amongst all categories of utility plant in service, including linear  
5 property, non-linear property, information technology hard & soft costs, and supervisory  
6 control and data acquisition (“SCADA”). Accordingly, the aforementioned data was used  
7 as the basis for Mr. Spanos’s Exhibit Nos. 6-A through 6-E.

8 **Q. Please explain the derivation of the total Original Cost of Utility Plant in Service for**  
9 **both water and wastewater assets for the FTY and FPFTY as reflected in Schedule**  
10 **G-2 and referenced in Schedule G-1 of Exhibits 1-A through 1-E.**

11 A. The starting point for both water and wastewater utility plant in service was the HTY  
12 ending balance of \$5,726,651,949 for water and \$686,471,223 for wastewater. That figure  
13 was then increased to reflect FTY and FPFTY plant additions (net of retirements) and  
14 acquired systems utility plant acquisition adjustments (“UPAA”), which will be discussed  
15 later in my testimony. The anticipated additions and retirements of water assets for the  
16 years ended December 31, 2024, and December 31, 2025, are set forth in detail in  
17 Attachment RTM-1 to my testimony and are comprised of needed improvements to the  
18 Company’s infrastructure including, but not limited to water supply, storage, and  
19 distribution facilities. The majority of the Company’s capital investment remains in  
20 distribution assets such as mains, services, hydrants, valves, and meters. The anticipated  
21 additions and retirements of wastewater assets for the years ended December 31, 2024, and  
22 December 31, 2025, are set forth in detail in Attachment RTM-2 to my testimony. Details  
23 of capital investments are covered in Statement No. 12 by Aqua PA witness Michael

1 Convery. Details of the accumulated depreciation used in Schedules G-2 can be found in  
2 Statement No. 6 authored by Aqua PA witness John Spanos.

3 **Q. Please explain the adjustments on Schedule G-3 of Exhibit 1-A.**

4 A. The adjustment in Schedule G-3 of Exhibits 1-A reflect the fully amortized positive UPAA  
5 of N.U.I. and White Rock.

6 **Q. Please explain the reductions from rate base for CIAC and CAC as listed on**  
7 **Schedules G-6 of Exhibits 1-A through 1-E.**

8 A. These reductions to rate base are summarized in Mr. Spanos's Exhibits 6-A through 6-E.  
9 The CIAC and CAC related to plant in service at December 31, 2023, reflect the actual  
10 CIAC and CAC recorded on the Company's books of account as of that date.

#### 11 V. ACQUISITIONS

12 **Q. Please provide an overview of the North Heidelberg Sewer Company ("North**  
13 **Heidelberg") troubled wastewater acquisition which the Company is reflecting in its**  
14 **rate base pursuant to Section 1327 of the Public Utility Code, 66 Pa. C.S. § 1327.**

15 A. Since the Company's last rate case was filed, the Company has completed the acquisition  
16 of WW-1, North Heidelberg, which is not yet reflected in the Company's rate base. Exhibit  
17 3 contains the journal entry and the original cost study for the acquisition, as mentioned  
18 above corresponding to the listed classification system.

19 **Q. How does the Company propose to treat this acquisition for rate purposes?**

20 A. With respect to this acquisition, the Company paid less than depreciated original cost  
21 ("DOC"), the assets acquired were recorded on its regulatory books of account at DOC,  
22 and the Company has amortized the difference between the DOC and purchase price as an

1 offset (i.e., reduction) to revenue requirement consistent with Section 1327 of the Public  
2 Utility Code. This is considered a “negative” acquisition adjustment.

3 **Q. Section 1327 enumerates certain criteria that an acquiring company must meet in**  
4 **order to include the acquisition adjustment in rate base. Do you believe that the**  
5 **acquisition for which you are seeking “negative” acquisition adjustment treatment**  
6 **satisfies those criteria?**

7 A. Yes, I do. The specific acquisition falling into the “negative” acquisition adjustment  
8 category, as well as the proposed amortization of the adjustment associated therewith, are  
9 set forth on Schedule C-5.2 of Exhibit 1-C. Exhibit 3 consists of a series of schedules  
10 which describe how the acquisition shown on Schedule C-5.2 of Exhibit 1-C satisfies the  
11 requirements of Section 1327.

12 **Q. How did Aqua PA determine the DOC of the North Heidelberg system acquired since**  
13 **its last case?**

14 A. The Company engaged outside professional utility valuation firm Gannett Fleming who  
15 are experienced and knowledgeable in performing utility valuations pursuant to  
16 Commission requirements. The results of those analyses were documented in the form of  
17 an original cost study which is being submitted with this rate filing as part of Exhibit 3.

## 18 VI. CONSOLIDATION OF RATE ZONES

19 **Q. Please discuss the proposed consolidation of rate zones and updates in the proposed**  
20 **Water and Wastewater Tariffs.**

21 A. As in prior rate cases, the Company continues to consolidate and move toward single tariff  
22 pricing. Company Witness Heppenstall’s (Statement No. 5) proposed rate design outlines  
23 these changes, and they are included in Original Tariff Water-PA P.U.C. No. 4 and Original

1 Tariff Sewer-PA P.U.C. No. 4. The Company has also provided updates and clarifications  
2 to the proposed tariffs, in particular, the addition of more robust pretreatment and  
3 wastewater control regulations in the Original Tariff Sewer-PA P.U.C. No. 4.

4 **Q. Please generally describe how APW wastewater customers are billed.**

5 A. If the customer is an AP water customer or has a water meter from another water company,  
6 the Company will utilize the water reads to calculate the wastewater usage for the  
7 wastewater customer. If the customer is on a private well or the water reads are not  
8 available, APW will calculate a flat fee to bill the customer. APW's preference is to charge  
9 both a base facility charge and a volumetric charge, which we believe encourages  
10 conservation and provides customers' with greater control over their wastewater bill.

11 **Q. How many APW wastewater customers are billed on a flat rate?**

12 A. Currently there are approximately 9,400 wastewater customers that are charged a flat fee.  
13 In this case, APW is moving approximately 4,500 of those customers to metered  
14 billing. The majority that are moving a metered wastewater rate are for the East Whiteland  
15 system. The remainder of customers are on private wells.

## 16 VII. MISCELLANEOUS

17 **Q. Please provide information on commitments/directives from prior PUC orders.**

18 A. The Company is providing the following information related to certain Commission orders  
19 since the last base rate case:

- 20 • Requested billing information: Shenandoah \$429,632, Lower Makefield \$508,966,  
21 and East Whiteland \$271,552.
- 22 • Infrastructure Investment and Jobs Act ("IIJA"): any grant funds received through  
23 IIJA funding is treated as CIAC.



Estimated Future Test Year Additions and Retirements  
 For the Twelve Month Period Ending December 31, 2024

NARUC	Capital Additions	Capital Retirements
301100-Organization-WA	-	-
303000-Land & Land Rights-WA	2,500	-
304000-Structures & Improvements-WA	9,944,024	(301,034)
305200-Collect & Impound Res-WA	414,579	(268,004)
306200-Lake, River & Other Intak-WA	1,590,881	(3,259)
307200-Wells & Springs-WA	13,015,174	(3,160,642)
309200-Supply Mains-WA	-	-
310000-Power Generation Equip-WA	900,462	(17,267)
311000-Pumping Equipment-WA	4,983,974	(245,921)
320300-Water Treatment Equip-WA	23,286,748	(1,659,588)
330400-Distrib Res & Standpipe-WA	1,161,122	(103,294)
331400-T & D Mains-WA	173,255,314	(6,209,232)
331400-T & D Mains-WA (CAC)	750,000	-
331400-T & D Mains-WA (CIAC)	(6,850,000)	-
333400-Services-WA	34,638,713	(389,557)
334400-Meters-WA	17,173,884	(3,498,248)
335400-Fire Hydrants-WA	4,479,217	(225,512)
336400-Backflow Prevention-WA	2,000	(157)
339000-Other Plant & Misc Equip-WA	76,885	-
340500-Office Furn & Equip-WA	18,400,971	(14,876,547)
341500-Transport Equip-WA	2,847,001	(682,838)
342500-Stores Equip-WA	41,300	-
343500-Tools, Shop & Garage Eq-WA	1,347,514	(138,231)
344500-Laboratory Equip-WA	812,020	(126,094)
345500-Power Operated Equipment-WA	131,411	-
346500-Communication Equip-WA	6,641,470	(1,311,116)
347500-Misc Equip-WA	186,191	(1,819)
348000-Other Tangible Plant-WA	10,000	-
351100-Organization-WW	-	-
353000-Land & Land Rights-WW	-	-
354000-Structures & Improvements-WW	-	-
355000-Power Gen Equip-WW	-	-
360200-Collection Mains Force-WW	-	-
360200-Collection Mains Force-WW (CAC)	-	-
360200-Collection Mains Force-WW (CIAC)	-	-
361200-Collection Mains Gravity-WW	-	-
361200-Collection Mains Gravity-WW (CIAC)	-	-
363200-Services To Customers-WW	-	-
364200-Flow Measuring Devices-WW	-	-
365200-Flow Measuring Installs-WW	-	-
370300-Receiving Wells-WW	-	-
371000-Pumping Equip-WW	-	-
380000-Treat & Disp Equip-WW	-	-
381000-Plant Sewers-WW	-	-
382400-Outfall Lines-WW	-	-
389000-Other Plant & Misc Equip-WW	-	-
390700-Office Furn & Equip-WW	-	-
391700-Transportation Equip-WW	-	-
393700-Tools, Shop & Garage Eq-WW	-	-
394700-Laboratory Equip-WW	-	-
395700-Power Operated Equip-WW	-	-
396700-Communication Equip-WW	-	-
397700-Misc Equipment-WW	-	-
<b>TOTAL</b>	<b>309,243,355</b>	<b>(33,218,360)</b>

**Estimated Fully-Projected Future Test Year Additions and Retirements  
 For the Twelve Month Period Ending December 31, 2025**

NARUC	Capital Additions	Capital Retirements
301100-Organization-WA	-	-
303000-Land & Land Rights-WA	-	-
304000-Structures & Improvements-WA	32,278,608	(1,184,176)
305200-Collect & Impound Res-WA	9,789,606	(22,264)
306200-Lake, River & Other Intak-WA	25,000	(53)
307200-Wells & Springs-WA	1,883,314	(476,265)
309200-Supply Mains-WA	-	-
310000-Power Generation Equip-WA	1,361,000	(14,009)
311000-Pumping Equipment-WA	2,598,203	(204,536)
320300-Water Treatment Equip-WA	43,385,848	(2,020,236)
330400-Distrib Res & Standpipe-WA	7,191,416	(913,059)
331400-T & D Mains-WA	148,127,752	(7,658,362)
331400-T & D Mains-WA (CAC)	750,000	-
331400-T & D Mains-WA (CIAC)	(750,000)	-
333400-Services-WA	38,747,990	(458,618)
334400-Meters-WA	8,766,573	(1,881,428)
335400-Fire Hydrants-WA	4,230,156	(225,530)
336400-Backflow Prevention-WA	2,000	(166)
339000-Other Plant & Misc Equip-WA	-	-
340500-Office Furn & Equip-WA	17,627,304	(11,364,536)
341500-Transport Equip-WA	1,100,000	(251,068)
342500-Stores Equip-WA	29,800	(46,862)
343500-Tools, Shop & Garage Eq-WA	629,100	(1,064,297)
344500-Laboratory Equip-WA	485,500	(142,154)
345500-Power Operated Equipment-WA	-	-
346500-Communication Equip-WA	4,455,000	(3,168,234)
347500-Misc Equip-WA	100,000	(19,133)
348000-Other Tangible Plant-WA	10,000	-
351100-Organization-WW	-	-
353000-Land & Land Rights-WW	-	-
354000-Structures & Improvements-WW	-	-
355000-Power Gen Equip-WW	-	-
360200-Collection Mains Force-WW	-	-
360200-Collection Mains Force-WW (CAC)	-	-
360200-Collection Mains Force-WW (CIAC)	-	-
361200-Collection Mains Gravity-WW	-	-
361200-Collection Mains Gravity-WW (CIAC)	-	-
363200-Services To Customers-WW	-	-
364200-Flow Measuring Devices-WW	-	-
365200-Flow Measuring Installs-WW	-	-
370300-Receiving Wells-WW	-	-
371000-Pumping Equip-WW	-	-
380000-Treat & Disp Equip-WW	-	-
381000-Plant Sewers-WW	-	-
382400-Outfall Lines-WW	-	-
389000-Other Plant & Misc Equip-WW	-	-
390700-Office Furn & Equip-WW	-	-
391700-Transportation Equip-WW	-	-
393700-Tools, Shop & Garage Eq-WW	-	-
394700-Laboratory Equip-WW	-	-
395700-Power Operated Equip-WW	-	-
396700-Communication Equip-WW	-	-
397700-Misc Equipment-WW	-	-
<b>TOTAL</b>	<b>322,824,171</b>	<b>(31,114,985)</b>

**Estimated Future Test Year Additions and Retirements  
 For the Twelve Month Period Ending December 31, 2024**

<b>NARUC</b>	<b>Capital Additions</b>	<b>Capital Retirements</b>
301100-Organization-WA	-	-
303000-Land & Land Rights-WA	-	-
304000-Structures & Improvements-WA	-	-
305200-Collect & Impound Res-WA	-	-
306200-Lake, River & Other Intak-WA	-	-
307200-Wells & Springs-WA	-	-
309200-Supply Mains-WA	-	-
310000-Power Generation Equip-WA	-	-
311000-Pumping Equipment-WA	-	-
320300-Water Treatment Equip-WA	-	-
330400-Distrib Res & Standpipe-WA	-	-
331400-T & D Mains-WA	-	-
331400-T & D Mains-WA (CAC)	-	-
331400-T & D Mains-WA (CIAC)	-	-
333400-Services-WA	-	-
334400-Meters-WA	-	-
335400-Fire Hydrants-WA	-	-
336400-Backflow Prevention-WA	-	-
339000-Other Plant & Misc Equip-WA	-	-
340500-Office Furn & Equip-WA	-	-
341500-Transport Equip-WA	-	-
342500-Stores Equip-WA	-	-
343500-Tools, Shop & Garage Eq-WA	-	-
344500-Laboratory Equip-WA	-	-
345500-Power Operated Equipment-WA	-	-
346500-Communication Equip-WA	-	-
347500-Misc Equip-WA	-	-
348000-Other Tangible Plant-WA	-	-
351100-Organization-WW	-	-
353000-Land & Land Rights-WW	14,500	-
354000-Structures & Improvements-WW	934,575	(61,207)
355000-Power Gen Equip-WW	475,075	(10,891)
360200-Collection Mains Force-WW	1,817,663	(15,499)
360200-Collection Mains Force-WW (CAC)	-	-
360200-Collection Mains Force-WW (CIAC)	-	-
361200-Collection Mains Gravity-WW	17,941,925	(108,468)
361200-Collection Mains Gravity-WW (CIAC)	(415,208)	-
363200-Services To Customers-WW	676,888	(2,727)
364200-Flow Measuring Devices-WW	51,650	(1,360)
365200-Flow Measuring Installs-WW	-	-
370300-Receiving Wells-WW	-	-
371000-Pumping Equip-WW	1,923,584	(141,045)
380000-Treat & Disp Equip-WW	10,009,428	(288,029)
381000-Plant Sewers-WW	-	-
382400-Outfall Lines-WW	5,000	-
389000-Other Plant & Misc Equip-WW	-	-
390700-Office Furn & Equip-WW	1,634,231	(320,055)
391700-Transportation Equip-WW	214,000	-
393700-Tools, Shop & Garage Eq-WW	118,658	4,449
394700-Laboratory Equip-WW	100,583	1,363
395700-Power Operated Equip-WW	-	-
396700-Communication Equip-WW	587,903	(11,871)
397700-Misc Equipment-WW	756,002	(2,621)
<b>TOTAL</b>	<b>36,846,456</b>	<b>(957,960)</b>

**Estimated Fully-Projected Future Test Year Additions and Retirements  
 For the Twelve Month Period Ending December 31, 2025**

NARUC	Capital Additions	Capital Retirements
301100-Organization-WA	-	-
303000-Land & Land Rights-WA	-	-
304000-Structures & Improvements-WA	-	-
305200-Collect & Impound Res-WA	-	-
306200-Lake, River & Other Intak-WA	-	-
307200-Wells & Springs-WA	-	-
309200-Supply Mains-WA	-	-
310000-Power Generation Equip-WA	-	-
311000-Pumping Equipment-WA	-	-
320300-Water Treatment Equip-WA	-	-
330400-Distrib Res & Standpipe-WA	-	-
331400-T & D Mains-WA	-	-
331400-T & D Mains-WA (CAC)	-	-
331400-T & D Mains-WA (CIAC)	-	-
333400-Services-WA	-	-
334400-Meters-WA	-	-
335400-Fire Hydrants-WA	-	-
336400-Backflow Prevention-WA	-	-
339000-Other Plant & Misc Equip-WA	-	-
340500-Office Furn & Equip-WA	-	-
341500-Transport Equip-WA	-	-
342500-Stores Equip-WA	-	-
343500-Tools, Shop & Garage Eq-WA	-	-
344500-Laboratory Equip-WA	-	-
345500-Power Operated Equipment-WA	-	-
346500-Communication Equip-WA	-	-
347500-Misc Equip-WA	-	-
348000-Other Tangible Plant-WA	-	-
351100-Organization-WW	-	-
353000-Land & Land Rights-WW	-	-
354000-Structures & Improvements-WW	1,517,054	(60,710)
355000-Power Gen Equip-WW	1,385,000	(34,613)
360200-Collection Mains Force-WW	153,000	(2,919)
360200-Collection Mains Force-WW (CAC)	-	-
360200-Collection Mains Force-WW (CIAC)	-	-
361200-Collection Mains Gravity-WW	9,699,104	(59,571)
361200-Collection Mains Gravity-WW (CIAC)	(802,735)	-
363200-Services To Customers-WW	627,900	(2,870)
364200-Flow Measuring Devices-WW	25,900	(522)
365200-Flow Measuring Installs-WW	-	-
370300-Receiving Wells-WW	-	-
371000-Pumping Equip-WW	6,362,979	(223,712)
380000-Treat & Disp Equip-WW	17,395,093	(555,232)
381000-Plant Sewers-WW	-	-
382400-Outfall Lines-WW	-	-
389000-Other Plant & Misc Equip-WW	-	-
390700-Office Furn & Equip-WW	-	(281,848)
391700-Transportation Equip-WW	176,000	-
393700-Tools, Shop & Garage Eq-WW	70,000	-
394700-Laboratory Equip-WW	50,000	-
395700-Power Operated Equip-WW	64,203	(30,695)
396700-Communication Equip-WW	1,038,477	-
397700-Misc Equipment-WW	-	-
<b>TOTAL</b>	<b>37,761,975</b>	<b>(1,252,692)</b>

# Market Overview

For

**Aqua America**



**762 W. Lancaster Avenue**

**Bryn Mawr, PA**

**Prepared For:**  
**Rob Wisniewski**  
**Facilities Manager**  
**Aqua America**  
**762 W. Lancaster Avenue**  
**Bryn Mawr, PA 19010**

**Prepared By:**  
**Bob Corr**  
**Senior Vice President**  
**Binswanger**  
**Four Tower Bridge, Suite 225**  
**200 Barr Harbor Drive**  
**Conshohocken, PA 19428**

**October 2021**



## MARKET OVERVIEW –

762 West Lancaster Avenue boasts a prime location in the center of Bryn Mawr along the Main Line submarket of the Philadelphia Western Suburbs. The market is revered by many and lures a diverse tenant base due to its proximity to the homes of business leaders, the vibrancy of a small town feel and a broad spectrum of amenities. The market consists mostly of older commercial buildings, varying in condition and positioned among restaurants, retail stores and strip centers. The Bryn Mawr office market typically enjoys office occupancy rates above 85%, with a current vacancy rate of 9.0%. Annual absorption of space is primarily from within the market with limited activity coming from outside markets. Most buildings are positioned with asking rents net of electric. While there is an array of different companies that make up the tenant base of the Bryn Mawr market, medical office, dental office and administrative offices are the most active tenants today.

COVID-19 has created a great deal of uncertainty in the real estate market in general. Many companies are trying to figure out how their workforce will be working with decisions being made between a total work at home environment, having all employees come back to the office or a hybrid of the two. Due to the heavy reliance on the medical community and its associated offices in the Bryn Mawr area, the Bryn Mawr market remains generally stable with very few large blocks of space available. Many of the leases that have come due recently and are about to come due are renewing, many of them on a short-term basis, to see how the market and market rates move in the near future. Activity lately has been comprised of companies testing the market to leverage their existing landlords.

## BUILDING OVERVIEW –

762 West Lancaster Avenue is a landmark location and delivers immediate presence in the downtown Bryn Mawr submarket. With a total size over 130,000 sq. ft. the property is the largest Headquarter building on Route 30. Access to the building is excellent off both Lancaster Avenue (Route 30) and Elliott Avenue and minutes from Rt. 3, I-476 and I-76. Unmatched amenities are within walking distance in every direction and compliment the location of the building. Company identity is highlighted, through on-street monument signage and on flag poles providing rare corporate recognition.

## Aggregate Historical Vacancy Report

### Summary totals for existing properties

Period	Properties	RBA	SF Vacant			% Vacant			SF Vacant Available			% Vacant Available			Average Rate		
			Direct	Sublet	Total	Direct	Sublet	Total	Direct	Sublet	Total	Direct	Sublet	Total	Direct	Sublet	Total
Current	33	1,018,127	70,258	21,000	91,258	6.9%	2.1%	9.0%	70,258	21,000	91,258	6.9%	2.1%	9.0%	\$34.37/fs	\$26.87/fs	\$31.76/fs
2021 3Q	33	1,018,127	70,532	21,000	91,532	6.9%	2.1%	9.0%	70,532	21,000	91,532	6.9%	2.1%	9.0%	\$34.32/fs	\$26.87/fs	\$31.74/fs
2021 2Q	33	1,018,127	74,512	21,000	95,512	7.3%	2.1%	9.4%	71,482	21,000	92,482	7.0%	2.1%	9.1%	\$34.49/fs	\$26.87/fs	\$31.82/fs
2021 1Q	33	1,018,127	78,655	21,000	99,655	7.7%	2.1%	9.8%	76,473	21,000	97,473	7.5%	2.1%	9.6%	\$34.47/fs	\$26.87/fs	\$31.83/fs
2020 4Q	33	1,018,127	75,996	21,000	96,996	7.5%	2.1%	9.5%	75,996	21,000	96,996	7.5%	2.1%	9.5%	\$33.32/fs	\$26.87/fs	\$31.17/fs
2020 3Q	33	1,018,127	86,416	21,000	107,416	8.5%	2.1%	10.6%	83,547	21,000	104,547	8.2%	2.1%	10.3%	\$32.66/fs	\$26.87/fs	\$31.04/fs
2020 2Q	32	1,007,827	67,454	21,000	88,454	6.7%	2.1%	8.8%	67,454	21,000	88,454	6.7%	2.1%	8.8%	\$32.60/fs	\$26.87/fs	\$31.12/fs
2020 1Q	32	1,007,827	69,139	21,000	90,139	6.9%	2.1%	8.9%	64,347	21,000	85,347	6.4%	2.1%	8.5%	\$32.82/fs	\$26.87/fs	\$31.37/fs
2019 4Q	32	1,007,827	116,816	21,000	137,816	11.6%	2.1%	13.7%	69,816	21,000	90,816	6.9%	2.1%	9.0%	\$32.69/fs	\$26.87/fs	\$31.30/fs
2019 3Q	32	1,007,827	141,153	0	141,153	14.0%	0.0%	14.0%	73,155	0	73,155	7.3%	0.0%	7.3%	\$32.67/fs	-	\$32.67/fs
2019 2Q	32	1,007,827	75,410	0	75,410	7.5%	0.0%	7.5%	74,548	0	74,548	7.4%	0.0%	7.4%	\$32.85/fs	-	\$32.85/fs
2019 1Q	32	1,007,827	92,602	0	92,602	9.2%	0.0%	9.2%	78,551	0	78,551	7.8%	0.0%	7.8%	\$32.80/fs	-	\$32.80/fs

# Aggregate Vacancy Report

Attachment RTM-3

Properties	Space Type	Vacant		Vacant Available		Total Available		Avg Rate	Leasing Activity		Net Absorption	
		SF	%	SF	%	SF	%		QTD	YTD	QTD	YTD
<i>33 existing properties representing 1,018,127 SF</i>	<b>Direct</b>	70,258	6.9%	70,258	6.9%	71,386	7.0%	\$34.37/fs	0	7,947	274	5,738
	<b>Sublet</b>	21,000	2.1%	21,000	2.1%	21,000	2.1%	\$26.87/fs	0	0	0	0
	<b>Total</b>	91,258	9.0%	91,258	9.0%	92,386	9.1%	\$31.76/fs	0	7,947	274	5,738

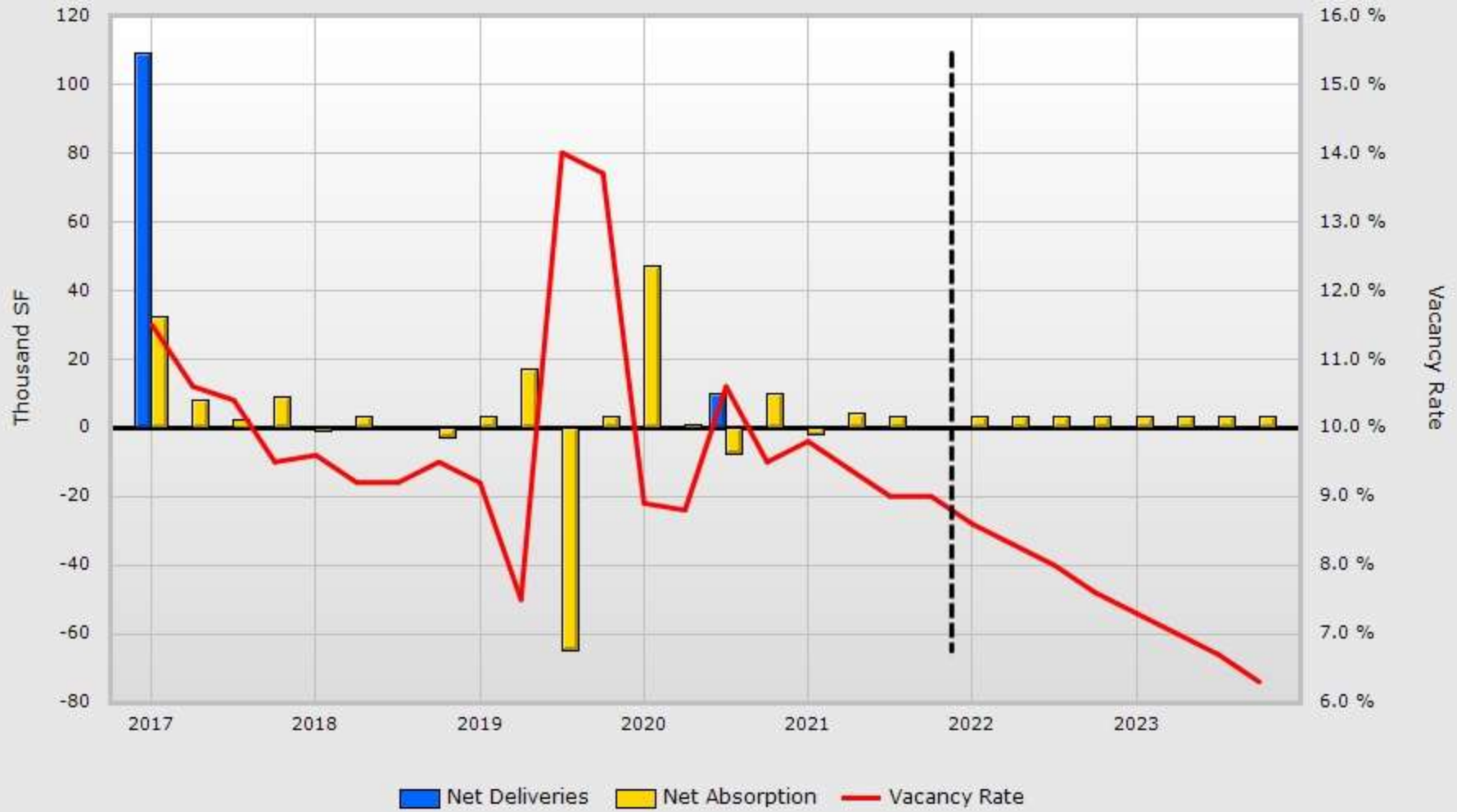
## Availability and Vacancy Analysis

### Grand Totals

	Bldgs	Existing Rentable Bldg Area	Direct SF Vacant	Vacant Rate %	Direct w/ Sublet SF Vacant	Vacant % with Sublet	Total SF Available	Direct SF Available	Sublet SF Available	Max SF Contig	Avg Rate
	33	1,018,127	70,258	6.9%	91,258	9.0%	92,386	71,386	21,000	21,000	\$31.76/fs

Forecast Report

### Forecast Report



Delivery Assumption: Known Construction Activity Absorption Assumption: 100% of Previous 5-Year Average

## Forecast Report

## Forecast Report

Period	# of Deliveries	Rolling 2-yr Average Deliveries (SF)	Future Deliveries (SF)	Demolished (SF)	Net Deliveries (SF)	Rolling 2-yr Net Absorption (SF)	Net Absorption (SF)	RBA	Vacant Space (SF)	Vacancy Rate
2023 Q4	0	0	0	0	0	3,363	3,363	1,018,127	64,354	6.3%
2023 Q3	0	0	0	0	0	2,977	3,363	1,018,127	67,717	6.7%
2023 Q2	0	0	0	0	0	3,054	3,363	1,018,127	71,080	7%
2023 Q1	0	0	0	0	0	3,152	3,363	1,018,127	74,443	7.3%
2022 Q4	0	0	0	0	0	2,399	3,363	1,018,127	77,806	7.6%
2022 Q3	0	0	0	0	0	3,281	3,363	1,018,127	81,169	8%
2022 Q2	0	1,288	0	0	0	1,778	3,363	1,018,127	84,532	8.3%
2022 Q1	0	1,288	0	0	0	1,568	3,363	1,018,127	87,895	8.6%
Current Qtr	0	1,288	0	0	0	7,107	274	1,018,127	91,258	9%
2021 Q3	0	1,288	0	0	0	7,490	3,980	1,018,127	91,532	9%
2021 Q2	0	1,288	0	0	0	-1,225	4,143	1,018,127	95,512	9.4%
2021 Q1	0	1,288	0	0	0	406	-2,659	1,018,127	99,655	9.8%
2020 Q4	0	1,288	0	0	0	1,136	10,420	1,018,127	96,996	9.5%
2020 Q3	1	1,288	10,300	0	10,300	-578	-8,662	1,018,127	107,416	10.6%
2020 Q2	0	0	0	0	0	578	1,685	1,007,827	88,454	8.8%
2020 Q1	0	0	0	0	0	858	47,677	1,007,827	90,139	8.9%
2019 Q4	0	0	0	0	0	-5,241	3,337	1,007,827	137,816	13.7%
2019 Q3	0	0	0	0	0	-4,507	-65,743	1,007,827	141,153	14%
2019 Q2	0	0	0	0	0	3,975	17,192	1,007,827	75,410	7.5%
2019 Q1	0	0	0	0	0	2,922	3,180	1,007,827	92,602	9.2%
2018 Q4	0	13,725	0	0	0	6,555	-3,289	1,007,827	95,782	9.5%
2018 Q3	0	13,725	0	0	0	9,204	587	1,007,827	92,493	9.2%
2018 Q2	0	13,725	0	0	0	11,308	3,921	1,007,827	93,080	9.2%
2018 Q1	0	13,725	0	0	0	9,499	-1,113	1,007,827	97,001	9.6%
2017 Q4	0	13,725	0	0	0	9,166	9,209	1,007,827	95,888	9.5%
2017 Q3	0	13,725	0	0	0	7,959	2,110	1,007,827	105,097	10.4%
2017 Q2	0	13,725	0	0	0	6,646	8,770	1,007,827	107,207	10.6%

## Forecast Report

## Forecast Report

Period	# of Deliveries	Rolling 2-yr Average Deliveries (SF)	Future Deliveries (SF)	Demolished (SF)	Net Deliveries (SF)	Rolling 2-yr Net Absorption (SF)	Net Absorption (SF)	RBA	Vacant Space (SF)	Vacancy Rate
2017 Q1	1	13,725	109,800	0	109,800	5,550	32,245	1,007,827	115,977	11.5%

Delivery Assumption: Known Construction Activity Absorption Assumption: 100% of Previous 5-Year Average

# Face Rent Analysis Report

	DIRECT SPACES				SUBLET SPACES				TOTAL
	# Spaces	Min	Avg	Max	# Spaces	Min	Avg	Max	Avg
Off/Med									
Negotiable	1	-	-	-	0	-	-	-	-
Triple Net	5	\$25.50	\$25.50	\$25.50	0	-	-	-	\$25.50
Office									
Negotiable	9	-	-	-	0	-	-	-	-
Plus All Utilities	3	\$25.00	\$31.12	\$32.00	0	-	-	-	\$31.12
Plus Electric	3	\$32.00	\$33.29	\$35.00	2	\$25.00	\$25.00	\$25.00	\$27.58
TBD	1	\$25.00	\$25.00	\$25.00	0	-	-	-	\$25.00

AQUA AMERICA - BRYN MAWR COMPETITION

234 Bryn Mawr Ave



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Delaware County  
Bryn Mawr, PA 19010

Building Type: Class C Office/Medical  
Status: Built 1975, Renov Mar 2022  
Stories: 2  
RBA: 8,000 SF  
Typical Floor: 4,000 SF  
Total Avail: 3,150 SF  
% Leased: 100%

Developer: -  
Management: -  
Recorded Owner: Kristine L Gross

Expenses: 2021 Tax @ \$4.64/sf  
Parcel Number: 36-05-02857-00  
Parking: 50 free Surface Spaces are available; Ratio of 6.25/1,000 SF

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st	2,000	2,000	2,000	Withheld	30 Days	Negotiable	Direct
P 2nd	1,150	1,150	1,150	Withheld	30 Days	Negotiable	Direct

## AQUA AMERICA - BRYN MAWR COMPETITION

## 135 S Bryn Mawr Ave



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Montgomery County  
Bryn Mawr, PA 19010

Building Type: Class A Office/Medical

Status: Built 2017

Stories: 4

RBA: 109,800 SF

Typical Floor: 27,450 SF

Total Avail: 18,172 SF

% Leased: 83.5%

Developer: Healthcare Trust of America  
Management: Main Line Hospitals Inc  
Recorded Owner: Main Line Hospitals Inc

Expenses: 2021 Tax @ \$4.19/sf  
Parcel Number: 40-08984003  
Amenities: Air Conditioning

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 2nd	4,698	4,698	4,698	\$25.50/nnn	Vacant	7-10 yrs	New
P 2nd	2,801	2,801	2,801	\$25.50/nnn	Vacant	7-10 yrs	Direct
P 2nd	3,315	3,315	3,315	\$25.50/nnn	Vacant	7-10 yrs	New
P 3rd	1,174	1,174	1,174	\$25.50/nnn	Vacant	7-10 yrs	New
P 3rd	6,184	6,184	6,184	\$25.50/nnn	Vacant	7-10 yrs	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

270 S Bryn Mawr Ave - Jack M. Barrack Hebrew Academy



Location: Jack M. Barrack Hebrew Academy  
 Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class A Office  
 Status: Built 1994  
 Stories: 4  
 RBA: 68,000 SF  
 Typical Floor: 22,667 SF  
 Total Avail: 21,000 SF  
 % Leased: 100%

Developer: -  
 Management: -  
 Recorded Owner: The Jewish Federation of Greater Philadelphia

Expenses: 2007 Tax @ \$4.34/sf  
 Parcel Number: 36-05-02858-00, 36-05-02858-01  
 Parking: 2,500 Surface Spaces are available; Ratio of 10.00/1,000 SF  
 Amenities: Air Conditioning, Conferencing Facility, Security System

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 3rd	5,000 - 10,500	21,000	21,000	\$25.00/+elec	Vacant	Negotiable	Sublet
P 3rd / Suite 4th Floor*	5,000 - 10,500	21,000	21,000	\$25.00/+elec	Vacant	Negotiable	Sublet

AQUA AMERICA - BRYN MAWR COMPETITION

100 Chetwynd Dr



Location: Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class B Office

Status: Built 1903

Stories: 2

RBA: 11,421 SF

Typical Floor: 5,710 SF

Total Avail: 726 SF

% Leased: 93.6%

Developer: -  
 Management: -  
 Recorded Owner: 100 Chetwynd Drive LLC

Expenses: 2021 Tax @ \$5.28/sf, 2012 Est Tax @ \$1.77/sf; 2011 Ops @ \$4.10/sf, 2012 Est Ops @ \$4.10/sf  
 Parcel Number: 36-07-04589-00  
 Parking: 30 Surface Spaces are available; Ratio of 2.63/1,000 SF

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st / Suite G1	700 - 726	726	726	\$25.00/+util	Vacant	3-5 yrs	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

919 Conestoga Rd - Rosemont Bus Campus 2 - Rosemont Business Campu



Location: Rosemont Bus Campus 2  
 Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class A Office  
 Status: Built 1986, Renov Aug 2005  
 Stories: 3  
 RBA: 27,000 SF  
 Typical Floor: 9,000 SF  
 Total Avail: 6,692 SF  
 % Leased: 79.4%

Developer: -  
 Management: S.W. Bajus, Ltd.  
 Recorded Owner: Robuca Associates

Expenses: 2021 Tax @ \$8.97/sf; 2011 Ops @ \$6.00/sf  
 Parcel Number: 36-07-04404-11  
 Parking: 125 Surface Spaces are available; Ratio of 4.62/1,000 SF  
 Amenities: 24 Hour Access, Air Conditioning

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 2nd / Suite 211	669	669	669	Withheld	Vacant	Negotiable	Direct
P 2nd / Suite 212	1,128	1,128	1,128	Withheld	60 Days	Negotiable	Direct
P 3rd / Suite 311	4,895	4,895	4,895	Withheld	Vacant	Negotiable	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

**888 Glenbrook Ave**



Location: Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class B Office/Medical

Status: Built 1955, Renov 1990

Stories: 2

RBA: 8,000 SF

Typical Floor: 4,000 SF

Total Avail: 4,000 SF

% Leased: 50.0%

Developer: -  
 Management: -  
 Recorded Owner: Camden Properties Inc

Expenses: 2021 Tax @ \$5.19/sf; 2016 Ops @ \$10.34/sf

Parcel Number: 36-05-03080-00

Parking: 37 Surface Spaces are available; Ratio of 4.93/1,000 SF

Amenities: Air Conditioning

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st	800 - 4,000	4,000	4,000	\$30.00/nnn	Vacant	3 yrs	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

931 Haverford Rd - Haverford Plaza



Location: Haverford Plaza  
 Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class B Office/Medical  
 Status: Built 1973  
 Stories: 3  
 RBA: 30,000 SF  
 Typical Floor: 10,000 SF  
 Total Avail: 1,447 SF  
 % Leased: 95.2%

Developer: -  
 Management: Westover Companies  
 Recorded Owner: Haverford Road 2019 Llc

Expenses: 2021 Tax @ \$6.02/sf, 2012 Est Tax @ \$0.51/sf; 2012 Est Ops @ \$3.50/sf  
 Parcel Number: 22-05-00362-00  
 Parking: 40 Surface Spaces are available; Ratio of 1.33/1,000 SF  
 Amenities: Air Conditioning

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 3rd	1,447	1,447	1,447	Withheld	Vacant	Negotiable	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

940 Haverford Rd - Bryn Mawr Plaza



Location: Bryn Mawr Plaza  
 Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class B Office  
 Status: Built 1988  
 Stories: 3  
 RBA: 30,387 SF  
 Typical Floor: 10,129 SF  
 Total Avail: 2,392 SF  
 % Leased: 92.1%

Developer: -  
 Management: Westover Companies  
 Recorded Owner: Haverford Road 2019 Llc

Expenses: 2021 Tax @ \$5.34/sf; 2011 Ops @ \$2.80/sf  
 Parcel Number: 22-05-00403-00  
 Parking: 45 free Surface Spaces are available; Ratio of 3.85/1,000 SF  
 Amenities: Air Conditioning

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P LL	2,392	2,392	2,392	Withheld	Vacant	Negotiable	Direct

## AQUA AMERICA - BRYN MAWR COMPETITION

## 937 E Haverford Rd



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Delaware County  
Bryn Mawr, PA 19010

Building Type: Class B Office/Medical

Status: Built 1970, Renov 1996

Stories: 2

RBA: 19,310 SF

Typical Floor: 9,655 SF

Total Avail: 5,586 SF

% Leased: 71.1%

Developer: S.W. Bajus, Ltd.  
Management: S.W. Bajus, Ltd.  
Recorded Owner: S.W. Bajus, Ltd.

Expenses: 2021 Tax @ \$6.04/sf; 2011 Ops @ \$6.00/sf

Parcel Number: 22-05-00363-00

Parking: 79 free Surface Spaces are available; Ratio of 4.09/1,000 SF

Amenities: 24 Hour Access

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st / Suite 100	1,994	1,994	1,994	Withheld	Vacant	Negotiable	Direct
P 1st / Suite 103	3,592	3,592	3,592	Withheld	Vacant	Negotiable	Direct

## AQUA AMERICA - BRYN MAWR COMPETITION

## 1062 E Lancaster Ave - Rosemont Plaza



Location: Rosemont Plaza  
 Suburban Philadelphia Cluster  
 Main Line Submarket  
 Delaware County  
 Bryn Mawr, PA 19010

Building Type: Class B Office/Medical

Status: Built 1962

Stories: 8

RBA: 111,704 SF

Typical Floor: 13,963 SF

Total Avail: 11,561 SF

% Leased: 89.7%

Developer: -  
 Management: -  
 Recorded Owner: Rosemont Plaza Associates

Expenses: 2021 Tax @ \$5.67/sf

Parcel Number: 36-07-04745-00

Parking: 300 Surface Spaces are available; Ratio of 8.71/1,000 SF

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P GRND	4,000 - 10,540	10,540	10,540	\$25.00/tbd	Vacant	Negotiable	Direct
P 1st / Suite 1	1,021	1,021	1,021	Withheld	Vacant	Negotiable	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

780 W Lancaster Ave



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Montgomery County  
Bryn Mawr, PA 19010

Building Type: Class B Office

Status: Built 1974

Stories: 2

RBA: 35,451 SF

Typical Floor: 17,725 SF

Total Avail: 5,019 SF

% Leased: 85.8%

Developer: -  
Management: -  
Recorded Owner: Claudia Pentony Black

Expenses: 2021 Tax @ \$2.66/sf

Parcel Number: 40-00-29800-004

Parking: 48 Covered Spaces are available; 50 free Surface Spaces are available; Ratio of 2.76/1,000 SF

Amenities: Property Manager on Site

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 2nd	3,434	3,434	3,434	\$32.00/+util	Vacant	3-5 yrs	Direct
P 2nd	1,585	1,585	1,585	\$32.00/+util	Vacant	Negotiable	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

15-31 Morris Ave - Bryn Mawr Central - Bryn Mawr Mall



Location: Bryn Mawr Central  
 Suburban Philadelphia Cluster  
 Main Line Submarket  
 Montgomery County  
 Bryn Mawr, PA 19010

Building Type: Class B Office/Office Building

Status: Built 1960, Renov 2012

Stories: 2

RBA: 18,000 SF

Typical Floor: 9,000 SF

Total Avail: 4,075 SF

% Leased: 77.4%

Developer: -

Management: The Robbins Companies

Recorded Owner: Telford Ida

Expenses: 2010 Est Tax @ \$1.40/sf; 2010 Est Ops @ \$5.60/sf

Parcel Number: 40-00-41176-004

Parking: 75 Surface Spaces are available; Ratio of 4.17/1,000 SF

Amenities: Air Conditioning

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st / Suite 25	1,175	1,175	1,175	\$35.00/+elec	Vacant	3-5 yrs	Direct
P 2nd / Suite 223	2,900	2,900	2,900	\$35.00/+elec	Vacant	Negotiable	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

40 Morris Ave



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Montgomery County  
Bryn Mawr, PA 19010

Building Type: Class B Office  
Status: Built 1960, Renov Feb 2003  
Stories: 3  
RBA: 45,000 SF  
Typical Floor: 15,000 SF  
Total Avail: 5,416 SF  
% Leased: 88.0%

Developer: Legg Mason Real Estate Services  
Management: Legg Mason Real Estate Services  
Recorded Owner: Morris Avenue Associates

Expenses: 2021 Tax @ \$3.30/sf  
Parcel Number: 40-00-41016-002  
Parking: 124 Surface Spaces are available; Ratio of 2.75/1,000 SF  
Amenities: Metro/Subway, Signage

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st	5,416	5,416	5,416	\$32.00/+elec	Vacant	Negotiable	Direct

AQUA AMERICA - BRYN MAWR COMPETITION

**733 Old Lancaster Rd**



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Montgomery County  
Bryn Mawr, PA 19010

Building Type: Class B Office/Office/Residential

Status: Built 1930

Stories: 3

RBA: 2,400 SF

Typical Floor: 800 SF

Total Avail: 1,800 SF

% Leased: 25.0%

Developer: -  
Management: -  
Recorded Owner: Briskin Jonathan A

Expenses: 2021 Tax @ \$3.63/sf  
Parcel Number: 40-00-44444-003  
Parking: 8 Surface Spaces are available; Ratio of 3.33/1,000 SF  
Amenities: Air Conditioning, Commuter Rail, Fireplace, Secure Storage, Wi-Fi

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st	1,800	1,800	1,800	\$24.00/+util	Vacant	1-5 yrs	Direct

## AQUA AMERICA - BRYN MAWR COMPETITION

## 996 E Railroad Ave



Location: Suburban Philadelphia Cluster  
Main Line Submarket  
Delaware County  
Bryn Mawr, PA 19010

Building Type: Class B Office/Medical

Status: Built Aug 2020

Stories: 3

RBA: 10,300 SF

Typical Floor: 4,798 SF

Total Avail: 10,300 SF

% Leased: 0%

Developer: -  
Management: -  
Recorded Owner: Bmmsba Railroad Llc

Expenses: 2021 Tax @ \$2.69/sf  
Parcel Number: 22-05-00918-00  
Parking: Ratio of 0.00/1,000 SF  
Amenities: Air Conditioning, Reception

Floor	SF Avail	Floor Contig	Bldg Contig	Rent/SF/Yr + Svs	Occupancy	Term	Type
P 1st	5,150	5,150	5,150	Withheld	Vacant	Negotiable	Direct
P 2nd	5,150	5,150	5,150	Withheld	Vacant	Negotiable	Direct

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
CHRISTOPHER E. MANNING**

---

**Topics Addressed:**

**Certain Expense Adjustments**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 3**

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1                   **I.       INTRODUCTION AND SCOPE OF TESTIMONY**

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

3   A.    My name is Christopher. E. Manning. My business address is 762 W. Lancaster Avenue,  
4        Bryn Mawr, Pennsylvania 19010.

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

6   A.    I am employed by Aqua Pennsylvania, Inc. as a Finance and Rate Analyst II.

7   **Q.    On whose behalf are you providing this direct testimony?**

8   A.    I am providing this testimony on behalf of Aqua Pennsylvania, Inc. (“AP”) and Aqua  
9        Pennsylvania Wastewater, Inc. (“APW”) (collectively “Aqua PA,” or the “Company”).

10 **Q.    Have you previously provided testimony before the Pennsylvania Public Utility  
11        Commission (“PUC” or the “Commission”)?**

12 A.    Yes. I provided testimony in Aqua PA’s last base rate case proceeding and other customer  
13        proceedings.

14 **Q.    Please describe your education and business experience.**

15 A.    I graduated from Saint Joseph’s University in 2018 with a Bachelor of Science degree in  
16        Business Administration, with a major in Accounting. Prior to joining Aqua PA, I worked  
17        for KPMG, LLP as an associate where I performed financial statement audits. In October  
18        of 2019, I joined Aqua PA as a Finance and Rate Analyst I. I was promoted to my current  
19        role as Finance and Rates Analyst II in 2023.

20 **Q.    What are your duties as a Finance and Rate Analyst?**

21 A.    My duties include assisting in the preparation of various financial regulatory filings  
22        submitted with the Commission. Those filings include but are not limited to the following:  
23        Quarterly Earnings Reports, Distribution System Improvement Charge (“DSIC”) filings,

1 water and wastewater tariff compliance filings, and other regulatory compliance filings  
2 upon request of the PUC. My duties also include the preparation of base rate cases and  
3 supporting those applications as an accounting witness.

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

5 A. The purpose of my testimony is to identify and describe certain operating expense  
6 adjustments, including general price level adjustment, inflation factor calculation, cost of  
7 serving additional customers, labor, insurance, miscellaneous expense adjustments,  
8 specific expenses not subject to inflation, purchased power, chemicals, purchased water,  
9 purchased wastewater treatment, and the water production adjustment.

## 10 **II. OPERATING EXPENSE ADJUSTMENTS**

11 **Q. Please explain the General Price Level Adjustment appearing on Schedule C-4.1 of**  
12 **Exhibits 1-A through 1-E.**

13 A. This adjustment reflects the anticipated effect of price increases on operating expenses,  
14 like transportation, supplies, outside services, and other small expense categories that were  
15 not specifically adjusted for elsewhere in this case. The future test year ending December  
16 31, 2024 (“FTY”) adjustment is derived from the total pro forma historic test year ended  
17 December 31, 2023 (“HTY”) operating expenses, less the amounts specifically adjusted in  
18 this filing or not otherwise subject to increases. The remaining amount is then multiplied  
19 by the average gross domestic product (“GDP”) chained price index forecast from the first  
20 quarter of 2024 through the fourth quarter of 2024 to arrive at the increase amount for the  
21 twelve months ending December 31, 2024. The fully projected future test year ending  
22 December 31, 2025 (“FPFTY”) adjustment in the above-referenced Exhibits is derived  
23 from the total pro forma FTY operating expenses, less the amounts specifically adjusted in

1 this filing or not otherwise subject to increases. The remaining amount is then multiplied  
2 by the average GDP chained price index forecast from the first quarter of 2025 through the  
3 fourth quarter of 2025 to arrive at the increase amount for the twelve months ending  
4 December 31, 2025.

5 **Q. Please explain the Inflation Factor appearing on Schedule C-4.1.i of Exhibits 1-A and**  
6 **through 1-E.**

7 A. The Inflation Factor appearing on Schedule C-4.1.i is utilized to calculate the impact of  
8 inflation on the Company's expenses in the FTY and FPFTY. The Company utilizes the  
9 Blue Chip Economic Indicators to pull the quarterly consumer price index ("CPI")  
10 percentage for each forecasted quarter in the FTY and FPFTY. For the FTY, the Company  
11 utilizes the forecasted percentage change for each quarter to calculate an annual average  
12 and then multiplies that by the expenses subject to inflation. Since the forecast is not  
13 available for the quarters in the FPFTY, the Company uses the last available forecasted  
14 quarterly percentage change and uses that as the annual rate to multiply inflation eligible  
15 expenses. The index data for both adjustments was obtained from the Blue Chip Economic  
16 Indicators, dated August 11, 2023. The calculation for the annual rate used to adjust  
17 inflation eligible expenses by can be found within Schedule C-4.1.i in Exhibits 1-A through  
18 1-E.

19 **Q. Please explain the adjustment for Cost of Serving Additional Customers appearing**  
20 **on Schedule C-4.3 of Exhibit 1-A.**

21 A. This adjustment recognizes the incremental expense associated with providing service to  
22 additional customers. The derivation of the operating ratio between incremental operating  
23 expenses and revenue is developed in the lower portion of the schedule. The application

1 of the operating ratio to the additional revenue from new customers connected during the  
2 three years ended December 31, 2025 (exclusive of acquisitions) is shown in the upper  
3 portion of the schedule. In Exhibit 1-A, an adjustment of \$148,303 is produced from the  
4 calculation. This is the additional operating expense that is incurred in conjunction with  
5 the \$2,538,435 of additional operating revenue from the new water customers connected  
6 during the three years ended December 31, 2025.

7 **Q. Please explain the adjustment for Cost of Serving Additional Customers appearing**  
8 **on Schedule C-4.3 of Exhibit 1-C.**

9 A. This adjustment recognizes the incremental expense associated with providing service to  
10 additional customers. The derivation of the operating ratio between incremental operating  
11 expenses and revenue is developed in the lower portion of the schedule. The application  
12 of the operating ratio to the additional revenue from new customers connected during the  
13 three years ended December 31, 2025 (exclusive of acquisitions) is shown in the upper  
14 portion of the schedule. In Exhibit 1-C, an adjustment of \$196,671 is produced from the  
15 calculation. This is the additional operating expense that is incurred in conjunction with  
16 the \$782,764 of additional operating revenue from the new wastewater customers  
17 connected during the three years ended December 31, 2025.

18 **Q. Please explain the Company's claim for payroll expense.**

19 A. Aqua PA's labor and labor related expenses are associated with employees that support  
20 Aqua PA alone and are solely on Aqua PA's payroll. The Company's claim for payroll  
21 expense is developed in Exhibit 2, and is summarized in Schedules C-4.5 of Exhibits 1-A  
22 through 1-E. The adjustment reflects known or anticipated changes to the Company's  
23 union and non-union employees at the end of the FPFTY. The Company's FTY and

1 FPPTY claims for payroll expense related to water base service as reflected in Schedule C-  
2 4.5 of Exhibit 1-A approximates \$36.1 million and \$37.9 million, respectively. The  
3 Company's FTY and FPPTY claims for payroll expense related to Shenandoah as reflected  
4 in Schedule C-4.5 of Exhibit 1-B approximates \$0.344 million and \$0.351 million,  
5 respectively. The Company's claim for payroll expense related to wastewater base service  
6 as reflected in Schedule C-4.5 of Exhibit 1-C approximates \$3.4 million for the FTY and  
7 \$3.5 million for the FPPTY. The Company's claim for payroll expense related to Lower  
8 Makefield service as reflected in Schedule C-4.5 of Exhibit 1-D approximates \$0.157  
9 million for the FTY and \$0.161 million for the FPPTY. The Company's claim for payroll  
10 expense related to East Whiteland service as reflected in Schedule C-4.5 of Exhibit 1-E  
11 approximates \$0.165 million for the FTY and \$0.170 million for the FPPTY. In calculating  
12 those costs, I included the salaries and wages associated with the Company's present  
13 complement of authorized positions. In addition, salary and wage levels were adjusted to  
14 reflect known or projected changes in compensation as follows.

15 Exhibits 1-A, 1-B, and 1-C Non-Union Payroll – Employees are granted individual  
16 salary increases through an annual performance review. The water base non-union gross  
17 payroll, at FTY and FPPTY salary levels, was determined to be \$19,742,612 and  
18 \$21,174,682, respectively. The Shenandoah non-union gross payroll, at FTY and FPPTY  
19 salary levels, was determined to be \$144,912 and \$148,313, respectively. The wastewater  
20 base non-union gross payroll, at FTY and FPPTY salary levels, was determined to be  
21 \$2,392,450 and \$2,562,460 respectively. In deriving these claims, I first started with  
22 employees' actual labor rates for January 1, 2024 through March 31, 2024 which were  
23 established as of April 1, 2023. I then added to those first three months of 2024, the actual

1 awarded labor rates as of April 1, 2024 for the remaining nine months of 2024 to establish  
2 the FTY amount. For the FPFTY, I used the actual labor rates as of April 1, 2024 for the  
3 first three months of 2025 and then applied an additional merit pay increase in labor rates  
4 for the remainder of 2025. The assumed percentage increases are included in Schedule 4  
5 of Exhibit 2. The Company's labor claims includes the full compensation package for  
6 eligible employees including both short-term and long-term incentive compensation. To  
7 the extent that an employee's base pay was increased as I described earlier, a commensurate  
8 adjustment in the amount of eligible incentive pay would follow accordingly at the same  
9 percentage levels.

10 Exhibit 1-A through 1-E Union Payroll – Aqua PA has seven different unions, each  
11 with its own collective bargaining agreements and anniversary dates where changes in  
12 hourly rates will become effective. The Water Base gross union payroll, at the FTY and  
13 FPFTY levels, was determined to be \$34,026,087 and \$35,246,945, respectively. The  
14 Shenandoah gross union payroll, at the FTY and FPFTY levels, was determined to be  
15 \$367,400 and \$374,176, respectively. The Wastewater Base gross union payroll, at the  
16 FTY and FPFTY levels, was determined to be \$2,613,648 and \$2,685,297, respectively.  
17 The Lower Makefield gross union payroll, at the FTY and FPFTY levels, was determined  
18 to be \$233,456 and \$239,661, respectively. The East Whiteland gross union payroll, at the  
19 FTY and FPFTY levels, was determined to be \$246,332 and \$252,916, respectively. The  
20 Company's claims were developed by taking the actual pay rates effective in 2023 and  
21 applying the increases that are scheduled to take effect in each collective bargaining  
22 agreement during the FTY and FPFTY. Further details regarding contractual increase  
23 percentages are provided in Exhibit 2 – Payroll.

1           The gross payroll amounts in Exhibits 1-A through 1-E reflect a reasonable vacancy  
2 adjustment that is in line with the Company’s actual experience. These amounts are further  
3 reduced by capitalized labor and non-operating labor as experienced in the HTY and  
4 applied to the FTY and FPFTY to arrive at the total expense labor.

5 **Q. Please explain the adjustment to Insurance Expense on Schedule C-4.6 of Exhibits 1-**  
6 **A through 1-E.**

7 A. Aqua PA holds insurance policies for General Liability, Auto Liability, Workers  
8 Compensation, and Miscellaneous Other (Surety Bonds, Property, etc.) forms of coverage.  
9 These policies are annually reviewed and analyzed by the Company and its third-party  
10 insurance broker and carrier, utilizing a multi-year claims history, to determine the required  
11 reserve for each type of insurance. For water operations, the HTY insurance claim was  
12 based on actual premiums experienced in 2023. The Company also included actual  
13 amounts paid for the FTY claim as noted in Schedule C-4.6 of each of the Exhibits 1-A  
14 through 1-E. For the FPFTY claim the Company included an increase in its insurance  
15 claim based on discussion with the Company’s insurance brokers concerning future  
16 projected increases in insurance premiums. The total insurance amounts were adjusted to  
17 remove that portion of insurance cost which is not charged to operating expense. For  
18 wastewater operations, the same methodology was applied to derive the FTY and FPFTY  
19 claims; however, the total wastewater insurance expense was then allocated to each  
20 division (Exhibits 1-C through 1-E) based on the number of customers served.

21 **Q. Please explain the miscellaneous adjustments shown in Schedule C-4.9 of Exhibits 1-**  
22 **A.**

1 A. On Line 2 Schedule C-4.9 of Exhibit 1-A there is an adjustment for an insurance  
2 reimbursement that occurred during the HTY for expenses related to Hurricane Ida not  
3 previously included in the prior rate case. On Lines 3-6 there is a total of \$1.43 million  
4 related to new recurring operational expenses that did not occur in the HTY, related to  
5 granular activate carbon (“GAC”) filter change outs, right of way (“ROW”) clearing,  
6 residual hauling, and other operational expenses as mentioned in Mr. Duerr’s testimony.

7 Schedule C-4.9 also adjusts to remove fines that were not appropriate to leave in  
8 the HTY.

9 **Q. Please explain the miscellaneous adjustments shown in Schedule C-4.9 of Exhibits 1-**  
10 **B.**

11 A. The Shenandoah system was acquired on July 24, 2023, the adjustments in Schedule C-4.9  
12 of Exhibit 1-B reflect the annualization of Shenandoah expenses for supplies,  
13 transportation and outside services.

14 **Q. Are there also adjustments included in Schedule 4.9 with respect to Exhibits 1-C?**

15 A. Yes, this adjustment will be addressed by Mr. Packer in Statement No.1.

16 **Q. Please explain the Specific Expense Not Subject to Increase shown in Schedule C-4.10**  
17 **of Exhibits 1-A through 1-E.**

18 A. This schedule lists those expenses that are not separately adjusted for or are otherwise not  
19 subject to growth from the general price level adjustment. As I explained earlier, these  
20 expenses were eliminated from the operating expenses subject to the general price level  
21 adjustment in Schedule C-4.1. There were no expense adjustments in Schedule C-4.10 of  
22 Exhibits 1-D and 1-E.

1 **Q. Please explain the adjustment to Purchased Power detailed in Schedule C-6.1 of**  
2 **Exhibits 1-A through 1-E.**

3 A. The Purchased Power Expense in the above-referenced Exhibits consists of two  
4 components: (1) Electric (Schedule C-6.1.i), and (2) Gas (Schedule C-6.1.ii).

5 The electric purchased power expense is projected to increase in the FTY and  
6 FPFTY based upon rates contracted through the FPFTY. Current rates are used to  
7 determine the electric costs for the HTY. The Company's purchase power expense reflects  
8 increases in electric supply contracts through the FTY and FPFTY. The Company has  
9 electric supply contracts for various facilities with Philadelphia Electric Company;  
10 Pennsylvania Electric Company, Pennsylvania Power Company, Metropolitan Edison  
11 Company, Pennsylvania Power & Light Company (collectively "First Energy  
12 Pennsylvania Electric Company"); and the Allegheny Power Service Corporation. Non-  
13 contracted electric power supply rates were escalated by 0.5% in the FTY and 2.8% in the  
14 FPFTY based upon estimates from the U.S. Energy Information Administration ("EIA").

15 The gas purchased power expense claims for the HTY are based on current rates as  
16 shown in Schedule 6.1.ii of Exhibit 1-A, 1-C, and 1-D. The FTY and FPFTY costs were  
17 escalated by 4.3% in the FTY and 10.9% in the FPFTY based on EIA estimates.

18 **Q. Please provide some examples that show how Aqua PA implements cost-reduction**  
19 **practices with respect to purchased power.**

20 A. With respect to its water operations, the Company participates in supply, utility and PJM  
21 peak and demand response programs where possible to reduce electric costs. Additionally,  
22 the Company utilizes solar generated power at its Pickering and Ingrams Mill treatment  
23 plants that produce electric savings in the form of reductions in power purchased from

1 electric suppliers. Both the program-related costs savings and solar power-related usage  
2 reductions are shown in Schedule C-6.1.i of Exhibit 1-A.

3 **Q. Please explain the adjustment to Chemicals Expense in Schedule C-6.2 of Exhibits 1-**  
4 **A and through 1-C.**

5 A. The Company utilizes various chemicals in the water and wastewater treatment processes.  
6 In order to secure the best available pricing, the Company conducts a competitive bidding  
7 process to establish unit price contracts for the chemical requirements at its various  
8 treatment plants. The claim for chemical expense in Schedule C-6.2 for Exhibit 1-A was  
9 based on the total production gallons for the twelve months ended December 31, 2023,  
10 multiplied by the normalized chemical treatment cost per million gallons. The cost per  
11 million gallons for the HTY was increased by a normalized average year over year growth  
12 rate to arrive at the treatment cost per million gallons for the FTY and FPFTY. The increase  
13 in the cost per million gallons accounts for both price increases and increases in chemical  
14 feed rates based on treatment needs. The increase in chemical costs in the FTY and FPFTY  
15 is primarily driven by the need to feed significantly greater amounts of chemicals,  
16 including powder activated carbon (“PAC”) and polymer, to address treatment for per- and  
17 polyfluoroalkyl substances (“PFAS”) at several of the Company’s facilities. The U.S.  
18 Environmental Protection Agency (“EPA”) recently released a maximum contaminant  
19 level (“MCL”) for PFAS which is driving the increased treatment costs. The chemicals  
20 used to treat for PFAS will be incremental over the Company’s prior expense levels  
21 presented in prior base rate proceedings and were not part of the HTY. Further explanation  
22 of the environmental, operational, and engineering need for this increased chemical

1 treatment is addressed in the Direct Testimonies of Todd M. Duerr (Statement No. 11) and  
2 Michael Convery (Statement No. 12).

3 The claim for chemical expense in Schedule C-6.2 of Exhibit 1-B was based on the  
4 Company's chemical cost per million gallons under Aqua PA's ownership of the  
5 Shenandoah system. This cost per million gallons was then applied to the normalized  
6 annual production amounts at the Shenandoah treatment plant. For the FTY and FPFTY  
7 the Company increased the chemical expense in accordance with the same percentage  
8 under Schedule C-6.2 of Exhibit 1-A.

9 The claim for chemical expense in Schedule C-6.2 of Exhibits 1-C was calculated  
10 by taking the average chemical expense for the three years ended December 31, 2023 to  
11 arrive at the claim for the FTY and FPFTY.

12 **Q. Please explain the adjustment to Purchased Water Expense detailed in Schedule C-**  
13 **7.1 of Exhibit 1-A.**

14 A. The purchased water expense claim was generally derived by taking HTY gallons, and then  
15 applying current rates. The Company made adjustments to reflect known and anticipated  
16 increases from its water suppliers. The FTY and FPFTY claim includes a rate increase  
17 from the Philadelphia Water Department ("PWD") that became effective January 1, 2024  
18 and carries through the FPFTY. In addition, the FPFTY claim reflects that the Company  
19 will cease purchasing water from Downingtown Municipal Authority ("DMA") and the  
20 Chester Water Authority ("CWA") at Cheyney Road at a point in time during the FTY as  
21 shown in Schedule C-7.1.i of Exhibit 1-A. The reduction in the water the Company  
22 purchases will result in an increase in the production volumes as I describe later in my

1 Direct Testimony. The Company will maintain the interconnection at Cheyney Road with  
2 CWA for emergency purposes, as needed.

3 **Q. Explain the adjustment to Purchased Wastewater Treatment Expense in Schedule C-**  
4 **7.1 of Exhibits 1-C through 1-E.**

5 A. The purchased wastewater treatment expense claim was generally derived by taking HTY  
6 gallons and costs, as applicable, and then applying current rates. Exhibits 1-C through 1-  
7 E include various adjustments based on assumptions made for each wastewater system.  
8 The FTY and FPFTY claim includes a rate increase from the PWD for wastewater  
9 treatment for the Company's Cheltenham system that became effective January 1, 2024  
10 and carries through the FPFTY. In addition, the FTY and FTPY claim includes a rate  
11 increase from the Morrisville Municipal Authority for the Company's Lower Makefield  
12 system that became effective March 1, 2024 and carries through the FPFTY. Schedule 7.1  
13 in each of Exhibits 1-C through 1-E identifies various assumptions applicable to any  
14 adjustments for each wastewater system or indicates that no adjustments are being claimed.

15 **Q. Please explain the Water Production Adjustment in Schedule C-7.2 of Exhibit 1-A.**

16 A. The water production adjustment accounts for the costs that will be incurred as a result of  
17 the Company no longer purchasing water from DMA and CWA (at Cheyney Road). The  
18 gallons that are no longer being purchased from DMA and CWA (at Cheyney Road) will  
19 now be produced by the Company's facilities. The cost associated with the increased  
20 gallon production at the Company's facilities is partially offset by the decrease in gallons  
21 reflected in the declining residential consumption adjustment from Schedule B-7 of Exhibit  
22 1-A as described in the Direct Testimony of Gregory Herbert (Statement No. 10).

1 **III. OTHER EXPENSES**

2 **Q. Please explain the Company's adjustment for payroll taxes.**

3 A. The Company's adjustment to Federal and State payroll taxes appears in Schedule D-2.5  
4 in Exhibit 1-A. The FTY and FPFTY adjustments for both Federal and State payroll taxes  
5 is based on the Company's FTY and FPFTY payroll claims. The Federal and State  
6 unemployment taxes were calculated using the Company's current tax rates and taxable  
7 wage bases.

8 The pro forma tax amounts were then reduced by the amount not charged to  
9 operations. Payroll taxes applicable to Shenandoah and wastewater operations are an  
10 allocated portion of total Company taxes and handled as a component of the intracompany  
11 allocation of expenses shown in Exhibit 1-A, Schedule C-8.5.

12 **IV. CONCLUSION**

13 **Q. Does that conclude your testimony at this time?**

14 A. Yes, it does, but I reserve the right to supplement my testimony as needed during this  
15 proceeding.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
MICHAEL S. ERCOLINO**

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**Topics Addressed:**

**Certain Expense Adjustments**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 4**

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I. INTRODUCTION AND SCOPE OF TESTIMONY ..... 1

II. ADJUSTMENTS ..... 2

III. CONCLUSION..... 4

1                                   **I.           INTRODUCTION AND SCOPE OF TESTIMONY**

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

3   A.    My name is Michael S. Ercolino. My business address is 762 W. Lancaster Avenue, Bryn  
4       Mawr, Pennsylvania 19010.

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

6   A.    I am employed by Aqua Pennsylvania, Inc. as a Finance and Rate Analyst I.

7   **Q.    On whose behalf are you providing this direct testimony?**

8   A.    I am providing this testimony on behalf of Aqua Pennsylvania, Inc. (“AP”) and Aqua  
9       Pennsylvania Wastewater, Inc. (“APW”) (collectively “Aqua PA” or the “Company”).

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

11 A.    I graduated from Widener University in 2022 with a Bachelor of Science degree in  
12       Business Administration, with a major in accounting. Prior to joining Aqua PA, I worked  
13       for Ernst and Young, LLP as an associate where I prepared Corporate Federal/State Tax  
14       Returns and performed tax provision/financial statement audits. In September of 2023, I  
15       joined Aqua PA at my current role as a Finance and Rate Analyst I.

16 **Q.    What are your duties as a Finance and Rate Analyst?**

17 A.    My duties include assisting in the preparation of various financial regulatory filings  
18       submitted with the Pennsylvania Public Utility Commission (“PUC” or the  
19       “Commission”). Those filings include but are not limited to the following: Quarterly  
20       Earnings Reports, Distribution System Improvement Charge (“DSIC”) filings, water and  
21       wastewater tariff compliance filings, and other regulatory compliance filings upon request  
22       of the PUC. My duties also include the preparation of base rate cases and supporting those  
23       applications as an accounting witness.

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

2 A. The purpose of my testimony is to identify and describe certain operating expense  
3 adjustments, including rate case expense, audit fees, dredging expense, legal expense,  
4 elimination of certain expenses, and the Company's claims for Public Utility Realty Tax  
5 Act ("PURTA"), and Pennsylvania property taxes.

6 **II. OPERATING EXPENSE ADJUSTMENTS**

7 **Q. Please explain the Company's claim for rate case expense of \$2,610,000 presented on**  
8 **Schedule C-4.4 of Exhibit 1-A through 1-E.**

9 A. The adjustments in Schedules C-4.4 reflect the estimated costs of this rate case. 88.67%  
10 of the total cost is being allocated to the Water Base and Shenandoah, and 11.33% is being  
11 allocated to the Wastewater Base, Lower Makefield, and East Whiteland. The total rate  
12 case expense claim is allocated to each respective exhibit based on the ratio of customers  
13 served to total customers. The Company proposes to normalize this cost over a twenty-  
14 four month period, which is the anticipated interval between this and the Company's next  
15 base rate case.

16 **Q. Please explain the Company's claim for audit fees presented on Schedule C-4.11 of**  
17 **Exhibit 1-A through 1-E.**

18 A. The adjustments in Schedule C-4.11 reflect the audit fee amounts included in this rate case.  
19 The Company's audit fee cost in the historic test year ("HTY") is \$991,557. The audit fee  
20 cost for the future test year ("FTY") is \$974,884 and the fully projected future test year  
21 ("FPFTY") audit fees are \$982,475. The estimates for the FTY and FPFTY were provided  
22 by the Company's third-party auditors. The total audit fee amounts were adjusted to  
23 remove that portion of the audit fees which is not charged to operating expense. The

1 Company then allocated these audit fees as shown in Schedule C-4.11 of Exhibit 1-A  
2 through 1-E.

3 **Q. Please explain the Dredging Expense adjustment shown in Schedule C-7.3 of Exhibit**  
4 **1-A.**

5 A. The Company sets forth an adjustment to normalize the Dredging Expense with respect to  
6 water operations. The Company's request is normalize the total dredging expense of  
7 \$1,500,000 over three years or to normalize \$500,000 annually which is consistent with  
8 the treatment of this expense in the Company's last base rate case.

9 **Q. Please explain the adjustment to Legal Expense shown in Schedule C-9.1 of Exhibit**  
10 **1-A and 1-C.**

11 A. The Company incurs costs for general legal services during the normal course of business  
12 to protect and defend the Company's interest in a variety of legal matters. This adjustment  
13 normalizes the Company's legal expense claim, exclusive of base rate case expense, to  
14 levels that are expected to be realized during the first year rates are in effect and more in  
15 line with prior experiences. The three-year average for legal expenses has been utilized to  
16 ensure that the Company's legal expenses will be representative of what it can expect to  
17 incur in a normal year.

18 **Q. Please explain the adjustment in Schedule C-9.2 of Exhibit 1-A to eliminate National**  
19 **Association of Water Companies ("NAWC") Lobbying Expense.**

20 A. Consistent with past rate cases, the lobbying portion of the annual dues paid to the NAWC  
21 has been removed from the Company's operation expense claim. The resulting adjustment  
22 reduced pro-forma operating expense by \$43,494.

23 **Q. Please explain the adjustment for PURTA in Schedule D-2.3 of Exhibit 1-A.**

1 A. The taxes imposed by PURTA for the FTY and FPFTY are based on the estimated tax  
2 liability for 2023. This is the latest statement that the Company has received from the  
3 Commonwealth of Pennsylvania.

4 **Q. Please explain the adjustments for Pennsylvania property tax listed in Schedule D-2.4**  
5 **of Exhibits 1-A and 1-C.**

6 A. The Company's claim for property taxes is its actual HTY property taxes. Historically, the  
7 Company has not seen significant amount of volatility in its property tax liability. Should  
8 information arise during the course of this proceeding that would justify an adjustment, I  
9 will revise the Company's claim accordingly.

10 **III. CONCLUSION**

11 **Q. Does that conclude your testimony at this time?**

12 A. Yes, it does, but I reserve the right to supplement my testimony as needed during this  
13 proceeding.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3048722 and R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
CONSTANCE E. HEPPENSTALL**

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**Topics Addressed:**

**Cost of Service Allocation  
Customer Rate Design**

**DATE SERVED:** May 23, 2024  
**DATE ADMITTED:** \_\_\_\_\_

**Statement No. 5**

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: AQUA PENNSYLVANIA, INC.  
DOCKET R-2024-3047822 AND R-2024-3047824

DIRECT TESTIMONY OF CONSTANCE E. HEPPESTALL

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

2 A. My name is Constance E. Heppenstall. My business address is 1010 Adams  
3 Avenue, Audubon, Pennsylvania.

4 **Q. By whom are you employed?**

5 A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC.

6 **Q. Please describe your position with Gannett Fleming Valuation and Rate  
7 Consultants, LLC, and briefly state your general duties and responsibilities.**

8 A. My title is Senior Project Manager, Rate Studies. My duties and responsibilities  
9 include the preparation of accounting and financial data for revenue requirement  
10 and cash working capital claims, the allocation of cost of service to customer  
11 classifications, and the design of customer rates in support of public utility rate  
12 filings.

13 **Q. Have you presented testimony in rate proceedings before a regulatory  
14 agency?**

15 A. Yes. I have testified before the Pennsylvania Public Utility Commission  
16 ("Commission" or "PUC"), the Kentucky Public Service Commission, the Arizona  
17 Corporation Commission, the Missouri Public Service Commission, the Virginia  
18 State Corporation Commission, the Hawaii Public Utility Commission, the West  
19 Virginia Public Service Commission, the New Jersey Board of Public Utilities, the  
20 Indiana Utility Regulatory Commission, the Public Utilities Commission of Ohio, the

1 Nevada Public Utility Commission, and the California Public Utility Commission  
2 concerning revenue requirements, cost of service allocation, and rate design. A  
3 list of cases in which I have testified is attached to my testimony.

4 **Q. What is your educational background?**

5 A. I have a Bachelor of Arts in Economics from the University of Virginia,  
6 Charlottesville, Virginia and a Master of Science in Industrial Administration from  
7 the Tepper School of Business at Carnegie-Mellon University, Pittsburgh,  
8 Pennsylvania.

9 **Q. Would you please describe your professional affiliations?**

10 A. I am a member of the National Association of Water Companies and the  
11 Pennsylvania Municipal Authorities Association.

12 **Q. Briefly describe your work experience.**

13 A. I joined the Valuation and Rate Division of Gannett Fleming, Inc. in August 2006,  
14 as a Rate Analyst and was promoted to my current position in 2012. Prior to my  
15 employment at Gannett Fleming, Inc., I was a Vice President of PriMuni, LLP  
16 where I developed financial analyses to test proprietary software in order to ensure  
17 its pricing accuracy in accordance with securities industry's conventions. From  
18 1987 to 2001, I was employed by Commonwealth Securities and Investments, Inc.  
19 as a public finance professional where I created and implemented financial models  
20 for public finance clients in order to create debt structures to meet clients' needs.  
21 From 1986 to 1987, I was a public finance associate with Mellon Capital Markets.

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

2 A. My testimony is in support of the cost of service allocation and rate design studies  
3 conducted under my direction and supervision for the combined water and  
4 wastewater utility plants of Aqua Pennsylvania, Inc. and Aqua Pennsylvania  
5 Wastewater, Inc. (collectively "Aqua AP" or the "Company").

6 **Q. Have you prepared exhibits presenting the results of your studies?**

7 A. Yes. Exhibit No. 5-A, Part I presents the results of the water allocation of the pro  
8 forma cost of service as of December 31, 2025, for Water Base Operations and  
9 separately for Shenandoah Water Operations. Exhibit No. 5-B, Part I presents the  
10 results of the wastewater allocation of the pro forma cost of service as of December  
11 31, 2025, for Wastewater Base Operations and separately for Lower Makefield and  
12 East Whiteland Wastewater Operations.

13 **WATER - COST OF SERVICE ALLOCATION STUDIES**

14 **Q. Briefly describe the purpose of your cost allocation studies in Exhibit 5-A,**  
15 **Part I.**

16 A. Exhibit 5-A, Part I presents water cost of service studies for the following areas:

17 Water Base Operations  
18 Shenandoah Operation

19  
20 The Company is providing cost of service studies, other than the Base  
21 Operations, for the additional area as a requirement of the PA PUC order related  
22 to acquisition of this area.

23 The purpose of the studies was to allocate the water cost of service, which  
24 is the total revenue requirement, to the several customer classifications. In the  
25 studies, the total costs were allocated to the residential, commercial, industrial,

1 public, other water utilities, private fire protection and public fire protection  
2 classifications in accordance with generally-accepted principles and procedures.  
3 The cost of service allocation results in indications of the relative cost  
4 responsibilities of each class of customers. The allocated cost of service is one of  
5 several criteria appropriate for consideration in designing customer rates to  
6 produce the required revenues.

7 **Q. Have you prepared an exhibit presenting the results of your studies?**

8 A. Yes. As previously noted, the results of my allocation of the pro forma cost of  
9 service as of December 31, 2025, are presented in Exhibit No. 5-A, Part I.

10 **Q. Please describe the method of cost allocation that was used in your study.**

11 A. The base-extra capacity method, as described in the 2017 and prior Water Rates  
12 Manuals published by the American Water Works Association (“AWWA”), was  
13 used to allocate the pro forma costs. This method is a recognized method for  
14 allocating the cost of providing water service to customer classifications in  
15 proportion to the classifications' use of the commodity, facilities and services. It is  
16 generally accepted as a sound method for allocating the cost of water service and  
17 has been used by the Company and accepted by this Commission in the  
18 Company's rate cases for over 30 years.

19 **Q. Is the method described in Exhibit No. 5-A, Part I?**

20 A. Yes. It is described on pages 3 and 4 of the exhibit.

21 **Q. Please describe the procedure followed in the cost allocation studies.**

22 A. Each identified classification of cost in the pro forma cost of service was allocated  
23 to the customer classifications using appropriate allocation factors. This allocation

1 is presented in Schedules D and D-S of Exhibit No. 5-A, Part I. The account  
2 numbers and associated items of cost, which include operation and maintenance  
3 expenses, depreciation expense, taxes and income available for return, are  
4 identified in columns 1 and 2 of Schedules D and D-S. The cost of each item,  
5 shown in column 4, is allocated to the several customer classifications based on  
6 allocation factors referenced in column 3. The development of the allocation  
7 factors is presented in Schedules E and E-S of the exhibit.

8 I will use some of the larger cost items to illustrate the principles and  
9 considerations used in the cost allocation methodology. Water purchased for  
10 resale, purchased electric power and treatment chemicals are examples of costs  
11 that tend to vary with the amount of water consumed and are thus considered base  
12 costs. They are allocated to the several customer classifications in direct  
13 proportion to the average daily consumption of those classifications using Factor  
14 1. The development of Factor 1 is shown in Schedules E and E-S of Exhibit No. 5-  
15 A, Part I.

16 Other sources of supply, pumping, purification, and transmission costs are  
17 associated with meeting usage requirements in excess of the average, generally  
18 to meet maximum day requirements. Costs of this nature were allocated to  
19 customer classifications partially as base costs, proportional to average daily  
20 consumption, partially as maximum day extra capacity costs, in proportion to  
21 maximum day extra capacity, and, in the case of certain pumping stations and  
22 transmission mains, partially as fire protection costs, through the use of Factors 2  
23 and 3. The development of the allocation factors, referenced as Factors 2 and 3,

1 is shown in Schedules E and E-S of Exhibit No. 5-A, Part I. Costs associated with  
2 distribution mains and storage facilities were allocated partly on the basis of  
3 average consumption and partly on the basis of maximum hour extra demand,  
4 including the demand for fire protection service, because these facilities are  
5 designed to meet maximum hour and fire demand requirements. The development  
6 of the factors, referenced as Factors 4 and 5, used for these allocations is shown  
7 in Schedules E and E-S of Exhibit No. 5-A, Part I. Fire demand costs were  
8 allocated to public and private fire protection service and general service in  
9 proportion to the relative potential demands on the system by hydrants, fire  
10 services and commercial service lines sized to provide both fire protection and  
11 general service, as presented in Schedules G and G-S of Exhibit No. 5-A, Part I.

12 Costs associated with pumping facilities were allocated on combined bases  
13 of maximum day, maximum day including fire and maximum hour extra capacity  
14 because these facilities serve these functions. The relative weightings of Factor 2  
15 (maximum day), Factor 3 (maximum day with fire) and Factor 4 (maximum hour)  
16 for pumping facilities were based on the functional use of pumps and footage of  
17 mains, serving maximum day and maximum hour functions.

18 Costs associated with meters and services facilities were allocated to  
19 customer classifications in proportion to the capital costs of the sizes and quantities  
20 of meters and services serving each classification. The development of factors for  
21 meters and services, referenced as Factor 7 and Factor 8, is presented in Exhibit  
22 No. 5-A, Part I.

1           Costs for customer accounting, billing and collecting were allocated based  
2           on the number of bills for each classification, and costs for meter reading were  
3           allocated on the basis of the number of bills rendered to metered customers. The  
4           development of these factors, referenced as Factor 9 and Factor 10, is presented  
5           in Exhibit No. 5-A, Part I.

6           Administrative and general costs were allocated based on allocated direct  
7           costs excluding those costs such as purchased water, power and chemicals which  
8           require little administrative and general expense. The development of factors for  
9           this allocation, referenced as Factor 14, is presented in Exhibit No. 5-A, Part I,

10           Annual depreciation accruals were allocated based on the function of the  
11           facilities represented by the depreciation expense for each depreciable plant  
12           account. The original cost less accrued depreciation of utility plant in service was  
13           similarly allocated for the purpose of developing factors, referenced as Factor 18,  
14           for allocating items such as income taxes and return. The development of Factor  
15           18 is presented in Exhibit No. 5-A, Part I.

16 **Q.    What was the source of the total cost of service data set forth in column 4 of**  
17 **Schedules D and D-S of Exhibit No. 5-A, Part I?**

18 A.    The pro forma costs of service were furnished by the rate department of the  
19        Company, and are set forth in Exhibit Nos. 1-A and 1-B.

20 **Q.    Refer to Schedules E and E-S of Exhibit No. 5-A, Part I, and explain the**  
21 **source of the system maximum day and maximum hour ratios used in the**  
22 **development of factors referenced as Factors 2, 3, 4 and 5.**

1 A. The ratios were based on a review of experienced Company data set forth on  
2 Schedule F of Exhibit No. 5-A, Part I. The maximum day ratio of 1.4 times the  
3 average day approximates the ratio of maximum daily send-out experienced by  
4 the Company in 1999, 2001, 2010, and 2011, the year in which the most recent  
5 maximum day delivery was experienced. The maximum hour ratio of 2.0 times the  
6 average hour approximates the peak hour consumption experienced by the  
7 Company in 1995, 1997, 2001, 2010, and 2011.

8 **Q. Are the system maximum day and maximum hour ratios the same as the**  
9 **ratios used in the study presented in the Company's prior rate case?**

10 A. Yes, they are.

11 **Q. What factors were considered in estimating the maximum day extra capacity**  
12 **and maximum hour extra capacity demands used for the customer**  
13 **classifications in the development of Factors 2, 3, 4 and 5?**

14 A. The estimated demands were based on judgment that considered field studies of  
15 customer class demands conducted for the Company, field observations of the  
16 service areas of the Company, field studies of similar service areas in  
17 Pennsylvania conducted by my firm, and generally-accepted customer class  
18 maximum day and maximum hour demand ratios. The study of customer class  
19 demands was initiated in 1991 with the selection and monitoring of Residential  
20 customers and neighborhoods. Monitoring continued for these customers with  
21 some additional modifications and for customers from other classes. The results  
22 of the demand study are presented in the Appendix of Exhibit No. 5-A, Part I. A

1 discussion of the specific factors considered for each class also is presented in the  
2 Appendix.

3 **Q. Are the customer class extra capacity factors the same as those used in the**  
4 **most recent cost of service study for the Company?**

5 A. Yes, they are.

6 **Q. Please describe why the unrecovered portion of public fire protection is**  
7 **allocated to other classes.**

8 A. The study reallocates the unrecovered portion of public fire protection to the  
9 residential, commercial, industrial, and public classifications. This was done  
10 pursuant to Section 1328 of the Public Utility Code which states that public fire  
11 hydrant rates only need to recover 25% of the cost of service and the unrecovered  
12 portion should be recovered in the other classes' fixed charges. Effectively, the  
13 statute has reassigned the unrecovered costs to other classes, and it is appropriate  
14 to reflect that reassignment in the cost of service.

15 **Q. How did you allocate the unrecovered portion of public fire service?**

16 A. Based on the requirement that these costs are to be recovered in fixed charges, I  
17 allocated the unrecovered public fire costs using Factor 21, which is based on the  
18 meter equivalents of the residential, commercial, industrial, and public  
19 classifications.

20 **Q. Have you summarized the results of your cost allocation study?**

21 A. Yes. The results are summarized in columns 1, 2 and 3 of Schedules A and A-S  
22 in Exhibit No. 5-A, Part I. Column 2 sets forth the total allocated pro forma cost of  
23 service as of December 31, 2025, for each customer classification identified in

1 column 1. Column 5 presents each customer classification's cost responsibility as  
2 a percent of the total cost.

3 **Q. Have you compared these cost responsibilities with the proportionate**  
4 **revenue under existing rates for each customer classification?**

5 A. Yes. A comparison of the allocated cost responsibilities and the percentage  
6 revenue under existing rates can be made by comparing columns 6 and 8 of  
7 Schedule A and 5 and 7 of Schedule A-S of Exhibit 5-A, Part I. In addition, the  
8 Water Base Cost of Service Schedule A-1 shows a comparison of the percentages  
9 of revenues under present and proposed without regard to Act 11 contributions.

10 **Q. Does the Water Base cost of service include a cost sharing for the**  
11 **Shenandoah system?**

12 A. Yes, to mitigate the rate increase to Shenandoah customers, a contribution from  
13 Water Base revenues is required. The recovery of this revenue was allocated to  
14 the individual customer classes based on the Shenandoah cost of service by class  
15 less proposed Shenandoah revenues by class.

16 **Q. How was the amount of Act 11 cost to be recovered in water rates**  
17 **determined?**

18 A. The amount of Act 11 recovery was determined by subtracting the proposed level  
19 of wastewater revenue after various increases from the pro forma cost of  
20 wastewater service for the twelve months ended December 31, 2025 from the  
21 revenue requirement for each area. The Act 11 allocation by class is equal to the  
22 wastewater cost of service by class less proposed revenues.

23 **WATER RATE DESIGN**

1 **Q. Is the proposed rate structure presented in an exhibit?**

2 A. Yes. A comparison of the present and proposed rate schedules is presented in  
3 the response to Standard Data Request OR-3 and on Schedule I.

4 **Q. What are the appropriate factors to be considered in the design of the rate  
5 structure?**

6 A. In preparing a rate structure, one should consider the allocated costs of service,  
7 the impact of radical changes from the present rate structure, the understandability  
8 and ease of application of the rate structure, community and social influences, and  
9 the value of service, particularly competitive concerns. General guidelines should  
10 be developed with management to determine the extent to which each of these  
11 criteria is to be incorporated in the rate structure to be designed, inasmuch as the  
12 pricing of a commodity or service ultimately should be a function of management.

13 **Q. Did you develop rate design guidelines during discussions with Company  
14 management?**

15 A. Yes, I did. The guidelines were: (1) maintain separate rate divisions for those  
16 areas with year-round usage and those areas with seasonal usage; (2) maintain a  
17 low-use block for the residential class at 2,000 gallons per month in each division,  
18 and a sixth block for the industrial classification for usage over 10 million gallons  
19 per month; (3) continue movement of those areas with year-round usage toward  
20 the Main Division rates; (4) increase existing Main Division private fire service line  
21 rates 14% and private hydrant charges by 0%; (5) increase the existing Public Fire  
22 Hydrant rate up to the 25% of cost of service level and (6) move the Shenandoah  
23 rate structure to the Main Division rate structure. For those rate divisions with a

1 public fire hydrant rate below \$34 per month, propose an increase so that  
2 achieving the State-wide rate can be accomplished in two or more rate cases.

3 **Q. Do the proposed rates comply with these guidelines?**

4 A. Yes, they do.

5 **Q. In what manner has the goal of rate equalization been continued for each of**  
6 **the divisions?**

7 A. In general, the proposed customer charges and consumption rates for these  
8 Divisions represent a movement toward the Main Division rates by varying  
9 degrees.

10 For Main Division, the 5/8-inch customer charge was set at \$23.90 per  
11 month. This represents an \$1.92 base rate increase (8.7% over present rates of  
12 \$20.51 including the Distribution System Improvement Charge (DSIC)). Base  
13 rates for all other meter sizes were increased by a similar percentage.  
14 Consumption charges were increased so that revenues by class move toward cost  
15 of service indicators and to recover the total revenue requirement.

16 **Q. Please explain the proposed rates for all of the non-seasonal divisions.**

17 A. The Rate Zone 2 and Belle Aire rate Zone will move to Rate Zone 1 in this case.  
18 Beech Mountain, Bristol Township, Concord Park and Treasure Lake division rates  
19 will continue to move toward Zone 1 rates.

20 Two other areas, Bunker Hill and Phoenixville, rates were increased to  
21 move toward Zone 1 rates. The Company capped the rate increases for these two  
22 areas to 75%.

1 Shenandoah's rate structure will move to Rate Zone 1 rate structure,  
2 eliminating minimums and altering the blocking structure for all classes. Proposed  
3 rates were set at rates that would mitigate increases by customer class and  
4 acknowledging the large change in rate structure.

5 **Q. Please explain the rate structure for seasonal areas.**

6 A. The Zone 3 Division has a significant number of seasonal customers and will  
7 continue to be served under the merged seasonal rate design. The customer  
8 charge is increased to \$33.90 per month but is offset with a lower first block  
9 consumption rate than Main Division for the first 4,000 gallons. The bills for the  
10 seasonal rate structure are equalized with Main Division at the 3,870 gallon  
11 average per month and greater consumption levels.

12 **Q. Please explain the concerns regarding competing sources of supply for  
13 Industrial, Public and Sales to Other Water Utilities customers.**

14 A. To avoid the loss of very large customers from which the Company recovers a  
15 significant amount of its fixed costs, competitive service riders were proposed and  
16 approved in the Company's 1997 rate proceeding. The competitive service riders  
17 DIS (Demand-Based Industrial Service), DRS (Demand-Based Resale Service)  
18 and EGS (Electric Generation Service) enable the Company to retain customers  
19 who can develop water supplies at average costs per hundred gallons that are less  
20 than the Company's tariff rates. These customers, in return for a negotiated rate  
21 that is less than the tariff rate, are required to enter into a contract with the  
22 Company, purchase a minimum amount of water each month and maintain  
23 favorable load factors. The use of such riders retains the recovery of significant

1 fixed costs from these customers that otherwise would have to be recovered from  
2 all other customers.

3 **Q. What are you proposing for the Main Division public fire hydrant rate?**

4 A. The present annual rate of \$28.57 per year is less than 25 percent of the annual  
5 cost per hydrant. Section 1328 of the Public Utility Code requires that public fire  
6 hydrant rates recover no more than 25 percent of the cost of service. The  
7 Company is proposing that the Main Division public fire hydrant rate be increased  
8 to this level.

9 **Q. What is the annual public fire hydrant cost of service?**

10 A. The annual cost of service for a public fire hydrant is \$1,554.40. The public fire  
11 cost at 25% of the cost of service is \$388.60 or \$32.38 per month.

12 **Q. What changes are proposed for the public fire hydrant rates in the other  
13 divisions?**

14 A. For those divisions where the existing rate per month is less than the current Main  
15 Division rate of \$28.57, the Company is increasing these rates so that equity of  
16 Public Fire rates can hopefully be achieved in the next rate case.

17 **Q. How were the present metered private fire rates increased under proposed  
18 rates?**

19 A. The present Main Division base rates for private fire service lines customers were  
20 increased approximately 14%. The Main Division Private Hydrant rates are  
21 increase by 0% because they are at their full cost of service. For those divisions  
22 where the existing Private Hydrant rate per month is less than the current Main

1 Division rate of \$51.10, the Company is increasing these rates so that equity of  
2 these rates can be achieved in the next rate case.

3 **Q. Please describe the development of the rates for the standby tariff.**

4 A. The proposed Industrial Standby Rates and Resale and Electric Generation  
5 Standby Rates include service, demand and commodity rates. The service  
6 charges are the same as those set forth on the Schedule of Rates for the Main  
7 Division proposed in this case.

8 The demand and commodity rates are based on the results of the cost of  
9 service allocation to cost functions found in the Appendix of Exhibit No. 5-A, Part  
10 I. The firm standby demand charge includes fixed operating and capital costs in  
11 the base and extra capacity functions. The interruptible standby demand charge  
12 includes fixed operating costs in the base and extra capacity functions.

13 The commodity rate associated with deliveries pursuant to firm standby  
14 demand includes variable operating costs. The commodity rate associated with  
15 deliveries pursuant to interruptible standby demand includes variable operating  
16 costs and capital costs in the base and extra capacity functions. The commodity  
17 rate for deliveries in excess of the firm and interruptible standby demand is the rate  
18 for the first block for the Main Division.

19 **Q. Did you prepare a schedule to show the calculation of the standby rates?**

20 A. Yes. Schedule H of Exhibit No. 5-A, Part I sets forth the calculation of the firm and  
21 interruptible standby rates based on the cost of service data submitted in this case.

22  
23 **WASTEWATER – COST OF SERVICE ALLOCATION**

24 **Q. Please describe your Exhibit No. 5-B, Part I.**

1 A. Exhibit No. 5-B, Part I presents wastewater cost of service studies for the following  
2 areas:

3 Wastewater Base Operations  
4 Lower Makefield Operations  
5 East Whiteland Operations  
6

7 The Company is providing cost of service studies, other than the Base Operations,  
8 for the additional areas as a requirement of the PA PUC orders related to  
9 acquisitions of these areas.

10 **Q. Please describe the overall cost of service allocation methodology for the  
11 Company's Wastewater Divisions.**

12 A. The cost of service allocation studies for the Company's Wastewater Operations  
13 include the revenue requirements for each of the Company's wastewater  
14 operations previously described.

15 The purpose of the studies is to allocate the total cost of service for each  
16 division, which is the total revenue requirement, to the several customer  
17 classifications. In the studies, the total costs are allocated to the residential and  
18 non-residential customer classifications in accordance with generally accepted  
19 cost of service principles and procedures.

20 **Q. Have you prepared an exhibit presenting the results of your studies?**

21 A. Yes. The results of my allocations of the pro forma cost of service as of December  
22 31, 2025, and proposed customer rates to produce the pro forma revenue  
23 requirements for each division as of that date are presented in Exhibit No. 5-B,  
24 Part I.

25 **Q. Please describe the method of cost allocation that was used in your studies.**

1 A. I used the functional cost allocation methodology described in “Financing and  
2 Changes for Wastewater Systems,” Manual of Practice No. 27, published by the  
3 Water Environment Federation (“Manual of Practice No. 27”). This method  
4 allocated the cost of providing wastewater service to customer classifications in  
5 proportion to each classifications’ use of the service provider’s facilities and  
6 services. Costs are assigned to cost components using predominant operational  
7 purposes as cost-causative factors. The functional cost method is generally  
8 accepted as a sound method for allocating the cost of wastewater service.

9 **Q. What procedures did you use to apply the cost allocation methodology for**  
10 **wastewater operations?**

11 A. Each element of the cost of service is allocated to customer classifications  
12 according to the functional categories of flow, infiltration and inflow (“I&I”),  
13 customer facilities and customer accounting. The functional costs are allocated to  
14 customer classifications based on the amount of flow contributed to the system,  
15 the amount of I&I allocated to each class, and the number and relative size of  
16 customers.

17 **Q. Have you summarized the results of your cost allocation study?**

18 A. Yes. The results are summarized in columns 1, 2, 3 and 4 of Schedules A, A-LM  
19 and A-EW for each study in Exhibit 5-B, Part I, Column 2 of each schedule sets  
20 forth the total allocated pro forma cost of service for each customer classification  
21 identified in column 1. Column 3 presents the total Act 11 revenues for each  
22 division proposed to be transferred to the water cost of service study, in Exhibit  
23 No. 5-A, Part I –Schedules A, A-LM and A-EW. Column 4 shows the revised total

1 allocated pro forma cost of service for each customer classification identified in  
2 column 1. Column 5 presents each customer classification's cost responsibility as  
3 a percent of the total cost. The cost of service by class in column 2 was developed  
4 in Schedule B of each study. The factors that allocate the functional costs to  
5 customer classes are presented in Schedules C, C-LM and C-EW of each study.  
6 The factors that allocate the cost of service to the cost functions are shown in  
7 Schedules E, E-LM and E-EW of each study.

8 **Q. Have you compared these cost responsibilities with the proportionate**  
9 **revenue under existing rates for each customer classification?**

10 A. Yes. A comparison of the allocated cost responsibilities and the percentage  
11 revenue under existing rates can be made by comparing columns 5 and 7 of each  
12 Schedules A, A-LM and A-EW in Exhibit 5-B, Part I. The revenues in column 8 are  
13 simply the revenues that would be required to move toward (or approximate) the  
14 cost of service in column 4, and the increase or decrease from present revenues  
15 is shown in column 10, with the percentage increase or decrease in column 11.

### 17 **WASTEWATER RATE DESIGN**

18 **Q. Is the proposed rate structure presented in an exhibit?**

19 A. Yes, on Schedule F-WW of Exhibit 5-B, Part I.

20 **Q. Did you develop rate design guidelines during discussions with Company**  
21 **management?**

22 A. Yes, I did. The guidelines were: (1) move toward additional consolidation of rates  
23 across rate zones; (2) for metered areas, develop a rate structure that includes a

1 customer charge or EDU charge and a single block usage charge; and (3) for  
2 unmetered areas, develop a monthly flat rate to equal 3,870 gallons priced-out at  
3 the respective zone rates, and (4) where possible, eliminate an allowance.

4 **Q. Does the proposed rate design comply with these guidelines?**

5 A. Yes. Of the various rate zones, the proposed rates consolidate Rate Zones 1, 1A,  
6 7, 9, 10, and 12. Rate Zones 8 and 11 are consolidated to Rate Zone 2 rates.  
7 Rate Zones 3, 4, 5, 6 and 13 remain standalone rate zones. No rate increases are  
8 proposed for Rate Zones 2, 3, 4 and 5 as these rates produce an average customer  
9 rate that is currently higher than the proposed Main Division Rate Zone 1 rates.

10 **Q. Does this conclude your direct testimony?**

11 A. Yes, it does.

CONSTANCE E. HEPPENSTALL – LIST OF CASES TESTIFIED

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
1.	2010	AZ CC	W-01303A-09-0343 and SW-01303A-09-0343	Arizona American Water Company	Rate Consolidation
2.	2010	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Revenue Requirements
3.	2012	PA PUC	R-2012-2311725	Hanover Borough	Cost of Service/Revenue Requirements
4.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Revenue Requirements
5.	2013	PA PUC	R-2013-2350509	City of DuBois – Bureau of Water	Revenue Requirements
6.	2013	PA PUC	R-2013-2390244	City of Bethlehem – Bureau of Water	Revenue Requirements
7.	2014	PA PUC	R-2014-2418872	City of Lancaster – Bureau of Water	Revenue Requirements
8.	2014	PA PUC	R-2014-2428304	Hanover Borough	Revenue and Revenue Requirements
9.	2015	KY PSC	Case No.2015-000143	Northern Kentucky Water District	Cost of Service
10.	2016	AZ CC	WS-01303A-16-0145	EPCOR Water Arizona, Inc.	Cost of Service/Rate Design
11.	2016	PA PUC	R-2016-2554150	City of DuBois – Bureau of Water	Cost of Service/Revenue Requirements
12.	2017	AZ CC	WS-01303A-17-0257	EPCOR Water Arizona, Inc	Cost of Service/Rate Design
13.	2017	HI PUC	2017-0446	Hana Water Systems, LLC – North	Cost of Service/Rate Design
14.	2017	HI PUC	2017-0447	Hana Water Systems, LLC – South	Cost of Service/Rate Design
15.	2017	MO PSC	WR-2017-0285	Missouri-American Water Company	Cost of Service/Rate Design
16.	2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
17.	2017	VA SCC	PUR-2017-00082	Aqua Virginia, Inc	Cost of Service
18.	2018	IN IRC	50208	Indiana American Water Company	Cost of Service/Demand Study
19.	2018	KY PSC	2018-00208	Water Service Corp of KY	Cost of Service/Rate Design
20.	2018	KY PSC	2018-00291	Northern Kentucky Water District	Cost of Service/Rate Design
21.	2018	KY PSC	2018-0358	Kentucky American Water	Cost of Service/Rate Design
22.	2018	PA PUC	2018-200208	SUEZ Water Pennsylvania	Revenue Requirements
23.	2018	WV PSC	18-0573-W-42t	West Virginia American Water Co.	Cost of Service
24.	2019	PA PUC	R-2019-3006904	Newtown Artesian Water Co.	Revenue Reqmts./Rate Design
25.	2019	PA PUC	R-2019-3010955	City of Lancaster – Sewer Fund	Rev. Reqmts./Cost of Service/Rates
26.	2020	CA PUC	A2101003	San Jose Water Company	Rate Design
27.	2020	PA PUC	R-2020-3017206	Philadelphia Gas Works	Cost of Service

CONSTANCE E. HEPPENSTALL – LIST OF CASES TESTIFIED

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
28.	2020	PA PUC	R-2020-3019369	Pennsylvania American Water Co.	Cost of Service/Rate Design
29.	2020	PA PUC	R-2020-3019371	Pennsylvania American Water Co.	Cost of Service/Rate Design
30.	2020	PA PUC	R-2020-3020256	City of Bethlehem	Rev. Reqmts./Cost of Service/Rates
31.	2020	VA SCC	PUR-2020-00106	Aqua Virginia, Inc.	Cost of Service
32.	2021	NJ BPU	WR21071007	Atlantic City Sewerage Co.	Rev. Reqmts./Cost of Service/Rates
33.	2021	NV PUC	21-12025	Great Basin Water Company	Cost of Service/Rate Design
34.	2021	PA PUC	R-2021-3026116	Hanover Borough	Cost of Service
35.	2021	PA PUC	R-2021-3027385	Aqua Pennsylvania	Cost of Service/Rate Design
36.	2021	PA PUC	R-2021-3027386	Aqua Pennsylvania	Cost of Service/Rate Design
37.	2021	PA PUC	R-2021-3026682	City of Lancaster – Bureau of Water	Cost of Service/Rate Design
38.	2021	PUCO	21-0595-WW-AIR	Aqua Ohio, Inc	Cost of Service
39.	2021	PUCO	21-0596-ST-AIR	Aqua Ohio, Inc	Cost of Service
40.	2022	KY PSC	2022-00161	Northern Kentucky Water District	Cost of Service/Rate Design
41.	2022	PA PUC	R-2021-3030218	UGI Utilities, Inc. – Gas Division	Cost of Service
42.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Rev. Req./Rate Design
43.	2022	PA PUC	R-2022-30316732	Pennsylvania American Water	Cost of Service
44.	2022	PA PUC	R-2022-3031340	York Water Company	Cost of Service/Rate Design
45.	2022	PA PUC	R-2022-3032806	York Water Company	Cost of Service/Rate Design
46.	2022	PUCO	22-1094-WW-AIR	Aqua Ohio Inc.	Cost of Service
47.	2022	PUCO	22-1096-ST-AIR	Aqua Ohio Inc.	Cost of Service
48.	2023	PA PUC		Conneaut Lake Water LLC	Rev. Reqmts/Rates
49.	2023	NJBPU	WR23050292	Middlesex Water Company	Cost of Service/Rate Design
50.	2023	PA PUC	R-2023-3037933	Philadelphia Gas Works	Cost of Service
51.	2023	PA PUC	R-2023-3043189	Pennsylvania American Water Co.	Cost of Service
52.	2023	PA PUC	R-2023-3043190	Pennsylvania American Water Co.	Cost of Service
53.	2024	IL CC	24-0044	Aqua Illinois, Inc	Cost of Service
54.	2024	NJ BPU	WR24010057	Aqua New Jersey, Inc	Cost of Service
55.	2024	PA PUC	R-2024-3045192	Veolia Water Pennsylvania	Cost of Service

CONSTANCE E. HEPPENSTALL – LIST OF CASES TESTIFIED

56. 2024 PA PUC R-2023-3045193 Veolia Water Pennsylvania Cost of Service

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
JOHN J. SPANOS**

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**Topics Addressed:**

**Depreciation**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 6**

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: AQUA PENNSYLVANIA, INC.

DIRECT TESTIMONY OF JOHN J. SPANOS

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

2 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp  
3 Hill, Pennsylvania 17011.

4 **Q. With what firm are you associated?**

5 A. I am associated with the firm of Gannett Fleming Valuation and Rate Consultants,  
6 LLC ("Gannett Fleming").

7 **Q. How long have you been associated with Gannett Fleming?**

8 A. I have been associated with the firm since June 1986.

9 **Q. What is your position in the firm?**

10 A. I am President.

11 **Q. What is your educational background?**

12 A. I have Bachelor of Science degrees in Industrial Management and Mathematics  
13 from Carnegie-Mellon University and a Master of Business Administration from  
14 York College of Pennsylvania.

15 **Q. Are you a member of any professional societies?**

16 A. Yes. I am a member and past President of the Society of Depreciation  
17 Professionals. I am also a member of the American Gas Association/Edison  
18 Electric Institute Industry Accounting Committee.

19 **Q. Do you hold any special certification as a depreciation expert?**

1 A. Yes. The Society of Depreciation Professionals has established national  
2 standards for depreciation professionals. The Society administers an  
3 examination to become certified in this field. I passed the certification exam in  
4 September 1997 and was recertified in August 2003, February 2008, January  
5 2013, February 2018 and February 2023.

6 **Q. Please outline your experience in the field of depreciation.**

7 A. I have over 37 years of depreciation experience which includes giving expert  
8 testimony in more than 460 cases before 46 regulatory commissions, including  
9 the Pennsylvania Public Utility Commission (“Commission”). These cases have  
10 included depreciation studies in the electric, gas, water, wastewater and pipeline  
11 industries. In addition to cases where I have submitted testimony, I have also  
12 supervised over 800 other depreciation or valuation assignments. Please refer  
13 to Appendix A for my qualifications statement, which includes further information  
14 with respect to my work history, case experience, and leadership in the Society  
15 of Depreciation Professionals.

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

17 A. I was asked by Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater,  
18 Inc. (collectively “Aqua PA” or the “Company”) to prepare depreciation studies  
19 with regards to plant in service as of December 31, 2023 and, as claimed by the  
20 Company, as of December 31, 2024 and December 31, 2025 for water and  
21 wastewater assets by system.

22 **Q. Have you prepared exhibits presenting the results of your studies?**

1 A. Yes. Exhibit Nos. 6-A, Part 1 through 6-E, Part 1 present the results of each  
2 depreciation study as of the historic test year ended December 31, 2023 (“HTY”).  
3 Exhibit Nos. 6-A, Part 2 through 6-E, Part 2 present the results of each  
4 depreciation study as of the future test year ending December 31, 2024 (“FTY”).  
5 Exhibit Nos. 6-A, Part 3 through 6-E, Part 3 present the results of each  
6 depreciation study as of the fully projected future test year ending December 31,  
7 2025 (“FPFTY”). In addition, I am responsible for the responses to Depreciation  
8 Data Filing Requirements FR VI.1, FR VI.2, FR VI.3, FR VI.4, FR VI.5 and FR  
9 VI.6 that are presented as Appendix B to this testimony.

10 **Q. Please describe Exhibit Nos. 6-A through 6-E.**

11 A. Exhibit No. 6-A, Part 1 titled "2023 Depreciation Study - Calculated Annual  
12 Depreciation Accruals Related to Water Plant as of December 31, 2023,"  
13 includes the results of the depreciation study related to the water assets as of  
14 December 31, 2023. The report also includes the detailed depreciation  
15 calculations. Exhibit No. 6-A, Part 2, titled "2024 Depreciation Study - Calculated  
16 Annual Depreciation Accruals Related to Water Plant as of December 31, 2024"  
17 includes the results of the depreciation study related to the estimated water  
18 assets as of December 31, 2024. The report also includes explanatory text,  
19 statistics related to the estimation of service life, and the detailed depreciation  
20 calculations. Exhibit No. 6-A, Part 3 titled “2025 Depreciation Study – Calculated  
21 Annual Depreciation Accruals Related to Water Plant as of December 31, 2025”,  
22 includes the results of the depreciation study related to the estimated water  
23 assets as of December 31, 2025. The Exhibit Nos. 6-B, Part 1, Part 2 and Part

1 3 are organized in the same fashion for the Shenandoah Operations. The Exhibit  
2 Nos. 6-C, Part 1 through 6-E, Part 3 are organized in the same fashion for the  
3 wastewater assets by system. The Exhibit Nos. 6-C represent the Wastewater  
4 Base systems; 6-D represents the Lower Makefield Operations; and 6-E  
5 represent the East Whiteland Operations.

6 **Q. What was the purpose of your depreciation studies?**

7 A. The purpose of the depreciation studies was to estimate the annual depreciation  
8 accruals related to water and wastewater plant in service for ratemaking  
9 purposes and, using Commission-approved procedures, to estimate Aqua PA's  
10 book reserve as of December 31, 2024 and December 31, 2025.

11 **Q. Is Aqua PA's claim for annual depreciation in the current proceeding based**  
12 **on the same method of depreciation as was used in its most recent water**  
13 **and wastewater rate proceeding in Docket Nos. R-2021-3027385 and R-**  
14 **2021-3027386, respectively?**

15 A. Yes, it is. For most plant accounts, the current claim for annual depreciation is  
16 based on the straight line remaining life method of depreciation which has been  
17 used for over thirty-five years. For Accounts 340, 341.2, 342, 343, 346, 347 and  
18 348 for water assets and Accounts 390, 392, 393, 394, 396 and 397 for  
19 wastewater assets, the claim is based on the straight line remaining life method  
20 of amortization. The annual amortization is based on amortization accounting,  
21 which distributes the unrecovered cost of fixed capital assets over the remaining  
22 amortization period selected for each account.

1 **Q. What group procedure is being used in this proceeding for depreciable**  
2 **accounts?**

3 A. The same group procedures as in the last approved rate proceeding are used for  
4 each study. The equal life group procedure is used in the current proceeding for  
5 all depreciable accounts and installation years of water and wastewater plant.

6 **Q. Is Aqua PA's claim for accrued depreciation in the current proceeding**  
7 **made on the same basis as has been used for over thirty-five years?**

8 A. Yes. The current claim for accrued depreciation for water assets is the book  
9 reserve brought forward from the book reserve approved by the Commission at  
10 Docket No. R-850174. Similarly, for wastewater assets, accrued depreciation is  
11 brought forward from the previously approved level at the time of acquisition.

12 **Q. How was the book reserve used in the calculation of annual depreciation?**

13 A. The book reserve by account was allocated to vintages to determine original cost  
14 less accrued depreciation by vintage. The total annual accrual is the sum of the  
15 results of dividing the original costs less accrued depreciation by the vintage  
16 composite remaining lives.

17 **Q. How was the book reserve as of December 31, 2024 and December 31, 2025**  
18 **estimated?**

19 A. The book reserve as of December 31, 2024 and December 31, 2025, by account,  
20 was projected by adding estimated accruals, gross salvage and the amortization  
21 of net salvage, and subtracting estimated retirements and cost of removal from  
22 the book reserve as of December 31, 2023. Annual accruals were calculated  
23 based on an average yearly or monthly plant balance. For most accounts, gross  
24 salvage and cost of removal were estimated by (1) expressing actual gross

1 salvage and cost of removal as a percent of retirements by account, for the most  
2 recent five-year period, and (2) applying those percents to the projected  
3 retirements by account. The projected book reserve by account was allocated  
4 to vintages for the purpose of the annual accrual calculation based on calculated  
5 accrued depreciation as of December 31, 2024 and December 31, 2025.

6 **Q. Have service life studies of Aqua PA's water and wastewater utility property**  
7 **been performed?**

8 A. Yes. Service life studies were performed during 2020 for the water assets and  
9 during 2024 for the wastewater assets. The service life studies were the basis  
10 for the service lives I used to calculate annual accruals.

11 **Q. Briefly outline the procedure used in performing the service life studies.**

12 A. The service life studies consisted of assembling and compiling historical data  
13 from the records related to the water and wastewater plant of Aqua PA and its  
14 predecessors; statistically analyzing such data to obtain historical trends of  
15 survivor characteristics; obtaining supplementary information from management  
16 and operating personnel concerning Company practices and plans as they relate  
17 to plant operations; and interpreting the above data to form judgments of service  
18 life characteristics. Iowa type survivor curves were used to describe the  
19 estimated survivor characteristics of the mass property groups. Individual  
20 service lives were used for major individual units of plant, such as reservoirs and  
21 buildings housing treatment plants, pump stations, offices and shops. The life  
22 span concept was recognized by coordinating the lives of associated plant  
23 installed in subsequent years with the probable retirement date defined by the  
24 life estimated for the major unit.

1 **Q. What statistical data were employed in the historical analyses performed**  
2 **for the purpose of estimating service life characteristics?**

3 A. The data consisted of the entries made to record retirements and other  
4 transactions related to the water plant during the period 1954-2019 and the  
5 wastewater plant during the period 2010-2023. These entries were classified by  
6 depreciable group, type of transaction, the year in which the transaction took  
7 place, and the year in which the plant was installed. Types of transactions  
8 included in the data were plant additions, retirements, transfers, and balances.

9 **Q. What was the source of these data?**

10 A. They were assembled from Company records related to its utility plant in service.

11 **Q. Were the methods used in the service life studies the same as those used**  
12 **in other depreciation studies for water and wastewater plant presented**  
13 **before this Commission?**

14 A. Yes. The methods are the same ones that have been presented previously for  
15 Aqua PA and for other water and wastewater companies before the Commission  
16 and that have been accepted by the Commission in its past orders concerning  
17 water and wastewater utilities.

18 **Q. Are the factors considered in your estimates of service life presented in**  
19 **Exhibit Nos. 6-A, Part 2 through 6-E, Part 2?**

20 A. Yes. A discussion of the factors considered in the estimation of service lives is  
21 presented in Part III, Service Life Considerations, of 6-A, Part 2 and 6-B Part 2  
22 for water accounts and in Part III, Service Life Considerations, of Exhibit Nos. 6-  
23 C through 6-E, Part 2 for wastewater accounts.

1 **Q. Please outline the contents of Exhibit Nos. 6-A, Part 2 through 6-E, Part 2.**

2 A. Exhibit No. 6-A, Part 2 is presented in eight parts. Part I, Introduction, contains  
3 statements with respect to the plan of the report, and the basis of the study. Part  
4 II, Estimation of Survivor Curves, presents descriptions of the considerations and  
5 the methods used in the service life studies. Part III, Service Life Considerations,  
6 presents the factors and judgment utilized in the average service life analysis.  
7 Part IV, Calculation of Annual and Accrued Depreciation, describes the  
8 procedures used in the calculation of group depreciation. Part V, Results of  
9 Study, presents a summary by depreciable group of annual depreciation accrual  
10 rates and amounts. Part VI, Service Life Statistics, presents the statistical  
11 analysis of service life estimates. Part VII, Detailed Depreciation Calculations,  
12 presents the detailed tabulations of annual depreciation. Part VIII, Experienced  
13 and Estimated Net Salvage, presents the cost of removal and gross salvage  
14 recorded for the period 2020-2024.

15 Table 1, pages V-5 through V-8, presents the estimated survivor curve, the  
16 original cost as of December 31, 2024, and the book reserve and calculated  
17 annual depreciation for each account or subaccount of Water Plant. Table 2,  
18 pages V-9 and V-10, presents the bringforward to December 31, 2024, of the  
19 book depreciation reserve as of December 31, 2023. Table 3 on page V-11 and  
20 V-12 sets forth the calculation of the annual accruals used in the bringforward.  
21 Table 4, page V-13, presents the experienced and estimated net salvage during  
22 the five-year period, 2020 through 2024.

1           The section beginning on page VI-2 presents the results of the retirement  
2 rate analyses prepared as the historical bases for the service life estimates. The  
3 section beginning on page VII-2 presents the depreciation calculations related to  
4 original cost. The tabulation on pages VII-3 through VII-8 presents the  
5 cumulative depreciated original cost by year installed. The tabulations on pages  
6 VII-10 through VII-173 present the calculation of annual depreciation by vintage  
7 by account for each depreciable group of water plant. The tabulation on pages  
8 VIII-2 through VIII-6 presents the retirements, gross salvage, and cost of removal  
9 by account for each year during the period 2020 through 2024. Exhibit No. 6-B,  
10 Part 2 is presented in the same fashion for the Shenandoah water plant. Exhibit  
11 Nos. 6-C, 6-D and 6-E, Part 2 are presented in the same fashion for wastewater  
12 plant.

13 **Q. Please outline the contents in Exhibit Nos. 6-A, Part 3 through 6-E, Part 3.**

14 A. Exhibit No. 6-A, Part 3 includes a description of the results, summaries of the  
15 depreciation calculations, and the detailed depreciation calculations as of  
16 December 31, 2025. The descriptions and explanations presented in Exhibit No.  
17 6-A, Part 2 are also applicable to the depreciation calculations presented in  
18 Exhibit No. 6-A, Part 3. The graphs and tables related to service lives presented  
19 in Exhibit No. 6-A, Part 2 also support the service life estimates used in Exhibit  
20 No. 6-A, Part 3 inasmuch as the estimates are the same for both test years. The  
21 summary tables and detailed depreciation calculations as of December 31, 2025,  
22 are organized and presented in the same manner as those as of December 31,  
23 2024. Exhibit Nos. 6-B, Part 3 is presented in the same fashion for the

1 Shenandoah water plant. Exhibit Nos. 6-C, 6-D and 6-E, Part 3 are presented in  
2 the same fashion for wastewater plant.

3 **Q. Please outline the contents of Exhibit Nos. 6-A, Part I through 6-E, Part 1.**

4 A. Exhibit No. 6-A, Part 1 includes a description of the results, summaries of the  
5 depreciation calculations, and the detailed depreciation calculations as of  
6 December 31, 2023. The descriptions and explanations presented in Exhibit No.  
7 6-A, Part 2 are also applicable to the depreciation calculations presented in  
8 Exhibit No. 6-A, Part 1. The graphs and tables related to service lives presented  
9 in Exhibit No. 6-A, Part 2 also support the service life estimates used in Exhibit  
10 No. 6-A, Part 1, inasmuch as the estimates are the same for both test years. The  
11 summary tables and detailed depreciation calculations as of December 31, 2023,  
12 are organized and presented in the same manner as those as of December 31,  
13 2024. Exhibit No. 6-B, Part 1 is presented in the same fashion for Shenandoah  
14 water plant. Exhibit Nos. 6-C, 6-D and 6-E, Part 1 are presented in the same  
15 fashion for wastewater plant.

16 **Q. Please use an example to illustrate the manner in which the study is**  
17 **presented in Exhibit Nos. 6-A, Part 1 through 6-E, Part 3.**

18 A. I will use Account 331.03, Mains and Accessories – 12 Inch and Over, as my  
19 example, inasmuch as it is one of the largest depreciable group of water assets  
20 and represents approximately 13 percent of the original cost of depreciable water  
21 utility plant as of December 31, 2024, the FTY.

22 The retirement rate method was used to analyze the survivor characteristics  
23 of this group. The life tables for the 1954-2019, 1985-2019 and 2000-2019

1 experience bands are presented on pages VI-123 through VI-134 of Exhibit No.  
2 6-A, Part 2. The life tables, or original survivor curves, are plotted along with the  
3 estimated smooth survivor curve, the 95-S3, on page VI-122.

4 The calculation of the annual depreciation related to the original cost of  
5 water plant as of December 31, 2023 is presented on pages II-101 through II-  
6 104 of Exhibit No. 6-A, Part 1. The calculation is based on the 95-S3 survivor  
7 curve, the attained age, and the allocated book reserve. The calculation as of  
8 December 31, 2024 is presented on pages VII-101 through VII-104 of Exhibit No.  
9 6-A, Part 2 and is based in part on the bringforward of the book reserve. The  
10 calculation as of December 31, 2025 is presented on pages II-102 through II-104  
11 of Exhibit No. 6-A, Part 3 and is based in part on the bringforward of the book  
12 reserve. The tabulations in Exhibits 6-A, Part 1 through 3 set forth the installation  
13 year, the original cost, calculated accrued depreciation, allocated book reserve,  
14 future accruals, remaining life and annual accrual. The totals are brought forward  
15 to Table 1 on page I-4 in Exhibit No. 6-A, Part 1 on page V-6 in Exhibit No. 6-A,  
16 Part 2, and page I-6 in Exhibit No. 6-A, Part 3. The same process is conducted  
17 for the Shenandoah water system and each wastewater system.

18 **Q. In what manner is net salvage incorporated in the depreciation**  
19 **calculations?**

20 A. As stated on page IV-7 of Exhibit No. 6-A, Part 2, no adjustment for net salvage  
21 was made to the calculated annual depreciation amounts. The total calculated  
22 annual depreciation set forth on page I-6 of Exhibit No. 6-A, Part 1, on page V-8  
23 of Exhibit No. 6-A, Part 2 and on page I-6 of Exhibit No. 6-A, Part 3 reflects an

1 addition for the amortization of negative net salvage in accordance with the  
2 practice of this Commission. The amortization is based on experience during the  
3 period 2019 through 2023 for the calculation as of December 31, 2023, on  
4 experience during the period 2020 through December 31, 2023, plus estimates  
5 for the year 2024 for the calculation as of December 31, 2024, and on experience  
6 during the period 2021 through December 31, 2023, plus estimates for the years  
7 2024 and 2025 for the calculation as of December 31, 2025. The detail by plant  
8 account of regular retirements, gross salvage, and cost of removal for each year  
9 is presented on pages III-2 through III-6 of Exhibit No. 6-A, Part 1 and on pages  
10 VIII-2 through VIII-6 of Exhibit No. 6-A, Part 2 and on pages III-2 through III-6 of  
11 Exhibit No. 6-A, Part 3. The totals are brought forward to Table 2 on page I-7 of  
12 Exhibit No. 6-A, Part 1, to Table 4 on page V-13 of Exhibit No. 6-A, Part 2 and to  
13 Table 4 on page I-11 of Exhibit No. 6-A, Part 3 in which the amounts of the five-  
14 year amortizations are calculated. The same calculations are presented in the  
15 Shenandoah water and wastewater studies.

16 **Q. Does this complete your testimony at this time?**

17 **A.** Yes, it does.

## Appendix A

## **JOHN SPANOS**

### **DEPRECIATION EXPERIENCE**

**Q. Please state your name.**

A. My name is John J. Spanos.

**Q. What is your educational background?**

A. I have Bachelor of Science degrees in Industrial Management and Mathematics from Carnegie-Mellon University and a Master of Business Administration from York College.

**Q. Do you belong to any professional societies?**

A. Yes. I am a member and past President of the Society of Depreciation Professionals and a member of the American Gas Association/Edison Electric Institute Industry Accounting Committee.

**Q. Do you hold any special certification as a depreciation expert?**

A. Yes. The Society of Depreciation Professionals has established national standards for depreciation professionals. The Society administers an examination to become certified in this field. I passed the certification exam in September 1997 and was recertified in August 2003, February 2008, January 2013, February 2018 and February 2023.

**Q. Please outline your experience in the field of depreciation.**

A. In June 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 through December 1995, I helped prepare numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey, and Anchorage Telephone Utility. I helped perform depreciation studies for the following companies in

the railroad industry: Union Pacific Railroad, Burlington Northern Railroad, and Wisconsin Central Transportation Corporation.

I helped perform depreciation studies for the following organizations in the electric utility industry: Chugach Electric Association, The Cincinnati Gas and Electric Company (CG&E), The Union Light, Heat and Power Company (ULH&P), Northwest Territories Power Corporation, and the City of Calgary - Electric System.

I helped perform depreciation studies for the following pipeline companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

I helped perform depreciation studies for the following gas utility companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

I helped perform depreciation studies for the following water utility companies: Indiana-American Water Company, Consumers Pennsylvania Water Company and The York Water Company; and depreciation and original cost studies for Philadelphia Suburban Water Company and Pennsylvania-American Water Company.

In each of the above studies, I assembled and analyzed historical and simulated data, performed field reviews, developed preliminary estimates of service life and net salvage, calculated annual depreciation, and prepared reports for submission to state public utility commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E.

In January 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July 1999, I was promoted to the position of Manager, Depreciation and

Valuation Studies. In December 2000, I was promoted to the position as Vice-President of Gannett Fleming Valuation and Rate Consultants, Inc., in April 2012, I was promoted to the position as Senior Vice President of the Valuation and Rate Division of Gannett Fleming Inc. (now doing business as Gannett Fleming Valuation and Rate Consultants, LLC) and in January of 2019, I was promoted to my present position of President of Gannett Fleming Valuation and Rate Consultants, LLC. In my current position I am responsible for conducting all depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory bodies.

Since January 1996, I have conducted depreciation studies similar to those previously listed including assignments for Pennsylvania-American Water Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-American Water Company; Indiana-American Water Company; Iowa-American Water Company; New Jersey-American Water Company; Hampton Water Works Company; Omaha Public Power District; Enbridge Pipe Line Company; Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water Company; St. Louis County Water Company; Missouri-American Water Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas & Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI - Elizabethtown Gas Company; Cinergy Corporation – CG&E; Cinergy

Corporation – ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company; Idaho Power Company; El Paso Electric Company; Aqua North Carolina; Aqua Ohio; Aqua Texas, Inc.; Aqua Illinois, Inc.; Ameren Missouri; Central Hudson Gas & Electric; Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint Energy – Oklahoma; CenterPoint Energy – Entex; CenterPoint Energy - Louisiana; NSTAR – Boston Edison Company; Westar Energy, Inc.; United Water Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas; Allegheny Energy Supply, Inc.; Public Service Company of North Carolina; South Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company; Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light; Duke Energy North Carolina; Duke Energy South Carolina; Monongahela Power Company; Potomac Edison Company; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Duke Energy Progress; Northern Indiana Public Service Company; Tennessee- American Water Company; Columbia Gas of Maryland; Maryland-American Water Company; Bonneville Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution, Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi; Entergy Louisiana; Entergy Gulf States Louisiana; the Borough of Hanover; Louisville Gas and Electric Company; Kentucky Utilities Company; Madison Gas and Electric; Central Maine Power; PEPCO; PacifiCorp; Minnesota Energy Resource Group; Jersey Central Power & Light Company; Cheyenne Light, Fuel and Power Company; United Water Arkansas; Central Vermont Public Service Corporation; Green Mountain Power; Portland General Electric Company; Atlantic City Electric; Nicor Gas Company; Black Hills Power; Black Hills Colorado Gas; Black Hills Energy Arkansas, Inc.; Black Hills Kansas

Gas; Black Hills Service Company; Black Hills Utility Holdings; Public Service Company of Oklahoma; City of Dubois; Peoples Gas Light and Coke Company; North Shore Gas Company; Connecticut Light and Power; New York State Electric and Gas Corporation; Rochester Gas and Electric Corporation; Greater Missouri Operations; Tennessee Valley Authority; Omaha Public Power District; Indianapolis Power & Light Company; Vermont Gas Systems, Inc.; Metropolitan Edison; Pennsylvania Electric; West Penn Power; Pennsylvania Power; PHI Service Company - Delmarva Power and Light; Atmos Energy Corporation; Citizens Energy Group; PSE&G Company; Berkshire Gas Company; Alabama Gas Corporation; Mid-Atlantic Interstate Transmission, LLC; SUEZ Water; WEC Energy Group; Rocky Mountain Natural Gas, LLC; Illinois-American Water Company; Northern Illinois Gas Company; Public Service of New Hampshire; FirstEnergy Service Corporation; Northeast Ohio Natural Gas Corporation; Blue Granite Water Company; Spire Missouri, Inc.; Dominion Energy South Carolina, Inc.; South FirstEnergy Operating Companies; Dayton Power and Light Company; Liberty Utilities; East Kentucky Power Cooperative; Bangor Natural Gas; Hanover Borough Municipal Water Works; West Virginia American Water Company; Evergy Metro; Evergy Missouri West; Granite State Electric; Bluegrass Water; The Borough of Ambler; Newtown Artesian Water Company and Connecticut Water Company.

My additional duties include determining final life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to management for its consideration and supporting such rates before regulatory bodies.

**Q. Have you submitted testimony to any state utility commission on the subject of utility plant depreciation?**

A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission; the

Commonwealth of Kentucky Public Service Commission; the Public Utilities Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities Board of New Jersey; the Missouri Public Service Commission; the Massachusetts Department of Telecommunications and Energy; the Alberta Energy & Utility Board; the Idaho Public Utility Commission; the Louisiana Public Service Commission; the State Corporation Commission of Kansas; the Oklahoma Corporate Commission; the Public Service Commission of South Carolina; Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; Illinois Commerce Commission; the Indiana Utility Regulatory Commission; the California Public Utilities Commission; the Federal Energy Regulatory Commission (“FERC”); the Arkansas Public Service Commission; the Public Utility Commission of Texas; Maryland Public Service Commission; Washington Utilities and Transportation Commission; The Tennessee Regulatory Commission; the Regulatory Commission of Alaska; Minnesota Public Utility Commission; Utah Public Service Commission; District of Columbia Public Service Commission; the Mississippi Public Service Commission; Delaware Public Service Commission; Virginia State Corporation Commission; Colorado Public Utility Commission; Oregon Public Utility Commission; South Dakota Public Utilities Commission; Wisconsin Public Service Commission; Wyoming Public Service Commission; the Public Service Commission of West Virginia; Maine Public Utility Commission; Iowa Utility Board; Connecticut Public Utilities Regulatory Authority; New Mexico Public Regulation Commission; Commonwealth of Massachusetts Department of Public Utilities; Rhode Island Public Utilities Commission and the North Carolina Utilities Commission.

**Q. Have you had any additional education relating to utility plant depreciation?**

A. Yes. I have completed the following courses conducted by Depreciation Programs, Inc.:

“Techniques of Life Analysis,” “Techniques of Salvage and Depreciation Analysis,” “Forecasting Life and Salvage,” “Modeling and Life Analysis Using Simulation,” and “Managing a Depreciation Study.” I have also completed the “Introduction to Public Utility Accounting” program conducted by the American Gas Association.

**Q. Does this conclude your qualification statement?**

A. Yes.

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
01.	1998	PA PUC	R-00984375	City of Bethlehem – Bureau of Water	Original Cost and Depreciation
02.	1998	PA PUC	R-00984567	City of Lancaster	Original Cost and Depreciation
03.	1999	PA PUC	R-00994605	The York Water Company	Depreciation
04.	2000	D.T.&E.	DTE 00-105	Massachusetts-American Water Company	Depreciation
05.	2001	PA PUC	R-00016114	City of Lancaster	Original Cost and Depreciation
06.	2001	PA PUC	R-00017236	The York Water Company	Depreciation
07.	2001	PA PUC	R-00016339	Pennsylvania-American Water Company	Depreciation
08.	2001	OH PUC	01-1228-GA-AIR	Cinergy Corp – Cincinnati Gas & Elect Company	Depreciation
09.	2001	KY PSC	2001-092	Cinergy Corp – Union Light, Heat & Power Co.	Depreciation
10.	2002	PA PUC	R-00016750	Philadelphia Suburban Water Company	Depreciation
11.	2002	KY PSC	2002-00145	Columbia Gas of Kentucky	Depreciation
12.	2002	NJ BPU	GF02040245	NUI Corporation/Elizabethtown Gas Company	Depreciation
13.	2002	ID PUC	IPC-E-03-7	Idaho Power Company	Depreciation
14.	2003	PA PUC	R-0027975	The York Water Company	Depreciation
15.	2003	IN URC	R-0027975	Cinergy Corp – PSI Energy, Inc.	Depreciation
16.	2003	PA PUC	R-00038304	Pennsylvania-American Water Company	Depreciation
17.	2003	MO PSC	WR-2003-0500	Missouri-American Water Company	Depreciation
18.	2003	FERC	ER03-1274-000	NSTAR-Boston Edison Company	Depreciation
19.	2003	NJ BPU	BPU 03080683	South Jersey Gas Company	Depreciation
20.	2003	NV PUC	03-10001	Nevada Power Company	Depreciation
21.	2003	LA PSC	U-27676	CenterPoint Energy – Arkla	Depreciation
22.	2003	PA PUC	R-00038805	Pennsylvania Suburban Water Company	Depreciation
23.	2004	AB En/Util Bd	1306821	EPCOR Distribution, Inc.	Depreciation
24.	2004	PA PUC	R-00038168	National Fuel Gas Distribution Corp (PA)	Depreciation
25.	2004	PA PUC	R-00049255	PPL Electric Utilities	Depreciation
26.	2004	PA PUC	R-00049165	The York Water Company	Depreciation
27.	2004	OK Corp Cm	PUC 200400187	CenterPoint Energy – Arkla	Depreciation
28.	2004	OH PUC	04-680-EI-AIR	Cinergy Corp. – Cincinnati Gas and Electric Company	Depreciation
29.	2004	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
30.	2004	NY PUC	04-G-1047	National Fuel Gas Distribution Gas (NY)	Depreciation
31.	2004	AR PSC	04-121-U	CenterPoint Energy – Arkla	Depreciation
32.	2005	IL CC	05-ICC-06	North Shore Gas Company	Depreciation
33.	2005	IL CC	05-ICC-06	Peoples Gas Light and Coke Company	Depreciation
34.	2005	KY PSC	2005-00042	Union Light Heat & Power	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
35.	2005	IL CC	05-0308	MidAmerican Energy Company	Depreciation
36.	2005	MO PSC	GF-2005	Laclede Gas Company	Depreciation
37.	2005	KS CC	05-WSEE-981-RTS	Westar Energy	Depreciation
38.	2005	RR Com of TX	GUD #	CenterPoint Energy – Entex Gas Services Div.	Depreciation
39.	2005	US District Court	Cause No. 1:99-CV-1693- LJM/VSS	Cinergy Corporation	Accounting
40.	2005	OK CC	PUD 200500151	Oklahoma Gas and Electric Company	Depreciation
41.	2005	MA Dept Tele- com & Ergy	DTE 05-85	NSTAR	Depreciation
42.	2005	NY PUC	05-E-934/05-G-0935	Central Hudson Gas & Electric Company	Depreciation
43.	2005	AK Reg Com	U-04-102	Chugach Electric Association	Depreciation
44.	2005	CA PUC	A05-12-002	Pacific Gas & Electric	Depreciation
45.	2006	PA PUC	R-00051030	Aqua Pennsylvania, Inc.	Depreciation
46.	2006	PA PUC	R-00051178	T.W. Phillips Gas and Oil Company	Depreciation
47.	2006	NC Util Cm.	G-5, Sub522	Pub. Service Company of North Carolina	Depreciation
48.	2006	PA PUC	R-00051167	City of Lancaster	Depreciation
49.	2006	PA PUC	R00061346	Duquesne Light Company	Depreciation
50.	2006	PA PUC	R-00061322	The York Water Company	Depreciation
51.	2006	PA PUC	R-00051298	PPL GAS Utilities	Depreciation
52.	2006	PUC of TX	32093	CenterPoint Energy – Houston Electric	Depreciation
53.	2006	KY PSC	2006-00172	Duke Energy Kentucky	Depreciation
54.	2006	SC PSC		SCANA	Accounting
55.	2006	AK Reg Com	U-06-6	Municipal Light and Power	Depreciation
56.	2006	DE PSC	06-284	Delmarva Power and Light	Depreciation
57.	2006	IN URC	IURC43081	Indiana American Water Company	Depreciation
58.	2006	AK Reg Com	U-06-134	Chugach Electric Association	Depreciation
59.	2006	MO PSC	WR-2007-0216	Missouri American Water Company	Depreciation
60.	2006	FERC	IS05-82-002, et al	TransAlaska Pipeline	Depreciation
61.	2006	PA PUC	R-00061493	National Fuel Gas Distribution Corp. (PA)	Depreciation
62.	2007	NC Util Com.	E-7 SUB 828	Duke Energy Carolinas, LLC	Depreciation
63.	2007	OH PSC	08-709-EL-AIR	Duke Energy Ohio Gas	Depreciation
64.	2007	PA PUC	R-00072155	PPL Electric Utilities Corporation	Depreciation
65.	2007	KY PSC	2007-00143	Kentucky American Water Company	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
66.	2007	PA PUC	R-00072229	Pennsylvania American Water Company	Depreciation
67.	2007	KY PSC	2007-0008	NiSource – Columbia Gas of Kentucky	Depreciation
68.	2007	NY PSC	07-G-0141	National Fuel Gas Distribution Corp (NY)	Depreciation
69.	2008	AK PSC	U-08-004	Anchorage Water & Wastewater Utility	Depreciation
70.	2008	TN Reg Auth	08-00039	Tennessee-American Water Company	Depreciation
71.	2008	DE PSC	08-96	Artesian Water Company	Depreciation
72.	2008	PA PUC	R-2008-2023067	The York Water Company	Depreciation
73.	2008	KS CC	08-WSEE1-RTS	Westar Energy	Depreciation
74.	2008	IN URC	43526	Northern Indiana Public Service Company	Depreciation
75.	2008	IN URC	43501	Duke Energy Indiana	Depreciation
76.	2008	MD PSC	9159	NiSource – Columbia Gas of Maryland	Depreciation
77.	2008	KY PSC	2008-000251	Kentucky Utilities	Depreciation
78.	2008	KY PSC	2008-000252	Louisville Gas & Electric	Depreciation
79.	2008	PA PUC	2008-20322689	Pennsylvania American Water Co. - Wastewater	Depreciation
80.	2008	NY PSC	08-E887/08-00888	Central Hudson	Depreciation
81.	2008	WV TC	VE-080416/VG-8080417	Avista Corporation	Depreciation
82.	2008	IL CC	ICC-09-166	Peoples Gas, Light and Coke Company	Depreciation
83.	2009	IL CC	ICC-09-167	North Shore Gas Company	Depreciation
84.	2009	DC PSC	1076	Potomac Electric Power Company	Depreciation
85.	2009	KY PSC	2009-00141	NiSource – Columbia Gas of Kentucky	Depreciation
86.	2009	FERC	ER08-1056-002	Entergy Services	Depreciation
87.	2009	PA PUC	R-2009-2097323	Pennsylvania American Water Company	Depreciation
88.	2009	NC Util Cm	E-7, Sub 090	Duke Energy Carolinas, LLC	Depreciation
89.	2009	KY PSC	2009-00202	Duke Energy Kentucky	Depreciation
90.	2009	VA St. CC	PUE-2009-00059	Aqua Virginia, Inc.	Depreciation
91.	2009	PA PUC	2009-2132019	Aqua Pennsylvania, Inc.	Depreciation
92.	2009	MS PSC	Docket No. 2011-UA-183	Entergy Mississippi	Depreciation
93.	2009	AK PSC	09-08-U	Entergy Arkansas	Depreciation
94.	2009	TX PUC	37744	Entergy Texas	Depreciation
95.	2009	TX PUC	37690	El Paso Electric Company	Depreciation
96.	2009	PA PUC	R-2009-2106908	The Borough of Hanover	Depreciation
97.	2009	KS CC	10-KCPE-415-RTS	Kansas City Power & Light	Depreciation
98.	2009	PA PUC	R-2009-	United Water Pennsylvania	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
99.	2009	OH PUC		Aqua Ohio Water Company	Depreciation
100.	2009	WI PSC	3270-DU-103	Madison Gas & Electric Company	Depreciation
101.	2009	MO PSC	WR-2010	Missouri American Water Company	Depreciation
102.	2009	AK Reg Cm	U-09-097	Chugach Electric Association	Depreciation
103.	2010	IN URC	43969	Northern Indiana Public Service Company	Depreciation
104.	2010	WI PSC	6690-DU-104	Wisconsin Public Service Corp.	Depreciation
105.	2010	PA PUC	R-2010-2161694	PPL Electric Utilities Corp.	Depreciation
106.	2010	KY PSC	2010-00036	Kentucky American Water Company	Depreciation
107.	2010	PA PUC	R-2009-2149262	Columbia Gas of Pennsylvania	Depreciation
108.	2010	MO PSC	GR-2010-0171	Laclede Gas Company	Depreciation
109.	2010	SC PSC	2009-489-E	South Carolina Electric & Gas Company	Depreciation
110.	2010	NJ BD OF PU	ER09080664	Atlantic City Electric	Depreciation
111.	2010	VA St. CC	PUE-2010-00001	Virginia American Water Company	Depreciation
112.	2010	PA PUC	R-2010-2157140	The York Water Company	Depreciation
113.	2010	MO PSC	ER-2010-0356	Greater Missouri Operations Company	Depreciation
114.	2010	MO PSC	ER-2010-0355	Kansas City Power and Light	Depreciation
115.	2010	PA PUC	R-2010-2167797	T.W. Phillips Gas and Oil Company	Depreciation
116.	2010	PSC SC	2009-489-E	SCANA – Electric	Depreciation
117.	2010	PA PUC	R-2010-22010702	Peoples Natural Gas, LLC	Depreciation
118.	2010	AK PSC	10-067-U	Oklahoma Gas and Electric Company	Depreciation
119.	2010	IN URC	Cause No. 43894	Northern Indiana Public Serv. Company - NIFL	Depreciation
120.	2010	IN URC	Cause No. 43894	Northern Indiana Public Serv. Co. - Kokomo	Depreciation
121.	2010	PA PUC	R-2010-2166212	Pennsylvania American Water Co. - WW	Depreciation
122.	2010	NC Util Cn.	W-218,SUB310	Aqua North Carolina, Inc.	Depreciation
123.	2011	OH PUC	11-4161-WS-AIR	Ohio American Water Company	Depreciation
124.	2011	MS PSC	EC-123-0082-00	Entergy Mississippi	Depreciation
125.	2011	CO PUC	11AL-387E	Black Hills Colorado	Depreciation
126.	2011	PA PUC	R-2010-2215623	Columbia Gas of Pennsylvania	Depreciation
127.	2011	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Depreciation
128.	2011	IN URC	43114 IGCC 4S	Duke Energy Indiana	Depreciation
129.	2011	FERC	IS11-146-000	Enbridge Pipelines (Southern Lights)	Depreciation
130.	2011	IL CC	11-0217	MidAmerican Energy Corporation	Depreciation
131.	2011	OK CC	201100087	Oklahoma Gas & Electric Company	Depreciation
132.	2011	PA PUC	2011-2232243	Pennsylvania American Water Company	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
133.	2011	FERC	RP11-___-000	Carolina Gas Transmission	Depreciation
134.	2012	WA UTC	UE-120436/UG-120437	Avista Corporation	Depreciation
135.	2012	AK Reg Cm	U-12-009	Chugach Electric Association	Depreciation
136.	2012	MA PUC	DPU 12-25	Columbia Gas of Massachusetts	Depreciation
137.	2012	TX PUC	40094	El Paso Electric Company	Depreciation
138.	2012	ID PUC	IPC-E-12	Idaho Power Company	Depreciation
139.	2012	PA PUC	R-2012-2290597	PPL Electric Utilities	Depreciation
140.	2012	PA PUC	R-2012-2311725	Borough of Hanover – Bureau of Water	Depreciation
141.	2012	KY PSC	2012-00222	Louisville Gas and Electric Company	Depreciation
142.	2012	KY PSC	2012-00221	Kentucky Utilities Company	Depreciation
143.	2012	PA PUC	R-2012-2285985	Peoples Natural Gas Company	Depreciation
144.	2012	DC PSC	Case 1087	Potomac Electric Power Company	Depreciation
145.	2012	OH PSC	12-1682-EL-AIR	Duke Energy Ohio (Electric)	Depreciation
146.	2012	OH PSC	12-1685-GA-AIR	Duke Energy Ohio (Gas)	Depreciation
147.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Depreciation
148.	2012	PA PUC	R-2012-2321748	Columbia Gas of Pennsylvania	Depreciation
149.	2012	FERC	ER-12-2681-000	ITC Holdings	Depreciation
150.	2012	MO PSC	ER-2012-0174	Kansas City Power and Light	Depreciation
151.	2012	MO PSC	ER-2012-0175	KCPL Greater Missouri Operations Company	Depreciation
152.	2012	MO PSC	GO-2012-0363	Laclede Gas Company	Depreciation
153.	2012	MN PUC	G007,001/D-12-533	Integrus – MN Energy Resource Group	Depreciation
154.	2012	TX PUC	SOAH 582-14-1051/ TECQ 2013-2007-UCR	Aqua Texas	Depreciation
155.	2012	PA PUC	2012-2336379	York Water Company	Depreciation
156.	2013	NJ BPU	ER12121071	PHI Service Company– Atlantic City Electric	Depreciation
157.	2013	KY PSC	2013-00167	Columbia Gas of Kentucky	Depreciation
158.	2013	VA St CC	2013-00020	Virginia Electric and Power Company	Depreciation
159.	2013	IA Util Bd	2013-0004	MidAmerican Energy Corporation	Depreciation
160.	2013	PA PUC	2013-2355276	Pennsylvania American Water Company	Depreciation
161.	2013	NY PSC	13-E-0030, 13-G-0031, 13-S-0032	Consolidated Edison of New York	Depreciation
162.	2013	PA PUC	2013-2355886	Peoples TWP LLC	Depreciation
163.	2013	TN Reg Auth	12-0504	Tennessee American Water	Depreciation
164.	2013	ME PUC	2013-168	Central Maine Power Company	Depreciation
165.	2013	DC PSC	Case 1103	PHI Service Company – PEPCO	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
166.	2013	WY PSC	2003-ER-13	Cheyenne Light, Fuel and Power Company	Depreciation
167.	2013	FERC	ER13-2428-0000	Kentucky Utilities	Depreciation
168.	2013	FERC	ER13- -0000	MidAmerican Energy Company	Depreciation
169.	2013	FERC	ER13-2410-0000	PPL Utilities	Depreciation
170.	2013	PA PUC	R-2013-2372129	Duquesne Light Company	Depreciation
171.	2013	NJ BPU	ER12111052	Jersey Central Power and Light Company	Depreciation
172.	2013	PA PUC	R-2013-2390244	Bethlehem, City of – Bureau of Water	Depreciation
173.	2013	OK CC	UM 1679	Oklahoma, Public Service Company of	Depreciation
174.	2013	IL CC	13-0500	Nicor Gas Company	Depreciation
175.	2013	WY PSC	20000-427-EA-13	PacifiCorp	Depreciation
176.	2013	UT PSC	13-035-02	PacifiCorp	Depreciation
177.	2013	OR PUC	UM 1647	PacifiCorp	Depreciation
178.	2013	PA PUC	2013-2350509	Dubois, City of	Depreciation
179.	2014	IL CC	14-0224	North Shore Gas Company	Depreciation
180.	2014	FERC	ER14- -0000	Duquesne Light Company	Depreciation
181.	2014	SD PUC	EL14-026	Black Hills Power Company	Depreciation
182.	2014	WY PSC	20002-91-ER-14	Black Hills Power Company	Depreciation
183.	2014	PA PUC	2014-2428304	Borough of Hanover – Municipal Water Works	Depreciation
184.	2014	PA PUC	2014-2406274	Columbia Gas of Pennsylvania	Depreciation
185.	2014	IL CC	14-0225	Peoples Gas Light and Coke Company	Depreciation
186.	2014	MO PSC	ER-2014-0258	Ameren Missouri	Depreciation
187.	2014	KS CC	14-BHCG-502-RTS	Black Hills Service Company	Depreciation
188.	2014	KS CC	14-BHCG-502-RTS	Black Hills Utility Holdings	Depreciation
189.	2014	KS CC	14-BHCG-502-RTS	Black Hills Kansas Gas	Depreciation
190.	2014	PA PUC	2014-2418872	Lancaster, City of – Bureau of Water	Depreciation
191.	2014	WV PSC	14-0701-E-D	First Energy – MonPower/PotomacEdison	Depreciation
192.	2014	VA St CC	PUC-2014-00045	Aqua Virginia	Depreciation
193.	2014	VA St CC	PUE-2013	Virginia American Water Company	Depreciation
194.	2014	OK CC	PUD201400229	Oklahoma Gas and Electric Company	Depreciation
195.	2014	OR PUC	UM1679	Portland General Electric	Depreciation
196.	2014	IN URC	Cause No. 44576	Indianapolis Power & Light	Depreciation
197.	2014	MA DPU	DPU. 14-150	NSTAR Gas	Depreciation
198.	2014	CT PURA	14-05-06	Connecticut Light and Power	Depreciation
199.	2014	MO PSC	ER-2014-0370	Kansas City Power & Light	Depreciation

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY, cont.

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
200.	2014	KY PSC	2014-00371	Kentucky Utilities Company	Depreciation
201.	2014	KY PSC	2014-00372	Louisville Gas and Electric Company	Depreciation
202.	2015	PA PUC	R-2015-2462723	United Water Pennsylvania Inc.	Depreciation
203.	2015	PA PUC	R-2015-2468056	NiSource - Columbia Gas of Pennsylvania	Depreciation
204.	2015	NY PSC	15-E-0283/15-G-0284	New York State Electric and Gas Corporation	Depreciation
205.	2015	NY PSC	15-E-0285/15-G-0286	Rochester Gas and Electric Corporation	Depreciation
206.	2015	MO PSC	WR-2015-0301/SR-2015-0302	Missouri American Water Company	Depreciation
207.	2015	OK CC	PUD 201500208	Oklahoma, Public Service Company of	Depreciation
208.	2015	WV PSC	15-0676-W-42T	West Virginia American Water Company	Depreciation
209.	2015	PA PUC	2015-2469275	PPL Electric Utilities	Depreciation
210.	2015	IN URC	Cause No. 44688	Northern Indiana Public Service Company	Depreciation
211.	2015	OH PSC	14-1929-EL-RDR	First Energy-Ohio Edison/Cleveland Electric/ Toledo Edison	Depreciation
212.	2015	NM PRC	15-00127-UT	El Paso Electric	Depreciation
213.	2015	TX PUC	PUC-44941; SOAH 473-15-5257	El Paso Electric	Depreciation
214.	2015	WI PSC	3270-DU-104	Madison Gas and Electric Company	Depreciation
215.	2015	OK CC	PUD 201500273	Oklahoma Gas and Electric	Depreciation
216.	2015	KY PSC	Doc. No. 2015-00418	Kentucky American Water Company	Depreciation
217.	2015	NC UC	Doc. No. G-5, Sub 565	Public Service Company of North Carolina	Depreciation
218.	2016	WA UTC	Docket UE-17	Puget Sound Energy	Depreciation
219.	2016	NY PSC	Case No. 16-W-0130	SUEZ Water New York, Inc.	Depreciation
220.	2016	MO PSC	ER-2016-0156	KCPL – Greater Missouri	Depreciation
221.	2016	WI PSC		Wisconsin Public Service Corporation	Depreciation
222.	2016	KY PSC	Case No. 2016-00026	Kentucky Utilities Company	Depreciation
223.	2016	KY PSC	Case No. 2016-00027	Louisville Gas and Electric Company	Depreciation
224.	2016	OH PUC	Case No. 16-0907-WW-AIR	Aqua Ohio	Depreciation
225.	2016	MD PSC	Case 9417	NiSource - Columbia Gas of Maryland	Depreciation
226.	2016	KY PSC	2016-00162	Columbia Gas of Kentucky	Depreciation
227.	2016	DE PSC	16-0649	Delmarva Power and Light Company – Electric	Depreciation
228.	2016	DE PSC	16-0650	Delmarva Power and Light Company – Gas	Depreciation
229.	2016	NY PSC	Case 16-G-0257	National Fuel Gas Distribution Corp – NY Div	Depreciation
230.	2016	PA PUC	R-2016-2537349	Metropolitan Edison Company	Depreciation
231.	2016	PA PUC	R-2016-2537352	Pennsylvania Electric Company	Depreciation
232.	2016	PA PUC	R-2016-2537355	Pennsylvania Power Company	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
233.	2016	PA PUC	R-2016-2537359	West Penn Power Company	Depreciation
234.	2016	PA PUC	R-2016-2529660	NiSource - Columbia Gas of PA	Depreciation
235.	2016	KY PSC	Case No. 2016-00063	Kentucky Utilities / Louisville Gas & Electric Co	Depreciation
236.	2016	MO PSC	ER-2016-0285	KCPL Missouri	Depreciation
237.	2016	AR PSC	16-052-U	Oklahoma Gas & Electric Co	Depreciation
238.	2016	PSCW	6680-DU-104	Wisconsin Power and Light	Depreciation
239.	2016	ID PUC	IPC-E-16-23	Idaho Power Company	Depreciation
240.	2016	OR PUC	UM1801	Idaho Power Company	Depreciation
241.	2016	ILL CC	16-	MidAmerican Energy Company	Depreciation
242.	2016	KY PSC	Case No. 2016-00370	Kentucky Utilities Company	Depreciation
243.	2016	KY PSC	Case No. 2016-00371	Louisville Gas and Electric Company	Depreciation
244.	2016	IN URC	Cause No. 45029	Indianapolis Power & Light	Depreciation
245.	2016	AL RC	U-16-081	Chugach Electric Association	Depreciation
246.	2017	MA DPU	D.P.U. 17-05	NSTAR Electric Company and Western Massachusetts Electric Company	Depreciation
247.	2017	TX PUC	PUC-26831, SOAH 973-17-2686	El Paso Electric Company	Depreciation
248.	2017	WA UTC	UE-17033 and UG-170034	Puget Sound Energy	Depreciation
249.	2017	OH PUC	Case No. 17-0032-EL-AIR	Duke Energy Ohio	Depreciation
250.	2017	VA SCC	Case No. PUE-2016-00413	Virginia Natural Gas, Inc.	Depreciation
251.	2017	OK CC	Case No. PUD201700151	Public Service Company of Oklahoma	Depreciation
252.	2017	MD PSC	Case No. 9447	Columbia Gas of Maryland	Depreciation
253.	2017	NC UC	Docket No. E-2, Sub 1142	Duke Energy Progress	Depreciation
254.	2017	VA SCC	Case No. PUR-2017-00090	Dominion Virginia Electric and Power Company	Depreciation
255.	2017	FERC	ER17-1162	MidAmerican Energy Company	Depreciation
256.	2017	PA PUC	R-2017-2595853	Pennsylvania American Water Company	Depreciation
257.	2017	OR PUC	UM1809	Portland General Electric	Depreciation
258.	2017	FERC	ER17-217-000	Jersey Central Power & Light	Depreciation
259.	2017	FERC	ER17-211-000	Mid-Atlantic Interstate Transmission, LLC	Depreciation
260.	2017	MN PUC	Docket No. G007/D-17-442	Minnesota Energy Resources Corporation	Depreciation
261.	2017	IL CC	Docket No. 17-0124	Northern Illinois Gas Company	Depreciation
262.	2017	OR PUC	UM1808	Northwest Natural Gas Company	Depreciation
263.	2017	NY PSC	Case No. 17-W-0528	SUEZ Water Owego-Nichols	Depreciation
264.	2017	MO PSC	GR-2017-0215	Laclede Gas Company	Depreciation
265.	2017	MO PSC	GR-2017-0216	Missouri Gas Energy	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
266.	2017	ILL CC	Docket No. 17-0337	Illinois-American Water Company	Depreciation
267.	2017	FERC	Docket No. ER18-22-000	PPL Electric Utilities Corporation	Depreciation
268.	2017	IN URC	Cause No. 44988	Northern Indiana Public Service Company	Depreciation
269.	2017	NJ BPU	BPU Docket No. WR17090985	New Jersey American Water Company, Inc.	Depreciation
270.	2017	RI PUC	Docket No. 4800	SUEZ Water Rhode Island	Depreciation
271.	2017	OK CC	Cause No. PUD 201700496	Oklahoma Gas and Electric Company	Depreciation
272.	2017	NJ BPU	ER18010029 & GR18010030	Public Service Electric and Gas Company	Depreciation
273.	2017	NC Util Com.	Docket No. E-7, SUB 1146	Duke Energy Carolinas, LLC	Depreciation
274.	2017	KY PSC	Case No. 2017-00321	Duke Energy Kentucky, Inc.	Depreciation
275.	2017	MA DPU	D.P.U. 18-40	Berkshire Gas Company	Depreciation
276.	2018	IN IURC	Cause No. 44992	Indiana-American Water Company, Inc.	Depreciation
277.	2018	IN IURC	Cause No. 45029	Indianapolis Power and Light	Depreciation
278.	2018	NC Util Com.	Docket No. W-218, Sub 497	Aqua North Carolina, Inc.	Depreciation
279.	2018	PA PUC	Docket No. R-2018-2647577	NiSource - Columbia Gas of Pennsylvania, Inc.	Depreciation
280.	2018	OR PUC	Docket UM 1933	Avista Corporation	Depreciation
281.	2018	WA UTC	Docket No. UE-108167	Avista Corporation	Depreciation
282.	2018	ID PUC	AVU-E-18-03, AVU-G-18-02	Avista Corporation	Depreciation
283.	2018	IN URC	Cause No. 45039	Citizens Energy Group	Depreciation
284.	2018	FERC	Docket No. ER18-	Duke Energy Progress	Depreciation
285.	2018	PA PUC	Docket No. R-2018-3000124	Duquesne Light Company	Depreciation
286.	2018	MD PSC	Case No. 948	NiSource - Columbia Gas of Maryland	Depreciation
287.	2018	MA DPU	D.P.U. 18-45	NiSource - Columbia Gas of Massachusetts	Depreciation
288.	2018	OH PUC	Case No. 18-0299-GA-ALT	Vectren Energy Delivery of Ohio	Depreciation
289.	2018	PA PUC	Docket No. R-2018-3000834	SUEZ Water Pennsylvania Inc.	Depreciation
290.	2018	MD PSC	Case No. 9847	Maryland-American Water Company	Depreciation
291.	2018	PA PUC	Docket No. R-2018-3000019	The York Water Company	Depreciation
292.	2018	FERC	ER-18-2231-000	Duke Energy Carolinas, LLC	Depreciation
293.	2018	KY PSC	Case No. 2018-00261	Duke Energy Kentucky, Inc.	Depreciation
294.	2018	NJ BPU	BPU Docket No. WR18050593	SUEZ Water New Jersey	Depreciation
295.	2018	WA UTC	Docket No. UE-180778	PacifiCorp	Depreciation
296.	2018	UT PSC	Docket No. 18-035-36	PacifiCorp	Depreciation
297.	2018	OR PUC	Docket No. UM-1968	PacifiCorp	Depreciation
298.	2018	ID PUC	Case No. PAC-E-18-08	PacifiCorp	Depreciation
299.	2018	WY PSC	20000-539-EA-18	PacifiCorp	Depreciation
300.	2018	PA PUC	Docket No. R-2018-3003068	Aqua Pennsylvania, Inc.	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
301.	2018	IL CC	Docket No. 18-1467	Aqua Illinois, Inc.	Depreciation
302.	2018	KY PSC	Case No. 2018-00294	Louisville Gas & Electric Company	Depreciation
303.	2018	KY PSC	Case No. 2018-00295	Kentucky Utilities Company	Depreciation
304.	2018	IN URC	Cause No. 45159	Northern Indiana Public Service Company	Depreciation
305.	2018	VA SCC	Case No. PUR-2019-00175	Virginia American Water Company	Depreciation
306.	2019	PA PUC	Docket No. R-2018-3006818	Peoples Natural Gas Company, LLC	Depreciation
307.	2019	OK CC	Cause No. PUD201800140	Oklahoma Gas and Electric Company	Depreciation
308.	2019	MD PSC	Case No. 9490	FirstEnergy – Potomac Edison	Depreciation
309.	2019	SC PSC	Docket No. 2018-318-E	Duke Energy Progress	Depreciation
310.	2019	SC PSC	Docket No. 2018-319-E	Duke Energy Carolinas	Depreciation
311.	2019	DE PSC	DE 19-057	Public Service of New Hampshire	Depreciation
312.	2019	NY PSC	Case No. 19-W-0168 & 19-W-0269	SUEZ Water New York	Depreciation
313.	2019	PA PUC	Docket No. R-2019-3006904	Newtown Artesian Water Company	Depreciation
314.	2019	MO PSC	ER-2019-0335	Ameren Missouri	Depreciation
315.	2019	MO PSC	EC-2019-0200	KCP&L Greater Missouri Operations Company	Depreciation
316.	2019	MN DOC	G011/D-19-377	Minnesota Energy Resource Corp.	Depreciation
317.	2019	NY PSC	Case 19-E-0378 & 19-G-0379	New York State Electric and Gas Corporation	Depreciation
318.	2019	NY PSC	Case 19-E-0380 & 19-G-0381	Rochester Gas and Electric Corporation	Depreciation
319.	2019	WA UTC	Docket UE-190529 / UG-190530	Puget Sound Energy	Depreciation
320.	2019	PA PUC	Docket No. R-2019-3010955	City of Lancaster	Depreciation
321.	2019	IURC	Cause No. 45253	Duke Energy Indiana	Depreciation
322.	2019	KY PSC	Case No. 2019-00271	Duke Energy Kentucky, Inc.	Depreciation
323.	2019	OH PUC	Case No. 18-1720-GA-AIR	Northeast Ohio Natural Gas Corp	Depreciation
324.	2019	NC Util.	Docket No. E-2, Sub 1219	Duke Energy Carolinas	Depreciation
325.	2019	FERC	Docket No. ER20-277-000	Jersey Central Power & Light Company	Depreciation
326.	2019	MA DPU	D.P.U. 19-120	NSTAR Gas Company	Depreciation
327.	2019	SC PSC	Docket No. 2019-290-WS	Blue Granite Water Company	Depreciation
328.	2019	NC Util.	Docket No. E-2, Sub 1219	Duke Energy Progress	Depreciation
329.	2019	MD PSC	Case No. 9609	NiSource Columbia Gas of Maryland, Inc.	Depreciation
330.	2019	HI PUC	Docket No. 2019-0117	Young Brothers, LLC	Depreciation
331.	2020	NJ BPU	Docket No. ER20020146	Jersey Central Power & Light Company	Depreciation
332.	2020	PA PUC	Docket No. R-2020-3018835	NiSource - Columbia Gas of Pennsylvania, Inc.	Depreciation
333.	2020	PA PUC	Docket No. R-2020-3019369	Pennsylvania-American Water Company	Depreciation
334.	2020	PA PUC	Docket No. R-2020-3019371	Pennsylvania-American Water Company	Depreciation
335.	2020	MO PSC	GO-2018-0309, GO-2018-0310	Spire Missouri, Inc.	Depreciation
336.	2020	NM PRC	Case No. 20-00104-UT	El Paso Electric Company	Depreciation
337.	2020	MD PSC	Case No. 9644	Columbia Gas of Maryland, Inc.	Depreciation
338.	2020	MO PSC	GO-2018-0309, GO-2018-0310	Spire Missouri, Inc.	Depreciation

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339.	2020	VA St CC	Case No. PUR-2020-00095	Virginia Natural Gas Company	Depreciation
340.	2020	SC PSC	Docket No. 2020-125-E	Dominion Energy South Carolina, Inc.	Depreciation
341.	2020	WV PSC	Case No. 20-0745-G-D	Hope Gas, Inc. d/b/a Dominion Energy West	Depreciation
342.	2020	VA St CC	Case No. PUR-2020-00106	Aqua Virginia, Inc.	Depreciation
343.	2020	PA PUC	Docket No. R-2020-3020256	City of Bethlehem – Bureau of Water	Depreciation
344.	2020	NE PSC	Docket No. NG-109	Black Hills Nebraska	Depreciation
345.	2020	NY PSC	Case No. 20-E-0428 & 20-G-0429	Central Hudson Gas & Electric Corporation	Depreciation
346.	2020	FERC	ER20-598	Duke Energy Indiana	Depreciation
347.	2020	FERC	ER20-855	Northern Indiana Public Service Company	Depreciation
348.3	2020	OR PSC	UE 374	PacifiCorp	Depreciation
349.	2020	MD PSC	Case No. 9490 Phase II	Potomac Edison – Maryland	Depreciation
350.	2020	IN URC	Case No. 45447	Southern Indiana Gas and Electric Company	Depreciation
351.	2020	IN URC	IURC Cause No. 45468	Indiana Gas Company, Inc. d/b/a Vectren Energy	Depreciation
352.	2020	KY PSC	Case No. 2020-00349	Kentucky Utilities Company	Depreciation
353.	2020	KY PSC	Case No. 2020-00350	Louisville Gas and Electric Company	Depreciation
354.	2020	FERC	Docket No. ER21- 000	South FirstEnergy Operating Companies	Depreciation
355.	2020	OH PUC	Case Nos 20-1651-EL-AIR, 20-1652-EL-AAM & 20-1653-EL-ATA	Dayton Power and Light Company	Depreciation
356.	2020	OR PSC	UG 388	Northwest Natural Gas Company	Depreciation
357.	2020	MO PSC	Case No. GR-2021-0241	Ameren Missouri Gas	Depreciation
358.	2021	KY PSC	Case No. 2021-00103	East Kentucky Power Cooperative	Depreciation
359.	2021	MPUC	Docket No. 2021-00024	Bangor Natural Gas	Depreciation
360.	2021	PA PUC	Docket No. R-2021-3024296	Columbia Gas of Pennsylvania, Inc.	Depreciation
361.	2021	NC Util.	Doc. No. G-5, Sub 632	Public Service of North Carolina	Depreciation
362.	2021	MO PSC	ER-2021-0240	Ameren Missouri	Depreciation
363.	2021	PA PUC	Docket No. R-2021-3024750	Duquesne Light Company	Depreciation
364.	2021	KS PSC	21-BHCG-418-RTS	Black Hills Kansas Gas	Depreciation
365.	2021	KY PSC	Case No. 2021-00190	Duke Energy Kentucky	Depreciation
366.	2021	OR PSC	Docket UM 2152	Portland General Electric	Depreciation
367.	2021	ILL CC	Docket No. 20-0810	North Shore Gas Company	Depreciation
368.	2021	FERC	ER21-1939-000	Duke Energy Progress	Depreciation
369.	2021	FERC	ER21-1940-000	Duke Energy Carolina	Depreciation
370.	2021	KY PSC	Case No. 2021-00183	NiSource Columbia Gas of Kentucky	Depreciation
371.	2021	MD PSC	Case No. 9664	NiSource Columbia Gas of Maryland	Depreciation
372.	2021	OH PUC	Case No. 21-0596-ST-AIR	Aqua Ohio	Depreciation
373.	2021	PA PUC	Docket No. R-2021-3026116	Hanover Borough Municipal Water Works	Depreciation
374.	2021	OR PSC	UM-2180	Idaho Power Company	Depreciation
375.	2021	ID PUC	Case No. IPC-E-21-18	Idaho Power Company	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
376.	2021	WPSC	6690-DU-104	Wisconsin Public Service Company	Depreciation
377.	2021	PAPUC	Docket No. R-2021-3026116	Borough of Hanover	Depreciation
378.	2021	OH PUC	Case No. 21-637-GA-AIR; Case No. 21-638-GA-ALT; Case No. 21-639-GA-UNC; Case No. 21-640-GA-AAM	NiSource Columbia Gas of Ohio	Depreciation
379.	2021	TX PUC	Texas PUC Docket No. 52195; SOHA Docket No. 473-21-2606	El Paso Electric	Depreciation
380.	2021	MO PSC	Case No. GR.2021-0108	Spire Missouri	Depreciation
381.	2021	WV PSC	Case No. 21-0215-WS-P	West Virginia American Water Company	Depreciation
382.	2021	FERC	ER21-2736	Duke Energy Carolinas	Depreciation
383.	2021	FERC	ER21-2737	Duke Energy Progress	Depreciation
384.	2021	IN URC	Cause #45621	Northern Indiana Public Service Company	Depreciation
385.	2021	PA PUC	Docket No. R-2021-3026682	City of Lancaster	Depreciation
386.	2021	OH PUC	Case No. 21-887-EL-AIR; Case No. 21-888-EL-ATA; Case No. 889-EL-AAM	Duke Energy Ohio	Depreciation
387.	2021	AK PSC	Docket No. 21-097-U	Black Hills Energy Arkansas, Inc.	Depreciation
388.	2021	OK CC	Cause No. PUD202100164	Oklahoma Gas & Electric	Depreciation
389.	2021	FERC	Case ER-22-392-001	El Paso Electric	Depreciation
390.	2021	FERC	Case ER-21-XXX	MidAmerican Electric	Depreciation
391.	2021	PA PUC	Docket Nos. R-2021-3027385, R-2021-3027386	Aqua Pennsylvania, Inc. Aqua Pennsylvania Wastewater, Inc.	Depreciation
392.	2022	FERC	Case ER-22-282-000	El Paso Electric	Depreciation
393.	2022	ILL CC	Docket No. 22-0154	MidAmerican Gas	Depreciation
394.	2022	MO PSC	Case No. ER-2022-0129	Evergy Metro	Depreciation
395.	2022	MO PSC	Case No. ER-2022-0130	Evergy Missouri West	Depreciation
396.	2022	PA PUC	Docket No. R-2022-3031211	NiSource Columbia Gas of Pennsylvania, Inc.	Depreciation
397.	2022	MA DPU	D.P.U. 22-20	The Berkshire Gas Company	Depreciation
398.	2022	PA PUC	R-2022-3031672; R-2022-3031673	Pennsylvania-American Water Company	Depreciation
399.	2022	SD PUC	Docket No. NG22-	MidAmerican Gas	Depreciation
400.	2022	MD PSC	Case No. 9680	NiSource Columbia Gas of Maryland	Depreciation
401.	2022	WYPSC	Docket No. 20003-214-ER-22	Black Hills Energy – Cheyenne Light, Fuel and	Depreciation
402.	2022	MA DPU	D.P.U. 22.22	NSTAR Electric Company d/b/a Eversource Energ	Depreciation
403.	2022	NC Util Com	Docket No. W-218, Sub 573	Aqua North Carolina, Inc.	Depreciation
404.	2022	OR PUC	UM2213	Northwest Natural Gas	Depreciation

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405.	2022	OR PUC	UM2214	Northwest Natural Gas	Depreciation
406.	2022	ME PUC	Docket No. 2022-00152	Central Maine Power	Depreciation
407.	2022	SC PSC	Docket No. 2022-254-E	Duke Energy Progress	Depreciation
408.	2022	NC Util Com	Docket No. E-2, SUB 1300	Duke Energy Progress	Depreciation
409.	2022	IN URC	Cause #45772	Northern Indiana Public Service Company	Depreciation
410.	2022	PA PUC	R-2022-3031340	The York Water Company	Depreciation
411.	2022	PA PUC	R-2022-3032806	The York Water Company	Depreciation
412.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Depreciation
413.	2022	MO PSC	ER-2022-0337	Ameren Missouri	Depreciation
414.	2022	OH PUC	Case No. 22-507-GA-AIR	Duke Energy Ohio	Depreciation
415.	2022	PA PUC	R-2022-3035730	National Fuel Gas Distribution Corporation – PA	Depreciation
416.	2022	NC Util Com	Docket No. E-22, Sub 493	Dominion Energy North Carolina d/b/a Virginia Electric Power	Depreciation
417.	2022	WY PSC	20003-214-ER-22	Cheyenne Light, Fuel and Power Company	Depreciation
418.	2022	NJ BPU	BPU Docket No. ER2303144	Jersey Central Power & Light Company	Depreciation
419.	2022	KY PSC	Case No. 2022-00372	Duke Energy Kentucky	Depreciation
420.	2022	TX PUC	SOAH Docket No. 473-23-04521	Aqua Texas, Inc.	Depreciation
421.	2022	NC Util Com	Docket No. E-7, Sub 1276	Duke Energy Carolinas, LLC	Depreciation
422.	2022	KY PSC	Case No. 2022-00432	Bluegrass Water	Depreciation
423.	2023	ILL CC	Docket No. 23-0069	The Peoples Gas Light and Coke Company	Depreciation
424.	2023	ILL CC	Docket No. 23-0068	North Shore Gas Company	Depreciation
425.	2023	WV PSC	Case No. 23-0030-E-D	Monongahela Power Company and The Potomac	Depreciation
426.	2023	ID PUC	AVU-E-23-01; AVU-G-23-01	Avista Corporation	Depreciation
427.	2023	ILL CC	Docket No. 23-0066	Northern Illinois Gas Company d/b/a Nicor Gas	Depreciation
428.	2023	SC PSC	Docket No. 2023-70-G	Dominion Energy South Carolina, Inc.	Depreciation
429.	2023	FERC	Docket No. ER23-xxx-00	Duke Energy Ohio, Inc.	Depreciation
430.	2023	WY PSC	Docket No. 30036-78-GR-23	Black Hills Wyoming Gas Company d/b/a Black H	Depreciation
431.	2023	PSC MD	Case No. 9695	The Potomac Edison Company	Depreciation
432.	2023	OR PUC	Case No. UM2277	Avista Corporation	Depreciation
433.	2023	FERC	Docket No. ER23-xxx-000	PPL Electric Utilities	Depreciation
434.	2023	OH PUC	Case No. 23-0154-GA-AIR	Northeast Ohio Natural Gas Corporation	Depreciation
435.	2023	DE PSC	PSC Docket No. 23-0601	Artesian Water Company	Depreciation
436.	2023	CO PUC	No. 23AL-0231G	Black Hills Colorado d/b/a Black Hills Energy	Depreciation
437.	2023	NH PUC	Docket No. DE 23-039	Granite State Electric d/b/a Liberty Utilities	Depreciation
438.	2023	MD PSC	Case No. 9701	Columbia Gas of Maryland	Depreciation
439.	2023	NY PSC	Case Nos. 23-E-0418; 23-G-0419	Central Hudson Gas and Electric	Depreciation
440.	2023	FERC	Docket No. ER23-xxx-000	Central Maine Power Company	Depreciation

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	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
441.	2023	SD PUC	Docket Number EL23-016	Northwestern Energy	Depreciation
442.	2023	CT PURA	Docket No. 23-08-32	Connecticut Water Company	Depreciation
443.	2023	OH PUC	Case 23-0894-GA-AIR	The East Ohio Gas Company d/b/a Dominion	Depreciation
444.	2023	IN URC	Cause No. 45911	Indianapolis Power & Light	Depreciation
445.	2023	IN URC	Cause No. 45967	Northern Indiana Public Service Company	Depreciation
446.	2023	PA PUC	Docket No. R-2023-3043189 and Docket No. R-2023-3043190	Pennsylvania-American Water Company	Depreciation
447.	2023	IN URC	Cause No. 45988	Citizens Energy Group	Depreciation
448.	2023	NY PSC	Case No. 23-G-0627	National Fuel Gas Distribution Corporation	Depreciation
449.	2023	IN URC	Cause No. 45990	Southern Indiana Gas and Electric Company d/b/ Centerpoint Energy Indiana South	Depreciation
450.	2023	PA PUC	Docket No. R-2023-3044549	Peoples Natural Gas Company LLC	Depreciation
451.	2023	OR PUC	Docket No. UM-2312	Northwest Natural Gas Company	Depreciation
452.	2023	AZ PCC	Docket No. WS-21182A-23-2092	Northwest Natural Water Company, LLC	Depreciation
453.	2023	SC PSC	Docket No. 2023-388-E	Duke Energy Carolinas	Depreciation
456.	2024	FERC	Docket No. ER24-768-000	Duke Energy Progress	Depreciation
457.	2024	FERC	Docket No. SPP-0007	Evergy Metro, Inc. and Evergy Missouri West, Inc	Depreciation
458.	2024	NJ BPU	Docket No. WR24010057	Aqua New Jersey, Inc.	Depreciation
459.	2024	ILL CC	Docket No. 24-0044	Aqua Illinois, Inc.	Depreciation
460.	2024	PA PUC	Docket No. R-2024-3046519	NiSource – Columbia Gas of Pennsylvania, Inc.	Depreciation
461.	2024	KY PSC	Case No. 2024-00092	NiSource – Columbia Gas of Kentucky, Inc.	Depreciation
462.	2024	VA SCC	Case No. PUR-2024-00030	NiSource – Columbia Gas of Virginia, Inc.	Depreciation

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822 and R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
PANPILAS W. FISCHER**

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**Topics Addressed:**

**Income Tax Expense  
Tax Repairs Deductions for Ratemaking  
Act 40  
State Tax Rate Change**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 8**

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1                                   **DIRECT TESTIMONY OF PANPILAS W. FISCHER**

2                                   **I.           INTRODUCTION AND PURPOSE OF TESTIMONY**

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

4   A.    My name is Panpilas Fischer, and my business address is 4355 Cobb Parkway, Suite J255,  
5        Atlanta, GA 30339.

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

7   A.    I am a consultant with Regulated Capital Consultants, LLC (“RCC”). My role in this case  
8        is to provide support to the Aqua Pennsylvania Inc. and Aqua Pennsylvania Wastewater  
9        Inc., (collectively “Aqua PA” or the “Company”) finance team for the delivery of all filing  
10       requirements associated with the Pennsylvania Public Utility Commission (“PUC” or  
11       “Commission”) calculation of federal and state income taxes. Specifically, I have worked  
12       with the Company to develop the rate case income tax schedules F-2 and the balance of  
13       Accumulated Deferred Income Taxes (“ADIT”) in rate base.

14   **Q.    Would you please relate your education and business experience?**

15   A.    I graduated from the Ohio State University in 1987 with a Bachelor of Science degree in  
16        Business Administration, with a concentration in accounting. I am a Certified Public  
17        Accountant in the State of Ohio. I have held various positions in public accounting at a  
18        national firm, KPMG and a regional firm, Clark Schaefer Hackett Business Advisors. I  
19        began my career in the utility industry in October 2000, when I joined NiSource  
20        Corporate Services Co. as a Financial Analyst in the Tax Department. Throughout my  
21        tenure there I held various positions of increasing responsibility overseeing tax  
22        compliance, tax provision, regulatory support and tax planning for the regulated entities.  
23        In October 2015, I accepted the position of Tax Director. In June 2020 I began working  
24        for RCC as a consultant. In this role I have provided the following services to clients:

- 1 • Assistance with tax compliance, tax depreciation, deferred income tax and  
2 provision set up and maintenance
- 3 • Project management and support on tax technical and functional issues
- 4 • Audit support including review of tax compliance with United State Internal  
5 Revenue Service (“IRS”) normalization rules and ASC 740
- 6 • Regulatory tax support including development of income tax data and filing  
7 requirements for regulatory reports and rate proceedings

8 **Q. Have you been a witness in matters previously before the Commission?**

9 A. Yes, I have provided written and oral testimony to the PUC, the Maryland Public Service  
10 Commission and the Massachusetts Department of Public Utilities. I have also provided  
11 written testimony to the Kentucky Public Service Commission, the Ohio Public Utilities  
12 Commission and the Virginia State Corporation Commission.

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

14 A. First, I will explain the calculation of the Company’s federal and state income tax expense  
15 included in cost of service in this case and the tax balances included in rate base. Second,  
16 I will describe how the Company is reflecting the effects of its continued tax treatment of  
17 repairs authorized in its last base rate case at PUC Docket Nos. R-2021-3027385 and R-  
18 2021-3027386, et al. (“2021 Base Rate Case”) and any claims related to the repairs  
19 “Collar” (described in detail below) due to customers. Third, I will address the  
20 Consolidated Tax Adjustment and how the Company’s income tax expense is in  
21 compliance with Act 40 of 2016 (“Act 40”), which added Section 1301.1 to the  
22 Pennsylvania Public Utility Code. Lastly, I will describe how the reduction in the  
23 Pennsylvania Corporate Net Income (“CNI”) tax rate affects the development of the

1 Company's revenue requirement in this case.

2 **II. AQUA PA'S CALCULATION OF FEDERAL AND STATE INCOME TAXES**

3 **Q. Which schedules contain the computations of the income tax expense element of the**  
4 **Company's cost of service?**

5 A. The income tax computation is shown on Schedules F-2 of Exhibit Nos. 1-A (Water) and  
6 1-B (Shenandoah water operations, as well as Exhibit No. 1-C (Wastewater), and Exhibit  
7 Nos. 1-D through 1-E (representing individual wastewater operations). All schedules in  
8 these exhibits are titled "Computation of Federal and State Income Taxes Under Present and  
9 Proposed Rates".

10 **Q. Please explain the basis for the state and federal income tax computations set forth**  
11 **on Schedule F-2 of Exhibit Nos. 1-A through 1-E.**

12 A. Schedule F-2 of Exhibit Nos. 1-A through 1-E each contain four income tax expense  
13 computations: (1) one for the historic test year ended December 31, 2023 ("HTY") at base  
14 rates then in effect (which are the same as current base rates); (2) one for the future test  
15 year ending December 31, 2024 ("FTY") at current base rates; (3) one for the FPFTY at  
16 current base rates; and (4) one for the FPFTY at the rates proposed by the Company. All  
17 four of the computations employ the same methodology. However, since the Company's  
18 claim in this case is based upon the level of income tax expense applicable to the FPFTY  
19 at proposed rates, I will describe that computation in (columns (9) and (10)) of each  
20 schedule. These computations are similar across Schedule F-2 in each of Exhibit Nos. 1-  
21 A through 1-E. When using the terms "water" and "wastewater", I am referring to the  
22 amounts from Exhibit Nos. 1-A and 1-C respectively because the amounts on those  
23 Exhibits comprise the majority of the components that derive the income tax expense

1 amounts.

2 The calculation of total income tax expense consists of two parts. First, the  
3 schedule shows the computation of current federal and state income tax expense – that is,  
4 the income tax that would be paid with respect to operations during the year assuming the  
5 projected levels of income and expense are achieved. The second part is the computation  
6 of deferred federal and state income tax expense. The two components, when combined,  
7 equal the Company’s total income tax expense to be recovered in proposed base rates.

8 **Q. How is the Company’s current income tax expense calculated?**

9 A. The calculation of current income tax expense begins with pre-tax income (operating  
10 income before income taxes and before interest expense). There are several adjustments  
11 made to this number that are the same or similar for both federal and state income tax  
12 purposes. These are interest expense, tax repairs, book depreciation, tax depreciation and  
13 other property related adjustments such as cost of removal and Allowance for Funds Used  
14 During Construction (“AFUDC”) debt. Interest expense (line 2) is not reflected in pre-tax  
15 income but is deductible for both federal and state income tax purposes. Consequently, an  
16 adjustment must be made. The tax repairs deduction (line 4) is the deduction that the  
17 Company projects it will claim during the test year for both federal and state income tax  
18 purposes. The nature of this deduction is described later in my testimony. Book  
19 depreciation is added back for both the federal and state income tax purposes (line 5). Tax  
20 depreciation is then deducted for both federal and state income tax purposes (line 6). Other  
21 property related adjustments are deducted for both federal and state income tax purposes  
22 (line 7).

1 **Q. What depreciable lives and depreciation methods does the Company use for federal**  
2 **income tax purposes?**

3 A. The Company uses the following depreciable lives and depreciation methods for tax  
4 purposes:

5 Utility Property Vintages

1969 and prior	50 years <sup>(1)</sup>	Straight-Line
1970	50 years <sup>(1)</sup>	Double Declining Balance Switching to Straight-Line
1971 to 1980	40 years <sup>(2)</sup>	Double Declining Balance Switching to Straight-Line
1981 to 1986	15 years	Accelerated Cost Recovery System (“ACRS”)
1987 to June, 1996	20 years	Modified Accelerated Cost Recovery System (“MACRS”)
June 1996 and subsequent	25 years	Straight-Line

Tax Exempt Financed Property 50 years Straight-Line

Buildings

1970 and prior	45 years <sup>(1)</sup>	Straight-Line
1971 to 1980	45 years <sup>(2)</sup>	Straight-Line
1981 to 1984 (portion)	15 years	ACRS
1984 (portion) to 1985	18 years	ACRS
1986	19 years	ACRS
1987 and subsequent	31 1/2 years	Straight-Line

Office Equipment

1970 and prior	10 years <sup>(1)</sup>	Straight-Line
1971 to 1980	8 years <sup>(2)</sup>	Double Declining Balance
1981 to 1986	5 years	ACRS
1987 and subsequent	7 years	MACRS

Qualified Technological  
Equipment

1987 and subsequent                      5 years                      MACRS

1                      <sup>(1)</sup> Guideline Lives

2                      <sup>(2)</sup> Lives under Asset Depreciation Range (“ADR”)

3     **Q.     Why do the federal and state tax depreciation amounts differ from one another?**

4     A.     The federal tax depreciation amounts are approximately \$86.5 million for water and \$19.8  
5     million for wastewater, while the comparable state amounts are approximately \$89.2  
6     million for water and \$19.9 million for wastewater. The higher state income tax amounts  
7     are the result of deducting in the current year a portion of prior years’ bonus depreciation  
8     that was not deductible for Pennsylvania income tax purposes in the year that the property  
9     was placed in service.

10    **Q.     Is there another adjustment to arrive at taxable income?**

11    A.     Yes. Since state income taxes are deductible for federal income tax purposes, once the  
12    current state income tax liability is computed (column (10), line 12) by multiplying state  
13    taxable income (column (10), line 8) by the state income tax rate (column (10), line 9) and  
14    making adjustments for any state net operating loss (column (10), line 11) that amount is  
15    deducted (column (9), line 3) to derive federal taxable income. I discuss the state net  
16    operating loss and the income tax rate decrease later in my testimony. Federal taxable  
17    income is then multiplied by the 21% federal income tax rate.

18    **Q.     Are there any other adjustments necessary to derive current income tax expense?**

19    A.     Yes. As a result of taking accelerated depreciation deductions and tax repairs, the Company  
20    has produced tax net operating losses (“NOLs”) for both Federal and Pennsylvania income  
21    tax purposes. As of December 31, 2025, the Company projects that it will have a state net

1 operating loss carryforward (“NOLC”) of approximately \$438.8 million for water and  
2 \$20.1 million for wastewater. Under Pennsylvania law, this NOLC can offset state taxable  
3 income, subject to both taxable income and time limitations. Pennsylvania law limits the  
4 NOLC offset to a percentage of the state taxable income produced. This limit was 35% in  
5 2018 and 2019 and increased to 40% in 2020 and thereafter. There is utilization of the state  
6 NOLC reflected in the FPFTY for water due to the level of tax deductions. The state NOLC  
7 is increasing into the FPFTY for wastewater. The Federal NOLC is projected to be \$81.0  
8 million for water and \$0 for wastewater as of December 31, 2025. There is no utilization  
9 of the Federal NOLC reflected in the FPFTY due to the return filing group’s inability to  
10 monetize the NOL. Under the Company’s Tax Sharing Agreement, if the consolidated  
11 filing group has negative taxable income, then companies with positive taxable income  
12 would not get to utilize their NOLCs. However, if the consolidated filing group has positive  
13 taxable income, then companies with tax losses would be able to monetize those losses.

14 **Q. What is the total current income tax expense claimed by the Company?**

15 A. Total current federal income tax expense for the FPFTY at proposed rates is projected to  
16 be \$35,271,389 federal for water and \$3,831,966 for wastewater, while total current state  
17 income tax expense for the FPFTY is projected to be \$11,258,410 for water and \$2,177,551  
18 for wastewater.

19 **Q. Please explain the deferred income tax component of the Company’s total income tax  
20 expense.**

21 A. Pennsylvania regulatory policy is, generally, to charge customers a level of tax expense  
22 equal to the taxes the utility expects to pay currently, therefore the Company does not  
23 record state deferred income taxes on its property related book vs. tax timing differences,

1 with limited exceptions. This is referred to as “flow through” tax accounting. The  
2 exceptions where the Company does record state deferred income taxes are for historical  
3 main cleaning and lining costs, certain method/life differences on pre-1971 vintage assets  
4 and state NOLCs prior to 2025. For federal income tax purposes, the Company records  
5 deferred income taxes, particularly as it relates to the tax benefits of accelerated  
6 depreciation, which is subject to the tax normalization rules with the exception of the tax  
7 repairs deduction, which is discussed later in my testimony, and book vs. tax depreciation  
8 on pre-1971 vintage assets where federal tax statutes did not require full normalization of  
9 accelerated tax depreciation versus book straight line depreciation recovered in rates. The  
10 provision of deferred income taxes is the accounting and ratemaking mechanism that  
11 implements the normalization requirement the Internal Revenue Code imposes as a  
12 condition for using the liberalized depreciation methodologies allowed for income tax  
13 purposes. The normalization rules do not permit the tax benefit of liberalized tax  
14 depreciation to be flowed-through to customers as a tax deduction in the year(s) those  
15 deductions occur. Instead, the tax effects of those amounts are recorded as deferred taxes.  
16 These taxes are deferred, not eliminated; the taxes that are deferred will be paid to the  
17 government later in the life of the depreciable asset when the difference between book and  
18 tax depreciation reverses. To recognize the fact that deferred taxes are a source of capital  
19 for the Company that does not have a capital cost, accumulated deferred income taxes  
20 (“ADIT”) are deducted from rate base for ratemaking purposes. The Company’s deferred  
21 tax expense in this case also includes the flow-through of excess ADIT and the  
22 amortization of some older vintage investment tax credits that I will explain hereafter.  
23 Additionally, tax repairs amounts related to the “collar” mechanism, Section (481)

1 adjustment, and the FIN 48 provision are reflected as adjustments to deferred tax expense.  
2 I have included a discussion of these adjustments in Section III of my testimony.

3 **Q. Please explain the provision of deferred income tax expense for accelerated**  
4 **depreciation.**

5 A. As I explained previously, deferred income tax expense arises from the normalization  
6 requirement imposed by the Internal Revenue Code and reflects the difference between tax  
7 depreciation and book depreciation. Tax depreciation is calculated by multiplying the tax  
8 basis of assets by the applicable depreciation rates used for income tax purposes. The  
9 applicable depreciation rates are a function of the depreciable lives and depreciation  
10 methods for each relevant vintage of the Company's property. Because depreciable lives  
11 and methods differ based on the year plant was placed in service, the difference between  
12 tax and book depreciation and the associated tax effect differs depending on the vintage  
13 year of the property involved. For assets acquired prior to 1971, there are no deferred taxes  
14 because this property was not subject to a normalization requirement. In total, the  
15 difference between tax depreciation and book depreciation when multiplied by the 21%  
16 federal income tax rate is (\$11,709,084) for water and \$1,060,928 for wastewater (Exhibit  
17 No. 1-A and 1-C, Schedule F-2, column (9), lines 13 and 14). I further note that the  
18 calculation of this amount for each wastewater operation is similarly reflected in Schedule  
19 F-2, column (9), lines 13 and 14 of Exhibit Nos. 1-C through 1-E.

20 **Q. Does the Company record deferred state tax income expense related to its use of**  
21 **accelerated depreciation?**

22 A. No, it does not. The Company has not normalized deferred state income taxes on most  
23 property related differences based on Pennsylvania regulatory requirements. The IRS

1 normalization rules only apply to the federal income tax. The Company continues to flow-  
2 through the benefits of accelerated depreciation on its book depreciable assets with the  
3 exception of a small amount of assets that had received normalization treatment in the past  
4 on the water company and will continue to receive normalization treatment as the timing  
5 difference reverses. The Company also normalized deferred state income taxes on  
6 historical main cleaning and lining costs, which continue to receive normalization  
7 treatment as the timing difference reverses.

8 **Q. Please explain the impact of excess ADIT on the Company's deferred income tax**  
9 **expense.**

10 A. The Company's deferred tax expense is reduced for the flow-back of excess protected  
11 ADIT resulting from past rate reductions, notably the 2017 Tax Cuts and Jobs Act  
12 ("TCJA") tax rate reduction which reduced the federal income tax rate from 35% to 21%.  
13 This flow-back is computed using the Average Rate Assumption Method ("ARAM"). This  
14 method required the Company to keep deferred taxes intact until book depreciation exceeds  
15 tax depreciation for the vintage years affected. The reduction is \$2,997,502 for water and  
16 \$28,945 for wastewater, as shown in column (9), on line 20, of Schedule F-2 of Exhibit  
17 Nos. 1-A and 1-C. The deferred tax expense is also adjusted for the flow-back, or recovery  
18 in the case of water, of the unprotected excess/(deficient) ADIT. The amounts are an  
19 increase to deferred tax expense of (\$242,749) for water and a decrease of \$551 for  
20 wastewater (column (9), line 21). These amounts are being amortized over ten years.

21 **Q. Please explain the impact of the investment tax credit amortization on the Company's**  
22 **deferred income tax expense.**

23 A. The tax effect of investment tax credits is flowed back to customers over the book lives of

1 the assets that generated the credits. The amounts of \$102,140 for water and \$0 for  
2 wastewater are reflected as a reduction to deferred income tax expense in column (9), on  
3 line 26, Schedule F-2 of Exhibit No. 1-A.

4 **Q. What is the Company's total projected deferred income tax expense?**

5 A. The total amount of these various components constitutes the Company's anticipated  
6 federal deferred tax expense of (\$7,351,798) for water and \$1,480,684 for wastewater for  
7 the FPFTY at proposed rates as set forth on Schedule F-2 of Exhibit Nos. 1-A and 1-C.  
8 The corresponding state amounts are \$2,262,749 for water and \$0 for wastewater.

9 **Q. What is the Company's total projected income tax expense?**

10 A. The Company projects total federal income tax expense of \$27,919,590 for water and  
11 \$5,312,630 for wastewater, and state income tax expense of \$13,521,159 for water and  
12 \$2,177,551 for wastewater. Notably, the combined water and wastewater effective income  
13 tax rate is 14.95% in this case, which is meaningfully lower than the effective statutory  
14 income tax rates for federal and state at 27.31%. This difference is primarily the direct  
15 result of the tax repairs benefits continuing to be passed through to customers.

16 **Q. How is the ADIT set forth in the Company's rate base calculation on Schedule G-1 of**  
17 **Exhibits 1-A through 1-E derived?**

18 A. The ADIT for the rate base calculation, as shown on Schedule G-1 of Exhibit No. 1-A  
19 through Exhibit No. 1-E, is calculated by including the normalized deferred taxes and the  
20 unamortized excess ADIT related to the tax rate reductions resulting from the tax law  
21 changes made in 1986 and 1993 at the end of the FPFTY. The ADIT also includes the  
22 excess ADIT resulting from the TCJA rate reduction as a reduction to rate base. This  
23 amount has been classified as a regulatory liability on the Company's balance sheet but is

1 also considered ADIT for purposes of the rate base calculation. Also included in rate base  
2 is the ADIT asset for the Federal NOLC. The deferred tax asset represents the cash benefits  
3 the Company has not received because of the NOLs. The Company booked and will  
4 continue to book deferred federal income taxes in those years for which the Company has  
5 not received any cash for its losses. The deferred tax asset is included in rate base because  
6 the Company cannot reflect an increase in deferred taxes for tax depreciation deductions  
7 that have not been realized. To do so would violate the principles of the normalization  
8 requirements under the Internal Revenue Code. Past IRS rulings addressing this issue have  
9 made it clear that companies cannot reduce rate base for benefits that have not been  
10 realized. The ADIT asset for the PA NOL is also included in rate base. Inclusion of the  
11 ADIT for the PA NOL in rate base is a recognition of pre-2025 normalization accounting  
12 treatment that recorded deferred income tax expense on the PA NOL. Note that the  
13 Company will discontinue the normalization of state income tax expense for the PA NOL  
14 in 2025, as such in the FPFTY, the Company is not reflecting any deferred state income  
15 tax expense in cost of service for the creation of PA NOL that is projected for wastewater.  
16 As a result of the PA tax rate decrease, the Company also recorded a regulatory asset for  
17 the deficient deferred state taxes related to the ADIT asset for the PA NOL. This amount  
18 is \$3,043,460 and \$0 has been included as an increase to rate base in the FPFTY for water  
19 and wastewater respectively.

20 **Q. Are there any other adjustments to ADIT included in rate base?**

21 A. Yes, there are. The Company has calculated a projected test period normalization  
22 adjustment (“pro rata normalization adjustment”). Whenever there are estimated changes  
23 in the deferred taxes that occur in a future rate period, the normalization requirements of

1 the Internal Revenue Code require that the deferred taxes be reflected on a pro rata basis  
2 as provided under Reg. Section 1.167(I)-1(h)(6)(ii). A future test period is defined as that  
3 portion of the test period after the effective date of the rate order. Under the pro rata basis,  
4 the change in the deferred taxes is determined by multiplying the change by a fraction of  
5 the number of days remaining in the period at the time such change is to be accrued over  
6 the total number of days in the future period. Applying this calculation resulted in a  
7 decrease to ADIT of \$0 for water and \$711,971 for wastewater.

8 The Company has included as a decrease to rate base, a regulatory liability of  
9 \$2,436,764 for the uncertain tax positions (“FIN 48”) provision related to the historical  
10 tax repairs deduction. I will discuss this in more detail in the next section of my testimony.

### 11 III. REPAIRS DEDUCTIONS FOR RATEMAKING PURPOSES

12 **Q. Please address the 2011 change in method of tax accounting for repairs and how that**  
13 **is impacting tax expense in this proceeding.**

14 A. Yes, in 2011 the Company filed with the IRS National Office for permission to change its  
15 definition of “unit of property”. Depending on how the unit of property for the Company’s  
16 network assets is defined, certain expenditures can potentially be deducted on the tax return  
17 rather than be capitalized. When the Company received permission from the IRS for this  
18 method change, under the law, it was eligible to claim a deduction under Internal Revenue  
19 Code Section 481(a) for the cumulative impact on taxable income as of the beginning of  
20 the year of its method change. A Section 481(a) adjustment has the effect of amending all  
21 prior income tax returns to adjust taxable income to a taxpayer’s new method, except the  
22 net impact on taxable income for the prior years is reflected entirely as a deduction (or  
23 income) on the current year return. In the Company’s 2011 rate case, Docket No. R-2011-

1 2267958 (“2011 Base Rate Case”), the Company received approval to give the tax benefit  
2 of the Section 481(a) adjustment to customers over a ten-year amortization period  
3 beginning in 2013. Then, in the Company’s 2018 rate case, Docket No. R-2018-3003558,  
4 R-2018-3003561, et al. (“2018 Base Rate Case”), the Company proposed accelerating this  
5 amortization to attempt to align the full amortization of the Section 481(a) adjustment with  
6 its next base rate case test year. In the Company’s most recent 2021 Base Rate Case, the  
7 remaining balance was reset to amortize over 36 months such that in this case, there  
8 remains only a full year amortization in the HTY and the FTY. The tax benefit of the  
9 Section 481(a) adjustment is fully amortized by the FPPTY.

10 At the time the Company received permission from the IRS to change its method  
11 of accounting in 2011, no industry specific guidance on the unit of property and  
12 methodology that the Company proposed to use to determine “capital” versus “repair”  
13 existed for the water industry and currently there continues to exist no specific guidance  
14 for the water industry, even though industry guidance has been released for the electric and  
15 gas transmission and distribution industry, as well as the electric generation industry. This  
16 resulted in the Company recording uncertain tax positions (FIN 48) on its financial  
17 statements. Under FIN 48, the Company is required to routinely assess the need or a  
18 provision for uncertain tax positions. Tax positions are first evaluated as to whether it is  
19 more likely than not it will be sustained upon audit examination, including the resolution  
20 of any related appeals or litigation processes, based on the technical merits of the position.  
21 Tax positions are then evaluated to determine the benefit to recognize in the financial  
22 statements, which is the largest amount of tax benefit that is greater than 50 percent likely  
23 of being realized upon ultimate settlement. Based on the release of guidance for the gas

1 industry in 2023 under the Natural Gas Safe Harbor rules (Rev. Proc. 2023-15), which  
2 provided more clarity on the rules around the unit of property that the IRS would find  
3 acceptable, the Company has released its reserves for the uncertain tax positions and is  
4 proposing to refund to customers \$4,873,528 over a two-year period. This amount is before  
5 the gross-up for taxes. This decrease in deferred income tax expense of \$2,436,764 per year  
6 for water and \$0 for wastewater is reflected in Schedule F-2, column (9), on line 22 for  
7 Exhibit No. 1-A (Water). As previously stated, the Company has included as a decrease to  
8 rate base, a regulatory liability of \$2,436,764 in the FPFTY, which represents the  
9 unamortized FIN 48 provision related to the repairs deductions.

10 **Q. How does the change in method impact the Company's taxable income going**  
11 **forward?**

12 A. As in the 2021 Base Rate Case, tax expense is being reduced for the capital additions  
13 expected in the test period to meet the standard of a repair as stipulated in the 2018 Base  
14 Rate Case settlement, where the flow-through accounting basis was approved. Moreover,  
15 a specific level of net repairs deduction (the "Collar") was specified (i.e., \$158.9 million  
16 for water and wastewater on a consolidated basis). The components of the Collar included  
17 the deduction itself projected, reduced by any provision for uncertain tax positions (FIN  
18 48) projected, less AFUDC.

19 Also approved in the 2018 Base Rate Case was a provision that should the  
20 Company incur a net repairs deduction that was \$3 million over or under the Collar, the  
21 Company would establish a regulatory asset or liability for the income tax expense impacts  
22 associated with the amount over or under the \$158.9 million, with such regulatory asset or  
23 liability to be incorporated in the Company's next base rate case for inclusion in future tax

1 expense claims. When the net repairs deductions for the Company fall within the range of  
2 \$154.9 million to \$162.9 million, customers would not have to return the reduced tax  
3 benefits or likewise the Company would not have to refund the additional tax benefits to  
4 customers. Additionally, the Settlement required that, if the Company incurred net repairs  
5 deductions that resulted in the Company reporting a regulatory asset or liability with a net  
6 cumulative income tax impact of \$10 million or larger, then the Company would notify the  
7 Commission, the Office of Consumer Advocate, the Commission's Bureau of Investigation  
8 and Enforcement and the Office of Small Business Advocate as to a plan to address the  
9 amount due from or due to customers.

10 In the 2021 Base Rate Case, the Company received approval to revise the amount  
11 of the Collar to \$159.06 million and the level of tax repairs over/under amount that would  
12 generate a regulatory asset or liability to \$4 million. The Company is proposing that the  
13 Collar methodologies established in the 2018 Base Rate Case remain in place and request  
14 that the Collar amount be updated from the level approved in the 2021 Base Rate Case of  
15 \$159.06 million to \$163.06 million to reflect the increasing levels of capital spend that  
16 typically results in increased deductions for tax repairs.

17 **Q. Does the Company have a regulatory asset or liability to address in this case?**

18 A. Yes. The Company's projected tax repairs deduction for tax year 2023 was approximately  
19 \$33.7 million above the top range of the 2021 Rate Case Collar of \$163.06 million, at  
20 \$192.8 million resulting in a regulatory liability of \$9.5 million before the gross-up for  
21 taxes at the end of the HTY. The Company is proposing to amortize this over two years as  
22 a reduction to deferred income tax expense in the amount of \$4,737,469 per year starting  
23 in the FPFTY as reflected in Schedule F-2, Line 23. This amount is the tax benefit of the

1 tax repair deduction before tax gross-up to be returned to customers.

2 **Q. What are the projected repair benefits included in the FPFTY?**

3 A. Referring to Schedule F-2, Line 4, “Tax Repair Deduction” in both Exhibits 1-A (Water)  
4 and 1-C (Wastewater), the Company has reflected a consolidated net tax repair deduction  
5 of approximately \$163.06 million, compared to the \$159.06 million target established in  
6 the 2021 Base Rate Case. Since this is within the \$4 million of the top range, there is no  
7 additional regulatory asset or liability projected for the FPFTY.

8 **Q. Referencing Exhibits 1-B and 1-C through 1-E, Schedule F-2, did you project any**  
9 **repairs benefit?**

10 A. No. These are wastewater systems recently acquired by the Company pursuant to Section  
11 1329 of the Public Utility Code, 66 Pa. C.S. § 1329. The IRS regulations regarding tangible  
12 property have provisions that dictate repairs expenses are those attributed to the taxpayer’s  
13 use of the assets. Given that the Company has only owned and operated these systems 1-  
14 2 years (Shenandoah-1 year, Lower Makefield and East Whiteland-2 years), and that the  
15 investments during this time period are more restorative in nature, the investments being  
16 made by the Company are not expected to yield any repair benefit. As such these  
17 investments will be treated as tax assets instead of tax repairs.

18 **IV. ACT 40**

19 **Q. Can you briefly describe how Act 40 changed prior Commission practice related to**  
20 **the practice of making a consolidated tax adjustment?**

21 A. Yes, with the enactment of Act 40, Pennsylvania eliminates the requirement to make a  
22 consolidated tax adjustment for ratemaking purposes. Instead, a utility’s tax expense for  
23 regulatory purposes is calculated on a stand-alone basis and is not subsidized by the tax

1 losses of its affiliates. Act 40 has been codified as Section 1301.1 of the Public Utility  
2 Code. Section 1301.1(a) which clearly and unambiguously states:

3 “If an expense or investment is not allowed to be included in a public  
4 utility's rates, the related income tax deductions, and credits, including tax  
5 losses of the public utility's parent or affiliated companies, shall not be  
6 included in the computation of income tax expense to reduce rates. The  
7 deferred income taxes used to determine the rate base of a public utility for  
8 ratemaking purposes shall be based solely on the tax deductions and credits  
9 received by the public utility and shall not include any deductions or credits  
10 generated by the expenses or investments of a public utility's parent or any  
11 affiliated entity.”  
12

13 Section 1301.1(b) requires a public utility seeking to change rates to demonstrate that it  
14 uses at least 50 percent of what would have been a consolidated tax expense adjustment,  
15 or “differential,” under the law prior to Act 40, for reliability or infrastructure related  
16 capital investments and the other 50 percent for general corporate purposes.

17 **Q. Have you calculated the “differential” in income taxes referenced in Act 40?**

18 A. Yes, included in TX13 Attachment 2 is the calculation of such an adjustment using the  
19 modified effective tax rate methodology traditionally used by the Commission prior to the  
20 enactment of Act 40. TX13 Attachment 2 calculated the former consolidated tax  
21 adjustment to be \$75,205,377. Section 1301.1(b) requires that \$37.6 million (50% of the  
22 \$75.2 million consolidated tax adjustment) be spent on infrastructure replacement.  
23 Company witness Mr. William C. Packer discusses the Company’s capital spend in his  
24 Direct Testimony (Statement No. 1), where he explains that the Company’s average  
25 investment in reliability or infrastructure related capital investment is approximately \$300  
26 million per year through the FPFTY ending December 31, 2025. Given this fact, the  
27 Company is making significant investments in rate base that is far in excess of the 50%  
28 requirement of any consolidated tax benefits that would potentially be attributable to the

1 Company under a hypothetical consolidated tax adjustment. As far as the requirement that  
2 50% of the differential be spent on general corporate purposes, I refer to the level of  
3 operations and maintenance expenses claimed in this case of approximately \$188 million  
4 per the testimony of Company witness Packer on Exhibits 1-A through 1-E, Schedule C-2,  
5 which also exceeds the 50% threshold. These levels of investment satisfy the requirements  
6 of Act 40 and are certainly in the spirit of what Act 40 was intended to facilitate.

7 **V. STATE TAX RATE CHANGE**

8 **Q. What changes in Pennsylvania tax law have been enacted since the filing of the last**  
9 **rate case?**

10 A. House Bill 1342 was signed into law in Pennsylvania on July 8, 2022. The law made  
11 significant changes to the Commonwealth's corporate net income tax laws:

- 12 • Corporate net income tax rate reduction from 9.99 to 4.99 percent over a period of  
13 years;
- 14 • Sales factor changes;
- 15 • Codification of economic nexus standards.

16 **Q. When is the rate reduction effective?**

17 A. House Bill 1342 reduces that rate incrementally to 4.99%. These rate reductions are  
18 scheduled to occur automatically and are not contingent on state tax revenues meeting or

1 exceeding specific thresholds. The rate is first reduced to 8.99% for the 2023 tax year.

2 The rate is further reduced as follows:

3 8.49% for tax year 2024

4 7.99% for tax year 2025

5 7.49% for tax year 2026

6 6.99% for tax year 2027

7 6.49% for tax year 2028

8 5.99% for tax year 2029

9 5.49% for tax year 2030

10 4.99% for tax years beginning January 1, 2031, and thereafter.

11 **Q. How has the rate reduction been reflected in the income tax calculations in this**  
12 **case?**

13 A. By the FPFTY the rate is 7.99% and because the FPFTY is a full 12 months of 2025, the  
14 Company is using the 7.99% rate to calculate state income tax expense for the FPFTY.

15 **Q. How will future changes to the state income tax rate be reflected?**

16 A. Future changes to the state income tax rate will be managed through the State Tax  
17 Adjustment Surcharge (“STAS”), or in future base rate proceedings.

## 18 VI. CONCLUSION

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

20 A. Yes, however I reserve the right to supplement my Direct Testimony as needing during the  
21 progression of this case.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3047822 (WATER)  
DOCKET NO. R-2024-3047824 (WASTEWATER)

AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.

PREPARED DIRECT TESTIMONY

OF

HAROLD WALKER, III

REGARDING

CASH WORKING CAPITAL

MAY 2024

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**I. INTRODUCTION AND QUALIFICATIONS.**

**Q. STATE YOUR NAME AND ADDRESS.**

A. My name is Harold Walker, III. My business address is 1010 Adams Avenue, Audubon, Pennsylvania, 19403.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC as Manager, Financial Studies.

**Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND YOUR EDUCATIONAL BACKGROUND AND EMPLOYMENT EXPERIENCE.**

A. My educational background, business experience and qualifications are attached hereto as **Appendix A**.

**II. SCOPE OF TESTIMONY**

**Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

A. The purpose of my testimony is to recommend an appropriate cash working capital allowance that Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater, Inc. (“Aqua PA” or “Company”) should be afforded an opportunity to earn on as part of its rate base claim. My recommendation is based upon the results of five lead-lag studies that were performed under my direct supervision. The five studies are for the Water Base Operations, Shenandoah Water Operations, Wastewater Base Operations, Lower Makefield Wastewater Operations, and East Whiteland

1 Wastewater Operations.

2

3 **Q. HAVE YOU PREPARED AN EXHIBIT PRESENTING THE RESULTS OF YOUR**  
4 **STUDY?**

5 A. Yes. I have prepared Exhibit 7 which contains the 27 supporting schedules,  
6 identified as Schedule HW-1 through Schedule HW-27, summarizing the  
7 Company's cash working capital requirement in these proceeding.<sup>1</sup>

8

9 **III. PRINCIPLES OF CASH WORKING CAPITAL**

10 **Q. WOULD YOU PLEASE EXPLAIN THE RATEMAKING PRINCIPLES**  
11 **CONCERNING THE INCLUSION OF WORKING CAPITAL AS AN ELEMENT OF**  
12 **RATE BASE?**

13 A. Yes. The working capital allowance is a component of rate base. A utility's need  
14 for working capital was first recognized in the noted United States Supreme Court  
15 case, *Smyth v. Ames*.<sup>2</sup> Among the many benchmarks established in the case was  
16 the "property devoted to public use" doctrine as a basis for fixing rates. The case  
17 recognized that among the matters to be considered in determining the value of  
18 property used was "the sum required to meet operating expenses."<sup>3</sup> Since that

---

<sup>1</sup> Exhibit 7 provides support for the Company's cash working capital rate base elements shown on Schedules G-5 through G-5.4 of Exhibit 1-A, Exhibit 1-B, Exhibit 1-C, Exhibit 1-D and Exhibit 1-E for the Water Base Operations, Shenandoah Water Operations, Wastewater Base Operations, Lower Makefield Wastewater Operations, and East Whiteland Wastewater Operations, respectively.

<sup>2</sup> *Smyth v. Ames*, 169 U.S. 466 (1898), overruled on other grounds by *Fed Power Comm'n v. Nat. Gas Pipeline Co. of Am.*, 315 U.S. 575, 586 (1942). Specifically, *Fed. Power Comm'n* departed from the holding in *Smyth* that fair market value in cost of service ratemaking must be used and instead concluded that "[t]he Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas."

<sup>3</sup> *Id.* at 547.

1 time, working capital has generally been recognized as a proper item to be  
2 included in the rate base on which a utility is entitled to earn a return.

3  
4 **Q. WHAT IS CASH WORKING CAPITAL?**

5 A. Cash working capital is a component of working capital, representing the amount  
6 of funds necessary to finance the day-to-day operations of the Company. For  
7 ratemaking purposes, cash working capital is included as a component of a utility's  
8 rate base.

9  
10 **Q. WHY IS CASH WORKING CAPITAL INCLUDED AS AN ELEMENT OF RATE  
11 BASE?**

12 A. Working capital is included in rate base to compensate investors for the use of  
13 their funds over and above their investment in plant, and to provide investors with  
14 a return on the funds required by the Company for daily operations. Cash working  
15 capital bridges the gap between the time when funds are provided to the Company  
16 by investors to allow the Company to provide service to customers, and the time  
17 revenues are received from customers as reimbursement for these services.

18  
19 **IV. OVERVIEW OF A LEAD-LAG STUDY**

20 **Q. HOW WAS THE CASH WORKING CAPITAL REQUIREMENT DETERMINED?**

21 A. I conducted five lead-lag studies to determine the Company's cash working capital  
22 requirement. The lead-lag studies in this case measured the level of funding  
23 required to operate on a day-to-day basis in a sufficient amount to cover Aqua PA's

1 operating expenses (O&M, Taxes and Interest). This was measured by calculating  
2 the net lag between: (1) the amount of time elapsed between the provision of the  
3 cost of service and the receipt of the revenue requirement from the Company's  
4 customers (known as the revenue lag); and (2) the amount of time elapsed  
5 between when the Company receives goods and services used by the Company  
6 to provide service and the payment by the Company for those operating expense  
7 items (known as the expense lead). The difference between these two elapsed  
8 periods of time is known as the "net lag." The net lag was multiplied by the average  
9 daily operating expenses (or revenue requirement) to determine the Company's  
10 cash working capital requirement.

11  
12 **Q. PLEASE DESCRIBE THE COMPONENTS OF A CASH WORKING CAPITAL**  
13 **ANALYSIS.**

14 A. The two primary components of a cash working capital analysis are revenue lags  
15 and expense leads. The revenue lag is the elapsed time between when the  
16 delivery of a company's product, or provision of service, to its customers occurs  
17 and when a company receives payment for the delivery of the product. Investor-  
18 provided funds are required to keep a company running during the revenue lag  
19 time period, when the revenue stream is temporarily insufficient to finance daily  
20 operational needs.

21 As mentioned above, the expense lead is the elapsed time between when  
22 a good or service is provided to a company and when a company pays its supplier,  
23 or vendor, for the good or service. During the expense lead time period, cash

1 received from customers may temporarily exceed a company's payments to its  
2 suppliers for goods or services, and the excess may be used to repay investor-  
3 provided funds.

4 The net difference between the revenue lag and expense lead determines  
5 a company's cash working capital requirement. Additional details of the revenue  
6 lag and the expense lead calculations are provided below.

7

8 **Q. GENERALLY SPEAKING, HOW DID YOU CALCULATE THE REVENUE LAG?**

9 A. The revenue lag is the sum of three distinct components: the service period lag,  
10 the billing lag, and the collection lag.

11

12 **Q. WHAT IS THE SERVICE PERIOD LAG?**

13 A. The service period lag is the average time between meter readings. The average,  
14 or mid-point, between meter readings, based on monthly meter readings, is  
15 roughly 15 days. The mid-point service period lag is produced by dividing the  
16 service period of roughly 30 days by two.

17

18 **Q. WHAT IS THE BILLING LAG?**

19 A. The billing lag is the time from the meter reading date to the date the customer is  
20 billed. On the customer billing date, the bill is mailed to the customer, and the total  
21 billing amount for the cycle is recorded to Aqua PA's accounts receivable. The

1 bills are prepared and mailed roughly two days after meters are read.

2

3 **Q. WHAT IS THE COLLECTION LAG?**

4 A. The collection lag is the average number of days from the date the bills are mailed  
5 to customers to the date payments are received by Aqua PA. This was determined  
6 by summing the daily accounts receivable balance during the twelve months ended  
7 December 31, 2023, and dividing by the sum of the daily receipts for the same  
8 period.

9

10 **Q. GENERALLY SPEAKING, HOW DID YOU CALCULATE THE EXPENSE LEAD?**

11 A. In a lead-lag study, the cost of service, or expense, lead days are calculated for  
12 each invoice or account by subtracting the midpoints of the service periods (the  
13 service lead) from the date the Company paid the invoices or accounts (the  
14 payment lead) and then summing these two data points.

15 The service lead is the average time that a service or good was provided to  
16 the Company. If a service or good was provided for 20 days, the 20-day service  
17 period is divided by two to produce a midpoint of ten days for the service period  
18 lead.

19 The payment lead is the number of days from the midpoint of the service  
20 period to the payment date for the service or good. If payment for the service or  
21 good was provided on the 30th day and the midpoint of the service period was the

1 10th day, the payment lead is 20 days (30 days – ten days).

2  
3 **Q. WHY ARE MIDPOINTS USED IN THE CASH WORKING CAPITAL ANALYSIS?**

4 A. Midpoints are used to determine the weighted average period during which a  
5 service or good is rendered or provided during the service period, or between  
6 meter reads. The midpoint assumes that, on average, service is provided evenly  
7 over the service period. For example, if a service is provided over a 30-day period,  
8 then on average, 30 days of service was provided evenly for 15 days ( $30 \div 2$ ) of the  
9 service period. Mathematically, the midpoint is the weighted average number of  
10 days that the full service period number of days (e.g., 30 days) was provided.

11  
12 **V. AQUA PA'S LEAD-LAG STUDY**

13 **Q. DID YOU CONSIDER AQUA PA'S OVERALL COST OF SERVICE IN YOUR**  
14 **LEAD-LAG STUDY?**

15 A. No. I considered only a portion of Aqua PA's cost of service items in my lead-lag  
16 study to be consistent with the lead-lag methodology used in Pennsylvania. In  
17 Pennsylvania, lead-lag studies do not include non-cash expense items.

18 A lead-lag study based on O&M, Taxes and Interest likely understates the  
19 full cash working capital requirement and affords the minimum cash working capital  
20 requirement. A lead-lag study based on the entire revenue requirement and cost  
21 of service provides a more accurate measure of the cash working capital

1 requirement.

2

3 **Q. WHAT DATA SET DID YOU UTILIZE IN YOUR LEAD-LAG STUDY?**

4 A. The data sets were selected after developing an understanding of the Company's  
5 collections, payment policies, and procedures. To inform my understanding of  
6 these items, I requested representative data sets from the Company. Once the  
7 requested raw data had been provided, data validation was performed by  
8 comparing an actual invoice or a bill with data from the utility's systems to ensure  
9 accuracy.

10 The revenue lag data set for the Company was based on an accounts  
11 receivable analysis of the beginning balance, the daily charges to this balance as  
12 bills were processed and mailed, and the daily receipts for all the days of the year  
13 during the 12 months ended December 31, 2023. The revenue lag data set for the  
14 Company also included an analysis of the cycle billing, the beginning and ending  
15 service dates (meter read dates), and the date bills were mailed (or posted).

16 The expense lead data set was based on information generated from the  
17 Company's central accounts payable system. The expense lead data sets for the  
18 12 months ended December 31, 2023, were analyzed to develop the service  
19 beginning and ending dates, the amount purchased, and the date of payment.

20

21 **Q. WHAT TIME PERIOD DOES YOUR LEAD-LAG STUDY ENCOMPASS?**

22 A. The lead-lag study in this case analyzed the net revenues and the associated net  
23 cost of service during the 12 months ended December 31, 2023, to derive the lag

1 (lead) days for the revenue requirement and the related cost of service line items.

2  
3 **Q. HOW WERE THE REVENUE LAG DAYS AND EXPENSE LEAD DAYS USED**  
4 **TO CALCULATE AQUA PA'S CASH WORKING CAPITAL REQUIREMENT?**

5 A. For each cost of service line item, the lead days (expense) were subtracted from  
6 the lag days (revenue) to determine the net lag days for that cost of service line  
7 item category (i.e., O&M, Taxes, and Interest). Next, the net lag days for that cost  
8 of service line item category was multiplied by the average O&M, Taxes, and  
9 Interest expense per day (expenses ÷ 365 days) line item to produce the cash  
10 working capital required for each cost of service line item category. This process  
11 was followed for each cost of service line item. Finally, the cash working capital  
12 requirement of each cost of service line item category were totaled (summed) to  
13 calculate Aqua PA's total cash working capital requirement.

14  
15 **VI. RESULTS OF THE LEAD-LAG STUDY**

16 **Q. WHAT ARE THE RESULTS OF THE LEAD-LAG STUDY?**

17 A. The lead-lag schedules are set forth in Schedule HW-1 through Schedule HW-27  
18 provided in my Exhibit 7. Schedule HW-1 summarizes Aqua PA's cash working  
19 capital requirements. As shown on page 1 of Schedule HW-1, I determine the  
20 Water Base Operations' cash working capital requirement is \$7,712,000. Similarly,  
21 I determine the Shenandoah Water Operations' cash working capital requirement  
22 is \$133,000 (Schedule HW-1 page 2), the Wastewater Base Operations' cash  
23 working capital requirement is \$1,247,000 (Schedule HW-1 page 3), the Lower

1 Makefield Wastewater Operations' cash working capital requirement is -\$365,000  
2 (negative) (Schedule HW-1 page 4), and the East Whiteland Wastewater  
3 Operations cash working capital requirement is -\$29,000 (negative) (Schedule  
4 HW-1 page 5).

5

6 **Q. PLEASE DESCRIBE SCHEDULE HW-1.**

7 A. As shown on Schedule HW-1, the cash working capital requirement is based on  
8 the net lag days required to finance each cost of service line item category. The  
9 net lag day calculations are a result of subtracting their respective expense lead  
10 days from the revenue lag days to determine the appropriate net lag days, which  
11 was multiplied by the average O&M, Taxes, and Interest expense per day  
12 (expenses ÷ 365 days) line item. The lag days for the receipt of the revenue  
13 requirement is developed on Schedule HW-2. The lead days for the cost of service  
14 line items are developed on Schedules HW-4 through HW-27, and the schedule  
15 references for the lead days for the cost of service line items is shown on Schedule  
16 HW-3.

17

18 **Q. PLEASE EXPLAIN THE PROCEDURES USED TO DETERMINE AQUA PA'S**  
19 **CASH WORKING CAPITAL REQUIREMENT SHOWN ON SCHEDULE HW-1.**

20 A. The process used to determine Aqua PA's cash working capital requirement,  
21 shown on Schedule HW-1, is the same for each line item category shown.  
22 Because the process is the same, I will discuss the hourly labor expense line item  
23 (first line item) as a means of explaining the methodology used for each line item

1 (Schedule HW-1, page 1).

2 The hourly labor expense line item amount of \$23,668,323 (column A) was  
3 multiplied by its corresponding 5.5 lead days to determine the \$130,175,779  
4 weighted line item amount in column C. A similar process was followed for each  
5 expense sub-account line item and then all expense sub-account line items were  
6 totaled. The total expense sub-account line item weighted line item amount of  
7 \$3,046,253,729 (column C) was divided by the total expense sub-account line item  
8 amount of \$137,239,204 (column A) to determine the total expense sub-account  
9 line item 22.2 lead days (column E). The total expense sub-account line item 22.2  
10 lead days (column E) was subtracted from the 51.5 revenue lag days (column D)  
11 to determine the 29.3 net lag days (column F). The total expense sub-account line  
12 item amount of \$137,239,204 (column A) was divided by 365 days to determine a  
13 daily expense per day of \$375,998 (column G), which was multiplied by the 29.3  
14 net lag days (column F) to determine the cash working capital amount,  
15 \$11,016,736 (column H) ( $\$137,239,204 \div 365 = \$375,998 \times 29.3 = \$11,016,736$ ).  
16 The cash working capital amount of \$11,016,736 (column H) was rounded to  
17 determine the recommended cash working capital amount of \$11,017,000 (column  
18 I) for the expense sub-account line items.

19 A similar process was followed for the taxes sub-account line items and the  
20 interest sub-account line items. The cash working capital requirement of all sub-  
21 account line items categories (O&M, Taxes, and Interest) line items were totaled  
22 (summed) to calculate Water Base Operations' \$7,712,000 total cash working  
23 capital requirement. A similar procedure was followed to calculate the Shenandoah

1 Water Operations' cash working capital requirement of \$133,000 (Schedule HW-  
2 1, page 2), the Wastewater Base Operations cash working capital requirement of  
3 \$1,247,000 (Schedule HW-1, page 3), the Lower Makefield Wastewater  
4 Operations cash working capital requirement of -\$365,000 (Schedule HW-1, page  
5 4), and the East Whiteland Wastewater Operations cash working capital  
6 requirement of -\$29,000 (Schedule HW-1, page 5).

7  
8 **Q. PLEASE EXPLAIN THE PROCEDURES USED TO DETERMINE THE REVENUE**  
9 **LAG.**

10 A. Schedule HW-2 shows the development of the 51.5-day lag for the Water Base  
11 Operations. Similar results were reached in the other operations studied: a 57.4-  
12 day revenue lag for the Shenandoah Water Operations, 53.7 lag days for the  
13 Wastewater Base Operations, 32.1 lag days for the Lower Makefield Wastewater  
14 Operations, and 55.0 lag days for the East Whiteland Wastewater Operations.  
15 These revenue lags reflect the individual operations' billings and collections  
16 frequencies.

17  
18 **Q. PLEASE EXPLAIN THE PROCEDURES USED TO DETERMINE THE SERVICE**  
19 **PERIOD AND THE BILLING LAG DAYS FOR CUSTOMER REVENUES.**

20 A. The lag days for the service period and the billing lag are developed on page 2 of  
21 Schedule HW-2. As mentioned previously, the service period lag was measured  
22 from the midpoint of the service period to the meter reading date, and the billing

1 lag was measured from the meter reading date to the billing date.

2 The Water Base Operations' service period was divided by two to produce  
3 the average service period lag of 15.2 days, as shown on page 2 of Schedule HW-  
4 2. The Water Base Operations' bills are prepared, mailed, and recorded to  
5 accounts receivable 2.0 days after meters are read. Adding the average service  
6 period lag to the billing lag produces a combined 17.2-day service period and  
7 billing lag (15.2 days + 2.0 days = 17.2 days) as shown on page 2 of Schedule  
8 HW-2. A similar 17.2-day service period and billing lag resulted for the  
9 Shenandoah Water Operations, Wastewater Base Operations, Lower Makefield  
10 Wastewater Operations, and East Whiteland Wastewater Operations. These  
11 combined service period and billing lags reflect the individual operations' billing  
12 frequency.

13  
14 **Q. PLEASE DESCRIBE THE PROCEDURE USED TO CALCULATE THE**  
15 **COLLECTION LAG.**

16 A. As mentioned previously, the collection lag is the average number of days from the  
17 date the bills were mailed to the date payments are received and was determined  
18 by summing the daily accounts receivable balance during the test year and dividing  
19 by the sum of the daily test year receipts. This results in an average collection lag  
20 of 34.3 days for the Water Base Operations as shown on page 3 of Schedule HW-  
21 2. The collection lags for the other operations studied were determined to be: 40.2  
22 lag days for the Shenandoah Water Operations, 36.5 lag days for the Wastewater  
23 Base Operations, 14.9 lag days for the Lower Makefield Wastewater Operations,

1 and 37.8 lag days for the East Whiteland Wastewater Operations. These lags  
2 reflect the individual operations' accounts receivable balances (collection lag) and  
3 their collection frequencies.

4  
5 **Q. PLEASE SUMMARIZE THE TOTAL REVENUE LAG.**

6 A. The total revenue lag of 50.9 lag days for the Water Base Operations includes a  
7 17.2-day service period and billing lag and an average collection lag of 34.7 days.  
8 The Shenandoah Water Operations' total revenue lag of 57.4 days includes a 17.2-  
9 day service period and billing lag and an average collection lag of 40.2 days. The  
10 Wastewater Base Operations' total revenue lag of 53.7 days includes a 17.2-day  
11 service period and billing lag and an average collection lag of 36.5 days. The  
12 Lower Makefield Wastewater Operations' total revenue lag of 32.1 days includes  
13 a 17.2-day service period and billing lag and an average collection lag of 14.9 days.  
14 The East Whiteland Wastewater Operations total revenue lag of 55.0 days  
15 includes a 17.2-day service period and billing lag and an average collection lag of  
16 37.8 days. Each of these calculations is detailed on page 1 of Schedule HW-2.

17  
18 **Q. PLEASE EXPLAIN THE CALCULATION OF LEAD DAYS FOR THE O&M,  
19 TAXES, AND INTEREST EXPENSES SHOWN ON SCHEDULE HW-1.**

20 A. For each O&M, Taxes, and Interest expense line item that is shown, the lead days  
21 were calculated for each invoice or account based on the midpoints of the service  
22 periods to the dates the Company paid the invoices or accounts. Schedule HW-3  
23 shows the schedule references for the O&M, Taxes, and Interest expense lead

1 days for the Company.

2

3 **Q. HOW WERE THE LEAD DAYS DETERMINED FOR THE O&M EXPENSES SUB-**  
4 **ACCOUNT LINE ITEMS SHOWN ON SCHEDULE HW-1?**

5 A. For the O&M expense sub-accounts line items shown, the lead days were  
6 determined for each invoice or account based on the midpoints of the service  
7 periods to the dates the Company paid the invoices or accounts. For example, the  
8 weighted average lead days for hourly labor expense equals 5.5 days (see  
9 Schedule HW-4). The lead days for hourly labor expenses were calculated for  
10 each invoice examined based on the midpoints of the service periods to the dates  
11 the Company paid the invoices.

12 Similar analyses were conducted for non-union labor (see Schedule HW-  
13 5), management fee (see Schedule HW-6), electric power (see Schedule HW-7),  
14 water purchased (see Schedule HW-8), wastewater purchased (see Schedule  
15 HW-9), employee group insurance (see Schedule HW-10), liability insurance (see  
16 Schedule HW-11), SFI postage (see Schedule HW-12), pension (see Schedule  
17 HW-13), SFAS106 (see Schedule HW-14), and all other expenses (see Schedule  
18 HW-15).

19

20 **Q. HOW WERE THE LEAD DAYS DETERMINED FOR THE TAXES SUB-**  
21 **ACCOUNT LINE ITEMS SHOWN ON SCHEDULE HW-1?**

22 For the taxes sub-account line items, the lead days were calculated based on the  
23 midpoint of the tax service period to the payment date, weighted by the actual

1 amount paid. The taxes sub-accounts include; PA PUC - general assessments  
2 (see Schedule HW-16), OCA & SBA - general assessments (see Schedule HW-  
3 17), public utility realty tax (see Schedule HW-18), local, county, school, &  
4 municipal tax (see Schedule HW-19), FICA taxes - hourly (see Schedule HW-20),  
5 FICA taxes - executive & exempt (see Schedule HW-21), federal unemployment  
6 tax (see Schedule HW-22), PA unemployment tax (see Schedule HW-23), PA  
7 State income tax (see Schedule HW-24), and federal income tax (see Schedule  
8 HW-25).

9  
10 **Q. HOW WERE THE LEAD DAYS DETERMINED FOR THE INTEREST SUB-**  
11 **ACCOUNT LINE ITEMS SHOWN ON SCHEDULE HW-1?**

12 For the interest sub-account line items, the lead days were calculated based on  
13 the midpoint of the interest service period to the payment date, weighted by the  
14 actual amount paid. The interest sub-accounts include; long term debt-interest  
15 (see Schedule HW-26), and PennVest-interest (see Schedule HW-27).

1 **VII. CONCLUSION**

2 **Q. WHAT ARE THE RESULTS OF THE LEAD-LAG STUDY?**

3 A. The results of the lead-lag study are shown on Schedule HW-1. The results of the  
4 lead-lag study shown on Schedule HW-1 show the required cash working capital  
5 to bridge the gap between the time when funds are provided to the Company by  
6 investors to allow the Company to provide service to customers, and the time  
7 revenues are received from customers as reimbursement for these services. As  
8 shown on page 1 of Schedule HW-1, the Water Base Operations' cash working  
9 capital requirement is \$7,712,000. Similarly, the Shenandoah Water Operations'  
10 cash working capital requirement is \$133,000 (Schedule HW-1, page 2), the  
11 Wastewater Base Operations' cash working capital requirement is \$1,247,000  
12 (Schedule HW-1, page 3), the Lower Makefield Wastewater Operations' cash  
13 working capital requirement is -\$365,000 (negative) (Schedule HW-1, page 4), and  
14 the East Whiteland Wastewater Operations cash working capital requirement is -  
15 \$29,000 (negative) (Schedule HW-1, page 5).

16  
17 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

18 A. Yes, it does.

## **APPENDIX A**

Professional Qualifications  
of  
Harold Walker, III  
Manager, Financial Studies  
Gannett Fleming Valuation and Rate Consultants, LLC.

### **EDUCATION**

Mr. Walker graduated from Pennsylvania State University in 1984 with a Bachelor of Science Degree in Finance. His studies concentrated on securities analysis and portfolio management with an emphasis on economics and quantitative business analysis. He has also completed the regulation and the rate-making process courses presented by the College of Business Administration and Economics Center for Public Utilities at New Mexico State University. Additionally, he has attended programs presented by The Institute of Chartered Financial Analysts (CFA).

Mr. Walker was awarded the professional designation "Certified Rate of Return Analyst" (CRRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is based upon education, experience, and the successful completion of a comprehensive examination. He is also a member of the Society of Utility and Regulatory Financial Analysts (SURFA) and has attended numerous financial forums sponsored by the Society. The SURFA forums are recognized by the Association for Investment Management and Research (AIMR) and the National Association of State Boards of Accountancy for continuing education credits.

Mr. Walker obtained a license as a Municipal Advisor Representative (Series 50) by Municipal Securities Rulemaking Board (MSRB) and Financial Industry Regulatory Authority (FINRA).

## **BUSINESS EXPERIENCE**

Prior to joining Gannett Fleming Valuation and Rate Consultants, LLC., Mr. Walker was employed by AUS Consultants - Utility Services. He held various positions during his eleven years with AUS, concluding his employment there as a Vice President. His duties included providing and supervising financial and economic studies on behalf of investor owned and municipally owned water, wastewater, electric, natural gas distribution and transmission, oil pipeline and telephone utilities as well as resource recovery companies.

In 1996, Mr. Walker joined Gannett Fleming Valuation and Rate Consultants, LLC. In his capacity as Manager, Financial Studies and for the past twenty years, he has continuously studied rates of return requirements for regulated firms. In this regard, he supervised the preparation of rate of return studies in connection with his testimony and in the past, for other individuals. He also assisted and/or developed dividend policy studies, nuclear prudence studies, calculated fixed charge rates for avoided costs involving cogeneration projects, financial decision studies for capital budgeting purposes and developed financial models for determining future capital requirements and the effect of those requirements on investors and ratepayers, valued utility property and common stock for acquisition and divestiture, and assisted in the private placement of fixed capital securities for public utilities.

Head, Gannett Fleming GASB 34 Task Force responsible for developing Governmental Accounting Standards Board (GASB) 34 services and educating Gannett Fleming personnel and Gannett Fleming clients on GASB 34 and how it may affect them. The GASB 34 related services include inventory of assets, valuation of assets, salvage estimation, annual depreciation rate determination, estimation of depreciation reserve, asset service life determination, asset condition assessment, condition assessment documentation, maintenance estimate for asset preservation, establishment of condition level index, geographic information system (GIS) and data management services, management discussion and analysis (MD&A) reporting, required supplemental information (RSI) reporting, auditor interface, and GASB 34 compliance review.

In 2004, Mr. Walker was elected to serve on the Board of Directors of SURFA. Previously, he served as an ex officio directors as an advisor to SURFA's existing President. In 2000, Mr. Walker was elected President of SURFA for the 2001-2002 term. Prior to that, he was elected to serve on the Board of Directors of SURFA during the period 1997-1998 and 1999-2000. He also previously served on the Pennsylvania Municipal Authorities Association, Electric Deregulation Committee.

**EXPERT TESTIMONY**

Mr. Walker has submitted testimony or been deposed on various topics before regulatory commissions and courts in 27 states including: Alaska, Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Idaho, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, Nevada, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia. His testimonies covered various subjects including lead-lag studies, fair rate of return, fair market value, the taking of natural resources, benchmarking, appropriate capital structure and fixed capital cost rates, depreciation, purchased water adjustments, synchronization of interest charges for income tax purposes, valuation, cash working capital, financial analyses of investment alternatives, and fair value. The following tabulation provides a listing of the electric power, natural gas distribution, telephone, wastewater, and water service utility cases in which he has been involved as a witness.

<u>Client</u>	<u>Docket No.</u>
Alpena Power Company	U-10020
Armstrong Telephone Company - Northern Division	92-0884-T-42T
Armstrong Telephone Company - Northern Division	95-0571-T-42T
Artesian Water Company, Inc.	90 10
Artesian Water Company, Inc.	06 158
Aqua Illinois Consolidated Water Divisions and Consolidated Sewer Divisions	11-0436

Aqua Illinois Hawthorn Woods Wastewater Division	07 0620/07 0621/08 006`
Aqua Illinois Hawthorn Woods Water Division	07 0620/07 0621/08 006`
Aqua Illinois Kankakee Water Division	10-0194
Aqua Illinois Kankakee Water Division	14-0419
Aqua Illinois Vermilion Division	07 0620/07 0621/08 006`
Aqua Illinois Willowbrook Wastewater Division	07 0620/07 0621/08 006`
Aqua Illinois Willowbrook Water Division	07 0620/07 0621/08 006`
Aqua Pennsylvania, Inc	A-2022-3034143
Aqua Pennsylvania Wastewater Inc	A-2016-2580061
Aqua Pennsylvania Wastewater Inc	A-2017-2605434
Aqua Pennsylvania Wastewater Inc	A-2018-3001582
Aqua Pennsylvania Wastewater Inc	A-2019-3008491
Aqua Pennsylvania Wastewater Inc	A-2019-3009052
Aqua Pennsylvania Wastewater Inc	A-2019-3015173
Aqua Pennsylvania Wastewater Inc	A-2021-3024267
Aqua Pennsylvania Wastewater Inc	A-2021-3026132
Aqua Pennsylvania Wastewater Inc	A-2021-3027268
Aqua Pennsylvania Wastewater Inc	A-2023-3041695
Aqua Virginia - Alpha Water Corporation	Pue-2009-00059
Aqua Virginia - Blue Ridge Utility Company, Inc.	Pue-2009-00059
Aqua Virginia - Caroline Utilities, Inc. (Wastewater)	Pue-2009-00059
Aqua Virginia - Caroline Utilities, Inc. (Water)	Pue-2009-00059
Aqua Virginia - Earlysville Forest Water Company	Pue-2009-00059
Aqua Virginia - Heritage Homes of Virginia	Pue-2009-00059
Aqua Virginia - Indian River Water Company	Pue-2009-00059
Aqua Virginia - James River Service Corp.	Pue-2009-00059
Aqua Virginia - Lake Holiday Utilities, Inc. (Wastewater)	Pue-2009-00059
Aqua Virginia - Lake Holiday Utilities, Inc. (Water)	Pue-2009-00059
Aqua Virginia - Lake Monticello Services Co. (Wastewater)	Pue-2009-00059
Aqua Virginia - Lake Monticello Services Co. (Water)	Pue-2009-00059
Aqua Virginia - Lake Shawnee	Pue-2009-00059

Aqua Virginia - Land'or Utility Company (Wastewater)	Pue-2009-00059
Aqua Virginia - Land'or Utility Company (Water)	Pue-2009-00059
Aqua Virginia - Mountainview Water Company, Inc.	Pue-2009-00059
Aqua Virginia - Powhatan Water Works, Inc.	Pue-2009-00059
Aqua Virginia - Rainbow Forest Water Corporation	Pue-2009-00059
Aqua Virginia - Shawnee Land	Pue-2009-00059
Aqua Virginia - Sydnor Water Corporation	Pue-2009-00059
Aqua Virginia - Water Distributors, Inc.	Pue-2009-00059
Atlantic City Sewerage Company	WR21071006
Berkshire Gas Company	18-40
Berkshire Gas Company	22-20
Bermuda Water Company, Inc	W-01812A-22-0256
Borough of Brentwood	A-2021-3024058
Borough of Hanover	R-2009-2106908
Borough of Hanover	R-2012-2311725
Borough of Hanover	R-2014-242830
Borough of Hanover	R-2021-3026116
Borough of Hanover	P-2021-3026854
Borough of Royersford	A-2020-3019634
Butler Area Sewer Authority	A-2020-3019634
Chaparral City Water Company	W 02113a 04 0616
California-American Water Company	CIVCV156413
Connecticut-American Water Company	99-08-32
Connecticut Water Company	06 07 08
Citizens Utilities Company Colorado Gas Division	-
Citizens Utilities Company Vermont Electric Division	5426
Citizens Utilities Home Water Company	R 901664
Citizens Utilities Water Company of Pennsylvania	R 901663
City of Beaver Falls	A-2022-3033138
City of Bethlehem - Bureau of Water	R-00984375
City of Bethlehem - Bureau of Water	R 00072492
City of Bethlehem - Bureau of Water	R-2013-2390244
City of Bethlehem - Bureau of Water	R-2020-3020256

City of Dubois – Bureau of Water	R-2013-2350509
City of Dubois – Bureau of Water	R-2016-2554150
City of Lancaster Sewer Fund	R-00005109
City of Lancaster Sewer Fund	R-00049862
City of Lancaster Sewer Fund	R-2012-2310366
City of Lancaster Sewer Fund	R-2019-3010955
City of Lancaster Sewer Fund	R-2019-3010955
City of Lancaster Water Fund	R-00984567
City of Lancaster Water Fund	R-00016114
City of Lancaster Water Fund	R 00051167
City of Lancaster Water Fund	R-2010-2179103
City of Lancaster Water Fund	R-2014-2418872
City of Lancaster Water Fund	R-2021-3026682
City of Lancaster Water Fund	P-2022-3035591
Coastland Corporation	15-cvs-216
Commonwealth Edison Company	23-0728
Community Utilities of Pennsylvania-Water	R-2023-3042804
Community Utilities of Pennsylvania-Wastewater	R-2023-3042805
Consumers Pennsylvania Water Company Roaring Creek Division	R-00973869
Consumers Pennsylvania Water Company Shenango Valley Division	R-00973972
Country Knolls Water Works, Inc.	90 W 0458
East Resources, Inc. - West Virginia Utility	06 0445 G 42T
Elizabeth Borough Municipal Authority	A-2023-3038717
Elizabethtown Water Company	WR06030257
ENSTAR Natural Gas Company	U-22-081
Falls Water Company, Inc.	FLS-W-23-01
Forest Park, Inc.	19-W-0168 & 19-W-0269
Hampton Water Works Company	DW 99-057
Hidden Valley Utility Services, LP	R-2018-3001306
Hidden Valley Utility Services, LP	R-2018-3001307
Illinois American Water Company	16-0093
Illinois American Water Company	22-0210
Indian Rock Water Company	R-911971
Indiana Natural Gas Corporation	38891
Jamaica Water Supply Company	-

Kane Borough Authority	A-2019-3014248
Kentucky American Water Company, Inc.	2007 00134
Kentucky American Water Company, Inc.	2023-00191
Middlesex Water Company	WR 89030266J
Millcreek Township Water Authority	55 198 Y 00021 11
Missouri-American Water Company	WR 2000-281
Missouri-American Water Company	SR 2000-282
Missouri-American Water Company	WR-2022-0303
Missouri-American Water Company	SR-2022-0304
Mount Holly Water Company	WR06030257
Nevada Power Company d/b/a NV Energy	20-06003
Nevada Power Company d/b/a NV Energy	23-06007
New Jersey American Water Company	WR 89080702J
New Jersey American Water Company	WR 90090950J
New Jersey American Water Company	WR 03070511
New Jersey American Water Company	WR-06030257
New Jersey American Water Company	WR08010020
New Jersey American Water Company	WR10040260
New Jersey American Water Company	WR11070460
New Jersey American Water Company	WR15010035
New Jersey American Water Company	WR17090985
New Jersey American Water Company	WR19121516
New Jersey American Water Company	WR22010019
New Jersey Natural Gas Company	GR19030420
New Jersey Natural Gas Company	GR21030679
Newtown Artesian Water Company	R-911977
Newtown Artesian Water Company	R-00943157
Newtown Artesian Water Company	R-2009-2117550
Newtown Artesian Water Company	R-2011-2230259
Newtown Artesian Water Company	R-2017-2624240
Newtown Artesian Water Company	R-2019-3006904
North Maine Utilities	14-0396
Northern Indiana Fuel & Light Company	38770
Oklahoma Natural Gas Company	PUD-940000477
Palmetto Utilities, Inc.	2020-281-S
Palmetto Wastewater Reclamation, LLC	2018-82-S
Pennichuck Water Works, Inc.	DW 04 048

Pennichuck Water Works, Inc.	DW 06 073
Pennichuck Water Works, Inc.	DW 08 073
Pennsylvania-American Water Company	A-2023-3039900
Pennsylvania Gas & Water Company (Gas)	R-891261
Pennsylvania Gas & Water Co. (Water)	R 901726
Pennsylvania Gas & Water Co. (Water)	R-911966
Pennsylvania Gas & Water Co. (Water)	R-22404
Pennsylvania Gas & Water Co. (Water)	R-00922482
Pennsylvania Gas & Water Co. (Water)	R-00932667
Philadelphia Gas Works	R-2020-3017206
Philadelphia Gas Works	R-2023-3037933
Public Service Company of North Carolina, Inc.	G-5, Sub 565
Public Service Electric and Gas Company	ER181010029
Public Service Electric and Gas Company	GR18010030
Presque Isle Harbor Water Company	U-9702
Sierra Pacific Power Company d/b/a NV Energy	19-06002
Sierra Pacific Power Company d/b/a NV Energy	22-06014
St. Louis County Water Company	WR-2000-844
Suez Water Delaware, Inc.	19-0615
Suez Water Idaho, Inc.	SUZ-W-20-02
Suez Water New Jersey, Inc.	WR18050593
Suez Water New Jersey, Inc.	WR20110729
Suez Water Owego-Nichols, Inc.	17-W-0528
Suez Water Pennsylvania, Inc.	R-2018-3000834
Suez Water Pennsylvania, Inc.	A-2018-3003519
Suez Water Pennsylvania, Inc.	A-2018-3003517
Suez Water Rhode Island, Inc.	Docket No. 4800
Suez Water Owego-Nichols, Inc.	19-W-0168 & 19-W-0269
Suez Water New York, Inc.	19-W-0168 & 19-W-0269
Suez Westchester, Inc.	19-W-0168 & 19-W-0269
Town of North East Water Fund	9190
Township of Exeter	A-2018-3004933
United Water New Rochelle	W-95-W-1168
United Water Toms River	WR-95050219
Upper Pottsgrove Township	A-2020-3021460
Valley Township (water)	A-2020-3019859
Valley Township (wastewater)	A-2020-3020178

Valley Water Systems, Inc.	06 10 07
Veolia Water Idaho, Inc.	VEO-W-22-02
Veolia Water Delaware, Inc.	23-0598
Veolia Water New Jersey, Inc.	WR23110790
Veolia Water New York, Inc.	23-W-0111
Virginia American Water Company	PUR-2018-00175
Virginia American Water Company	PUR-2021-00255
Virginia American Water Company	PUR-2023-00194
West Virginia-American Water Company	15-0676-W-42T
West Virginia-American Water Company	15-0675-S-42T
Wilmington Suburban Water Corporation	94-149
York Water Company	R-901813
York Water Company	R-922168
York Water Company	R-943053
York Water Company	R-963619
York Water Company	R-994605
York Water Company	R-00016236
Young Brothers, LLC	2019-0117

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
GREGORY R. HERBERT**

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**Topics Addressed:**

**Application of Rates to Customers' Bill Analysis  
Proforma Revenue Adjustments**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 10**

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: AQUA PENNSYLVANIA, INC.  
DOCKET R-2024-3047822 AND R-2024-3047824

DIRECT TESTIMONY OF GREGORY R. HERBERT

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

2 A. My name is Gregory R. Herbert. My business address is 207 Senate Avenue,  
3 Camp Hill, Pennsylvania 17011.

4 **Q. By whom are you employed?**

5 A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC.

6 **Q. Please describe your position with Gannett Fleming Valuation and Rate  
7 Consultants, LLC, and briefly state your general duties and responsibilities.**

8 A. My position is Assistant Project Manager, Rate Studies. My duties and  
9 responsibilities include the preparation of accounting and financial data for utilities  
10 regarding revenues under present and proposed rates, including pro forma  
11 adjustments to the historic test year (HTY), Future Test Year (FTY) and Fully  
12 Projected Future Test Year (FPFTY) revenues, and the design of customer rates.  
13 Additionally, my responsibilities include developing pro forma revenue  
14 requirements, and conducting cost allocations by customer class, capital recovery  
15 fee, lead-lag, and depreciation studies for investor-owned and municipal-owned  
16 utilities. I joined Gannett Fleming in May 2017.

17 **Q. Have you presented testimony in rate proceedings before a regulatory  
18 agency?**

19 A. Yes. I have testified before the Pennsylvania Public Utility Commission ("PA PUC"  
20 or the "Commission"), the Illinois Commerce Commission, the Virginia State

1 Corporate Commission, and the New Jersey Board of Public Utilities concerning  
2 revenue requirements, proof of revenues, and rate design. A list of cases in which  
3 I have testified or assisted Gannett Fleming staff is attached to my testimony as  
4 Appendix A.

5 **Q. What is your educational background?**

6 A. I have a Bachelor of Science Degree in Economics from the Pennsylvania State  
7 University.

8 **Q. Would you please describe your professional affiliations?**

9 A. I am a member of the American Water Works Association, the National Association  
10 of Water Companies, and the Pennsylvania Municipal Authorities Association.

11 **Q. Briefly describe your work experience.**

12 A. Prior to my employment at Gannett Fleming, I was a Senior Analyst, in the  
13 Performance Reporting Group of Cambridge Associates, LLC where I oversaw the  
14 financial preparation of monthly and annual performance and benchmarking  
15 reports for public and private endowment clients.

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

17 A. My testimony is in support of the application of rates to customers' billing  
18 determinants and the pro forma revenue adjustments of Aqua Pennsylvania, Inc.  
19 and Aqua Pennsylvania Wastewater, Inc. (collectively "Aqua PA" or the  
20 "Company").

21 **Q. Have you prepared exhibits presenting the results of your studies?**

22 A. Yes. Exhibit No. 5-A, Part II presents the application of water rates to the  
23 customers' bill analysis and the pro forma revenue adjustments for water

1 operations and divisions. Exhibit No. 5-B, Part II presents the application of  
2 wastewater rates to the customers' bill analysis for the wastewater operations and  
3 divisions and the pro forma revenue adjustments.

4  
5 **WATER - APPLICATION OF RATES TO CUSTOMERS'**  
6 **BILL ANALYSIS AND PRO FORMA REVENUE ADJUSTMENTS**  
7

8 **Q. Please describe Exhibit No. 5-A, Part II.**

9 A. Exhibit No. 5-A, Part II, titled "Operating Revenue from Sales of Water for the  
10 Twelve Months Ended December 31, 2025" presents the application of the present  
11 rates to the bill analysis for each rate zone and the development of pro forma  
12 revenues under present rates as of December 31, 2025, and the development of  
13 pro forma revenues under proposed rates based on estimated conditions during  
14 the FPFTY ended December 31, 2025.

15 **Q. What was the purpose of the bill analysis?**

16 A. The purpose of the rate application was to establish the level of revenues to be  
17 derived from each customer classification under present and proposed rates based  
18 on the billing determinants for the twelve months ended December 31, 2023,  
19 December 31, 2024 and December 31, 2025.

20 **Q. Please outline the contents of Exhibit No. 5-A, Part II.**

21 A. Exhibit No. 5-A, Part II includes the plan of the exhibit, an explanation of the rate  
22 application procedures, summaries of the rate applications and the application of  
23 present rates to the several bill analyses.

1 Schedule 1 presents the summary of pro forma revenue for the Water Base  
2 Operations under present and proposed rates for the twelve months ended  
3 December 31, 2025 and the proposed revenue increase.

4 Schedule 1-S presents the summary of pro forma revenue for the acquired  
5 Shenandoah Water Operations under present and proposed rates for the twelve  
6 months ended December 31, 2025 and the proposed revenue increase.

7 Schedule 2 presents a summary of the application of proposed rates for the  
8 twelve months ended December 31, 2025 under proposed rates for each rate zone  
9 listed.

10 Schedule 3 presents a summary of the revenue, pro forma revenue and  
11 revenue adjustments for the Water Base Operations under present rates, for the  
12 twelve months ended December 31, 2023, 2024 and 2025.

13 Schedule 3-S presents a summary of the revenue, pro forma revenue and  
14 revenue adjustments for the acquired Shenandoah Water Operations under  
15 present rates, for the twelve months ended December 31, 2023, 2024 and 2025.

16 Schedule 3-S also shows a historic test year (HTY) revenue adjustment for  
17 the annualization of revenues for the Shenandoah Rate Zone that was acquired  
18 on July 24, 2023. The booked revenues in Column 2, Schedule 3-S only show  
19 partial HTY revenue for the months of August through December 2023. However,  
20 the Company received the billing data for the months of January through July of  
21 the HTY from the Municipal Authority of the Borough of Shenandoah, and the  
22 billing determinants shown on Schedule 5 reflect the full twelve months of billing

1 data. Therefore, the adjustment to booked revenues is shown on Schedule 3-S,  
2 Column 3.

3 Schedule 4 presents a summary of the application of pro forma revenues  
4 under present rates for the twelve months ended December 31, 2025 for each rate  
5 zone.

6 Schedule 5 presents the application of present rates to the bill analysis for  
7 each of the rate zones.

8 Schedule 6 presents adjustments to the application of present and  
9 proposed rates to Rate Zone 1 that has experienced customer growth.

10 Schedules 7A and 7B set forth the application of rates under present and  
11 proposed metered private fire and private and public fire hydrants.

12 **Q. Please explain the calculations associated with the application of the rates**  
13 **to the billing determinants.**

14 A. An analysis of customer billing determinants for the twelve months ended  
15 December 31, 2023, was prepared by the Company. The data also included the  
16 monthly billing determinants for the public and private fire protection customers  
17 classes for the twelve months ended December 31, 2023. The Company's analysis  
18 was summarized, and the results are presented in the Introduction of Exhibit No.  
19 5-A, Part II. The present rates for the Base Water Operations Rate Zones and the  
20 acquired Shenandoah Rate Zone were applied to the billing data, including the pro  
21 forma revenue adjustments and summarized in Schedule 3 and Schedule-3-S.

22 Column 11 of Schedule 3 applies the 7.16% Distribution System  
23 Improvement Charge (DSIC) surcharge to the bill analysis revenue to determine

1 revenues under present rates in column 12. The revenues are adjusted for pro  
2 forma revenue adjustments shown in columns 7 and 8 to develop the total  
3 revenues in column 12.

4 The development of pro forma revenues under present and proposed rates  
5 for each division is presented in Schedule 5. A comparison of customer bills is  
6 provided on Schedule 8 in response to Standard Data Request OR-3.

7 **Q. Please list the various water revenue adjustments.**

8 A. The following adjustments were made for water operations: (1) Declining Usage  
9 Adjustment; (2) Change in Customers; (3) DSIC Annualization Adjustment; (4)  
10 Unbilled Revenue; and (5) Projected Customer Assistance Program Adjustments.

11 **Q. Please describe the declining usage adjustment.**

12 A. In the Company's most recent base rate case at Docket Nos. R-2021-3027385, *et*  
13 *al.*, the Company claimed a 4,000 gallon monthly average residential usage which  
14 was adjusted due to the COVID revenue adjustment and was utilized to calculate  
15 the proposed flat rate customer charges. For the current case, the average monthly  
16 residential usage based on the HTY billing data is 3,870 gallons per month, which  
17 is also utilized to calculate the proposed flat rate customer charges for this rate  
18 case. The average monthly usage from the prior rate case of 4,000 gallons  
19 declined 3.2% to the average monthly residential usage of 3,870 gallons in the  
20 current rate case. The Company determined it would be a conservative approach  
21 to calculate a 0.5% decline of the HTY residential usage of Rate Zones 1, 2 and 3  
22 to apply to the pro forma FTY and FPFTY residential billed usage instead of  
23 applying a 3.2% decline to the pro forma FTY and FPFTY residential usage. The

1 declining usage adjustment reduces the revenues in each the FTY and FPFTY by  
2 \$1,219,249 under present rates.

3 **Q. Please describe the change in customers adjustment.**

4 A. Schedule 6 calculates the adjustment to revenues for the change in customers due  
5 to organic growth to the residential and commercial classes in Rate Zone 1. The  
6 customer growth was determined by evaluating the change in residential and  
7 commercial customers in Rate Zone 1 from the years 2021 to 2022 and from 2022  
8 to 2023 and taking the average growth of these two time periods to determine the  
9 projected growth in customers. Schedule 6 includes an annualized HTY  
10 adjustment to revenues and pro forma adjustments to revenues in the FTY and  
11 FPFTY for the change in customers and is brought forward to Schedule 5.

12 **Q. Please describe the annualization of DSIC revenues adjustment.**

13 A. Schedule 3 shows a revenue adjustment to reflect the annualization of the DSIC  
14 revenues for the year ended December 31, 2025, based on the Company's pro  
15 forma level at the end of the FPFTY of 7.16% that is expected to become effective  
16 on January 1, 2025. The annualization of DSIC revenues also include the private  
17 fire protection class. Shenandoah Water does not have an adjustment for pro  
18 forma DSIC revenue as it is a newly acquired system.

19 **Q. Please describe the adjustment to eliminate unbilled revenue.**

20 A. The Company records booked revenue on an accrual basis and therefore requires  
21 an adjustment to be made to eliminate the effect of revenue that was accrued in  
22 booked revenue but was not billed during the twelve months ended December 31,  
23 2023. The adjustment is consistent with Aqua PA's prior rate proceedings.

1 **Q. Please describe the pro forma revenue adjustments made in the FTY and**  
 2 **FPFTY for the estimated number of water customers that are eligible for the**  
 3 **Company’s Customer Assistance Program.**

4 A. The Company provided an analysis that estimates the number of residential  
 5 customers that are eligible for the Customer Assistance Program (CAP) by each  
 6 county of Pennsylvania in which the Company provides water service. The  
 7 analysis was completed for the three tiers of Federal Poverty Level (FPL)  
 8 thresholds that the Company’s present discounted rates cover, which include  
 9 residential customers at 100% or less than FPL for Tier 1 discounted rates, 100%  
 10 to 150% FPL for Tier 2 discounted rates, and 150% to 200% FPL for Tier 3  
 11 discounted rates. See Company Witness Black, Statement No. 13 for further  
 12 discussion of the Company’s CAP.

13 The Company estimates 12%, or 11,794 out of 98,285 of its estimated  
 14 eligible residential water customers will be signed up for the CAP during the FTY,  
 15 and estimates 20%, or 19,657 out of 98,285 of its eligible residential water  
 16 customers will be signed up for the CAP during the FPFTY shown in Table 1 below.

Table 1			
	WATER	Participation	Rates
Aqua PA Residential Customers	388,660	<b>FTY</b>	<b>FPFTY</b>
Estimate of Eligible Customers:		<b>12%</b>	<b>20%</b>
1.0x FPL	43,388	5,207	8,678
1.0-1.5x FPL	26,469	3,176	5,294
1.5-2.0x FPL	28,428	3,411	5,686

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98,285                      11,794                      19,657

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The Company's analysis also calculates the total costs/discounts of the CAP under present rates for the Company's three tiers of discounted rates at the estimated 12% of eligible customers during the FTY and at the estimated 20% of eligible customers during the FPFTY. I then utilized the Company's provided analysis to calculate the total costs of the CAP for water customers under proposed rates.

The total calculated discounts under present and proposed rates for the FTY and FPFTY were summarized by each rate zone and brought forward to Schedule 5, Exhibit 5-A, Part II as a reduction to pro forma revenues for the FTY and FPFTY.

**Q. Please explain how the water proof of revenues were determined under proposed rates.**

A. The proposed rates that are sponsored by Witness Heppenstall, Exhibit 5-A, Part I, were applied to the billing determinants as of December 31, 2025 shown in Schedule 5, Exhibit 5-A, Part II to calculate the revenues under proposed rates. The revenues under proposed rates were brought forward from Schedule 5 to summary Schedule 1 and Schedule 2 of Exhibit 5-A, Part II. Please reference Company Witness Heppenstall, Statement No. 5 for further discussion on the Company's proposed water rate design.

**WASTEWATER - APPLICATION OF RATES TO CUSTOMERS'**  
**BILL ANALYSIS AND PRO FORMA REVENUE ADJUSTMENTS**

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**Q. Please describe Exhibits 5-B, Part II.**

A. Exhibit 5-B, Part II titled "Operating Revenue from Sales of Wastewater for the Twelve Months Ended December 31, 2025" presents the application of the present rates to the bill analysis for each rate division and the development of pro forma revenues under present rates as of December 31, 2025, and the development of pro forma revenues under proposed rates based on estimated conditions during the FPFTY ended December 31, 2025.

**Q. What was the purpose of the rate application?**

A. The purpose of the rate application was to establish the level of revenues to be derived from each customer classification under present and proposed rates based on the billing determinants for the twelve months ended December 31, 2023, December 31, 2024, and December 31, 2025.

**Q. Please outline the contents of Exhibit 5-B, Part II.**

A. Exhibit 5-B, Part II includes the plan of the exhibit, an explanation of the rate application procedures, summaries of the rate applications and the application of present rates to the several bill analyses.

Schedule 1-WW presents the summary of pro forma revenues for the Wastewater Base Operations (Rate Zones 1 through 11 and 14) under present and proposed rates for the twelve months ended December 31, 2025 and the proposed increase.

1 Schedule 1-LM presents the summary of pro forma revenues for Lower  
2 Makefield Wastewater Operations (Rate Zone 12) under present and proposed  
3 rates for the twelve months ended December 31, 2025 and the proposed increase.

4 Schedule 1-EW presents the summary of pro forma revenues for the East  
5 Whiteland Wastewater Operations (Rate Zone 13) under present and proposed  
6 rates for the twelve months ended December 31, 2025 and the proposed increase.

7 Schedule 2-WW presents a summary of the application of proposed rates  
8 and the development of the pro forma revenues for the twelve months ended  
9 December 31, 2025 under proposed rates for each wastewater rate zone.

10 Schedule 3-WW presents a summary of the revenue, pro forma revenue  
11 and revenue adjustments for the Wastewater Base Operations (Rate Zones 1  
12 through 11 and 14) under present rates, for the twelve months ending December  
13 31, 2023, 2024 and 2025.

14 Schedule 3-LM presents the summary of revenue, pro form revenue and  
15 revenue adjustments for the acquired Lower Makefield Wastewater Operations  
16 (Rate Zone 12) under present rates, for the twelve months ending December 31,  
17 2023, 2024 and 2025

18 Schedule 3-EW presents the summary of revenue, pro forma revenue and  
19 revenue adjustments for the acquired East Whiteland Wastewater Operations  
20 (Rate Zone 13) under present rates, for the twelve months ending December 31,  
21 2023, 2024 and 2025.

1 Schedule 4-WW presents a summary of the application of pro forma  
2 revenues under present rates for the twelve months ending December 31, 2025  
3 for each wastewater rate zone.

4 Schedule 5-WW presents the application of present and proposed rates to  
5 the bill analysis for each of the wastewater rate zones.

6 Schedule 6-WW presents adjustments to the application of present and  
7 proposed rates for customer growth which impact Rate Zones 1 through 11.

8 **Q. Please explain the calculations associated with the application of the rates**  
9 **to the billing determinants.**

10 A. An analysis of customer billing determinants for the twelve months ended  
11 December 31, 2023, was prepared by the Company. The Company's analysis was  
12 summarized, and the results are presented in the Introduction of Exhibit 5-B, Part  
13 II. The present rates for each rate zone in the Wastewater Base Operations and  
14 acquired systems were applied to the billing data including the pro forma revenue  
15 adjustments and are summarized in Schedule 3-WW, Schedule 3-LM and  
16 Schedule 3-EW.

17 Column 9 of Schedule 3-WW applies the 1.34% DSIC surcharge to the bill  
18 analysis revenue to determine pro forma revenues under present rates in column  
19 10. The revenues are further adjusted for pro forma revenue adjustments in  
20 columns 6 and 8 to develop the total revenues in column 10.

21 The development of pro forma revenues under proposed rates for each  
22 division in the Wastewater Base Operations is presented in Schedule 5-WW. A

1 comparison of the present and proposed rates for each rate zone, as well as  
2 comparisons of customer bills, is provided on Schedule 7-WW.

3 **Q. What was the average monthly usage to calculate flat rate wastewater bills**  
4 **for unmetered customers?**

5 A. The water operation's average monthly residential usage of 3,870 gallons was  
6 used to calculate the proposed flat rates for unmetered wastewater customers.  
7 The Company has used the water operation's average monthly residential usage  
8 to calculate the wastewater flat rates in prior cases and is following this precedent.

9 **Q. Please list the various wastewater revenue adjustments.**

10 A. The following adjustments were made for wastewater operations: (1) Change in  
11 Customers; (2) DSIC Annualization Adjustment; (3) Unbilled Revenue; (4) Flat  
12 Rate Customers Moving to Metered Rates; (5) Projected Customer Assistance  
13 Program Adjustments.

14 **Q. Please describe the change in customers adjustment.**

15 A. Schedule 6-WW calculates the adjustment to revenues for the change in  
16 customers due to organic growth to the residential class. Schedule 6-WW includes  
17 an annualized HTY adjustment to revenues and pro forma adjustments to  
18 revenues in the FTY and FPFTY for the change in customers and is brought  
19 forward to Schedule 5-WW. The customer growth was determined by evaluating  
20 the change in residential customers from the years 2021 to 2022 and from 2022 to  
21 2023 and taking the average growth of these two time periods to determine the  
22 projected growth in customers. The customer growth adjustment was made for the  
23 residential class in Rate Zones 1 through 11, as Rate Zones 12 and 13 are newly

1 acquired systems and the historical customer counts were not available for 2021,  
2 and Rate Zone 14 did not experience residential customer growth over the years  
3 2021 through 2023..

4 **Q. Please describe the annualization of DSIC revenues adjustment.**

5 A. Schedule 3-WW shows a revenue adjustment to reflect the annualization of the  
6 DSIC revenues for the year ended December 31, 2025 based on the Company's  
7 pro forma level at the end of the FPFTY of 1.34% that is expected to become  
8 effective on January 1, 2025. Lower Makefield (Rate Zone 12) and East Whiteland  
9 (Rate Zone 13) do not have pro forma adjustments for DSIC revenue as they are  
10 newly acquired systems.

11 **Q. Please describe the adjustment to eliminate unbilled revenue.**

12 A. The Company records booked revenue on an accrual basis and therefore requires  
13 an adjustment to be made to eliminate the effect of revenue that was accrued in  
14 booked revenue but was not billed during the twelve months ended December 31,  
15 2023. The adjustment is consistent with prior rate proceedings.

16 **Q. Please describe the revenue adjustments to move flat rate customers to  
17 metered rates.**

18 A. The Company has wastewater customers in various rate zones that are charged  
19 flat rates for wastewater but are also currently the Company's water customers  
20 that are charged metered water rates and their water usage is tracked by the  
21 Company. The Company is moving these customers from a flat wastewater rate  
22 to a metered wastewater rate to be consistent with the preference to charge a  
23 metered rate when water reads are available by a PUC utility. The wastewater

1 customers that currently have metered water usage will be moved to and charged  
2 metered wastewater rates under proposed rates once final rates are approved by  
3 the Commission. There are 69 residential customers in Rate Zone 1A; 519  
4 residential customers and 47 commercial customers in Rate Zone 2; 964  
5 residential customers and 72 commercial customers in Rate Zone 3; 21 residential  
6 customers in Rate Zone 5; and 2,892 residential customers, 1,614 commercial  
7 customers, 29 Industrial customers, and 5 public customers in Rate Zone 13 that  
8 are being moved to metered rates. The flat rate to metered rate adjustments for  
9 these customers are shown in Schedule 5-WW, which are based on these  
10 customers' water billing determinants for the HTY.

11  
12 **Q. Please describe the pro forma revenue adjustments made in the FTY and**  
13 **FPFTY for the estimated number of wastewater customers that are eligible**  
14 **for the Company's CAP.**

15 A. The Company provided an analysis that estimates the number of residential  
16 wastewater customers that are eligible for the CAP by each county of Pennsylvania  
17 in which the Company provides wastewater service. The analysis was completed  
18 for the three tiers of FPL thresholds that the Company's present discounted rates  
19 cover, which include residential customers at 100% or less than FPL for Tier 1  
20 discounted rates, 100% to 150% FPL for Tier 2 discounted rates, and 150% to  
21 200% FPL for Tier 3 discounted rates. See Company Witness Black, Statement  
22 No. 13 for further discussion of the Company's CAP.

23 The Company estimates 12%, or 1,303 out of 10,858 of its estimated  
24 eligible residential wastewater customers will be signed up for the CAP during the

1 FTY, and estimates 20%, or 2,172 out of 10,858 of its estimated eligible residential  
 2 wastewater customers will be signed up for the CAP during the FPFTY shown in  
 3 Table 2 below.

Table 2				
	SEWER	Participation		Rate
Aqua PA Residential Customers	46,971	<b>FTY</b>	<b>FPFTY</b>	
Estimate of Eligible Customers:		<b>12%</b>	<b>20%</b>	
1.0x FPL	4,795	575	959	
1.0-1.5x FPL	2,893	347	579	
1.5-2.0x FPL	3,169	380	634	
	10,858	1,303	2,172	

4

5 The Company's analysis also calculates the total costs/discounts of the  
 6 CAP under present rates for the Company's three tiers of discounted rates at the  
 7 estimated 12% of eligible customers during the FTY and at the estimated 20% of  
 8 eligible customers during the FPFTY. I then utilized the Company's provided  
 9 analysis to calculate the total costs of the wastewater CAP under proposed rates.

10 The total calculated discounts under present and proposed rates for the  
 11 FTY and FPFTY were summarized by each Rate Zone and brought forward to  
 12 Schedule 5-WW, Exhibit 5-A, Part II as a reduction to pro forma revenues for the  
 13 FTY and FPFTY.

14 **Q. Please explain how the wastewater proof of revenues were determined under**  
 15 **proposed rates.**

1 A. The proposed rates that are sponsored by Witness Heppenstall, Exhibit 5-B, Part  
2 I, were applied to the billing determinants as of December 31, 2025 shown in  
3 Schedule 5-WW, Exhibit 5-B, Part II to calculate the revenues under proposed  
4 rates. The revenues under proposed rates were brought forward from Schedule 5-  
5 WW to summary Schedule 1-WW and Schedule 2-WW of Exhibit 5-B, Part II.  
6 Please reference Company Witness Heppenstall, Statement No. 5 for further  
7 discussion on the Company's proposed wastewater rate design.

8

9 **Q. Does this conclude your direct testimony?**

10 A. Yes, it does.

## Appendix A

GREGORY R. HERBERT – LIST OF CASES ASSISTED OR TESTIFIED

Year	Jurisdiction	Docket No.	Client Utility	Subject
2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
2018	PA PUC	2018-200208	SUEZ Water Pennsylvania	Revenue Requirements
2018	NJ BPU	WR18050593	SUEZ Water New Jersey, Inc	Cost Allocation/Rate Design
2019	PA PUC	2018-3006814	UGI Utilities Inc. - Gas Division	Cost of Service Allocation Studies
2019	PA PUC	2019-3006904	Newtown Artesian Water Co.	Revenue Req./Rate Design
2019	PA PUC	2019-3010955	City of Lancaster – Sewer Fund	Rev. Req./Cost of Service/Rates
2020	PA PUC	2020-3017206	Philadelphia Gas Works	Cost of Service
2020	PA PUC	2020-3019369	Pennsylvania American Water	Cost of Service
2020	PA PUC	2020-3019371	Pennsylvania American Water	Cost of Service
2020	PA PUC	2020-3020256	City of Bethlehem	Rev. Req./Cost of Service/Rates
2020	CA PUC	A2101003	San Jose Water Company	Rate Design
2021	PA PUC	2021-3026116	Borough of Hanover	Revenue and Revenue Requirements
2021	PA PUC	2021-3026682	City of Lancaster – Water Fund	Revenue and Revenue Requirements
2021	PA PUC	2021-3027385	Aqua Pennsylvania, Inc.	Cost of Service/Rate Design
2021	PA PUC	2021-3027386	Aqua Pennsylvania Wastewater, Inc.	Cost of Service/Rate Design
2022	PA-PUC	2022-3031704	Borough of Ambler	Rev. Req./Rate Design
2022	PA-PUC	2022-3031673	Pennsylvania American Water	Cost of Service
2022	PA-PUC	2022-3031340	York Water Company	Cost of Service/Rate Design
2022	PA-PUC	2022-3032806	York Water Company	Cost of Service/Rate Design
2022	KY-PSC	2022-00161	Northern Kentucky Water District	Cost of Service/Rate Design
2022	PUCO	22-1094-WW-AIR	Aqua Ohio Inc.	Cost of Service
2022	PUCO	22-1096-ST-AIR	Aqua Ohio Inc.	Cost of Service
2023	PA-PUC	2023-3037933	Philadelphia Gas Works	Cost of Service
2023	VA-SCC	PUR-2023-00073	Aqua Virginia, Inc.	Bill Analysis/Rate Design
2024	NJ-BPU	WR24010057	Aqua New Jersey, Inc.	Bill Analysis/Rate Design
2024	IL-CC	24-0044	Aqua Illinois, Inc.	Bill Analysis/Rate Design
2024	PA-PUC	R-202403045192	Veolia Water Pennsylvania	Rev. Req./Rate Design
2024	PA-PUC	R-202403045193	Veolia Wastewater Pennsylvania	Rev. Req./Rate Design

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
TODD M. DUERR P.E., L.O.**

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**Topics Addressed:**

**Water and Wastewater System Operations  
Cost Saving Measures  
Lead Service Line Compliance  
Per- and Poly-fluoroalkyl Substances and Compliance  
Troubled System Operations  
Management Performance Indicators**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 11**

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1                   **I.           INTRODUCTION AND SCOPE OF TESTIMONY**

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

3   A.     My name is Todd Duerr. My business address is 762 W. Lancaster Avenue, Bryn Mawr,  
4         Pennsylvania 19010.

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

6   A.     I am employed by Aqua Pennsylvania, Inc., (“AP”) as Vice President of Operations.

7   **Q.     On whose behalf are you providing this Direct Testimony?**

8   A.     I am providing this testimony on behalf of AP and Aqua Pennsylvania Wastewater, Inc.  
9         (“APW”) (collectively “Aqua PA,” or the “Company”).

10 **Q.     Please provide a brief description of your education and work experience.**

11 A.     I have a Bachelor of Arts Degree in Mathematics from Bloomsburg University, a Bachelor  
12         of Science Degree (B.S.) in Civil Engineering Technology from Temple University, and a  
13         Master’s Degree in Water Resources & Environmental Engineering from Villanova  
14         University. I have worked in various engineering, operations, and business leadership roles  
15         and have over 34 years of experience in the water and wastewater utility industry. I have  
16         worked at AP since March 2020, initially as Vice President of Water Production for  
17         Southeast Pennsylvania, with my responsibilities expanded now as Vice President of  
18         Operations for all Aqua PA water and wastewater systems. I am a Registered Professional  
19         Engineer in Pennsylvania and a Licensed Water and Wastewater Operator in Pennsylvania.

20 **Q.     Have you previously testified before the Pennsylvania Public Utility Commission**  
21 **(“PUC” or the “Commission”)?**

22 A.     Yes. I provided testimony in Aqua PA’s 2021 base rate proceeding at Docket Nos. R-2021-  
23         3027385 and R-2021-3027386.

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

1 A. The purpose of my testimony is to describe Aqua PA’s water and wastewater operational  
2 performance and how it benefits our customers.

3 **Q. Are you including any other exhibits with your Direct Testimony?**

4 A. Yes. Included with my Direct Testimony are Attachments TMD-1 through TMD-6.

5 **II. OVERVIEW OF OPERATIONS**

6 **Q. Please describe AP and its water systems.**

7 A. AP owns and operates water systems serving approximately 445,000 customers in 32  
8 counties throughout Pennsylvania. AP holds 116 Public Water Supply permits from the  
9 Pennsylvania Department of Environmental Protection (“PADEP”). AP operates surface  
10 water treatment plants (“WTP”) and groundwater wells each with various forms of  
11 treatment. AP’s service territories are designated as either Southeast Pennsylvania  
12 (“SEPA”), which includes a contiguous system within portions of Bucks, Chester,  
13 Delaware, and Montgomery counties and separate smaller systems in portions of Berks,  
14 Bucks, Chester, and Montgomery counties, or Greater Pennsylvania (“GPA”), which  
15 includes AP’s service territories outside of SEPA. Aqua PA has over 600 employees in  
16 support of its mission to provide life’s most essential resource – water.

17 **Q. Please describe APW and its wastewater systems.**

18 A. APW is a wholly owned subsidiary of AP. APW is engaged in the business of collecting,  
19 treating, transporting, and disposing of wastewater. APW owns and operates wastewater  
20 systems serving approximately 57,000 customers. As with the water systems, territories  
21 are broken into SEPA (Bucks, Chester, Delaware, Berks, Montgomery Counties) and GPA  
22 systems in Adams, Carbon, Clarion, Clearfield, Lackawanna, Luzerne, Monroe, Pike,  
23 Schuylkill, Venango, and Wyoming Counties. Some of APW’s wastewater systems are  
24 co-located with AP water operations and some are distinct from AP’s water operations.

1 APW operates 40 wastewater treatment plants (“WWTP”) treating and discharging 1.96  
2 billion gallons per year. In addition, APW owns and operates “collection only” systems  
3 that collect and convey untreated wastewater to other entities for treatment and disposal at  
4 their facility (“Purchased Wastewater Treatment”).

5 **Q. Please describe how Aqua PA operations supports its primary objective of providing**  
6 **safe and reliable water and wastewater service.**

7 A. The Company operates continuously with professional staff and facilities that have  
8 received and will continue to receive prudent investment. Aqua PA has an organizational  
9 structure with many subject matter experts assigned to specific roles that, when aggregated,  
10 provide outstanding reliability in water and wastewater service, and compliance with  
11 PADEP and other applicable regulations. Aqua PA’s operational staff is supported by  
12 technology, analytical laboratory facilities, and processes and programs designed to  
13 achieve consistent compliance.

14 **Q. Please provide information about how water quality is supported by the Aqua PA’s**  
15 **laboratory.**

16 A. The Company’s laboratory is a key component of operations and has a unique role in  
17 assuring customers the water they receive meets regulatory requirements, or the wastewater  
18 returned to the environment is safe for aquatic and plant life. The laboratory is located  
19 with our headquarters in Bryn Mawr. It has instruments that are used by our chemists,  
20 micro-biologists, and quality control staff to ensure results meets stringent requirements  
21 imposed by the PADEP. The laboratory and the staff must be certified for each type of test  
22 run, and the PADEP does periodic, intensive audits of the laboratory to confirm  
23 requirements are met.

1           Annually the laboratory conducts 90,000 water quality tests using 50 different  
2 analytical methods for 240 water quality parameters. Samples run include those for  
3 compliance (reported to PADEP), operational (used by operators to help guide process  
4 control decisions), and special/event-based samples (used in unique situations we  
5 encounter).

6 **Q. What additional technology supports safe, reliable water and wastewater service?**

7 A. In addition to the technology used to test for water and wastewater compliance, technology  
8 is used in our operations to deliver safe reliable water and wastewater services. I will  
9 explain several examples of Aqua PA's capabilities below.

10 **Q. Please explain the Company's Supervisory Control and Data Acquisition ("SCADA")**  
11 **systems.**

12 A. Automation and controls of our water and wastewater facilities enable operators to know  
13 in real time the status of key operational systems and water quality parameters. Otherwise  
14 known as SCADA or Operational Technology, this system of computers, instrumentation,  
15 specialty programming, operator displays, and communication networks provides  
16 operations teams with the ability to evaluate current status of treatment facilities, evaluate  
17 trends in treatment, system pressure, storage tank levels, pump status, and provides alarm  
18 notification of an out of range parameter that can be addressed by remote control or by  
19 dispatching staff to the location. Aqua PA's SCADA systems are fully protected by a  
20 sophisticated cybersecurity platform designed, monitored, and supported by our in-house  
21 information security experts.

22 **Q. Please describe the Company's Geographic Information System ("GIS").**

1 A. Another technology that the Company utilizes is GIS. The Company has robust GIS  
2 software that is a geographical interface of our network of pipes, tanks, pump stations,  
3 regulator valves, and fire hydrants. The GIS also has data associated assets used by  
4 operations staff in the field to make decisions regarding asset maintenance or repair. For  
5 example, if a main break occurs and a partial shutdown of the main is required to make the  
6 repair, the distribution team assesses the location of valves relative to the leak location and  
7 can operate valves that will keep the highest number of customers in service while the  
8 repair is made. The GIS is used by operations staff to assist customers when calls are  
9 received regarding service issues. Operations staff can locate assets and work in the area  
10 that may be contributing to the short-term issue and communicate with the customer what  
11 the problem is and dispatch crews to the specific location.

12 **Q. Please describe the Company's outward facing disruption map for customers.**

13 A. The Company recently implemented another customer focused technology service by  
14 adding "disruption icons" on an interactive system map customers can access from our  
15 website via their phone or computer. When work in an area of our system is occurring that  
16 may directly or indirectly affect our customers (e.g., construction causing traffic slow-  
17 downs or a main break repair), the map is updated with icons that give basic information  
18 to the customer about the work and expected time of completion.

19 **Q. Has Aqua PA provided new technology to make customer service easier for**  
20 **customers?**

21 A. Yes, Recently, Aqua rolled out an ePortal and new mobile application. Through the ePortal  
22 and mobile application, customers can manage their account, view, and access their

1 consumption data. Customers can also receive real-time updates on system outages and  
2 have visibility into no water and pressure related service orders.

### 3 III. COST SAVING MEASURES

4 **Q. Please provide Aqua PA's energy efficiency program that seeks to mitigate energy**  
5 **costs.**

6 A. Aqua PA is continuously looking for ways to be more efficient and save costs. Moving  
7 water and wastewater through networks of pipes to and from Aqua PA's plants requires  
8 extensive amounts of energy. The Company relies on several different sources of energy  
9 for various business activities. Electricity is our most consumed form of energy and nearly  
10 all the electricity we use is needed to operate pumps and treatment equipment at our WTPs  
11 and WWTPs. Vehicle fuel is the second largest source of energy, as we operate a fleet of  
12 vehicles for regular physical monitoring of our infrastructure. Natural gas is used to heat  
13 our facilities and is our third largest energy source.

14 In recent years, Aqua PA has remediated its top tier energy conservation  
15 opportunities which resulted in a 21% reduction in energy usage from the baseline and an  
16 annual \$178,000 savings for projected 2025 energy costs. These savings were attained by  
17 traditional energy reduction approaches. Examples include realigning asset original design  
18 to current operating conditions by reducing pump and motors sizes, eliminating throttled  
19 valves, and installing variable frequency drives and compatible motors.

20 Aqua PA tracks energy usage across our portfolio using industry standard  
21 benchmarks including water-electric as cost per thousand gallons treated and  
22 corresponding consumption as kilo-watt-hour per thousand gallon treated. The same  
23 metrics are tracked for wastewater although that is a smaller impact to energy costs. This  
24 metric is a high-level means to compare ourselves to industry benchmarks like the

1 American Water Works Association (“AWWA”) and assess the impact of our energy  
2 efficiency efforts and market conditions that cause energy prices to fluctuate. The AWWA  
3 benchmark is \$0.20/1,000 gallons treated. Aqua PA’s actual metrics for the past few years  
4 were: 2020 - \$0.23/1,000 gallons; 2021 - \$0.20/1,000 gallons; 2022 - \$0.20/1,000 gallons;  
5 2023 - \$0.20/1,000 gallons. While the actual results for the past 3 years are the same, they  
6 are below our internal target goals.

7 Aqua PA evaluates renewable energy options to reduce and stabilize purchased  
8 energy cost. From Aqua PA’s two solar fields at our Pickering and Ingrams Mill WTPs  
9 we generate approximately 2,700-Megawatt hours annually. The savings from avoided  
10 energy purchases and through the sale of solar renewable energy credits is approximately  
11 \$330,000 annually, based on our 2025 energy costs. The Company is currently evaluating  
12 two of our dams for the potential of low-impact hydro power generation.

13 **Q. Does AP produce all its water supplies that it delivers to its customers?**

14 A. No. AP does purchase water from adjacent water systems for primary, supplemental, and/or  
15 emergency supply.

16 **Q. What are the benefits associated with purchased water?**

17 A. A benefit of purchased water is resiliency. Having available supply for periods when AP’s  
18 supplies are challenged helps ensure our customers receive uninterrupted water service.  
19 An example is when the Pickering water plant flooded in 2021 due to Hurricane Ida and  
20 for 10 days AP needed to produce or purchase 30 million gallons per day (“MGD”) from  
21 remaining supplies or from other water providers. Another benefit to our customers is that  
22 water can be purchased from Philadelphia Water Department (“PWD”) at our Cheltenham  
23 Township interconnections for a competitive rate that helps save costs to customers in

1 times where the Company needs to meet high demands in the summer or extended droughts  
2 in the region. In addition, where cost-effective, rather than designing excessive  
3 transmission/booster facilities from other AP locations many miles away and incurring  
4 higher electricity costs and chemical consumption to move the water, it is prudent to buy  
5 water to minimize these costs to the customer.

6 **Q. How does the Company advocate for its customers when addressing rate increases**  
7 **from suppliers of purchased water?**

8 A. Unexpected rate increases enacted by our purchased water suppliers are ultimately passed  
9 onto our customers once approved in a subsequent base rate case. Leading up to this base  
10 rate case, six purchased water suppliers have notified us of, or enacted increased rates  
11 through negotiated agreements. Details of this increased cost is contained in the Direct  
12 Testimony of Christopher Manning (Statement No. 3).

13 In two cases, after being notified of either a rate increase or request to renew an  
14 expiring agreement, AP decided it was in the best interest of our customers to discontinue  
15 use of these purchased water supplies and replace the same with our own supplies.

16 In one example, a supplier decided to raise the rates at the expiration of the  
17 agreement. AP immediately began good-faith discussions with the supplier to reach a  
18 mutually acceptable agreement moving forward. Ultimately, discussions were not  
19 productive. Accepting the offer would have resulted in an increase cost of \$1.5 million per  
20 year under this one contract. AP explored options and decided to construct a new pipeline  
21 from its system to replace the purchased water supply. The project was completed in May  
22 2024. For the full year 2025, we estimate a cost avoidance to customers of \$1.68 million  
23 compared to 2023 incurred costs.

1           Our focus on controlling purchased water costs by active and strategic new  
2 agreement negotiations, the decision to build our own pipelines, and the decision to forego  
3 continued use of interconnections offset the increases enacted by water suppliers included  
4 in this base rate case.

#### 5                           **IV.    LEAD SERVICE LINES**

6   **Q.    Please describe AP’s lead service line replacement (“LSLR”) program.**

7   A.    The replacement of lead service lines is and will continue to be a significant part of AP’s  
8 capital budget and is required by our environmental regulators. AP has been replacing both  
9 customer and Company lead service lines (“LSLs”) in its system since the Commission  
10 approved AP’s initial LSLR program in 2021. Originally, the Company was approved to  
11 replace 200 customer LSLs per year at an annual budget of \$800,000. The Company has  
12 ramped up the LSLR program to identify and replace LSLs throughout its system. The  
13 Company has recently filed an update to the LSLR program in compliance with the  
14 Commission’s regulations under Act 120 of 2018 to address the increased costs of  
15 replacing LSLs and to allow the Company to perform up to 1,500 replacements per year  
16 (after an initial ramp up in the first two years of the LSLR Plan). The update to the LSLR  
17 program also takes into consideration the anticipated Lead and Copper Rule Improvements  
18 (“LCRI”) timeline of 10 years to replace all LSLs in the Company’s system.

19   **Q.    Have there been recent changes to the Lead and Copper Rule?**

20   A.    Yes. Two recent and overlapping rules were promulgated/proposed. On December 16,  
21 2021, the U.S. Environmental Protection Agency (“EPA”) announced final revisions to the  
22 National Primary Drinking Water Regulations for lead and copper under authority of the  
23 Safe Drinking Water Act - called the Lead and Cooper Rule Revisions (“LCRR”). The

1 operational and capital costs associated with implementing these newer regulations is  
2 included in the current rate case filings.

3 The LCRR requires all public water systems to develop a LSL inventory and make  
4 it publicly available; develop an LSLR plan; sample schools and childcare facilities for  
5 lead and copper; strengthen treatment to comply with the new 10 microgram/liter ( $\mu\text{g/L}$ )  
6 trigger level; communicate with the public about the LCRR's requirements and the steps  
7 AP is taking to meet them.

8 On November 30, 2023, the EPA announced the proposed LCRI. EPA anticipates  
9 finalizing the LCRI prior to October 16, 2024, and AP is proceeding with replacements in  
10 accordance with the LCRI. LCRI supplements the LCRR, and contains the following new  
11 requirements: achieving 100% LSL (both customer and Company) replacement within 10  
12 years; locating legacy LSLs and continuous updating of service line inventory; improving  
13 customer water tap sampling methods; lowering the Lead Action Level from 15  $\mu\text{g/L}$  to 10  
14  $\mu\text{g/L}$  and associated related actions; and strengthening protections to reduce exposure for  
15 systems with multiple lead action level exceedances.

16 **Q. Provide actions AP is taking to comply with the new rules.**

17 A. AP is compliant with current lead and copper rule requirements and is on-track to comply  
18 with all provisions of the new rules. AP is dedicated to increasing public health protection  
19 by adjusting treatment to prevent leaching from lead piping and lead-containing  
20 appurtenances. AP has been selectively transitioning certain systems to orthophosphate,  
21 which is EPA's preferred method for reducing corrosion. Orthophosphate helps better coat  
22 the pipe, providing a protective barrier between any existing lead materials and drinking  
23 water. In many cases, orthophosphate is more cost effective than polyphosphate or blended

1 phosphates and allows AP to keep chemical costs lower while providing enhanced  
2 protection.

3 The Company has successfully changed our Perkiomen Woods, West Chester, and  
4 Bristol distribution systems to orthophosphate and we have seen in a decrease in lead and  
5 copper results, which was the objective - more protection to our customers.  
6 To meet the October 16, 2024 service line inventory deadline, AP has been aggressively  
7 identifying and replacing Company side lead and galvanized service lines and using the  
8 Commission approved LSLR Plan to support concurrent customer side replacements of  
9 lead and galvanized lines. We have a goal of replacing all known lead service lines by the  
10 October deadline.

11 AP is anticipating a substantial increase in customer sampling for lead and copper  
12 in 2025. This is related to the LCRR and discussion with PADEP where reduced sampling  
13 for compliant systems (e.g., once every three years) will be reset to once per quarter using  
14 the enhanced sampling requirements in the LCRI which requires collecting first liter and  
15 fifth liter samples at sites with LSLs and use of the higher of the two values when  
16 determining compliance with the rule. This will require additional resources for sampling  
17 and a substantial workload increase for the Company's Lab (in addition to the per- and  
18 poly-fluoroalkyl ("PFAS") sampling and Unregulated Contaminant Monitoring Rule  
19 ("UCMR") 5 testing).

## 20 V. PER- AND POLY-FLUOROALKYL SUBSTANCES

21 **Q. What are PFAS?**

22 A. PFAS are man-made (synthetic) chemicals that have been used in industry and consumer  
23 products worldwide since the 1940s. PFAS have been used to make nonstick cookware,  
24 water-repellent clothing, stain resistant fabrics and carpets, some cosmetics, some

1 firefighting foams, and products that resist grease, water, and oil. These PFAS chemicals  
2 are often referred to as “forever chemicals” due to the strong chemical bonding of the  
3 molecules that are extremely difficult to break down and, as a result, can persist indefinitely  
4 in the environment. There are thousands of PFAS species within the PFAS family. The  
5 most studied PFAS are perfluorooctanoic acid (“PFOA”) and perfluorooctane sulfonic acid  
6 (“PFOS”). For purposes of this testimony, these PFAS chemicals are the focus of current  
7 regulatory matters, and the levels of four other PFAS species are being addressed by EPA  
8 through a proxy method known as a Hazard Index.

9 **Q. Do PFAS present health concerns?**

10 A. The PFAS chemicals have been detected in many water supplies. Research has identified  
11 the following potential or real concerns from ingestion of these compounds at levels above  
12 regulatory thresholds as follows:

- 13 • Altered metabolism and body weight regulation, and risk of childhood obesity.
- 14 • Increased risk of some cancers.
- 15 • Reduced ability of the immune system to fight infections.

16 **Q. Does AP notify customers of the presence of PFAS in their finished water supplies?**

17 A. Yes. AP has been the industry leader in addressing PFAS before a rule was in place. We  
18 have been testing our water sources for PFAS for more than seven years, treating water  
19 that exceeds 13 ppt, and transparently sharing PFAS testing with customers, voluntarily,  
20 on our water quality reports. AP created a website dedicated to posting PFAS levels in its  
21 water. Moving forward, the Company will discontinue that website and comply with the  
22 PADEP’s regulations and all PFAS testing will be available in the Company’s Consumer  
23 Confidence Reports that are available on the Company’s website.

1 **Q. Has the PADEP adopted any standards for the level of PFAS in public water supplies?**

2 A. Yes. On January 14, 2023, the PFAS Maximum Contaminant Level (“MCL”) Rule was  
3 published in the Pennsylvania Bulletin setting MCLs for PFOA and PFOS in drinking  
4 water. The rule sets an MCL of 14 ppt for PFOA and an MCL of 18 ppt for PFOS.  
5 Compliance with the MCLs is determined based on a Running Annual Average of samples  
6 collected each calendar quarter.

7 **Q. Does AP meet current DEP standards?**

8 A. Yes. There are a few facilities that currently have PFAS results close to or greater than the  
9 PADEP MCLs, but these locations are undergoing active construction to install PFAS  
10 removal systems which will be completed before the end of 2024 and allow AP to remain  
11 in compliance with PADEP’s regulations. Even before the PADEP considering entering  
12 the rule making process for the PFAS chemicals, AP was piloting, designing and installing  
13 PFAS removal systems. As of May 2024, the Company has four (4) PADEP permitted and  
14 operational PFAS treatment systems. AP feeds Powder Activated Carbon (“PAC”) at our  
15 Neshaminy WTP to mitigate the impact of the PFAS in the source water, and the finished  
16 water levels of PFAS are below PADEP requirements. The concentration our customers  
17 receive from the facilities where these PFAS treatment systems are installed is below  
18 detection limits. We have other systems that are close to or above the PADEP MCLs which  
19 are in the design/construction stage and will be completed in time to meet the compliance  
20 requirements.

21 **Q. What treatment processes does AP currently use to remove PFAS from water**  
22 **supplies?**

1 A. AP uses three types of treatment. One is Granular Activated Carbon (“GAC”) contact  
2 pressure vessels. Another is Ion Exchange (“IX”) in pressurized vessels. The third is the  
3 use of PAC which is fed into the raw source water at our Neshaminy WTP, a 12 MGD  
4 facility. AP was the leader in Pennsylvania for pilot testing then implementing full scale  
5 use of all three types of treatment.

6 In July 2018, AP chose to turn off our North Hills well station in Abington  
7 Township when PFAS samples exceeded our self-imposed limit (and subsequently the  
8 PADEP and EPA limits). This was challenging to manage, as this source provides water  
9 in a densely populated area of our system. Due to AP’s resilient system architecture,  
10 investments, and operational flexibility, we supplemented the lost water from other  
11 sources. AP’s treatment department researched options for treatment since GAC units  
12 would be large in size. AP gained approval from PADEP to conduct a year-long pilot to  
13 test different anion exchange resins to determine their effectiveness in removing PFAS.  
14 The pilot program identified a resin that met requirements, and after review of the data,  
15 PADEP gave approval to install a full-scale system. In July 2023, the well was returned to  
16 service and represents the first IX treatment system in Pennsylvania.

17 **Q. Has the EPA recently adopted regulations concerning PFAS in public water supplies?**

18 A. Yes

19 **Q. What do those new regulations require?**

20 A. The EPA has established MCLs at 4 ppt for PFOA and PFOS, individually (values  
21 materially lower than the PADEP established limits). Pursuant to the Safe Drinking Water  
22 Act section 1412(b)(10), the final PFAS National Primary Drinking Water Regulation  
23 (“NPDWR”) is effective June 25, 2024. The compliance date for the PFAS NPDWR, other

1 than the MCLs, is April 26, 2027. All systems must comply with the MCLs by April 26,  
2 2029. There are various reporting and notification requirements associated with the new  
3 rule. The new EPA MCLs will supersede the PADEP MCLs for PFOA and PFOS.

4 **Q. Has AP developed plans to comply with the new EPA requirements?**

5 A. Yes.

6 **Q. What do those plans entail?**

7 A. AP has evaluated the number of systems affected by this new EPA rule. More information  
8 and examples of types of treatment projects are detailed in the Direct Testimony of Michael  
9 Convery (Statement No. 12).

10 **Q. Please explain why it is important to meet the requirements of the EPA rule.**

11 A. It is important for the AP to meet the requirements of EPA due to the health concerns the  
12 presence of PFAS presents.

13 **Q. What are AP's current O&M expenses to treat PFAS?**

14 A. The O&M expense figures to treat PFAS are discussed in the Direct Testimony of  
15 Christopher E. Manning (Statement No. 3). These reflect both actual expenses and those  
16 projected through the FPFTY.

17 AP is experienced in managing the O&M aspects of PFAS treatment systems. The  
18 Company's first treatment system was commissioned in 2017, and as of May 2024, we  
19 have four (4) systems treating for PFAS at wells and the use of PAC at our Neshaminy  
20 WTP.

21 O&M expenses for PFAS treatment include regular process control testing,  
22 compliance testing (both performed by the Company's Lab), maintenance of equipment,  
23 increase electric costs due to higher pressure through the vessels, and labor by daily

1 operator and our treatment staff. The most expensive cost is the change-out of expired  
2 media in the vessels which can occur every one to three years. Our staff manages the  
3 change-out process, which include managing water supply while the vessels are taken off-  
4 line, arranging with a carbon supply vendor to extract the expired GAC and install new  
5 GAC, performing initial rinsing of the new media, and arranging for the disposal of the  
6 rinse water. The Company has historical trends in costs for this process and they are  
7 reflected in our base rate case. These costs will increase proportionally with adding more  
8 systems to meet the new EPA rule.

9 **Q. What changes in operations does AP anticipate following the installation of new**  
10 **equipment to treat PFAS to the new EPA requirements?**

11 A. Once new systems are commissioned, significant work will recur annually. The work is  
12 outlined above yet at a much larger scale/frequency than currently reflected in our rates.  
13 AP will need additional staff to manage the testing and logistically complicated media  
14 changeout processes, specialized equipment to manage the rinse water process since some  
15 sewer systems are now prohibiting the discharge of the rinse water adding extra costs to  
16 the process. Overall, the new treatment techniques, chemicals to treat for PFAS, and  
17 ongoing and new labor requirements associated with PFAS testing and removal will  
18 increase costs to supply water not just for AP but across the Commonwealth and will be  
19 present into the future.

20 **Q. How has treatment of PFAS impacted chemical costs to the Company?**

21 A. New to this rate case is the increased cost to treat PFAS chemicals under the recent EPA  
22 regulation. The Company has included the significant cost to add PAC to the raw water  
23 sources at four surface WTPs. It is important to note that this chemical, once added to the

1 water, removes some or all of the PFAS chemicals of concern, and then is wasted to the  
2 residual solids process.

3 The plants and current average daily flow where we plan to use PAC are Pickering  
4 West – 30 MGD; Crum – 16 MGD; Pickering East – 12 MGD; and Ingrams Mill – 4 MGD.  
5 The dosage of PAC needed to remove the PFAS chemicals of concern at these flows plus  
6 other chemical costs to process the resultant solids (e.g., polymer at sludge presses) and  
7 added hauling costs results is an added cost.

## 8 VI. WASTEWATER OPERATIONS

9 **Q. Please describe the challenges facing APW that influences decisions on investments.**

10 A. The biggest challenge to APW and its customers is the level of investment needed to bring  
11 facilities acquired (including through Receivership) to a stable level of asset condition and  
12 operation. The cost to replace wastewater assets is one of the highest of all the standard  
13 utilities. To support this investment, other costs include vehicles and equipment, staffing,  
14 safety programs, laboratory testing, costs related to permit changes, and all the related  
15 operational costs outlined in my colleagues' testimony.

16 Most of APW's acquired assets were in poor condition – WWTPs, collection pipes,  
17 force mains, lift stations, no SCADA, and not designed for operational best practices.  
18 Many of the facilities are reaching their end of useful life. APW is managing to maintain  
19 the assets in-kind while programmatically replacing major or all components of the  
20 treatment and pumping assets. For example, many treatment tanks were built by housing  
21 developers using minimal quality components such as carbon steel tanks which cannot be  
22 maintained like a steel water storage tank. After 20 years of operation, it is common to see  
23 these tanks rusting and holes opening in them.

1           In many cases, the assets were undersized, perhaps meeting minimum design  
2 standards but far from meeting the requirements of real-time flows and operational needs.  
3 An example would be a small equalization tank with manual flow-splitter boxes. Operators  
4 are challenged to handle high flows and balance flows through the plant often leading to  
5 downstream compliance and operational management issues.

6           When replaced, APW will design and construct the facilities to the right size to  
7 ensure we can meet permit requirements and limit short life- major assets (e.g., use pre-  
8 cast concrete tanks in lieu of carbon steel tanks). Several examples of where we corrected  
9 asset issues on a major scale include Penn Township WWTP, Media Borough WWTP,  
10 Treasure Lake WWTP, and soon the Laurel Lakes and Rivercrest WWTPs.

11           The above issues are not isolated to developer-built plants. Many of the  
12 municipally acquired plants were in poor condition and likely a driver of why the former  
13 owner divested. The need for investment to restore basic safety elements, ensure  
14 compliance, and stabilize assets that are “in imminent threat of failure” can delay lower  
15 priority investments.

16           While WWTPs and lift stations are in varying states of restoration, a significant  
17 amount of the collection system mains are deteriorated and need significant work. Inflow  
18 and Infiltration (“I&I”) are common in most every wastewater system, and the sources of  
19 it are from both leaking mains and manholes, and customer and other contributions (e.g.,  
20 laterals, illegal roof drain connections, illegal sump pump connections, stormwater cross  
21 connections, other utilities that have broken APW’s pipe when installing their asset).  
22 APW’s capital plan is created to maximize investment needs while mitigating the impacts

1 to rates. APW has and will continue to address these situations to maintain proper  
2 operation and compliance with our discharge permits.

3 **Q. How is APW prioritizing which investments to make that support operation of the**  
4 **facilities?**

5 A. Many investments are “self-prioritizing” as we work through the outcome of original  
6 design and construction decisions by former owners, and as permit conditions change. For  
7 example, in the last discharge permit renewal for our Treasure Lake WWTP, a limitation  
8 on copper concentration (load) was added resulting in significant upgrades to comply with  
9 the permit. Post upgrades, our operations protocol requires feeding new chemicals and  
10 managing sludge differently than pre-permit change.

11 Another example is our Cheltenham system where we inherited a corrective action  
12 plan and connection management plan to reduce discharges from I&I. APW has been  
13 successful through investments and operational work like televising and cleaning sewer  
14 mains and continuing to work with PWD (where flow is conveyed for treatment) to  
15 potentially construct a large surge tank where we would collect peak flows and manage the  
16 discharge from the tank through operational decisions.

17 Internal processes include regular meetings with our operations and engineering  
18 teams to discuss project progress, review long-term planning, and review in-field  
19 experiences that need immediate attention (e.g., if a steel tank wall is seen as near failure,  
20 plans are formulated to temporarily repair the wall until the final investment plans are  
21 executed).

## 22 VII. TROUBLED WASTEWATER SYSTEMS

23 **Q. Does APW serve as a Receiver for any troubled wastewater systems?**

1 A. For informational purposes, since the last base rate case, APW has acquired the assets of  
2 the North Heidelberg Sewer Company (“NHSC”) in Berks County which was previously  
3 under Receivership.

4 **Q. What has APW done to improve the NHSC system?**

5 A. While Receiver, APW stabilized operations through our standard operational management  
6 and processes. The WWTP was seriously flooded in September 2021 from Hurricane Ida.  
7 See Attachment TMD-1. The WWTP was inundated with floodwater for days afterward,  
8 and access to the WWTP was cut off by floodwater. In addition, the stormwater system in  
9 the area was destroyed and had to be rebuilt before repairs to the WWTP could start. APW  
10 operations and engineering staff with a contractor were able to recommission the plant in  
11 about 14 days including temporary power, a new ultraviolet disinfection system, clean the  
12 control building, and establishing process control. I do not believe this recovery could  
13 have been achieved if the system remained with the original owner. Aqua PA’s operations  
14 team maintained compliance with the permit under these temporary asset conditions while  
15 new facilities could be procured/constructed. NHSC continues to be run in compliance  
16 with permit requirements.

17 The customers of the NHSC system have benefited from APW’s operating and now  
18 owning the system. APW’s ability to manage the initial deteriorated conditions, the  
19 Hurricane Ida incident, the rebuild, and on-going upgrades and operational efficiencies in  
20 my opinion would not have been possible under original ownership.

21 **Q. Has APW acquired any public wastewater systems after the filing of its last base rate**  
22 **case?**

1 A. Yes. APW acquired Lower Makefield Township, Bucks County, and East Whiteland  
2 Township, Chester County, wastewater systems.

3 Lower Makefield Township (“LMT”) was acquired on March 4, 2022. LMT has  
4 approximately 11,000 connections and consists of 113 miles of collection mains, 14 lift  
5 stations and associated force mains. All wastewater is conveyed to other adjacent utilities  
6 for treatment.

7 East Whiteland Township (“EWT”) was acquired on August 12, 2022. It has  
8 approximately 3,850 connections (8,200 Equivalent Dwelling Units) and consists of 57  
9 miles of collection mains, 12 lift stations and associated force mains. All wastewater is  
10 conveyed to other adjacent utilities for treatment.

11 **Q. What improvements have been made to the LMT system after APW’s acquisition?**

12 A. Based on my experience, LMT system is a typical deferred maintenance and investment  
13 system. Since acquiring the system, APW has implemented improvements and operational  
14 efficiencies including: 1) cleaned and inspected nearly 15 miles (13%) of collection system  
15 that resulted in roots clearing, fixing broken pipe and cross-bore repairs; 2) I&I  
16 identification; 3) cleaned the large lift station wet wells which were laden with grease  
17 build-up and grit accumulation that causes premature asset failure; 4) addressed operational  
18 control problems including rapid pump cycling; 5) field survey work to update poor  
19 mapping transferred to APW to facilitate proper system operation; 6) PA one-call  
20 compliance; 7) added all emergency generators to a preventative maintenance program and  
21 made repairs for reliability; 8) major maintenance upgrades at lift stations including  
22 replacing non-working valves; 9) installed new grinding systems; 10) rebuilt pumps due to  
23 failed bearing and vibration issues; 11) replaced poor control systems, installed SCADA

1 and alarming systems for early detection of issues and remote monitoring by operators; and  
2 12) replacement of non-functioning air release valves, replacement of failed safety fencing,  
3 replacement of failed motors and variable speed motor drives, replacement of electrical  
4 components, and replacement of five above ground fuel tanks that were not compliant with  
5 regulations.

6 **Q. What improvements have been made to the EWT system since acquisition?**

7 A. The EWT system is similar to the above described LMT system. The EWT system  
8 condition ranges from poor (high occurrence of operational issues or asset failure) to fair  
9 (system conveys sewage but assets and operational protocols at acquisition were outdated  
10 and unmaintained). All lift stations now have SCADA replacing old, unsupported, dialer  
11 systems. Mains that go through Rights-of-Way (“ROW”) are difficult to access as the  
12 ROWs were not maintained and mature vegetation exists. A force main break and gravity  
13 line break in the system took significantly longer to find and fix due to this unmaintained  
14 ROWs. Results of televising and main repairs shows many of the pipe joints not aligned  
15 and off-set, resulting in I&I and allowing solids to aggregate on the sharp edges to block  
16 flow. APW created a formalized preventative maintenance plan for cleaning lines and is  
17 planning replacements of the worst sections of mains.

18 **VIII. TROUBLED WATER SYSTEMS**

19 **Q. Does AP serve as a receiver for any troubled water systems?**

20 A. Yes. As of this base rate case filing, AP has two systems in Receivership under Section  
21 529 of the Public Utility Code, 66 Pa. C.S. § 529. First is the Venango Water Company  
22 (“Venango”) water system, in Reno, Venango County. Venango has approximately 230  
23 customers and is comprised of two spring sources (Bellows and Shaffer Springs) with  
24 chemical feed systems (disinfection via chlorine, pH adjustment via soda ash, and a

1 corrosion inhibitor), one storage tank (extremely poor condition), and approximately seven  
2 miles of mains, valves and hydrants. Aqua assumed its Receivership of Venango via a  
3 Commission order of August 11, 2023.

4 Second is Twin Lakes Utilities, Inc. (“Twin Lakes”) water system. Twin Lakes  
5 serves a small 113-customer community called Sagamore Estates in Shohola Township,  
6 Pike County. Twin Lakes is owned by Middlesex Water Company but operated and  
7 managed by AP under a Receivership since January 14, 2021, when the Commission issued  
8 an order appointing Aqua as Receiver for the system.

9 Additionally, AP became owner of the James Black Water Service Company –  
10 Belle Aire Acres system (“Belle Aire Acres”) on May 2, 2024. Belle Aire is a small  
11 troubled 19 customer water system in Jefferson Township, Lackawanna County, that AP  
12 had operated under Receivership since September 11, 2019.

13 **Q. What has AP done to enable address operational and environmental issues in the**  
14 **Venango system?**

15 A. I am extremely proud of the Aqua team that prioritized responding to help customers served  
16 by the Venango system. See Attachment TMD-2. AP received a Commission order on  
17 Friday evening August 11, 2023, to immediately assume Receivership on Saturday August  
18 12, 2023 of the Venango system due to alleged contamination of the source water from a  
19 spill in the watershed that affected one of the two raw water sources (springs). AP had its  
20 team at Reno on Saturday morning August 12, 2023, to start system operation. Prior to the  
21 issuance of the Commission’s order, there was a “Do Not Consume Order” that had been  
22 issued by the former owner under directive of the PADEP.

1 AP assigned a team of operations, engineering, and functional support staff to work  
2 through the objective of restoring safe drinking water to the community. Working with the  
3 PADEP and local governmental representatives and integrating with a pro-active  
4 community support group, AP was able to lift the “Do Not Consume Order”. AP’s  
5 Receivership started on August 12 and by September 1, the Do Not Consumer Order was  
6 lifted. During that initial period, AP hauled drinking water from our Emlenton WTP to  
7 Reno to restore storage tank levels and support system flushing requirements to ensure safe  
8 water was in the distribution system. AP continued to haul water through the winter of  
9 2023-2024 until the remaining spring was recharged to meet average daily demand.

10 Many other system improvements were made in the first three months to correct  
11 serious safety issues, install instrumentation to assist in monitoring water quality and  
12 provide automatic notification alarming of key instrument readings, fixed chemical feed  
13 lines, and many other improvements. AP is required to file quarterly status reports to the  
14 Commission to detail any relevant updates pursuant to duties and responsibilities assigned  
15 through Receivership. See Attachment TMD-3. Three status reports have been submitted  
16 with the last one dated April 8, 2024. Each provide details of AP’s actions to improve daily  
17 service and look at options for long-term source of supply options.

18 **Q. Please describe the improvements made to the Twin Lakes system under AP’s**  
19 **Receivership.**

20 A. Since January 2021, AP has invested in the Twin Lakes system by addition of treatment to  
21 mitigate lead action level exceedances from 2019; renovated the well station to include  
22 treatment for lead reduction and significant safety improvements; permitted and installed  
23 online continuous chlorine residual monitoring equipment; added process control alarming

1 improving response time to treatment and production issues; replaced two booster pumps  
2 that provide system pressure; replaced ~25% of the residential meters that have failed;  
3 performed system-wide leak detection and repaired several leaks reducing water loss; made  
4 a portable emergency generator is available for backup power (no prior emergency backup  
5 power was present at the system). The Twin Lakes system is operated by AP staff (not  
6 contractors) who visit the system multiple times each week.

7 **Q. Has AP acquired any other public water systems since its last base rate case that you**  
8 **would like to highlight?**

9 A. Yes. In addition to Belle Aire Acres noted previously, on July 24, 2023, AP acquired the  
10 assets of the Municipal Authority of the Borough of Shenandoah (“Shenandoah”). The  
11 system has approximately 3,000 customers in Borough of Shenandoah and the surrounding  
12 communities.

13 **Q. What improvements have been made to the Shenandoah system subsequent to AP’s**  
14 **acquisition?**

15 A. While relatively early in ownership, it is clear that AP’s expertise, financial capability, and  
16 overall utility operation program has and will continue to benefit the Shenandoah water  
17 system. See Attachment TMD-4.

18 Some of the infrastructure dates back to the late 1800s, when Shenandoah had  
19 multiple competing water companies serving the same areas causing multiple mains to be  
20 co-located in streets depending on which customer subscribed to which company. This has  
21 led to undocumented mapping and challenging operational and asset improvement  
22 planning.

1           The system has 60% non-revenue water according to the latest analysis done by  
2 Shenandoah. Within four months of taking ownership, AP replaced 95% of all customer  
3 water meters as part of an integration project, and to reset the baseline for apparent losses  
4 from meter inaccuracies. The water mains frequently leak or break for various reasons and  
5 contribute to water loss. From August 2023 to May 7, 2024, AP has repaired 44 main  
6 breaks, numerous other service leaks, and has completed a full system wide leak survey  
7 that found 32 leaks which will be repaired in 2024. AP is also completing the replacement  
8 of approximately 4,000 lineal feet (“LF”) of aging cast iron pipe with 8-inch ductile iron  
9 pipe, and is planning future main replacement projects, one which will eliminate a long  
10 low use main located through a wetland and other mains which have been identified by AP  
11 as highly prone to breaks and leaks.

12           AP inspected all hydrants in August and September 2023 identifying 23% of the  
13 hydrants as inoperable. AP began an immediate replacement program of these hydrants  
14 that was hampered by the lack of operating isolation valves, almost non-existent maps, and  
15 hydrants connected to undersized water mains. The work to correct this fire hydrant  
16 deficiency was completed in January 2024.

17           There is a 2 MGD WTP serving the community. After AP took ownership, it  
18 performed an inspection of the WTP, which found serious safety concerns such as a leaking  
19 caustic chemical system, uninspected chlorine gas system components, non-working key  
20 assets, and water quality testing process lacking the rigor AP provides. A team of AP’s  
21 water treatment plant managers, safety specialist, compliance teams, and other subject  
22 matter experts spent time at the WTP identifying areas for improvements and nearly all  
23 have been implemented or are programmed for investment.

1 **Q. What other projects were required that AP took over and implemented in the**  
2 **Shenandoah system?**

3 A. Shenandoah was required by the National Pollution Discharge Elimination System  
4 (“NPDES”) permit to design, permit and install a means to remove chlorine from the WTP  
5 sludge dewatering discharge stream. AP recently completed the design and permitting of  
6 the de-chlorination system and will complete installation of this system by July 2024.

7 Another project Shenandoah was required complete was to install structures and  
8 flow measuring equipment at the high hazard dam to allow conservation releases into the  
9 associated watersheds as required by the PADEP Water Allocation permits. AP assumed  
10 a grant from the Susquehanna River Basin Commission originally awarded to Shenandoah  
11 to fund this project to be completed in 2024.

12 **IX. OTHER EXAMPLES OF EXEMPLARY MANAGEMENT PERFORMANCE**

13 **Q. Please describe an example of AP’s emergency response in action.**

14 A. To demonstrate the value of Emergency Planning, Response, and Business Continuity  
15 Plans, consider the September 1, 2021, Hurricane Ida storm that caused AP’s largest water  
16 plant – Pickering West – to flood and be out of use. Other impacts from Hurricane Ida  
17 included the complete loss of our NHSC WWTP as described earlier in my Direct  
18 Testimony.

19 Focusing on the loss of 30 MGD of production from the Pickering West WTP, AP  
20 and its customers were faced with a serious and unscripted loss of service with a prospect  
21 of not knowing when water service could be restored. AP’s highly skilled and experienced  
22 staff recovered from this disaster in 10 days. See Attachment TMD-5. I believe that AP’s  
23 prudent and consistent infrastructure investment made the difference for our customers.

1 The entirety of AP’s staff and functional support teams were focused in an organized and  
2 logical process to return a flooded major WTP to service.

3 **Q. Please explain how AP’s investment in its infrastructure and in emergency planning**  
4 **allowed AP to continue service while its largest WTP was out of service.**

5 A. Our engineering team collaborated and worked with our control center and distribution  
6 team to move water from areas throughout SEPA. This was done by analyzing our  
7 hydraulic models, procuring and installing large temporary pumps and tapping mains to  
8 form new pressure districts. Our other water plants maximized output to supplement the  
9 demand and we purchased water through our longstanding partnerships throughout the  
10 region. The result was continuity of service to our customers, and no water main breaks.  
11 This underscores the benefits of continued investment in AP’s assets (e.g., main  
12 replacements), plant upgrades, purchased water analysis, and the value of a large company  
13 to recover from such an event.

14 **Q. Are there any examples recently of how Aqua PA’s lab was used to respond to**  
15 **significant environmental events?**

16 A. Yes. An example of the value of the Company’s lab resource brings to our customers is  
17 an event where a chemical spill occurred in the Delaware River in March 2023. See  
18 Attachment TMD-6. The water supply of AP’s Bristol water plant and other water  
19 suppliers that have intakes on the affected Delaware River stretch were in jeopardy of  
20 causing the unidentified contaminant entering the public water supply. Fortunately, no  
21 water supplier had the spilled chemical enter its facility intakes and therefore into the public  
22 drinking water system. However, during the spill response, Aqua PA’s laboratory was  
23 engaged to “decode” the unknown chemical. Our staff used their expertise and

1 sophisticated instruments to identify compounds of concern from information provided by  
2 the manufacturer and the resultant analytical data allowed other water suppliers to make  
3 key operational decisions to manage through the event. Aqua PA's laboratory was able to  
4 provide analytical testing for other affected water purveyors during this event helping to  
5 protect the general Philadelphia-Camden New Jersey area.

6 Several weeks earlier the Aqua PA lab provided similar support to water purveyors  
7 in western Pennsylvania and eastern Ohio to ensure customer safety in the aftermath the  
8 East Palestine, OH Norfolk-Southern train derailment and spill.

9 Aqua PA's operations and our respective customers receive significant value from  
10 this investment made in support of our core objective.

11 **Q. Please describe Aqua PA's proactive efforts to test for the forever chemicals referred**  
12 **to as PFAS.**

13 A. In addition to the Company's extensive testing in each specific area, our laboratory is only  
14 one of two that are accredited in Pennsylvania to test for PFAS, which have been linked to  
15 numerous health concerns. Aqua PA has been committed to testing every one of our water  
16 sources for contamination since the addition of this testing capability in 2016.

17 In 2017, Aqua PA's lab became a leader in PFAS testing by becoming one of the  
18 first utilities to be state-certified to test for the forever chemicals. Shortly after in 2020,  
19 Aqua PA set a company-wide standard to treat and remove PFOS and PFOA concentrations  
20 above 13 ppt. Aqua PA's lab recently expanded its PFAS testing capabilities by purchasing  
21 a second Liquid Chromatography with tandem mass spectrometry ("LC/MS/MS") and  
22 setting up EPA method 537.1 for the analysis for 18 compounds. The laboratory also holds  
23 EPA UCMR 5 certification for method 537.1.

1 **Q. Does Aqua PA proactively participate in American Water Works Association**  
2 **(“AWWA”) programs?**

3 A. Yes. Aqua PA has taken a leadership role in AWWA programs to enhance water quality  
4 compliance assurance such as “Partnership for Safe Water” (surface water plants),  
5 “Partnership for Clean Water” (Wastewater treatment plants), and “Partnership for Safe  
6 Water Distribution System” (water distribution systems). This past year an AP employee  
7 was the President of the Pennsylvania AWWA chapter. These rigorous programs benefit  
8 our customers by enhancing our focus on the water quality we provide to customers, and  
9 the water returned to the environment. The Company goes beyond the required regulatory  
10 testing, which only confirms if we meet compliance, to ensure that we are providing  
11 excellent water quality to our customers. These programs challenge us to enact  
12 optimization strategies that reinforce our existing compliance programs and to ensure water  
13 quality meets customer expectations.

14 The program has four levels of achievement, with annual reviews of progress  
15 against on-going optimization initiatives. All surface WTPs are enrolled in the program  
16 and progressing through the four phases. At present we have two (2) plants with the  
17 highest-level award – The President’s Award, four (4) with Phase III awards, and six (6)  
18 in the Phase II data collection phase which, when completed, will enter the Phase III  
19 program for self-assessment and identification of optimization opportunities. The  
20 Company’s Media WWTP received a Phase III award in 2022. In May 2024, we will  
21 receive a Phase III award for our Uwchlan water distribution system.

22 **Q. How does Aqua PA work with PADEP in improving WTP performance?**

1 A. AP receives a periodic a PADEP inspection and evaluation process known as “Filter Plant  
2 Performance Evaluation” (“FPPE”). The FPPE process evaluates current and historical  
3 filter plant operations and water quality data focusing on filter plant capability to maintain  
4 compliance reliably and consistently with Pennsylvania's Safe Drinking Water  
5 Requirements on a short and long-term basis. There are three overall ratings from lowest  
6 to highest; “Needs Improvement”, “Satisfactory”, and “Commendable”. In the past three  
7 years, ten (10) of AP’s WTPs received a FPPE. Overall ratings were two (2) plants  
8 receiving “Satisfactory”, and seven (7) plants receiving “Commendable”, both difficult to  
9 achieve without consistent attention to daily operational excellence and regular facility  
10 investment.

11 **X. CONCLUSION**

12 **Q. Does that conclude your Direct Testimony?**

13 A. Yes, it does, but I reserve the right to supplement my Direct Testimony as needed during  
14 this proceeding.



**SINKHOLE LOCATION ON GOLF COURSE PROPERTY OVER TOP OF CULVERT. NHSC PROPERTY LINE AT WOODS/FENCE LINE TO THE RIGHT. EARTH WASHED INTO THE COLLAPSED CULVERT SUBSTANTIALY BLOCKING IT.**



**SINKHOLE APPROXIMATELY 12 FEET IN DIAMETER AND 12 FEET DEEP.**



**SUBMERGED WASTEWATER TREATMENT PLANT VIEW FROM EAST SIDE OF PLANT LOOKING WEST. RAILINGS ON EQ AND SLUDGE HOLDING TANKS CAN BE SEEN. GENERATOR IS TO THE LEFT OF CONTROL BUILDING DOOR.**



**VIEW FROM WEST LOOKING EAST OF EQ TANK IN CENTER AND SLUDGE HOLDING TO THE RIGHT AFTER FLOOD WATERS RECEDED.**



**SUBMERGED WASTEWATER TREATMENT PLANT VIEW FROM WEST (ENTRY) SIDE OF PLANT LOOKING EAST.**



**SUBMERGED WASTEWATER TREATMENT PLANT VIEW FROM SOUTHEAST SIDE OF PLANT LOOKING IN A SOUTH EASTERLY DIRECTION. GOLF COURSE CARTWAY BERM NEAR CULVERT SINK HOLE IN BACKGROUND (BEHIND WHITE CAR).**



**CONTROL BUILDING ROOF DAMAGE DUE TO THE FLOATING OF THE RAPID SAND FILTER TANK / ULTRAVIOLET DISINFECTION SYSTEM IN ABOUT HALF OF THE BUILDING.**



**RAISED UP ROOF TRUSSES AND ROOF RESULTANT FROM TANK FLOATING IN THE CONTROL BUILDING.**



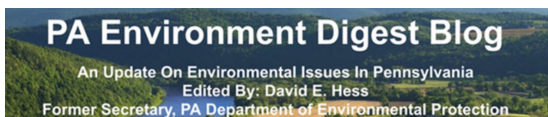
**LOOK INSIDE THE CONTROL BLDG. FROM DAMAGED ROOF OPENING. FLOATED TANK IN RIGHT FOREGROUND.**



**LOOK INSIDE CONTROL BLDG. FROM GARAGE DOOR OPENING. FLOATED TANK TO THE LEFT.**



**VIEW INTO CONTROL BUILDING OFFICE WHILE STILL UNDER WATER.**



## The Derrick: Permanent Alternate Water Supply Being Considered For Village Of Reno, Venango County After Contamination By Conventional Oil Well Wastewater Spill



On [October 13, The Derrick reported](#) the Franklin General Authority is considering a request for a permanent water connection to the Village of Reno water supply system to provide 36,000 gallons of water a day to replace the water lost as a result of a conventional oil well wastewater spill.

One of the springs supplying water to the Village of Reno's system was contaminated in July by a spill from conventional oil well wastewater tanks operated by Petro Erie, Inc. and the 550 people in Reno have been getting emergency supplies of make-up water ever since.

The Village of Reno's water supply is owned by the Venango Water Company which is being operated by Aqua Pennsylvania under an emergency order issued by the Public Utility Commission on August 12.

Aqua Pennsylvania made the request for the interconnection to the Franklin General Authority to help avoid the cost of trucking water to the Reno water system daily.

The Authority is expected to consider the request as early as its meeting in December.

[Click Here to read the article.](#) [\[PDF of article\]](#)

### **Summary Of Spill Incident**

The conventional oil well wastewater release from Petro Erie's production wastewater tanks was [discovered on July 20](#) and was found to

have contaminated the Village of Reno's water supply in Sugarcreek Borough, Venango County leaving the community of over 550 residents and businesses without clean water for more than six weeks.

Although the "do not consume" order to residents in Reno was lifted on September 1, the water supply emergency continues with drinking water trucked into the community every week. [Read more here.](#)

Sadly, on September 9, Sugarcreek Borough Mayor Charlie McDaniel, who had been a leader in his community responding to the Village of Reno water emergency for the last six weeks, was found deceased in his home. [Read more here.](#)

On October 5, Petro Erie Inc. [filed an expanded appeal](#) with the [Environmental Hearing Board](#) of DEP's August 16, 2023 order requiring the operator to restore the Village Of Reno's water supply and clean up the spill of conventional oil well wastewater from wells the company operates in Venango County. [[EHB Docket No. 2023075](#)]

One grounds for the appeal is that the "Appellant lacks the financial ability to comply with the Order."

This is the second order DEP issued in this case and the second appeal of those orders filed by Petro Erie, Inc. [[EHB Docket No. 2023063](#)]

This is the second time the company said it lacked the financial ability to comply with DEP's orders. [Read more here.](#)

On August 21, a DEP inspection found two more Petro Erie, Inc. conventional oil well wastewater tanks with a pipe running from the tanks to a discharge area in a ditch with clear indications of wastewater dumping. [Read more here.](#)

On August 29, a DEP inspection found Petro Erie, Inc. had begun some cleanup at the site of the original wastewater tank release, but there was no activity at the site the day of the inspection. [Read more here.](#)

[On September 25, 2023](#), DEP did a follow up inspection of the Lower Reno 1 conventional oil well operated by Petro Erie, Inc. in Sugarcreek Borough, Venango County and found a limited amount of excavation was done in a drainage ditch impacted by the production wastewater spill that contaminated the Village of Reno water supply and the dirt was stockpiled for later disposal. [[DEP inspection report + photos](#)]

The latest information from DEP's Northwest Regional Office is available on its [Venango Water Company/ Petro Erie Inc. Investigation](#) webpage.

Visit the [Aqua Pennsylvania Venango](#) webpage for more information on activities related to the water supply system the company is operating on an emergency basis for the Venango Water Company.



## ➔ Do Not Consume Water Advisory Lifted In Village Of Reno; Petro Erie, Inc. Barely Begins Cleanup Of Conventional Oil Wastewater Spill Site That Contaminated The Water Supply In Venango County



On [September 2, Makayla Keating of the The Derrick reported](#) the do not consume water advisory has been lifted in the Village of Reno, Venango County after six weeks of emergency water distribution for the over 200 community residents and businesses affected.

The water supply was contaminated by a release of conventional oil well production wastewater from tanks operated by Petro Erie Inc on or about July 20.

The announcement was made by Aqua Pennsylvania which was operating the Venango Water Company serving the Village under an emergency order from the Public Utility Commission.

The full announcement is on the [Aqua PA Venango](#) webpage.

The Derrick reported the chair of the Reno Neighborhood Association said the community is “very, very excited to go back and we’re appreciative of Aqua Pennsylvania and all of the volunteers and community for their donations.”

A planned emergency distribution of water was still held Friday evening at the Reno fire hall.

The Derrick said The Pointe, a nonprofit drop in center, and The YMCA in Oil City both opened their showering facilities to Reno residents. The Pointe also made available a washer and dryer.

The Franklin Housing Authority also donated a unit for Reno residents to shower and a washer and dryer was donated by Appliance Pros.

The Derrick reported local churches and individuals made significant product and monetary donations to help the Reno community.

[Click Here to read the entire article from The Derrick.](#)

### **Petro Erie Cleanup Barely Started In Venango County**

[On August 29, 2023](#), DEP did a follow up inspection of the Lower Reno 6 conventional oil well and wastewater tanks operated by Petro Erie Inc. in Sugarcreek Borough, Venango County and found “there is no activity onsite and a mini excavator is staged onsite.”

A wastewater release from the tanks contaminated the Village of Reno’s water supply and over 200 community residents and businesses continue to be on emergency water distribution since July 20.

The inspection found Petro Erie had begun some cleanup activity at the site. Contaminated soil had been excavated to a depth of just a few inches to about three feet at the deepest point in some areas, put on piles and covered with a tarp.

“Field screening with a soil conductivity probe indicates that there is still a high level of [wastewater] impacted soil within the excavation.”

Photos in the inspection report show the wastewater tanks are still sitting in a pool of wastewater and no effort was made to deal with the leaking tanks. The earthen dike around the tanks appeared to be holding the wastewater.

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“Field screening with a soil conductivity probe indicates that there is still a high level of [wastewater] impacted soil within the excavation.”

Photos in the inspection report show the wastewater tanks are still sitting in a pool of wastewater and no effort was made to deal with the leaking tanks. The earthen dike around the tanks appeared to be holding the wastewater.

The conventional oil well itself was found to be inoperable-- electric was disconnected and the oil production line was disconnected and removed.

DEP noted the cleanup consultant retained by Petro Erie-- Moody and Associates-- did send an initial report on the site dated August 8, 2023.

However, the inspection report says Petro Erie still owes DEP a written report on how it plans to bring the site into compliance. The report was due August 11, 2023.

The inspection report said “cleanup needs to continue at the site.” “The Department requests that the operator continue with the cleanup process and communicate with the Department throughout the process.”



**VIA E-FILING**

October 11, 2023

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17120

**Re: Venango Water Company – Ex Parte Emergency Order Naming Aqua  
Pennsylvania, Inc. as Receiver  
Docket No. M-2023-3042180**

**Section 529 Investigation of Venango Water Company  
Docket No. I-2023-3042312**

Dear Secretary Chiavetta:

Enclosed please find Aqua Pennsylvania, Inc.'s ("Aqua") Initial Status Report to the Pennsylvania Public Utility Commission ("PUC" or the "Commission") in accordance with Aqua's Receivership duties for the Venango Water Company established via the Commission's Ex Parte Emergency Order Entered August 11, 2023, Ordering Paragraph 4, Appendix A Paragraph 1.o., in Docket No. M-2023-3042180, and ratified by the Commission's Ratification Order Entered August 24, 2023. This status report is being filed in both the M-Docket and I-Docket referenced above.

If you have any questions regarding this filing, please contact me at 610-645-1130.

Sincerely,

  
Alexander R. Stahl  
Regulatory Counsel

cc: Certificate of Service  
Daniel Searfoorce, Bureau of Technical Utility Services (via email)  
John Van Zant, Bureau of Technical Utility Services (via email)  
Sean Donnelly, Bureau of Technical Utility Services (via email)



**INITIAL STATUS REPORT TO THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

VENANGO WATER COMPANY  
AQUA PENNSYLVANIA, INC., AS RECEIVER

DOCKET NO. M-2023-3042180

DOCKET NO. I-2023-3042312

**Dated: October 11, 2023**

## A. BACKGROUND

On August 11, 2023, the Pennsylvania Public Utility Commission (“PUC” or the “Commission”) issued an Ex Parte Emergency Order at Docket No. M-2023-3042180 (“Receivership Order”) naming Aqua Pennsylvania, Inc. (“Aqua” or the “Company”) as Receiver for the Venango Water Company (“VWC”).<sup>1</sup> The VWC system serves approximately 215 customers and is comprised of two spring sources (Bellows and Shaffer Springs), one storage tank, and approximately 7 miles of mains. The Receivership Order was ratified by the Commission through its Ratification Order entered on August 24, 2023. Aqua was directed to assume its Receivership role on August 12, 2023. Included within the Commission’s Receivership Order, the Company was directed to “[s]ubmit an initial status report to the Commission within 60 days of assuming operations and then quarterly thereafter to detail any relevant updates pursuant to duties and responsibilities assigned through receivership.”<sup>2</sup>

Aqua now submits its Initial Status Report (“Status Report”) on the operations of VWC as directed by the Commission.

## B. INITIAL STATUS REPORT

### 1. **Pre-Receivership**

On or about July 21, 2023, the Pennsylvania Department of Environmental Protection (“DEP”) issued a Do Not Consume (“DNC”) notice to the customers of VWC related to a brine spill and potential contamination of one of VWC’s sources of supply – the Bellows Spring. On August 4, 2023, the DEP issued a Notice of Violation to VWC, included with this Status Report as **Attachment A**.

Aqua received the Commission’s Receivership Order on that Friday evening and quickly convened an operations meeting the night of August 11, 2023 to stand-up its emergency response team to be onsite on August 12, 2023.

The Commission directed that Aqua provide bottled water to the VWC customers.<sup>3</sup> Aqua arranged for a tractor trailer to deliver bottled water to the VWC customers and distributed it at the Reno Volunteer Fire Company. Aqua also arranged for a tanker of potable water to be on-site where VWC customers could fill bottles for consumption.

The Commission directed that utility service serving the VWC facilities be transferred to the Receiver.<sup>4</sup> Electric service was transferred and established in Aqua’s name as Receiver in accordance with the Commission’s Receivership Order.

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<sup>1</sup> In re: Venango Water Company, Docket No. M-2023-3042180, Ex Parte Emergency Order, Ordering Paragraph No. 4 (August 11, 2023) (hereinafter “Receivership Order”).

<sup>2</sup> Id. Ordering Paragraph No. 4, Appendix A Paragraph 1.o.

<sup>3</sup> Id. Ordering Paragraph No. 5.

<sup>4</sup> Id. Ordering Paragraph No. 8.

The Commission directed that VWC preserve all hard copy or electronic records, files, bank statements, documents, papers, or any other materials related to the offering of utility water service, including records of all contracts, agreements loans, payments, and other arrangements with affiliated companies.<sup>5</sup>

The Commission directed that by August 12, 2023, VWC turn over copies or originals of all books, records, accounts, and any other information, and all operations assets, including keys to locks securing facilities, buildings, and any other property, whether personal or real property, used and useful in the provision of utility water service to customers served by VWC to the Receiver.<sup>6</sup> The Commission also directed that VWC, including its owners and employees, provide full and unconditional cooperation with the orderly transition of operations, management, and oversight to the Receiver.<sup>7</sup>

## 2. Financial

The Receivership Order directed Aqua to establish the financial position of VWC at the time Aqua assumed its Receivership role.<sup>8</sup> Aqua is working to establish the financial position of VWC as of the start of Aqua's Receivership. VWC has previously submitted Class C Annual Reports to the Commission which includes financial and operational data, the most recent of which was submitted on June 30, 2023 and available on the Commission's website.<sup>9</sup> Aqua will continue to track expenses and capital improvements related to the VWC system through deferred accounting treatment via establishment of a regulatory asset in accordance with Aqua's Receivership duties.<sup>10</sup>

## 3. Operations and Capital Expenditures

On August 12, 2023, Aqua began its Receivership duties for the VWC system, and Aqua arrived onsite on August 12, 2023 to assess the state of operations of the VWC system. Aqua changed the existing locks and posted its signage at the system. Included with this Status Report as **Attachment B** are pictures of the initial walkthrough of the VWC system when Aqua arrived on site. Aqua's initial concern upon assuming operations of the VWC system was the level of water in the only storage tank for the system. When Aqua arrived on site, there was approximately two feet of water in the storage tank, which if not corrected could have depressurized the system. To address this issue Aqua consulted with DEP and, after approval from DEP, turned the Bellows Spring back on and initiated another DNC notice to customers, a copy of which is included with this Status Report as **Attachment C**. The Bellows Spring was turned back on to ensure customers would have water for sanitary purposes, but not for consumption. Additionally, within the first two days of being on-site, Aqua had a tank inspection performed due to the apparent poor condition of the storage tank. That report is included in this Status Report as **Attachment D**.

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<sup>5</sup> Id. Ordering Paragraph No. 9.

<sup>6</sup> Id. Ordering Paragraph No. 10 and 11.

<sup>7</sup> Id. Ordering Paragraph No. 12.

<sup>8</sup> Id. Ordering Paragraph 4, Appendix A Paragraph 1.r.

<sup>9</sup> See <https://www.puc.pa.gov/pdocs/1791853.pdf>.

<sup>10</sup> Receivership Order, Ordering Paragraph 4, Appendix A Paragraphs 1.s and 2.b.

Aqua began trucking in water from its Emlenton water treatment plant on August 14, 2023 to fill the storage tank to ensure there was enough storage for sanitary use throughout the system. As trucking continued, enough water was brought in to allow Aqua to turn off the Bellows Spring on August 15, 2023. The Bellows Spring has remained off since that date. In the first month of operation Aqua has trucked in over 1,200,000 gallons of water from Emlenton to VWC system. Inclusive of trucking costs, and if the water had been sold at Aqua's Sales to Other Utilities rate, the cost to get this water to VWC would have equated to approximately \$50,000. Aqua has not charged VWC customers for the trucked water from Emlenton.

As Aqua was stabilizing the VWC system, Aqua began testing the source and points throughout the distribution system, per DEP parameters and additional parameters Aqua believed necessary. The test results were shared with DEP and a plan for lifting the DNC was developed. After the full battery of multiple days of testing at several locations in the system showed that the water met drinking water standards, Aqua, in coordination with DEP, lifted the DNC on September 1, 2023, a copy of which is included in this Status Report as **Attachment E**. From the start of Aqua's Receivership through September 1, 2023 when the DNC was lifted Aqua collected and analyzed over 40 gallons of water, and performed more than 1,600 lab analyses for 45 lab analytes.

Aqua attended two public meetings on August 14 and September 13, 2023 to provide information to customers, and developed a website that customers can visit for information about Aqua's efforts to lift the DNC. Aqua's test results were also posted this same website: <https://www.aquawater.com/venango.php>. Aqua also met with local officials and DEP multiple times a week leading up to the DNC lift to ensure they were informed of the most recent information. Aqua directly reached out to customers that had concerns that were discussed during the public meetings or had reached out separately to Aqua, including sampling at customer homes where water quality concerns were raised.

Aqua has completed the following improvements to the VWC system since beginning its Receivership duties:

- i. Installed SCADA controls at Shaffer Spring.
- ii. Replaced the existing SCADA system to meet Aqua's operational and security requirements, and installed outdoor antenna and cabling.
- iii. Installed chemical feed pumps.
- iv. Installed a new chlorine analyzer and Aqua is working to permit it for continuous monitoring.
- v. Installed a new heating system.
- vi. Installed a pressure transducer at the water storage tank.
- vii. Installed a new service line to connect a new customer.

- viii. Conducted leak detection and Aqua is currently reviewing the results to address leaks within the system.
- ix. Conducted flushing of the system.
- x. Performed a storage tank inspection.
- xi. Updated sampling plans and emergency response plans.

The above improvements were necessary to restore and continue quality and reliable service to the customers of VWC. Aqua is developing a recommended capital plan for the VWC system and will provide recommendations on capital improvements in a subsequent status report.<sup>11</sup> Along with the capital plan Aqua will be providing a breakdown of costs incurred during the Receivership in a future status report. Aqua is pursuing low cost/no cost financing for capital improvements for the system through the Pennsylvania Infrastructure Investment Authority (“PENNVEST”). However, PENNVEST informed the Company that Aqua must be the owner of VWC to receive a grant award. The Company does not agree with this and plans to submit an application to PENNVEST for a grant for the work deemed necessary.

Since the initial event causing the issuance of the DNC, the DEP has filed an Order on against Petro Erie, Inc. on August 16, 2023 (“Petro Erie Order”), citing violations of various statutes and DEP regulations. A copy of the Petro Erie Order is included in this Status Report as **Attachment F**.

While Aqua will continue to operate the system during its Receivership, the Company does want to note that this system is in close proximity to two municipal systems, which could more easily serve the VWC customers. Aqua’s closest system is approximately 27 miles (40 minutes) away, while Sugarcreek Borough’s and the City of Franklin’s water systems are approximately 1.2 miles and 1.8 miles away from the VWC system, respectively.

As Aqua continues to operate the system to ensure compliance with the Receivership Order, Aqua will make improvements necessary to provide quality and reliable service. Aqua will have further information on operational issues in later reports.

#### **4. Initial Customer Billing**

Aqua has implemented the existing rates of VWC as set forth in VWC’s Supplement No. 24 to Water – Pa. P.U.C. No. 3, effective November 15, 2018. Aqua’s initial billing of the VWC customers occurred on September 15, 2023, and was based on mainly estimated meter readings (with some actual reads) using historical consumption. A copy of the notice accompanying the first bill from Aqua is included as **Attachment G**. Aqua is facing issues getting access to customer properties to manually read the meters. Aqua is reviewing alternative means to get actual meter reads for customers in the future. Aqua has posted the VWC tariff on Aqua’s website and will continue billing customers the rates under the VWC tariff during the pendency of the Receivership.

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<sup>11</sup> Id. Ordering Paragraph 4, Appendix A Paragraph 1.c.

**C. CONCLUSION**

Aqua will continue to investigate the system's operations and financial status and will make necessary improvements to operate the VWC system to ensure quality service to the VWC customers for the period of its Receivership duties during the 529 proceeding. Aqua will provide an update to this Initial Status Report on or before January 9, 2024.

# ATTACHMENT A



August 4, 2023

**NOTICE OF VIOLATION**

**CERTIFIED MAIL NO. 9489 0090 0027 6506 3081 34**

Venango Water Company  
c/o Mr. Randall L. Rhodes, Secretary &  
Mr. Kevin Rhodes, Treasurer  
P.O. Box 397  
Reno, PA 16343

Re: Safe Drinking Water Violations  
Venango Water WTP  
PWSID No. 6610014  
Sugar creek Borough, Venango County

Dear Mssr. Rhodes:

As you are aware, around July 14, 2023 the Venango Water Company's ("Venango Water") public water system began to experience water quality issues and customers began to contact the water company regarding water quality issues. On July 20, 2023, the Department of Environmental Protection ("Department") was officially notified by Venango Water of a suspected discharge from a tank battery located upgradient of the Bellow Spring source. The Department confirmed this contamination and requested Venango Water to: 1) no longer utilize the Bellows Spring as a source of supply until further notice from the Department; 2) issue a Tier 1 public notice in the form of a "Do Not Consume Advisory" to all customers of the water system ("Tier 1 PN"); 3) simultaneously issue a water conservation notice to all customers of the water system; and 4) provide bottled water to all customers of the Venango Water system.

On July 21, 2023, Department staff conveyed to Venango Water that a complete version of the Tier 1 PN needed to be made available to all customers (as opposed to an abbreviated message). Department staff also began discussions of possible short-term and long-term options for Venango Water to utilize to ensure safe and potable water is continuously provided to the Venango Water customers. Additionally, the Department has conducted several inspections of the public water system and has determined that Venango Water is in violation of the Safe Drinking Water Act and its Regulations. Specifically, the Department has determined Venango Water's:

- Failure to review and update its Emergency Response Plan at least annually and as necessary to reflect changes to communication procedures and contact information pursuant to 25 Pa. Code § 109.707(c);
- Failure to develop a plan for the provision of safe and adequate drinking water under emergency circumstances pursuant to 25 Pa. Code § 109.707(a);

- Failure to develop an Emergency Response Plan that provides for corrective actions for probable emergency situations pursuant to 25 Pa. Code § 109.707(a)(6);
- Failure to implement Emergency Response Plan when necessary pursuant to 25 Pa. Code § 109.707(b);
- Failure to present the Emergency Response Plan to the Department upon request pursuant to 25 Pa. Code § 109.707(c)(2); and
- Failure to take whatever investigate or corrective action is necessary to assure that safe and potable water is continuously supplied to the users in accordance with 25 Pa. Code § 109.4(4).

Further, on July 9, 2021, the Department received a Request for Reserve Designation application for the following sources: Upper Well (Source 012); Lower Well (Source 013), and Lower Spring (014). On January 10, 2022, the Department returned the July 2021 Request for Reserve Designation application and identified six (6) deficiencies associated with the application. To date, the Department has not received an updated application, including \$50 application fee, for the reserve designation of these three (3) sources. Because the three (3) sources are not approved Reserve Sources, Venango Water's failure to conduct periodic monitoring of the water system which includes the raw water of these permitted sources violates 25 Pa. Code § 109.718.

In order to return the public water system to compliance, the Department requests that Venango Water:

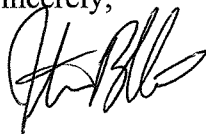
1. Within thirty (30) days, update the existing Emergency Response Plan to reflect changes to communication procedures and contact information. Additionally, one of the specific scenarios outlined in the Emergency Response Plan shall include the contamination of one or more sources, then both short-term and long-term measures that are anticipated to be implemented to ensure safe and potable water is continuously supplied to users of the Venango Water public water system;
2. On or before August 20, 2023, and continuing monthly thereafter until notified by the Department in writing, repeat the Tier 1 PN to all customers, including a water conservation notice;
3. Submit a certification that the Tier 1 PN requirements have been fulfilled, along with a copy of each notice, to this office within 10 days of issuing the public notice in accordance with 25 Pa. Code § 109.701(a)(4); and
4. Within thirty (30) days, complete one of the following options: 1) submit an updated Request for Reserve Designation application, including \$50 application fee, which addresses the six (6) items outlined in the January 10, 2022 return letter; 2) submit an updated Comprehensive Monitoring Plan which reflects that all permitted sources are included in future monitoring requirements for the water system; or 3) submit a permit application, including \$50 application fee, which requests the proper abandonment of any or all of the sources known as Upper Well (Source 012), Lower Well (Source 013), and Lower Spring (Source 014).

August 4, 2023

This Notice of Violation is neither an order nor any other final action of the Department. It neither imposes nor waives any enforcement action available to the Department under any of its statutes. If the Department determines that an enforcement action is appropriate, you will be notified of the action.

If you have any questions concerning this matter, please contact me by electronic mail at [jblashaw@pa.gov](mailto:jblashaw@pa.gov) or by telephone at 814.332.6304.

Sincerely,



Justin T. Blashaw  
Environmental Group Manager  
Safe Drinking Water Program

Enclosures

- cc: Desiree Rhodes, Executrix of the Estate of Blaine E. Rhodes  
D. Screven, PUC (pdf only)  
J. Van Zant, PUC (pdf only)  
P. Zander, PUC (pdf only)  
P. Cicero, Office of Consumer Advocate (pdf only)  
C. Hoover, Office of Consumer Advocate (pdf only)  
C. Rupert thru R. Kirby (pdf only)  
File

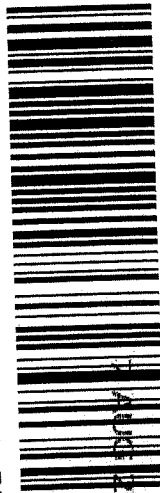
JTB:emr



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION  
NORTHWEST REGIONAL OFFICE  
230 Chestnut Street  
Meadville, PA 16335-3481



**CERTIFIED MAIL**



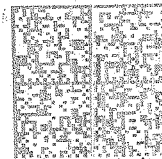
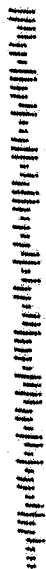
9489 0090 0027 6506 3081 34

PITTSBURGH PA 150  
AUG 20 2 08 PM 8 L

Label 890-PB, Pitney Bowes

VENANGO WATER COMPANY  
C/O MR. RANDALL L. RHODES &  
MR. KEVIN RHODES,  
P.O. BOX 397  
RENO, PA 16343

16343-039797



US POSTAGE  
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0000363876 AUG 04 2023

# ATTACHMENT B



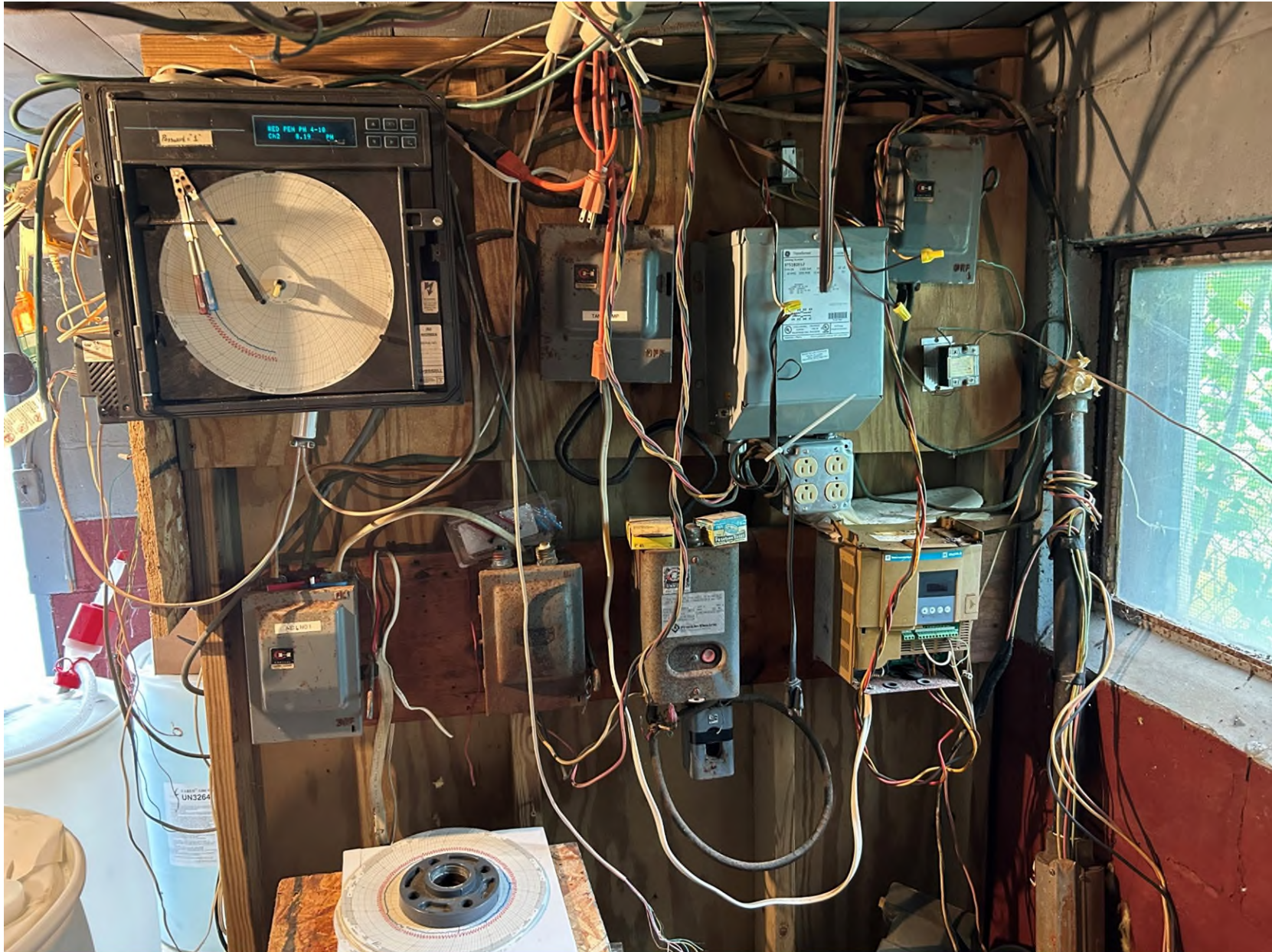


























# ATTACHMENT C



## PUBLIC NOTIFICATION (PN) CERTIFICATION FORM

 Public Water System Name: Venango Water Company PWSID Number: 6610014

 Date of Violation/Situation: August 12, 2023

 Description of Violation/Situation: A contaminated source was put on-line to ensure adequate water supply for fire protection and non-potable customer use. The PN was a re-issue of PN already issued at the start of the emergency.

 Notified DEP (or CHD) within 1 hour Date or NA: N/A

 Consulted with DEP within 24 hours Date or NA: M/A

 PN Level:  Tier 1  Tier 2  Tier 3

 Type of notice addressed by this certification:  Initial  Repeat

Methods and date of public notice deliveries to customers:

 Method: WAVE (Reverse 911 System) Script attached Date: August 12, 2023

 Method: Posted PN in Public Places (Fire and Social Hall) Date: August 14, 2023

 Method: Distributed PN at Public Meeting Date: August 14, 2023

Method: \_\_\_\_\_ Date: \_\_\_\_\_

The public notice included the required elements: a description of the violation/situation; potential health effects; the population at risk; if alternate water supplies need to be used; when the violation/situation occurred; when the system will resolve the violation/situation; what is being done to correct the problem; actions consumers can take; water system contact information; and language encouraging broader distribution of the notice.

A copy of each type of notice that was distributed is attached to this certification form

**Certified by:**

As a representative of the Public Water System (PWS) indicated above, I certify that public notification addressing the above violation/situation was distributed to all customers in accordance with the prescribed content, format, deadlines and delivery requirements outlined in Chapter 25 Pa. Code Chapter 109 Subchapter D of the Department of Environmental Protection (DEP)'s regulations.

 Signature:  Date: 8/23/2023

 Print Name and Title: William D. Young

 Phone Number: 724-347-7418 X30021

Complete and submit this form to your local DEP office **within 10 days** of issuing the public notification described above. DEP District Office and County Health Department contact information can be found within DEP document number 3930-FM-BSDW0560, which can be located by searching for document number 3930-FM-BSDW0560 in DEP's eLibrary at the following link: <http://www.depgreenport.state.pa.us/elibrary/Search>.

For DEP use only. Checked by: \_\_\_\_\_ Date: \_\_\_\_\_

### **Venango Wave Distribution**

This is Aqua Pennsylvania - we are now operating the Venango Water Company in the Reno community.

Your system is experiencing potential contamination issues, and we're turning on impacted source water to stabilize water system pressure.

As a result you may experience discolored water, and your water system remains under a Do Not Consume order.

Visit <https://www.aquawater.com/venango.php> for more information. We'll continue to update you about your service on that webpage.

**DRINKING WATER WARNING  
DO NOT CONSUME THE WATER**

**NO BEBA EL AGUA**

**ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE.  
HAGA QUE ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO  
ENTIENDA.**

Aqua Pennsylvania is experiencing potential contamination issues with one of its sources serving the Venango Water System. **The impacted source water is being turned back on to stabilize water system pressure.** As a result, you may also experience discolored water.

On July 20, 2023, a discharge from a brine storage tank uphill of the source for Venango Water Company was identified. Due to the potential for contamination of the source, consumption of the water at Venango Water Company is not advised due to the risk to public health.

**What should I do?**

**DO NOT DRINK THE WATER.** Use bottled water or alternative sources for drinking, cooking, or food preparation **until further notice.** Throw away ice cubes if made with tap water.

**DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the potential contamination. Excessive boiling can make the potential contamination more concentrated.

**What is being done?**

Aqua Pennsylvania is working with the Department of Environmental Protection to investigate the discharge in the brine tank and determine the potential impact on the source for the public water system. You will be notified when the water is safe for human consumption.

**Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.**

This notice is being sent to you by Aqua Pennsylvania, Inc.

For more information, please contact:

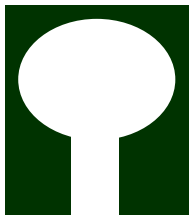
<b>Responsible Person</b> Steve Clark, Operations Director	<b>System Name</b> Venango Water Co.	<b>Address (Street)</b> 665 S. Dock Street
<b>Phone Number</b> 877.987.2782	<b>System PWSID#</b> PA6610014	<b>Address (City, State, Zip)</b> Sharon, PA 16146

PWSID#: PA6610014

Date distributed: August 12, 2023

\* This notice contains regulatorily required or recommended language, and nothing herein is, is intended as, nor should be construed as, a promise of or contract for payment or reimbursement of expenses incurred for any action you take on account of this notice.

# ATTACHMENT D



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

September 29, 2023

Aqua PA, Inc.  
665 South Dock Street  
Sharon, PA 16146

Attn: Zach Martin

Re: 400,000 Gallon Reservoir- Reno Tank (Sugarcreek, PA)  
Emergency Inspection- Visual Only

Dear Mr. Martin:

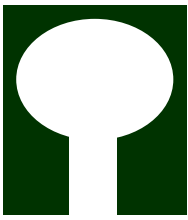
On August 14, 2023, Dixon Engineering Inc. performed an emergency inspection on the 400,000-gallon water storage reservoir located in Sugarcreek, PA. The inspection was requested by Aqua PA, Inc. Purposes of the inspection were to evaluate the interior and exterior coating's performance and life expectancy, assess the condition of metal surfaces and appurtenances, review safety and health aspects, and make budgetary recommendations for continued maintenance of the tank. The tank had approximately 6' feet of water remaining in the tank so only a visual inspection of the wet interior was completed from the tank roof hatch.

The inspection was performed by Shannon Vidika, Regional Manager and AMPP/NACE Certified #10335.

## **CONCLUSIONS:**

1. The exterior coating is in poor condition overall. The exterior coating system appears to be an aluminum system. Minimal coating remains. Coating deterioration includes spot failures to the substrate with rust undercutting, topcoat delamination, rust bleedthrough, and erosion. There are numerous coating failures throughout.
2. The wet interior coating is unknown. There appears no coating is remaining as the interior has excessive rust present. Due to the deteriorated ladder and water remaining in the tank, the interior was only inspected from the roof hatch.
3. The tank has approximately (100) repairs that were made on the tank sidewall. The repairs were mostly bolts with rubber to stop the active leaks.

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Consulting Engineers Council**



# DIXON

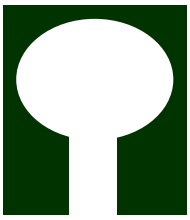
**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley, Ohio Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

## **RECOMMENDATIONS:**

1. Abrasive blast clean the exterior inside a dust tight containment system and repaint with a urethane system. The estimated cost is \$120,000 plus \$50,000 for containment.
2. Abrasive blast clean the entire wet interior and repaint with an 100% solids epoxy system. The estimated cost is \$190,000.
3. Install a suspended ring, impressed current cathodic protection system in the wet interior. The estimated cost is \$25,000.
4. Coat the foundation to help prevent deterioration. The cost would be incidental to exterior painting.
5. Repair areas of missing or damaged grout between the steel baseplate and the concrete foundation. The estimated cost is \$15,000.
6. Install an overflow splash pad, duckbill valve and modify overflow pipe. The estimated cost is \$12,000.
7. Install (2) 30" roof hatches. The estimated cost is \$11,000.
8. Remove the existing wet interior ladder. The estimated cost is \$2,000.
9. Repair the previous repairs on the tank sidewall with patch plates. The estimated cost is \$25,000.
10. Roof beam replacement may be necessary. Add a contingency of \$50,000.
11. Modification of the interior center column may be necessary. Add a contingency of \$30,000.
12. Install rigging couplings on the roof for temporary fall prevention of workers in the wet interior. The cost would be incidental to the next painting project.
13. Install a 30-inch diameter sidewall manway. The estimated cost is \$9,000.
14. Replace the roof vent with a pressure vacuum vent to meet current {PA DEP} requirements. The estimated cost is \$7,000.

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Consulting Engineers Council**

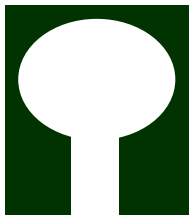


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FOR THE COATING INDUSTRY**

Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

15. Install an exterior sidewall ladder w/fall prevention. The estimated cost is \$6,000.
16. Install a step-off platform at the top of the sidewall. The estimated cost is \$10,000.
17. Install deflector bars at the end of the fill/draw pipe in the wet interior to meet current {PA-DEP} requirements. The cost would be \$500.
18. Weld pits in the wet interior that are deeper than one half the original metal thickness. The estimated cost is \$15,000.



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Attn: Cheryl E. R.  
100 Hays Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

**COST SUMMARY:**

Exterior repaint with containment	\$170,000
Wet interior repaint	190,000
Cathodic protection	25,000
Foundation repairs	15,000
Install duck bill valve and splash pad	12,000
Install a 30-inch sidewall manway	9,000
Install (2) 30" roof hatches	11,000
Remove wet interior ladder	2,000
Sidewall patch plates	25,000
Install a pressure vacuum vent	7,000
Install exterior ladder w/fall prevention device	6,000
Install a Step off platform	10,000
Fill pipe deflector bars	500
Contingency for interior steel repairs	<u>80,000</u>
Pit Welding	<u>15,000</u>
Sub Total	\$577,500
Engineering and Contingencies	<u>\$100,000</u>
Total	\$677,500

Notes: Due to the condition of the tank it may be more cost beneficial to build a new ground storage tank to take the place of this tank.

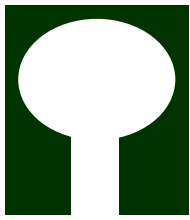
If you have any questions or concerns, please call me at (330) 983-0062 ext. 402.

Thank you for choosing DIXON for your inspection needs.

FOR DIXON ENGINEERING, INC.,

Shannon C. Vidika  
Regional Manager  
AMPP/NACE Certified #10335

**Members: Society of Protective Coatings • American Water Works Association  
Consulting Engineers Council**



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FOR THE COATING INDUSTRY**

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Medina, OH 44256  
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Fax: (330)725-0512



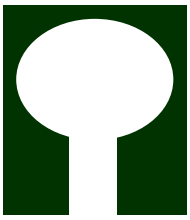
PHOTO #1: Exterior view of the tank.

PHOTO #2: Coating is in poor condition with rust and erosion.



PHOTO #3: Sidewall ladder with cage.

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Consulting Engineers Council**



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FOR THE COATING INDUSTRY**

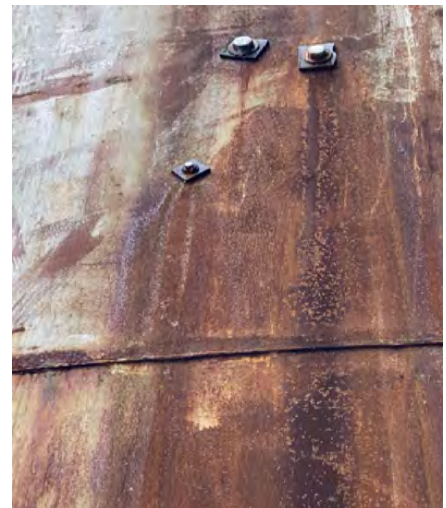
Atchafalaya Blvd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

PHOTO #4: Repairs that were previously made to stop the leaks in the tank sidewall.

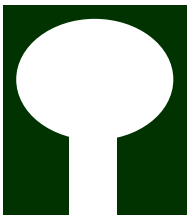


PHOTO #5: Same

PHOTO #6: Same



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Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512



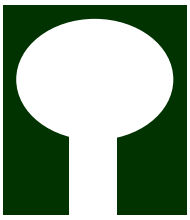
PHOTO #7: Same

PHOTO #8: Corrosion and steel loss along tank chime.



PHOTO #9: Same

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FOR THE COATING INDUSTRY**

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PHOTO #10: Same

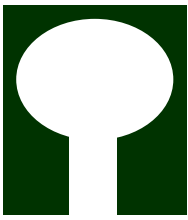


PHOTO #11: Same

PHOTO #12: Missing areas of the tank concrete foundation ringwall.



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Consulting Engineers Council**



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley, OH  
1001 Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512



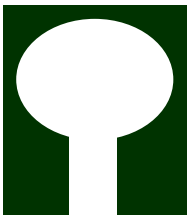
PHOTO #13: Corrosion along bottom of sidewall.

PHOTO #14: Tank foundation.



PHOTO #15: Corrosion along exterior of tank.

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Consulting Engineers Council**



# DIXON

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FOR THE COATING INDUSTRY**

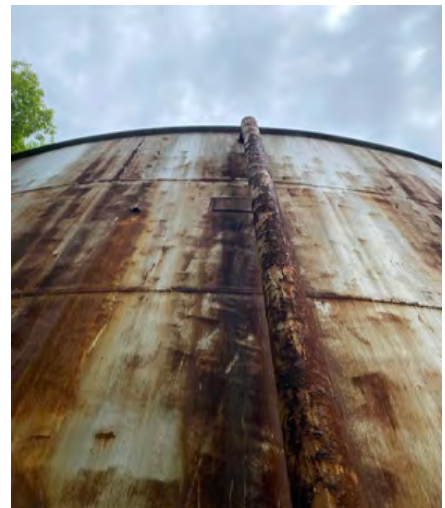
Atchafalaya Blvd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

PHOTO #16: Overflow pipe.

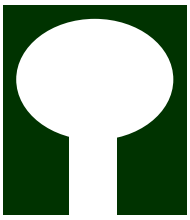


PHOTO #17: Discharge of overflow pipe is screened. No splash pad is present.

PHOTO #18: Overflow pipe.



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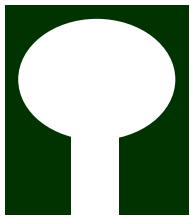
PHOTO #19: Areas of previous leak repairs.

PHOTO #20: Same



PHOTO #21: 6" tank drain valve.

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**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

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PHOTO #22: Tank foundation.

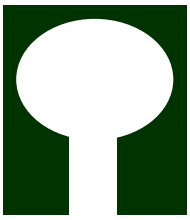


PHOTO #23: Previous leak repairs.

PHOTO #24: Overall view of tank.



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FOR THE COATING INDUSTRY**

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Medina, OH 44256  
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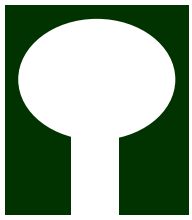
PHOTO #25: Corrosion and steel loss at the bottom of the sidewall.

PHOTO #26: Tank overflow pipe.



PHOTO #27: Spalling of the concrete ringwall.

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Consulting Engineers Council**



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

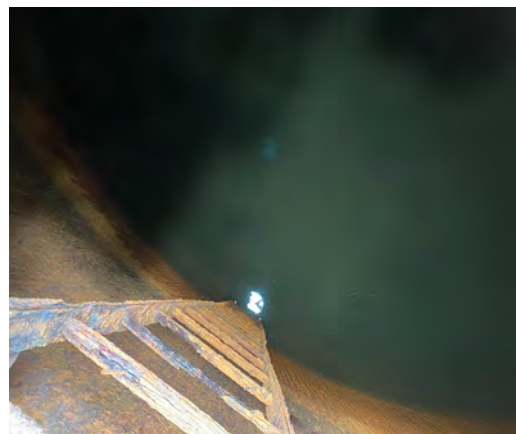
Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

PHOTO #28: Bolted roof hatch.

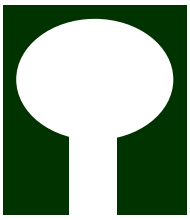


PHOTO #29: Interior sidewall ladder.

PHOTO #30: Water remaining in tank.



**Members: Society of Protective Coatings • American Water Works Association  
Consulting Engineers Council**



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

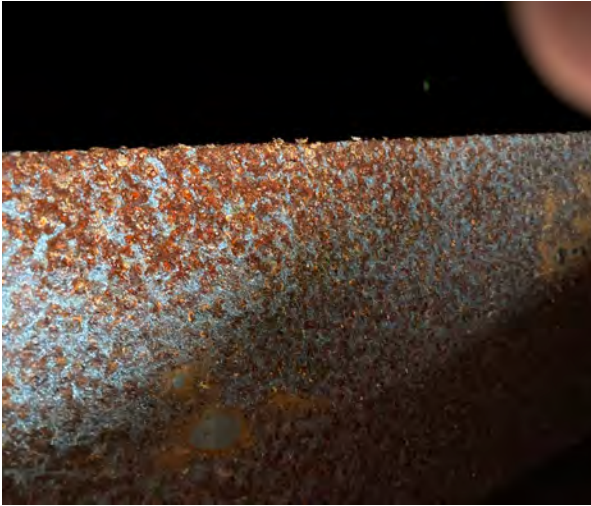


PHOTO #31: Roof beam.

PHOTO #32: Same

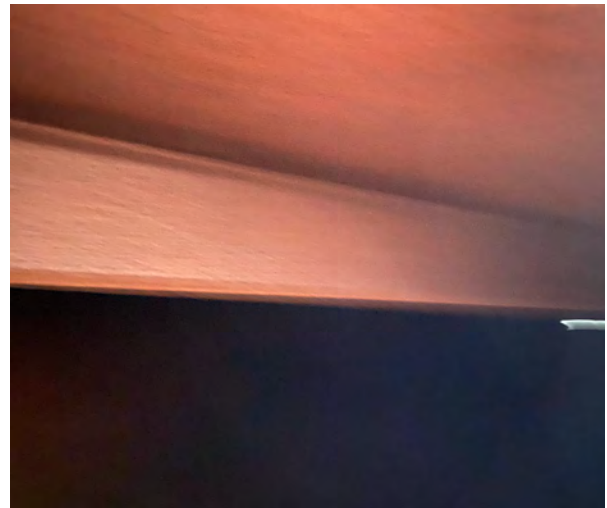
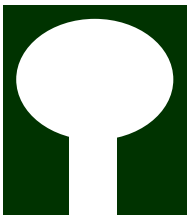


PHOTO #33: Top of ladder cage.

**Members: Society of Protective Coatings • American Water Works Association  
Consulting Engineers Council**



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchafalaya Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

PHOTO #34: Tank roof. No coating remaining.

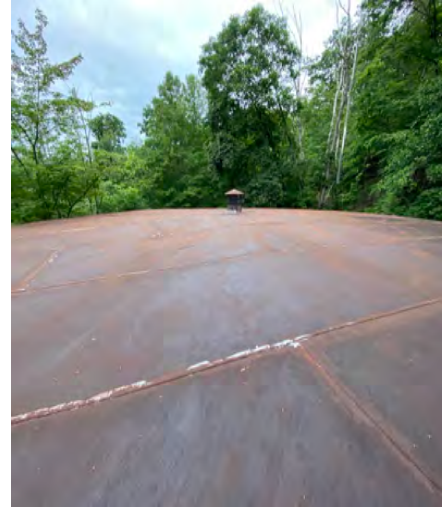
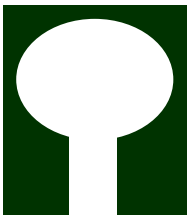


PHOTO #35: Same

PHOTO #36: Flow through roof vent.



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Consulting Engineers Council**



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512



PHOTO #37: Tank roof.

PHOTO #38: Same

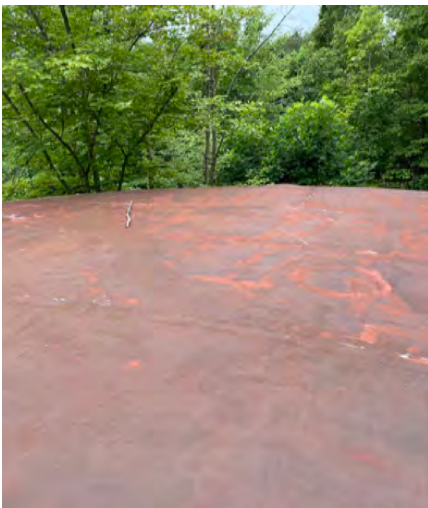
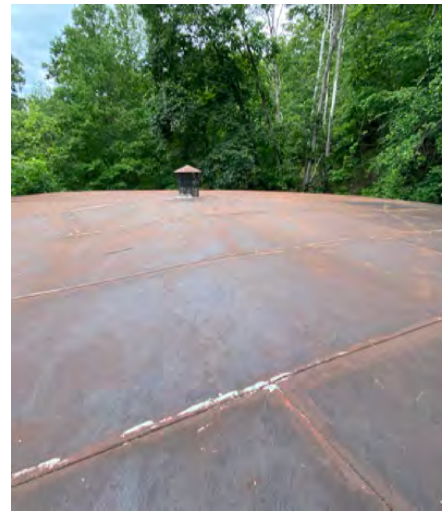
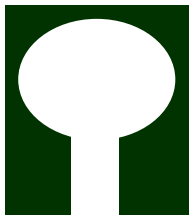


PHOTO #39: Same

**Members: Society of Protective Coatings • American Water Works Association  
Consulting Engineers Council**



# DIXON

ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY

Atchafalaya Blvd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

PHOTO #40: Same

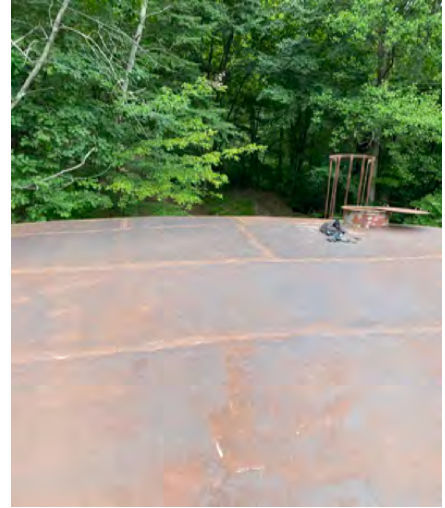
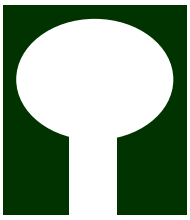


PHOTO #41: Roof vent screening.

PHOTO #42: Same



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Consulting Engineers Council



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley, OH  
100 Hays Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

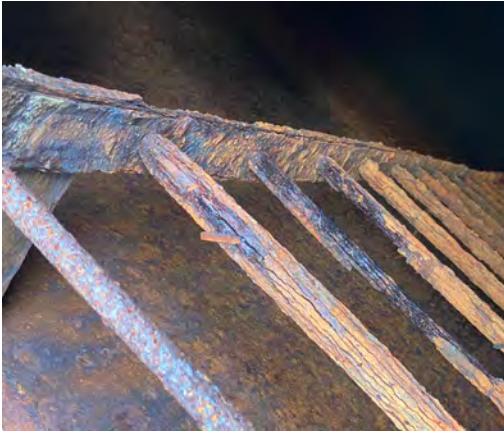


PHOTO #43: Steel loss along interior ladder.

PHOTO #44: Condition of interior sidewall.

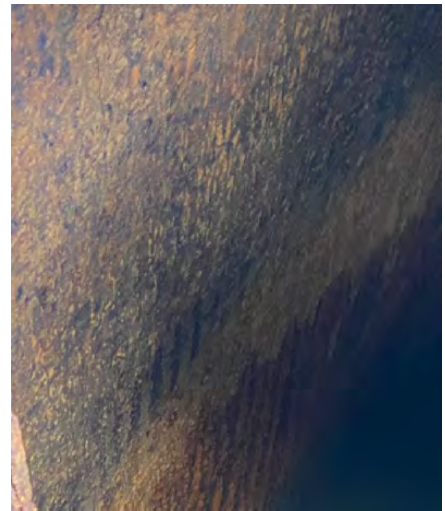
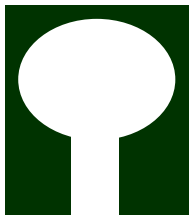


PHOTO #45: Previous leak repairs on tank sidewall.

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Consulting Engineers Council**



# DIXON

**ENGINEERING & INSPECTION SERVICES  
FOR THE COATING INDUSTRY**

Atchley Rd.  
Medina, OH 44256  
Telephone: (330)983-0062  
Fax: (330)725-0512

PHOTO #46: View of tank and sidewall manway.



PHOTO #47: View of site.

PHOTO #48: Same



**Members: Society of Protective Coatings • American Water Works Association  
Consulting Engineers Council**

**DIXON ENGINEERING, INC.**  
**STEEL TANK FIELD INSPECTION REPORT**  
**RESERVOIR**

DATE: 8/14/2023OWNER: Venango County- Reno Tank(Emergency Inspection for Aqua PATANK NAME: Reno TankLOCATION: Address/Cross Streets: 41-25'20.5"N, 79-45'52.2WCity: SugarcreekState: PATANK SIZE: Capacity: 400,000 gallonsDiameter: 54 feet 0 inches (measured)Overflow (HWL): 22 feet 0 inches (measured)Sidewall height: 24 feet 0 inches (measured)CONSTRUCTION:  Welded  Riveted  BoltedType:  Reservoir  StandpipeType of roof:  Hemisphere  Flat  Aluminum geodesic domeYEAR CONSTRUCTED:  UnknownUSE:  Fire protection only  Potable water and fire protectionExterior coating sample taken for type:  Yes  NoCoating information below is from:  Owner personnel/specifications/email Dixon specifications/project  Exterior coating sample taken for type

COATING HISTORY	EXTERIOR	WET INTERIOR	DRY INTERIOR
YEAR COATED	<u>Unknown</u>	<u>Unknown</u>	<u>N/A</u>
CONTRACTOR	<u>Unknown</u>	<u>Unknown</u>	<u>N/A</u>
SYSTEM	<u>Unknown</u>	<u>Unknown</u>	<u>N/A</u>
MANUFACTURER	<u>Unknown</u>	<u>Unknown</u>	<u>N/A</u>
HEAVY METAL COATING SAMPLES	<input type="checkbox"/> <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u>	<input type="checkbox"/> <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u>	<input type="checkbox"/> <u>Yes</u> <input type="checkbox"/> <u>No</u>
HEAVY METAL BEARING	<input checked="" type="checkbox"/> <u>Unknown</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/> <u>Yes</u> _____ <u>% lead</u> _____ <u>% chromium</u>	<input checked="" type="checkbox"/> <u>Unknown</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/> <u>Yes</u> _____ <u>% lead</u> _____ <u>% chromium</u>	<input type="checkbox"/> <u>Unknown</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/> <u>Yes</u> _____ <u>% lead</u> _____ <u>% chromium</u>

PERSONNEL: Lead inspector Shannon C. VidikaMETHOD OF INSPECTION:  Visual  Dive  ROV  Float

**SITE CONDITIONS**Fenced:  Yes  NoSite large enough for contractor's equipment:  Yes  NoControl building:  Yes  NoAntenna control site:  Yes  NoNumber:  1  2Type:  Building  PlatformWould antenna sites interfere with containment:  Yes  NoPower lines within 50 feet:  Yes (estimated distance \_\_\_\_\_ feet)  NoAre power lines attached to the structure:  Yes  NoWould power lines interfere with containment:  Yes  NoSite drainage:  Toward tank  Away from tankIndications of underground leakage:  Yes  NoVegetation, tree, etc. encroachment:  Yes  NoRubbing on the tank:  Yes  NoWould there be interference with future containment:  Yes  NoSite comments: **Tank is located in the woods on a hill. Access may be difficult for contractors' equipment.****EXPOSED PIPING:** N/A**FOUNDATION**Foundation exposed:  Yes  NoExposed height: **0-6 inches**Exposed foundation condition:  Good  Fair  PoorDamage or deterioration:  Yes  NoType of damage:  Cracks  Spalls/chips  Exposed aggregateSeverity:  Minor  Moderate  SevereCrack location:  At the anchor bolts  RandomTotal spall area: **50 sq. feet (50 sq. feet need repair)**Foundation coated:  Yes  No  Top onlyType of baseplate gap filler:  Grout  Caulk  Felt pad  NoneUndermining of foundation:  Yes  NoFoundation comments: **It appears the foundation may have shifted in areas. Large areas of spalling are present.**

**EXTERIOR COATING****Sidewall:**Lettering:  Yes  NoLogo:  Yes  NoTopcoat condition:  Good  Fair  PoorPrevious coat/system condition:  Good  Fair  PoorDescribe coating:  Fading  Delaminating  Spot coating failures  
**to substrate**  **Rust undercutting**  **Erosion**  **Rust bleedthrough**  
 **Micro-cracking**  **Clear coat failures**  **No significant coating**  
**deterioration**Dry film thickness: **1-3 mils**Panel connections:  **Welded**  **Riveted**  **Bolted and**Metal condition:  **Good**  **Fair**  **Poor**Bottom shell steel thickness: **0.14-0.26 inches**Sidewall comments: **Approximately 20% coating remains. The coating**  
**appears to be an aluminum topcoat. The sidewall has about (100)**  
**areas that have been plugged from previous leaks.****Roof:**Topcoat condition:  Good  Fair  PoorPrevious coat/system condition:  Good  Fair  PoorDescribe coating:  Fading  Delaminating  Spot coating failures  
**to substrate**  **Rust undercutting**  **Erosion**  **Rust bleedthrough**  
 **Micro-cracking**  **Clear coat failures**  **No significant coating**  
**deterioration**Dry film thickness: **1-2 mils**Metal condition:  **Good**  **Fair**  **Poor**Roof comments: **10% coating remains on the roof. Erosion is present.****EXTERIOR APPURTENANCES****Sidewall Manway:**Size: **24 inches**Cover attachment:  **Hinged**  **Davit arm**  **Bolts**Metal condition:  **Good**  **Fair**  **Poor****Anchor Bolts:** **N/A****Overflow Pipe:**Diameter: **6 inches**

**EXTERIOR APPURTENANCES**Metal condition:  **Good**  **Fair**  **Poor**Discharge orientation:  **Horizontal**  **Vertical**  **Angle**Screen condition:  **Good**  **Fair**  **Poor**  **None present**Percent of screen open:  **100**Flap gate/Duck bill check valve:  **Yes**  **No**Air gap:  **Yes**  **No**Lowest part of discharge to the ground distance: **12 inches**Overflow discharges to:  **Concrete splash pad**  **Catch basin with drain** **Riprap**  **Funnel**  **Ground**  **Routes****underground**Condition:  **Good**  **Fair**  **Poor****Drain Valve:**Number:  **1**  **2**Type:  **Babco**  **Shand & Jurs**  **Unknown**Functioning properly:  **Yes**  **No**  **Not used during inspection**Metal condition:  **Good**  **Fair**  **Poor**Mud valve comments: **Located at the bottom of the tank sidewall. Valve is a 6" inch.****Sidewall Ladder:** **N/A**Height to start of ladder: **0 feet.**Toe clearance:  **Less than 7 inches**  **7 inches or greater**Width of rungs:  **16+ inches**  **Less than 16 inches**Thickness of rungs:   $\frac{1}{2}$    $\frac{5}{8}$    $\frac{3}{4}$  **inch**Shape of rungs:  **Diamond**  **Round**  **Rebar**Metal condition:  **Good**  **Fair**  **Poor**Fall prevention device:  **Yes**  **No**Cage:  **Yes**  **No**Vandal guard:  **Yes**  **No****Step-off Platform:** **N/A****Roof Ladder:** **N/A****Roof Handrail:** **N/A**

**EXTERIOR APPURTENANCES****Painter's Railing:** N/A**Roof Rigging Points:** N/A**Removable Cathodic Covers:** N/A**Wet Interior Roof Hatch:**Neck size:  24  30 inchesDistance from center of the tank (to outer edge): 26 feetShape:  Round  Square/Rectangle  TombstoneHandhold at opening:  Yes  NoCurb height:  11 inchesCover overlap:  2 inchesGasket on cover:  NoHatch security:  Lock  Rope/Wire/Bolt/Pin/Clip  NoneMetal condition:  Good  Fair  PoorHatch comments: Hatch cover is a bolted lid**Bolted Ventilation Hatch:** N/A**Roof Vent:**Number:  1  2Distance from center of the tank (to outer edge): 27 feetType:  Flow-through  Pressure vacuumNeck diameter: 18 inchesVertical screen/expanded metal condition:  Good  Fair  Poor  
 None present  Not accessibleMesh size: 4 (# of wires per 1 inch)Rain shield:  Yes  NoMetal condition:  Good  Fair  PoorVent comments: No rain shield along sides of vent.**Aviation Lights:** N/A

**EXTERIOR APPURTENANCES****Antennas:** **N/A****Electric Conduit:** **N/A****WET INTERIOR COATING****Roof:**Topcoat condition:  **Good**  **Fair**  **Poor**Primer coating condition:  **Good**  **Fair**  **Poor**Describe coating:  **Delaminating**  **Spot coating failures to substrate**  **Rust undercutting**  **Rust bleedthrough**  **Blisters** **Weld burns**  **No coating remaining**Metal condition:  **Good**  **Fair**  **Poor**Roof comments: **Only visual as the tank still had around 6' feet of water.****Sidewall:**Topcoat condition:  **Good**  **Fair**  **Poor**Primer coating condition:  **Good**  **Fair**  **Poor**Describe coating:  **Delaminating**  **Spot coating failures to substrate**  **Rust undercutting**  **Rust bleedthrough**  **Blisters** **Erosion/abrasion**  **No coating remaining**Mineral deposits:  **Light**  **Moderate**  **Heavy**Metal condition:  **Good**  **Fair**  **Poor**Active pitting:  **Yes**  **No**Panel connections:  **Welded**  **Riveted**  **Bolted**Sidewall comments: **Sidewalls only visual inspected from roof hatch****Floor:** **Not inspected****WET INTERIOR APPURTENANCES****Ladder:**Toe clearance:  **Less than 7 inches**  **7 inches or greater**

**WET INTERIOR APPURTENANCES**Width of rungs:  **16+ inches**  **Less than 16 inches**Thickness of rungs:   $\frac{1}{2}$    $\frac{5}{8}$    $\frac{3}{4}$  **inch**Shape of rungs:  **Diamond**  **Round**  **Rebar**Shape of side rails:  **Flat**  **Angle**  **Channel**Metal condition:  **Good**  **Fair**  **Poor - steel loss**Fall prevention device:  **Yes**  **No**Ladder comments: **Ladder unsafe due to severely corroded.****Cathodic Protection:** **N/A****Roof Stiffeners:** **N/A**Orientation:  **Radial**  **Radial with support ring**  **Transverse**Metal condition:  **Good**  **Fair**  **Poor**Roof stiffener comments: **Unable to inspect all roof stiffeners.****Sidewall Stiffener/Painter's Railing:** **N/A****Column:**Center column shape:  **Round**  **Back-to-side channel**  **Square**Column comments: **Unable to determine condition.****Overflow Pipe Inlet:**Overflow comments: **Unknown****Fill Pipe:**Fill pipe comments: **Unknown****Separate Draw Pipe:**Draw pipe comments: **Unknown****Drain Pipe:**Drainpipe comments: **Valve located on exterior at bottom of sidewall.****Mixer:** **N/A**

Field Inspection Report is prepared from the contractor's viewpoint. It contains information the contractor needs to prepare his bid for any repair or recoating. The engineer uses it to prepare the engineering report. Cost estimates are more accurate if the contractor's problems can be anticipated. While prepared from the contractor's viewpoint, the only intended beneficiary is the owner. These reports are completed with diligence, but the accuracy is not guaranteed. The contractor is still advised to visit the site.

**RECOMMENDATIONS:****COATINGS:**

Exterior:  No work  ABC & repaint  HPWC & overcoat  
 Recaulk Panels (glass lined)  Recaulk Aluminum dome

Wet Interior:  No work  Full ABC & repaint  Roof ABC and repaint  
 Caulk lap seams  Pit filling  Recaulk Panels (glass lined)

**REPAIRS:**

Foundation:

*Spall/Crack* repair

Health:

No work  
 Weld cathodic protection caps  
 Modify overflow discharge  
 Overflow duck bill valve  
 Replace/install overflow screen  
 Install overflow splash pad  
 Pressure vacuum vent  
 Wet interior roof hatch replacement  
 Wet interior roof hatch gasket

Safety:

No work  
 Roof handrail  
 Painter's railing  
 Painter's railing supports at butt welds  
 Roof rigging couplings  
 Replace sidewall ladder with fall prevention  
 Vandal guard  
 Wet interior ladder replacement  
 Step-off platform  
 Swing gate  
 30 inch sidewall manway  
 Fill/draw pipe deflector bars

Misc.:

No work  
 Trim trees/shrubs  
 Cathodic protection system  
 Cathodic clips and pressure fitting  
 Roof stiffener repair  
 Center column top support replacement

- Mechanical mixer**
- Install/Replace sample tap**
- Chemical feed coupling**
- Remove level indicator**
- Weld patch plates on the roof/sidewall**
- Pit welding**
- Sump pump in the pit**
- Replace/verify operation of aviation lights**
- Light fixtures**
- Antenna relocation/modification**

# ATTACHMENT E



An  Essential Utilities Company

## **DRINKING WATER PROBLEM CORRECTED IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE  
ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.**

As a customer of Venango Water Company, you were notified on July 20<sup>th</sup> and August 12<sup>th</sup>, 2023, of a problem with the drinking water and were advised to discontinue drinking the water.

We are pleased to report that the problem has been corrected and that you can now resume drinking the water.

### **What should I do?**

As a precaution, Aqua recommends customers flush any plumbing fixtures used for consumptive purposes that have not been regularly used by briefly running the water for 30 seconds prior to drinking the water. Please flush only one fixture at a time. Also, we recommend that the ice from automatic ice machines be discarded.

### **What Happened?**

The potentially contaminated source of water supply was removed from service and will remain that way until it is determined safe to return to service. Aqua supplemented drinking water from its Aqua Pennsylvania Emlenton water system as permitted by PADEP and by supplying bottled water. Aqua coordinated with PA DEP and performed comprehensive water sampling and water main flushing across the system. The latest water sample results confirm compliance with drinking water regulatory standards.

If you have any questions, please visit: <https://www.aquawater.com/venango.php>

**Customer Service:** 877.987.2782

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by Aqua Pennsylvania, Inc on behalf of Venango Water Company.

PWS ID#: PA 6610014

Date distributed: September 1, 2023

# ATTACHMENT F

August 16, 2023

**Hand Delivered**

Petro Erie, Inc.  
7395 Market Road  
Fairview, PA 16415-2826

RE: Order Dated August 16, 2023  
Petro Erie, Inc Lower Reno Lease, Venango County, Sugarcreek Borough

Dear Mr. Rhoades:

Enclosed is an Order issued by the Pennsylvania Department of Environmental Protection.

If you have any questions, please contact Robert Bechtel at 814.573.3610 or [robechtel@pa.gov](mailto:robechtel@pa.gov).

Sincerely,



Scott M. Dudzic  
Northwest District Oil and Gas Manager  
District Oil and Gas Operations

Enclosure

Cc: S. Dudzic (via email with/enclosure)  
R. Bechtel (via email with/enclosure)  
J. Lichtinger (via email with/enclosure)  
R. Willey (via email with/enclosure)  
A. Wolf (via email with/enclosure)  
K. Thomas (via email with/enclosure)  
K. Despenes, Esq. (via email with/enclosure)  
M. Braymer, Esq. (via email with/enclosure)

**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**IN THE MATTER OF:**

Petro Erie, Inc.	:	Clean Streams Law,
7395 Market Road	:	Land Recycling Act,
Fairview, PA 16415	:	Oil and Gas Act, and Solid
	:	Waste Management Act

**ORDER**

Now this 16<sup>th</sup> day of August 2023, the Commonwealth of Pennsylvania, Department of Environmental Protection (“Department”) has made and determined the following Findings and hereby issues this Order to Petro Erie, Inc.

**FINDINGS**

A. The Department is the agency with the duty to administer and implement the Land Recycling and Environmental Remediation Standards Act, Act of May 19, 1995, *as amended*, 35 P.S. §§ 6026.101-6026.908 (“Land Recycling Act”); and to administer and enforce The Clean Streams Law, Act of June 22, 1937, P.L. 1987, *as amended*, 35 P.S. §§ 691.1-691.1001 (“Clean Streams Law”); the Oil and Gas Act, Act of February 14, 2012, P.L. 87, No. 13, 58 Pa. C.S. §§ 3201-3274 (“Oil and Gas Act”); the Pennsylvania Safe Drinking Water Act, Act of May 1, 1984, P.L. 206, *as amended*, 35 P.S. §§ 721.1-721.17 (“Safe Drinking Water Act”); the Solid Waste Management Act, Act of July 7, 1980, P.L. 380, *as amended*, 35 P.S. §§ 6018.101-6018.1003 (“Solid Waste Management Act”); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, *as amended*, 71 P.S. § 510-17 (“Administrative Code”); and the rules and regulations promulgated thereunder (“Regulations”).

B. Petro Erie, Inc. is a Pennsylvania domestic business corporation that engages in various oil and gas exploration and production activities in Pennsylvania and maintains a registered business address of 7395 Market Road, Fairview, PA 16415 (“Petro Erie”).

C. Petro Erie is the permitted operator of 14 oil and/or gas wells located in Sugarcreek Township, Venango County, which are the subject of this Order (collectively, the “Petro Erie Wells”). A list of the Petro Erie Wells by permit number, well name and number, and municipality and county where each well is located is attached and incorporated herein as Exhibit A.

D. Some of the Petro Erie Wells are served by a tank battery, which consists of two 210-barrel steel storage tanks and four 100-barrel polyethylene storage tanks that are situated within secondary containment (“Tank Battery”).

**Unpermitted Discharge of Residual Waste to Ground**

E. On July 20, 2023, the Department inspected the Tank Battery in response to a complaint of a suspected release of oil and gas production fluids. During this inspection, the Department observed that the Tank Battery’s secondary containment drain valve was open and brine and/or other production fluids were draining out of the secondary containment area and onto the ground.

F. On July 21, 2023, the Department inspected the Tank Battery and observed:

1. brine and/or other production fluids were dripping from a pipeline between two of the polyethylene storage tanks in the Tank Battery;

2. the Tank Battery’s secondary containment drain valve was open and brine and/or other production fluids were draining out of the secondary containment area and onto the ground;

3. the flow path of the discharged brine and/or other production fluids extended approximately 180 feet from the Tank Battery’s secondary containment drain valve and ranged from approximately 6 to 20 feet in width (“Impacted Area”); and

4. dead and discolored vegetation was located within the Impacted Area.

G. A map depicting the approximate surface boundaries of the Impacted Area is attached and incorporated herein as Exhibit B.

H. On July 21, 2023, following the Department's inspection, the Department issued an administrative order requiring cleanup and remediation of the spill and/or release to Petro Erie ("Field Order"). A true and correct copy of the Field Order is attached and incorporated herein as Exhibit C.

I. The Field Order required Petro Erie to, among other things:

1. immediately cease and desist the discharge of a regulated substance onto the ground and/or into the waters of the Commonwealth;
2. immediately contain the released regulated substance;
3. immediately prevent any further migration of the regulated substance from the site of the release;
4. immediately prevent the regulated substance from continuing to reach or further impacting surface water or groundwater; and
5. immediately notify downstream users that a release of the regulated substance occurred.

J. Neither Petro Erie, nor any other person or entity, had or has a permit or authorization from the Department to dispose of residual waste onto the ground or into the waters of the Commonwealth.

### **Water Resources**

K. Venango Water Company is a registered Pennsylvania corporation that maintains a mailing address of 91 Brook Street, P.O. Box 397, Reno, PA 16343.

L. Venango Water Company owns and operated a public water supply (PWSID No. 6610014) located in Sugarcreek Borough, Venango County ("Water Supply").

M. The Water Supply has multiple raw water sources, including a collection of springs that flow into two separate cisterns. The Bellows Spring consists of four springs that are piped from the springs' sources to one of those cisterns ("Bellows Spring"). The Shaffer Spring consists of four springs that are piped from the springs' sources to the other cistern ("Shaffer Spring").

N. After receiving treatment at their respective treatment plants, the treated water from the Shaffer Spring and Bellows Spring flows to a common distribution system that consists of a 400,000-gallon storage tank and serves approximately 214 residential and commercial service connections, and a population of approximately 550 customers located within the Village of Reno and the municipality of Sugarcreek Borough.

O. On October 8, 2014, water samples were collected from the Bellows Spring and the Shaffer Spring ("2014 Water Samples").

P. The Tank Battery is located approximately 0.5 miles upgradient of the Bellows Spring cistern.

Q. On or about July 20, 2023, Venango Water Company turned off the Bellows Spring source in response to dirty water complaints from its customers.

R. On July 20, 2023, Venango Water Company notified the Department of the suspected contamination of the Bellows Spring, and the Department requested that Venango Water Company issue a Tier 1 public notice in the form of a "Do Not Consume Advisory" to its customers and request that its customers voluntarily conserve water.

S. On July 21, 2023, the Department collected samples from the Tank Battery and the Bellows Spring cistern.

T. On July 24, 2023, the Department collected samples from the Tank Battery, the Bellows Spring cistern, and the Shaffer Spring cistern.

U. On July 31, 2023, the Department collected samples from the Bellows Spring cistern and the Shaffer Spring cistern.

V. On August 3 and 7, 2023, the Department collected samples from the Tank Battery, and from each of the individual four springs that flow into the Bellows Spring cistern. In addition, on August 7, 2023, the Department collected samples from entry point number 132 of the Water Supply.

W. On August 14, 2023, the Department collected samples from each of the individual four springs that flow into the Bellows Spring cistern and from the Bellows Spring cistern.

X. The samples collected by the Department from the Bellows Spring cistern on the dates identified in Paragraphs S through U, above, are hereinafter collectively referred to as the “Department’s Bellows Spring Samples.”

Y. The Department’s Bellows Spring Samples were analyzed by a laboratory, and those analytical results detected the following parameters at concentrations above their respective Maximum Contaminant Levels (“MCLs”): total dissolved solids (“TDS”), chloride, manganese, and aluminum.

Z. Aluminum, barium, magnesium, manganese, chloride, TDS, sodium, and zinc were also detected in the Department’s Bellows Spring Samples at concentrations higher than they were detected in the 2014 Water Samples.

AA. The brine and/or other production fluids discharged from the Tank Battery, as described in Paragraphs E and F, above, impacted the Bellows Spring and affected the quality of the water supplying the Water Supply.

BB. Aqua Pennsylvania, Inc. (“Aqua PA”) is a Pennsylvania registered corporation with a mailing address of 762 Lancaster Avenue, Bryn Mawr, PA 19010.

CC. On August 11, 2023, the Pennsylvania Public Utility Commission (“PUC”) issued an Ex Parte Emergency Order directing Aqua PA to act as a receiver for Venango Water Company beginning August 12, 2023 to operate the Water Supply, and continuing during the pendency of the PUC’s proceedings initiated pursuant to Section 529 of the Public Utility Code, 66 Pa. C.S. § 529.

DD. As of the date of this Order, Petro Erie has not submitted to the Department a plan to permanently restore or replace the Water Supply.

**July 24, 2023 Inspection of Petro Erie Wells**

EE. On July 24, 2023, the Department inspected the Petro Erie Wells and observed:

1. crude oil, brine, and/or production fluids discharged directly to the ground at the Lower Reno 19 well (Permit No. 121-45441) (“Lower Reno 19 Impacted Area”);
2. the Lower Reno 6 well (Permit No. 121-45433) (“Lower Reno 6 Well”) was spud on or about August 12, 2014, but no well record has been filed with the Department;
3. there was no production tubing head or surface casing head installed on the Lower Reno 6 Well; there was no observable cement to surface associated with any surface casing string; and the conductor pipe was neither installed by driving the conductor pipe nor was the conductor pipe cemented to surface thereby creating the potential for groundwater impacts from the infiltration of groundwater and/or production fluids to the uncemented casing strings and well bore;
4. annual production reports had not been submitted to the Department for any of the Petro Erie Wells for the 2022 reporting year;
5. mechanical integrity assessment reports had not been submitted to the Department for any of the Petro Erie Wells for the 2022 reporting year;
6. the permit number and operator’s name, address, and telephone number were not posted at any of the Petro Erie Wells; and

7. at eight of the Petro Erie Wells, there was equipment onsite that is no longer necessary for the operation of the wells. A list of these eight wells, by permit number, and well name and number, is attached and incorporated herein as Exhibit D (collectively, the “Wells with Unnecessary Equipment”).

**Applicable Law**

FF. Petro Erie is the “owner” and “operator,” as those terms are defined in Section 3203 of the Oil and Gas Act, 58 Pa. C.S. § 3203, of the Petro Erie Wells.

GG. Petro Erie is a “person,” as that term is defined in Section 3203 of the Oil and Gas Act, 58 Pa. C.S. § 3203; Section 103 of the Solid Waste Management Act, 35 P.S. § 6018.103; and Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

HH. The crude oil, brine, and/or other production fluids described in Paragraphs E, F, and EE.1., above, are “residual wastes” and “solid wastes,” as those terms are defined in Section 103 of the Solid Waste Management Act, 35 P.S. § 6018.103.

II. The depositing of a solid waste on the ground as identified in Paragraphs E, F, and EE.1, above, constitutes “disposal” as that term is defined in Section 103 of the Solid Waste Management Act, 35 P.S. § 6018.103, and 25 Pa. Code § 287.1

JJ. Pursuant to Section 301 of the Solid Waste Management Act, 35 P.S. § 6018.301, no person shall dispose of residual waste within this Commonwealth unless such disposal is authorized by the rules and regulations of the Department.

KK. Pursuant to Section 302 of the Solid Waste Management Act, 35 P.S. § 6018.302, it is unlawful for any person to dispose or permit the disposal of any residual waste in a manner which is contrary to the rules and regulations of the Department.

LL. Pursuant to Section 610 of the Solid Waste Management Act, 35 P.S. § 6018.610, it is unlawful for any person to dump or deposit, or permit the dumping or depositing, of any solid waste

on the surface of the ground by any means, unless a permit for the dumping of such solid waste has been obtained from the Department.

MM. Pursuant to Section 3217(a) of the Oil and Gas Act, to aid in the protection of fresh groundwater, well operators shall control and dispose of brines produced from the drilling, alteration, or operation of an oil or gas well in a manner consistent with the Clean Streams Law, 35 P.S. §§ 691.1-691.1001, or any regulation promulgated under the Clean Streams Law.

NN. Pursuant to 25 Pa. Code § 78.54, a well operator shall control and dispose of fluids, residual waste, and drill cuttings, including top-hole water, brines, drilling fluids, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids, and drill cuttings in a manner that prevents pollution of the waters of this Commonwealth and in accordance with 25 Pa. Code §§ 78.55-78.58 and 78.60-78.63 and with the statutes under which the Regulations are promulgated.

OO. Pursuant to 25 Pa. Code § 78.57(a), unless a permit has been obtained under 25 Pa. Code § 78.60(a) (relating to discharge requirements), the operator shall collect the brine and other fluids produced during operation, service, and plugging of the well in a tank, pit, or a series of pits or tanks, or other device approved by the Department for subsequent disposal or reuse.

PP. Pursuant to 25 Pa. Code § 78.64(d), drainage of containment facilities around oil tanks is acceptable only if: (1) the accumulation in the containment facility consists of only precipitation directly to the containment facility and drainage will not cause a harmful discharge or result in a sheen; and (2) the containment drain valve is opened and resealed, or other drainage procedure, as applicable, is conducted under responsible supervision.

QQ. Pursuant to 25 Pa. Code § 78.66(a), a release of a substance causing or threatening pollution of the waters of this Commonwealth shall comply with the reporting and corrective action requirements of 25 Pa. Code § 91.33 (relating to incidents causing or threatening pollution).

RR. Pursuant to 25 Pa. Code § 91.33(a), if, because of an accident or other activity or incident, a toxic substance or another substance which would result in pollution or create a danger of pollution of the waters is placed so that it might discharge, flow, be washed, or fall into these waters, it is the responsibility of the person at the time in charge of the substance or owning or in possession of the premises, facility, vehicle, or vessel from or on which the substance is discharged or placed to immediately notify the Department by telephone of the location and nature of the danger.

SS. Pursuant to 25 Pa. Code § 91.33(b), a person shall immediately take steps necessary to prevent injury to property and downstream users of the waters of the Commonwealth from pollution or a danger of pollution and, in addition thereto, within 15 days from the incident, shall remove from the ground and from the affected waters of this Commonwealth to the extent required by this title the residual substances contained thereon or therein.

TT. Pursuant to 25 Pa. Code §§ 78.66(b) and (c), if a reportable release of brine on or into the ground occurs at the well site, the owner or operator shall notify the Department as soon as practicable by telephone, but no later than two hours after detecting or discovering the release.

UU. Pursuant to 25 Pa. Code § 78.66(e), upon the occurrence of any release, the owner or operator shall take necessary corrective actions to prevent the substance from reaching the waters of this Commonwealth, recover or remove the substance which was released, and dispose of the substance in accordance with this subchapter or as approved by the Department.

VV. The Bellows Spring is “waters of the Commonwealth,” as defined by Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

WW. The brine and/or production fluids described in Paragraphs E and F, above, are “industrial wastes” and “pollution,” as those terms are defined in Section 1 of the Clean Streams Law, 35 P.S. § 691.1

XX. Pursuant to Section 307 of the Clean Streams Law, 35 P.S. § 691.307(a), no person shall discharge or permit the discharge of industrial wastes in any manner, directly or indirectly, into any of the waters of the Commonwealth unless such discharge is authorized by the rules and regulations of the Department or such person has first obtained a permit from the Department.

YY. Pursuant to Section 402 of the Clean Streams Law, 35 P.S. § 691.402, it is unlawful for any person or municipality to put or place into any of the waters of the Commonwealth, or allow or permit to be discharged from property owned or occupied by such person or municipality into any of the waters of the Commonwealth, any substance of any kind or character that could potentially result in pollution of the waters of the Commonwealth.

ZZ. Pursuant to 25 Pa. Code § 78.73(b), an operator shall prevent brine and any other fluids or materials from below the casing seat from entering fresh groundwater and shall otherwise prevent pollution or diminution of fresh groundwater.

AAA. The Water Supply is a “system,” as defined by 25 Pa. Code § 109.1, and a “public water system” and a “community water system,” as those terms are defined in Section 3 of the Safe Drinking Water Act, 35 P.S. § 721.3, and 25 Pa. Code § 109.1.

BBB. Pursuant to Section 3218(a) of the Oil and Gas Act, 58 Pa. C.S. § 3218(a), and 25 Pa. Code § 78.51(a), a well operator who affects a public water supply by pollution shall restore or replace the affected supply with an alternate source of water adequate in quantity and quality for the purpose served by the water supply.

CCC. Pursuant to 25 Pa. Code § 78.82(2), if the operator installs conductor pipe in the well, the conductor pipe shall be installed in a manner that prevents subsurface infiltration of surface water or fluids by either driving the pipe into place or cementing the pipe from the seat to the surface.

DDD. Pursuant to 25 Pa. Code § 78.83b(a), if cement used to permanently cement the surface casing is not circulated to the surface despite pumping a volume of cement equal to or greater than 120% of the calculated annular space, the operator shall determine the top of the cement, notify the Department, and meet at least one of the additional requirements set forth in 25 Pa Code 78.83b(a)(1)-(5).

EEE. Pursuant to Section 3211(g) of the Oil and Gas Act, 58 Pa. C.S. § 3211(g), the well permit number and operator's name, address, and telephone number shall be conspicuously posted at the well site during site preparation, construction of the well site, and during drilling, operating or alteration of the well.

FFF. Pursuant to 25 Pa. Code § 78.88(e), a well operator shall submit an annual report to the Department identifying the compliance status of each well with the mechanical integrity requirements of the Regulations.

GGG. Pursuant to Section 3222(a) of the Oil and Gas Act, 58 Pa. C.S. § 3222(a), and 25 Pa. Code § 78.121(a), a well operator shall file with the Department an annual report on or before February 15<sup>th</sup> of each year specifying the amount of production on the most well-specific basis available, along with the status of each well.

HHH. Pursuant to Section 3222(b)(1) of the Oil and Gas Act, 58 Pa. C.S. § 3222(b)(1), and 25 Pa. Code § 78.122(a), a well operator shall maintain a record of each well drilled or altered and shall submit that report to the Department within 30 after the drilling of the well.

III. Pursuant to Section 3216(c) of the Oil and Gas Act, 58 Pa. C.S. § 3216(c), a well operator shall fill all pits used to contain produced fluids or industrial wastes and remove unnecessary drilling supplies/equipment not needed for production within nine months from completion of drilling of the well.

**Violations**

JJJ. Petro Erie's unpermitted and unauthorized disposal of brine and/or production fluids to the ground at the Impacted Area, as described in Paragraphs E, F.1., and F.2., above, violates Sections 301, 302(a), and 610 of the Solid Waste Management Act, 35 P.S. §§ 6018.301, 6018.302(a), and 6018.610(4), and 25 Pa. Code §§ 78.54 and 78.57(a).

KKK. Petro Erie's unpermitted and unauthorized disposal of crude oil, brine, and/or production fluids to the ground at the Lower Reno 19 Impacted Area, as described in Paragraph EE.1, above, violates Sections 301, 302(a), and 610 of the Solid Waste Management Act, 35 P.S. §§ 6018.301, 6018.302(a), and 6018.610(4), and 25 Pa. Code § 78.57(a).

LLL. Petro Erie's drainage of accumulation in the Tank Battery's secondary containment that did not consist of only precipitation, which caused a harmful discharge or resulted in a sheen and was not done under proper supervision, as described in Paragraphs E and F.2., above, violates 25 Pa. Code § 78.64(d).

MMM. Petro Erie's failure to notify the Department of the release of brine and/or other production fluids to the ground at the Impacted Area and the release of crude oil, brine, and/or production fluids to the ground at the Lower Reno 19 Impacted Area, as described in Paragraphs E, F, and EE.1., above, violates 25 Pa. Code §§ 78.66(a), (b), and (c).

NNN. Petro Erie's failure to notify the Department of the release of brine and/or other production fluids to the ground at the Impacted Area and the Lower Reno 19 Impacted Area, as described in Paragraphs E, F, and EE.1., above, and its failure to remove the solid waste from the ground and affected waters of the Commonwealth within 15 days from the incident violates 25 Pa. Code §§ 91.33(a) and (b).

OOO. Petro Erie's failure to take necessary corrective actions to prevent the brine and/or other production fluids that were released to the ground at the Impacted Area from reaching the

waters of this Commonwealth and its failure to recover or remove and dispose of those substances in accordance with the Regulations, as described in Paragraphs E and F, above, and its failure to recover or remove and dispose of the crude oil, brine, and/or production fluids at the Lower Reno 19 Impacted Area in accordance with the Regulations, as described in Paragraph EE.1, above, violates 25 Pa. Code § 78.66(e).

PPP. Petro Erie's failure to control and dispose of brine from an oil and gas well, as described in Paragraphs E, F, and EE.1, above, violates Section 3217(a) of the Oil and Gas Act, 58 Pa. C.S. § 3217(a).

QQQ. Petro Erie's unauthorized and unpermitted discharge of industrial wastes into the waters of the Commonwealth, as described in Paragraphs E and F, above, violates Sections 307 and 402 of the Clean Streams Law, 35 P.S. §§ 691.307(a) and 691.402, and 25 Pa. Code § 78.73(b).

RRR. Petro Erie's failure to install conductor pipe in the Lower Reno 6 Well in a manner that prevents subsurface infiltration of surface water or fluids, as described in Paragraph EE.3., above, violates 25 Pa. Code § 78.82(c).

SSS. Petro Erie's failure to meet one of the additional requirements set forth in 25 Pa Code §§ 78.83b(a)(1)-(5) after failing to circulate cement to the surface on the surface casing for the Lower Reno 6 Well, as described in Paragraph EE.3., above, violates 25 Pa. Code § 78.83b(a).

TTT. Petro Erie's failure to submit Annual Production Reports for the Petro Erie Wells, specifying the amount of production during the 2022 reporting year, as identified in Paragraph EE.4., above, violates 25 Pa. Code § 78.121(a).

UUU. Petro Erie's failure to submit Mechanical Integrity Assessment Reports for the Petro Erie Wells during the 2022 reporting year, as identified in Paragraph EE.5., above, violates 25 Pa. Code § 78.88(e).

VVV. Petro Erie's failure to submit a well record within 30 days after the drilling of the Lower Reno 6 Well, as identified in Paragraph EE.2., above, violates Section 3222(b) of the Oil and Gas Act, 58 Pa. C.S. § 3222(b), and 25 Pa. Code § 78.122(a).

WWW. Petro Erie's failure to post the well permit number and the operator's name, address, and telephone number at each of the Petro Erie Wells, as identified in Paragraph EE.6., above, violates Section 3211(g) of the Oil and Gas Act, 58 Pa. C.S. § 3211(g).

XXX. Petro Erie's failure to remove unnecessary drilling supplies/equipment not needed for production within nine months from completion of drilling of the Wells with Unnecessary Equipment, as identified in Paragraph EE.7., above, violates Section 3216(c) of the Oil and Gas Act, 58 Pa. C.S. § 3216(c).

YYY. The violations described in Paragraphs JJJ through MMM and OOO through XXX, above, constitute unlawful conduct pursuant to Section 3259 of the Oil and Gas Act, 58 Pa. C.S. § 3259; a public nuisance pursuant to Section 3252 of the Oil and Gas Act, 58 Pa. C.S. § 3252; and subject Petro Erie to civil penalty liability pursuant to Section 3256 of the Oil and Gas Act, 58 Pa. C.S. § 3256.

ZZZ. The violations described in Paragraphs NNN and QQQ, above, constitute unlawful conduct pursuant to Section 611 of the Clean Streams Law, 35 P.S. § 691.611; a statutory nuisance under Section 307(c) of the Clean Streams Law, 35 P.S. § 691.307(c); and subject Petro Erie to civil penalty liability pursuant to Section 605 of the Clean Streams Law, 35 P.S. § 691.605.

AAAA. The violations described in Paragraphs JJJ and KKK, above, constitute unlawful conduct under Sections 302 and 610 of the Solid Waste Management Act, 35 P.S. §§ 6018.302 and 6018.610; a statutory nuisance under Section 601 of the Solid Waste Management Act, 35 P.S. § 6018.601; and subject Petro Erie to civil liability under Section 605 of the Solid Waste Management Act, 35 P.S. § 6018.605.

BBBB. On July 21 and July 24, 2023, the Department sent Notices of Violation to Petro Erie for some of the violations described in Paragraphs JJJ through XXX, above.

CCCC. As of the date of this Order, Petro Erie has not corrected the violations identified in Paragraphs JJJ through XXX, above, nor has it demonstrated remediation of the release of brine and/or other production fluids at the Impacted Area or the release of crude oil, brine, and/or other production fluids at the Lower Reno 19 Impacted Area.

### ORDER

NOW, THEREFORE, pursuant to Sections 3218 and 3253 of the Oil and Gas Act, 58 Pa. C.S. §§ 3218 and 3253; Section 5 of the Clean Streams Law, 35 P.S. § 691.5; Section 602 of the Solid Waste Management Act 35 P.S. § 6018.602; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17, the Department hereby ORDERS Petro Erie to do the following:

1. **Temporary Water Supply.** Within **24 hours** after the receipt of this Order, Petro Erie shall: (1) provide a temporary supply of potable water (*e.g.*, bottled water) to the users of the Water Supply (“Temporary Water”); and (2) confirm in writing to the Department that it has provided Temporary Water to the users of the Water Supply. Petro Erie shall continue to provide Temporary Water to the users of the Water Supply as long as the “Do Not Consume Advisory,” referenced in Paragraph R, above, remains in effect. After the “Do Not Consume Advisory” is lifted, Petro Erie shall continue to provide Temporary Water to any user(s) of the Water Supply who continues to request it until Petro Erie has restored or replaced the Bellows Spring, in accordance with the requirements of Paragraph 2, below. Notwithstanding the above, if the “Do Not Consume Advisory” is reinstated prior to the Bellows Spring being restored or replaced in accordance with the requirements of Paragraph 2, below, then Petro Erie shall resume providing Temporary Water to the users of the Water Supply as long as the “Do Not Consume Advisory” remains in effect.

2. ***Permanent Water Supply.*** Within 45 days, after the date of this Order, Petro Erie shall provide a plan to restore or replace the quantity and quality of water provided by the Bellows Spring (“Restoration or Replacement Plan”). The Restoration or Replacement Plan shall include the following:

a. proposed corrective actions to permanently restore or replace the Bellows Spring, in accordance with Section 3218(a) of the Oil and Gas Act, 58 Pa. C.S. § 3218(a), and 25 Pa. Code § 78.51(d);

b. a proposed schedule to implement the corrective actions;

c. the independent laboratory, certified by the Department, that Petro Erie will use to analyze samples from the restored or replaced water supply;

d. a schedule for confirmatory sampling of the restored or replaced water supply after Petro Erie asserts that it has permanently restored or replaced the Bellows Spring. Such samples will be used to determine whether the restored and/or replaced water supply meets the standards set forth in Section 3218(a) of the Oil and Gas Act, 58 Pa. C.S. § 3218(a), and 25 Pa. Code § 78.51. The confirmatory sampling schedule should allow: for split samples with the Department; and that sampling would only take place Monday through Thursday during Department working hours and with prior advance notice to the Department before any scheduled sampling of the restored and/or replaced water supply.

e. proposed arrangements between Petro Erie and Venango Water Company and/or Aqua PA to provide for all plumbing, conveyance, pumping, or auxiliary facilities necessary for the use of the permanently restored or replaced water supply.

f. proposed arrangements between Petro Erie and Venango Water Company and/or Aqua PA documenting how Petro Erie will: (1) reimburse Venango Water Company and/or Aqua PA for any increased operating and maintenance costs incurred by Venango Water Company

and/or Aqua PA resulting from the implementation of all temporary and/or interim measures needed to provide adequate quantity and quality water for the purposes served by the Water Supply; and (2) compensate Venango Water Company and/or Aqua PA on a permanent basis for any increased operating and maintenance costs for the replaced or restored water supply.

g. if any of the actions required by Paragraphs 2.a. through 2.f., above, have been completed, the Restoration or Replacement Plan shall include a description of how and when those items were completed.

3. ***Remediation of Impacted Area and Lower Reno 19 Impacted Area.*** Petro Erie shall address the discharges and disposal of brine and/or other production fluids at the Impacted Area and the discharges and disposal of crude oil, brine, and/or other production fluids at the Lower Reno 19 Impacted Area by demonstrating attainment of one or a combination of remediation standards under the Land Recycling Act in accordance with the following:

a. within **30 days** after the date of this Order, Petro Erie shall submit to the Department, at the address identified in Paragraph 12 (Correspondence with the Department), below, for review and approval, a written plan for addressing the release of brine and/or other production fluids at the Impacted Area and the release of crude oil, brine, and/or other production fluids at the Lower Reno 19 Impacted Area, as well as a schedule for implementing the remediation at the Impacted Area and the Lower Reno 19 Impacted Area and submitting a final report demonstrating attainment of one or a combination of remediation standards under Sections 302, 303, and/or 304 of the Land Recycling Act, 35 P.S. §§ 6026.302, 6026.303, and/or 6026.304 by **July 31, 2024** (“Remediation Schedule”).

b. upon receipt of the Department’s written approval of the Remediation Schedule, Petro Erie shall address the release of brine and/or other production fluids at the Impacted Area and the release of crude oil, brine, and/or other production fluids at the Lower Reno 19 Impacted Area in accordance with the Department-approved Remediation Schedule, the Land

Recycling Act, and this Order.

4. ***Lower Reno 6 Well Integrity.***

a. Within **30 days** after the date of this Order, Petro Erie shall submit to the Department, at the address identified in Paragraph 12 (Correspondence with the Department), below, for review and approval, a written plan that identifies corrective actions addressing how Petro Erie will: (1) permanently restrict surface water from the well bore of the Lower Reno 6 Well; and (2) satisfy the requirements of 25 Pa. Code §§ 78.83b(a)(1)-(5) (“Well Bore Plan”). The Well Bore Plan shall also include an implementation schedule for implementing the corrective actions identified in the Well Bore Plan.

b. Upon receipt of the Department’s written approval of the Well Bore Plan, Petro Erie shall implement the corrective actions contained in the Department-approved Well Bore Plan in accordance with the Department-approved implementation schedule.

5. ***Well Record for Lower Reno 6 Well.*** Within **30 days** after the date of this Order, Petro Erie shall complete and submit to the Department, at the address identified in Paragraph 12 (Correspondence with the Department), below, Department Form 8000-FM-OOGM0004a, “Well Record,” in accordance with Section 3222(b) of the Oil and Gas Act, 58 Pa. C.S. § 3222(b), and 25 Pa. Code § 78.122(a).

6. ***Annual Production Reports.***

a. On or before **October 31, 2023**, Petro Erie shall submit annual production and status reports for the Petro Erie Wells for the time period from January 1 through December 31, 2022.

b. On or before **February 15, 2024**, and on or before February 15<sup>th</sup> of every year thereafter, Petro Erie shall submit production and status reports for the Petro Erie Wells for the previous reporting year.

c. The annual production and status reports shall be submitted electronically through the Department's web site and shall include, at a minimum, the amount of production for the Petro Erie Wells and all other information require under 25 Pa. Code § 78.121 on the most well-specific basis available.

7. ***Mechanical Integrity Assessment.***

a. On or before **October 31, 2023**, Petro Erie shall inspect and test the integrity of the Petro Erie Wells, in accordance with 25 Pa. Code § 78.88.

b. On or before **February 15, 2024**, Petro Erie shall complete and submit the Department Form 8000-FM-OOGM0126, "Quarterly Mechanical Integrity Assessment of Operating Oil and Gas Wells," for the Petro Erie Wells, in accordance with 25 Pa. Code § 78.88.

8. ***Posting of Operator Information.*** Within **30 days** after the date of this Order, Petro Erie shall post the well permit number and the operator's name, address, and telephone number in a conspicuous manner at the Petro Erie Wells in accordance with Section 3211(g) of the Oil and Gas Act, 58 Pa. C.S. § 3211(g).

9. ***Removal of Unnecessary Equipment.*** On or before **October 31, 2023**, Petro Erie shall remove drilling supplies/equipment not needed for production from the Wells with Unnecessary Equipment identified in Exhibit D.

10. ***Document Review and Approval by the Department.*** With regard to any document that Petro Erie is required to submit pursuant to this Order, the Department will review such document and will approve or disapprove the document or portion thereof, in writing. If the document, or any portion thereof, is disapproved by the Department, Petro Erie shall submit to the Department a revised document that addresses the Department's identified concerns within a reasonable time, as specified by the Department. The Department will approve, or modify and approve, the revised document in writing. Upon the Department's approval of a document, or any

portion thereof, such approved document, including any identified corrective action and schedule contained therein, shall become an obligation of this Order and shall be enforceable as such.

11. ***Replacement of Field Order.*** This Order replaces Petro Erie's obligations under the Field Order but does not replace the Findings of the Field Order.

12. ***Correspondence with the Department.*** All correspondence with the Department regarding this Order shall be addressed to:

Robert Bechtel  
 Environmental Group Manager  
 Northwest District Oil and Gas Operations Department of Environmental  
 Protection 230 Chestnut Street  
 Meadville, PA 16335  
 Telephone: (814) 573-3610  
 E-Mail: [robechtel@pa.gov](mailto:robechtel@pa.gov)

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board ("Board") pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
 Rachel Carson State Office Building, Second Floor  
 400 Market Street  
 P.O. Box 8457  
 Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the

Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.**

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:



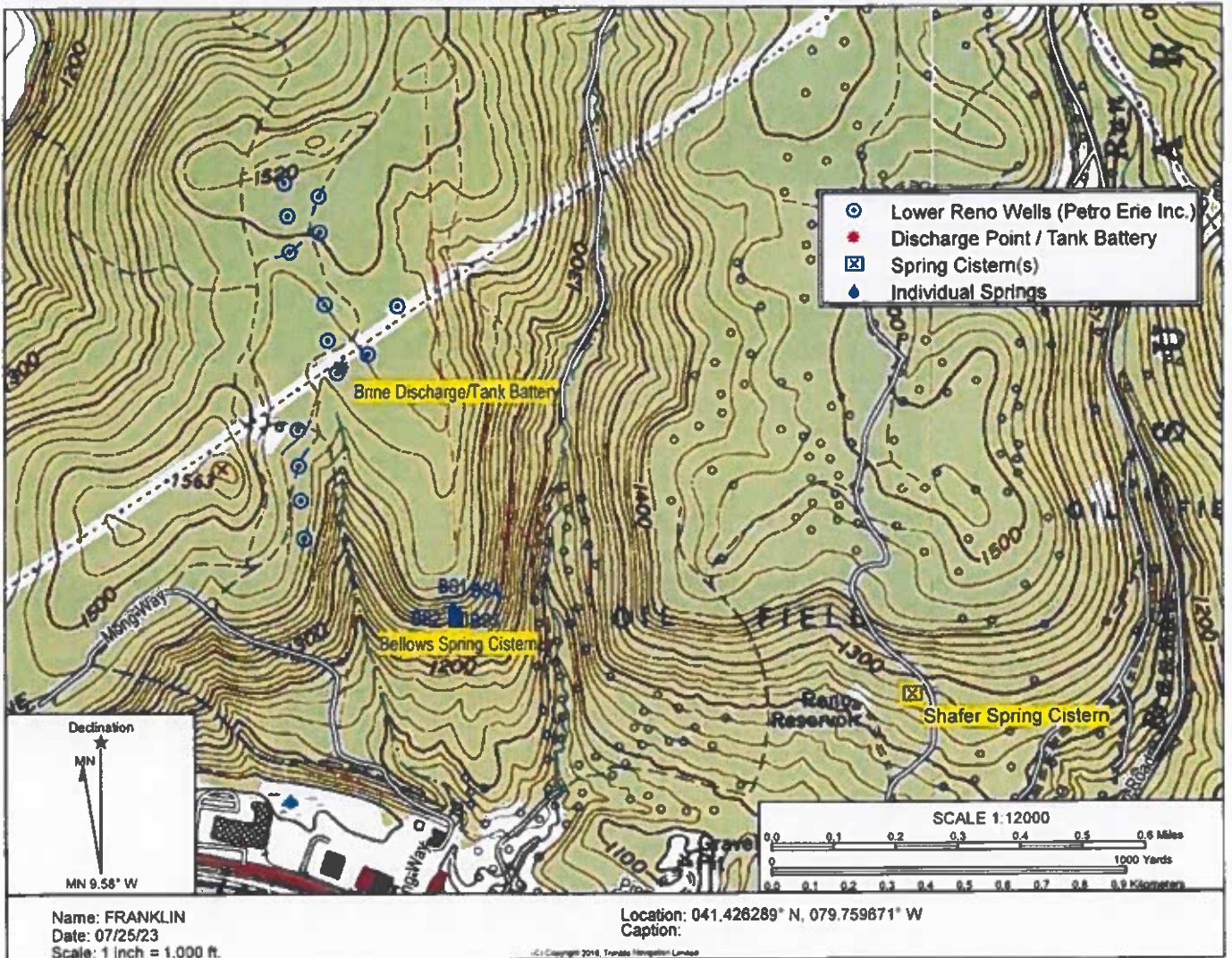
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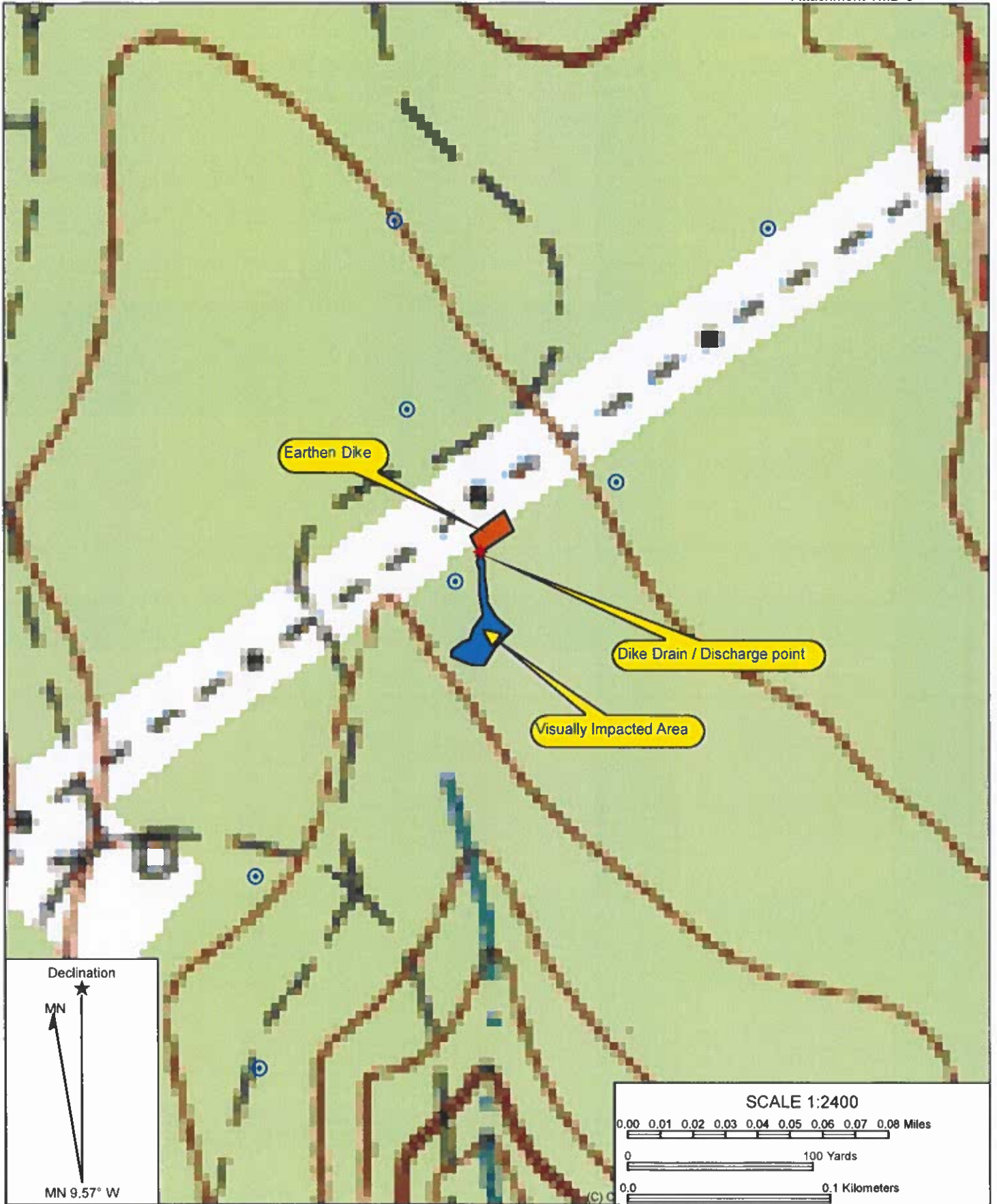
Scott Dudzic  
Northwest District Oil and Gas Manager  
District Oil and Gas Operations

**EXHIBIT A**  
**Petro Erie Wells**

<b>Permit Number</b>	<b>Well Name and Number</b>	<b>Municipality</b>	<b>County</b>
121-44422	Lower Reno 4A	Sugarcreek Township	Venango County
121-44463	Lower Reno 1A	Sugarcreek Township	Venango County
121-44464	Lower Reno 2A	Sugarcreek Township	Venango County
121-44465	Lower Reno 3A	Sugarcreek Township	Venango County
121-44466	Lower Reno 5A	Sugarcreek Township	Venango County
121-45433	Lower Reno 6	Sugarcreek Township	Venango County
121-45434	Lower Reno 7	Sugarcreek Township	Venango County
121-45435	Lower Reno 8	Sugarcreek Township	Venango County
121-45437	Lower Reno 11	Sugarcreek Township	Venango County
121-45440	Lower Reno 18	Sugarcreek Township	Venango County
121-45441	Lower Reno 19	Sugarcreek Township	Venango County
121-45442	Lower Reno 23	Sugarcreek Township	Venango County
121-45443	Lower Reno 24	Sugarcreek Township	Venango County
121-45444	Lower Reno 28	Sugarcreek Township	Venango County

**EXHIBIT B**





Name: FRANKLIN  
Date: 08/15/23  
Scale: 1 inch = 200 ft.

Location: 041.427988° N, 079.768008° W  
Caption: <<Type caption here.>>

**EXHIBIT C**



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT  
BUREAU OF DISTRICT OIL AND GAS OPERATIONS  
COMPLIANCE ORDER

**ORDER REQUIRING CLEANUP AND REMEDIATION OF A SPILL(S) AND/OR RELEASE(S)**

DEP DOCKET NUMBER:		
PERSON(S) SUBJECT TO ORDER: <i>Petro Eric Inc</i>	PHONE NO.: <i>814-881-9800</i>	EMAIL: <i>lemp@verlocity.net</i>
ADDRESS OF PERSON(S) SUBJECT TO ORDER: <i>7395 Market Rd. Fairview, PA 16415-2826</i>		MUNICIPALITY: <i>Sugarcreek</i>
PROJECT NAME/SITE ID/FACILITY NUMBER/Location of Violation(s):	COUNTY: <i>Venango</i>	GPS COORDINATES: <i>41.42808 -79.76825</i>
PERMIT NO(S): <i>121-45433 Lower Reno 6</i>	DATE OF INSPECTION: <i>7/21/2023</i>	TIME OF INSPECTION: <i>A.M. P.M. 8:00</i>
NAME AND TITLE OF RECEIVING OFFICIAL:		

The Department of Environmental Protection (Department) is the agency with the duty and authority to administer the Land Recycling and Environmental Remediation Standards Act, Act of May 19, 1995, P.L. 4, 35, 35 P.S. §§ 6026.101-6026.908 (Act 2); and to administer and enforce the Oil and Gas Act, Act of February 14, 2012, P.L. 87, No. 13, 58 Pa. C.S §§ 3201-3274 (2012 Oil and Gas Act); the Solid Waste Management Act, Act of May 1, 1984, P.L. 206, as amended, 35 P.S. §§ 6018.101-6018.1003 (Solid Waste Management Act); The Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §§ 691.1-691.1001 (Clean Streams Law); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended, 71 P.S. §510-17 (Administrative Code); and the rules and regulations promulgated thereunder.

The undersigned authorized representative of the Department has conducted an inspection of the above location on the above date and has determined that the violation(s) listed in this Order has/have occurred. This Order applies when a spill(s), discharge(s), disposal, and/or release(s) (hereinafter collectively "spill(s) or release(s)") of substances creates "pollution" and/or a danger of "pollution" to "Waters of the Commonwealth" as those terms are defined in Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

Hereinafter the term "regulated substance(s)" as used in this Order shall have the same meaning as "regulated substance" as that term is defined in section 103 of Act 2, 35 P.S. § 6026.103. The regulated substance(s) that has/have been spilled or released to the ground and/or the waters of the Commonwealth as identified in this Order is/are also a "residual waste" as that term is defined in Section 103 of the Solid Waste Management Act, 35 P.S. § 6018.103, and an "industrial waste," as that term is defined in Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

If applicable, each well permit issued for the well(s) identified at the location above contains the following two conditions: (1) "This permit and the permittee's authority to conduct the activities authorized by this permit are conditioned upon operator's compliance with applicable law and regulations"; and (2) "This permit does not relieve the operator from the obligation to comply with the Clean Streams Law and all statutes, rules and regulations administered by the Department.

The violation(s) identified in this Order constitutes a violation/violations, as applicable, of the well permit issued for the well(s) identified above at the location; constitutes unlawful conduct pursuant to Section 3259 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3259, Section 611 of the Clean Streams Law, 35 P.S. § 691.611, and Section 302 of the Solid Waste Management Act, 35 P.S. § 6018.302; a statutory nuisance under Section 3252 of the 2012 Oil and Gas Act, 58 P.S. § 3252, Sections 307(c) and/or 402(b) of the Clean Streams Law, 35 P.S. §§ 691.307(c) and/or 402(b), and Section 601 of the Solid Waste Management Act, 35 P.S. § 6018.601; and subjects the Person(s) identified in this Order to a claim for civil penalties under Section 3256 of the 2012 Oil and Gas Act, 58 Pa. C.S § 3256, Section 605 of the Clean Streams Law, 35 P.S. § 691.605, and Section 605 of the Solid Waste Management Act, 35 P.S. § 6018.605.

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Project Name/Site ID/Facility Number: Lower Reno 6  
Permit No.: 121-45433

Pursuant to Section 3253 of the 2012 Oil and Gas Act 58 Pa. C.S § 3253, Section 610 of the Clean Streams Law 35 P.S. § 691.610, Section 602 of the Solid Waste Management Act 35 P.S. § 6018.602; and Section 1917-A of the Administrative Code 71 P.S. § 510-17, the Department hereby ORDERS that the Person(s) Subject to this Order shall perform the corrective actions listed in this Order. Nothing contained in this Order shall be construed to relieve or limit the obligations of the above mentioned persons, including, but not limited to, the "well operator" as that term is defined in Section 3203 of the 2012 Oil and Gas Act, 58 Pa. C.S § 3203, of any well/project/site/facility/location included in this Order to comply with the terms and conditions of any permit, if applicable, existing or hereafter issued by the Department to the operator, or to limit any civil or criminal liability of the person. Additional requirements may be imposed in the future by subsequent Department orders or other actions.

Joint and Several Responsibility (As Applicable): The Persons Subject to this Order as identified above are jointly and severally responsible for the obligations under this Order.

### VIOLATIONS

- UNAUTHORIZED SPILL(S) OR RELEASE(S) OF REGULATED SUBSTANCE(S) TO WATERS OF THE COMMONWEALTH OR TO GROUND CREATING A POTENTIAL FOR POLLUTION OF WATERS OF THE COMMONWEALTH:**
- SPILL OR RELEASE OF PRODUCTION FLUIDS FROM TANK OR PIT** in violation of Section 3259 of the 2012 Oil and Gas Act (58 Pa. C.S. § 3259), Sections 307,401, and/or 402(b) of the Clean Streams Law (35 P.S. §§ 691.307, 691.401, and 691.402(b)), Section 301 of the Solid Waste Management Act (35 P.S. § 6018.301), and 25 Pa. Code §§ 78.54, 78.57(a), 78.60(a), 91.33, and/or 91.34.
- SPILL(S) OR RELEASE(S) OF REGULATED SUBSTANCE(S) FROM TANK OR PIT** in violation of Section 3259 of the 2012 Oil and Gas Act, 58 Pa. C.S § 3259, Sections 307, and 401, of the Clean Streams Law, 35 P.S. §§ 691.307 and ,691.401, Section 301 of the Solid Waste Management Act, 35 P.S. § 6018.301, 25 Pa. Code §§ 78.54, 78.56, 78.60(a), 91.33, and/or 91.34, and/or the conditions in the permit(s) for the well(s).
- SPILL(S) OR RELEASE(S) OF REGULATED SUBSTANCE(S) FROM WELLHEAD** in violation of Section 3259 of the 2012 Oil and Gas Act, 58 Pa. C.S § 3259 , Sections 307 and, 401, of the Clean Streams Law, 35 P.S. §§ 691.307 and, 691.401, Section 301 of the Solid Waste Management Act, 35 P.S. § 6018.301, 25 Pa. Code §§ 78.54, 78.56,78.60(a), 91.33, and/or the conditions in the permit(s) for the well(s).
- OTHER SPILL(S) OR RELEASE(S) OF REGULATED SUBSTANCE(S) ON THE WELL SITE OR ACCESS ROAD** in violation of Section 3259 of the 2012 Oil and Gas Act, 58 Pa. C.S § 3259, Sections 307, and 401, of the Clean Streams Law, 35 P.S. §§ 691.307 and, 691.401, and Section 301 of the Solid Waste Management Act, 35 P.S. §6018.301, 25 Pa. Code §§ 78.54,78.60(a), 91.33, and/or the conditions in the permit(s) for the well(s).
- SPILL(S) OR RELEASE(S) OF REGULATED SUBSTANCE(S) FROM PIPELINE** in violation of Sections 307, and 401, of the Clean Streams Law, 35 P.S. §§ 691.307, and 691.401, and Section 301 of the Solid Waste Management Act, 35 P.S. § 6018.301, 25 Pa. Code § 91.33, and/or the conditions in the permit(s) for the well(s).
- FAILURE TO HAVE SECONDARY CONTAINMENT AROUND OIL TANK(S) WITH A CAPACITY OF AT LEAST 680 GALLONS OR A COMBINED CAPACITY OF 1,320 GALLONS** in violation of 25 Pa. Code §§ 78.64 and 91.34, and the conditions in the permit(s) for the well(s).
- FAILURE TO HAVE SUFFICIENT CONTAINMENT CAPACITY AROUND REGULATED SUBSTANCE STORAGE TANK(S) THAT ARE NOT EQUIPPED WITH INDIVIDUAL SECONDARY CONTAINMENT AT AN UNCONVENTIONAL WELL SITE** in violation of Section 3218.2(d) of the 2012 Oil and Gas Act, 58 Pa. C.S § 3218.2(d), and the conditions in the permit(s) for the well(s).
- FAILURE TO REPORT A RELEASE OF A REGULATED SUBSTANCE** in violation of 25 Pa. Code §§ 78.66, and 91.33, and/or the conditions in the permit(s) for the well(s).

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 White – Receiving Official Yellow – DEP, DOGO Pink – Department Representative

DESCRIPTION OF VIOLATIONS

On 7/20/2023, the Department received a complaint of a release from a tank battery located approximately 0.75 miles north of the Venango Water PWSID: 6610014. The Department responded to the site and observed production fluids (Brine) leaking from a tank battery secondary containment 75 feet northeast of the Lower Reno 6 oil well (121-45433).

This well is currently listed as "proposed but never materialized" in the Department's tracking system, but the well exists and appears to have been drilled in 2013-2014.

The Department returned on 7/21/2023, to inspect the area and take additional samples. Production fluids were observed inside and outside containment. A visually impacted area was observed stretching 180 feet south of the secondary containment drain valve and spread from 6 feet to 20 feet in width. Production fluids were observed running out of the open drain valve at the time of inspection. The valve was closed to prevent further release. Conductivity readings were taken around the entire area. Reading exceeding the limits of the meter were recorded, in excess of 20,000 Micro Siemens. Samples were collected from

a spring near the impacted area, which is a raw water source for a public water supply.

**CORRECTIVE ACTION REQUIRED OR ACTIVITY TO BE CEASED:**

- Immediately cease the spill(s) or release(s) of regulated substance(s) onto the ground and/or into the waters of the Commonwealth described above.
- Immediately contain spilled or released regulated substance(s).
- Immediately prevent migration of the regulated substance(s) from the site of the spill or release. If the regulated substance(s) have already migrated from the site of the spill or release, immediately prevent any further migration of the regulated substance from the site of the spill or release.
- Immediately prevent the regulated substance(s) from reaching or impacting surface water or groundwater. If the regulated substance(s) have already reached or impacted surface water or groundwater, immediately prevent the regulated substance(s) from continuing to reach or from further impacting surface water or groundwater.
- Immediately notify downstream users that a spill or release of the regulated substance(s) occurred.
- Within \_\_\_\_\_ days, submit to the Department, in writing, a report which details the cause and duration of each violation and the corrective action taken to prevent its recurrence.
- Within \_\_\_\_\_ days, submit to the Department a copy of a site specific Control and Disposal Plan that meets the requirements of 25 Pa. Code Chapter 78.
- Within \_\_\_\_\_ days, remove all regulated substance(s) from the tank(s) and/or pit(s) described above and properly dispose of all of the regulated substance(s) at a permitted disposal/recycling facility in accordance with the Solid Waste Management Act, the Clean Streams Law, the 2012 Oil and Gas Act, and the Regulations.
- Within \_\_\_\_\_ days, submit receipts and/or other applicable documentation to the Department to verify that the regulated substance(s) was/were removed from the tank(s) and/or pit(s) described above and disposed of at a permitted treatment facility in accordance with the Solid Waste Management Act, the Clean Streams Law, the 2012 Oil and Gas Act, and the Regulations.
- Investigate and remediate the contamination from the spill(s) or release(s) of regulated substance(s) pursuant to applicable provisions of Act 2 and its Regulations and this Order, as follows:

Within ten days, hire a qualified environmental consultant to investigate and remediate the soil, groundwater, surface water, wetlands, and/or sediments that was/were contaminated by the spill or release of regulated substance(s), and simultaneously submit to the Department, in writing, the name, address, and telephone number of such consultant;

Within 60 days, submit to the Department a written plan to investigate and remediate the soil, groundwater, surface water, wetlands, and/or sediments that was/were contaminated by the spill or release of regulated substance(s) ("Remediation Plan"). The Remediation Plan shall, at a minimum: (1) be prepared and submitted by the qualified environmental consultant hired in accordance with this order; (2) include a complete, written Notice of Intent to Remediate the contaminated soil and groundwater that complies with all of the requirements of 25 Pa. Code § 250.5(a); (3) include a summary of the interim remedial actions that have been completed to date to contain the spill or release of regulated substance(s), and the plan and schedule for continuing these interim remedial actions until the final, Department-approved remedial actions have been completed in accordance with this Order; (4) include a schedule for completing the remedial actions and for submitting the reports required to demonstrate attainment with the chosen remediation standard in accordance with the requirements of 25 Pa. Code §§250.2(b)(1) and 250.2(b)(2); and (5) identify the date when all disturbed areas will be completely restored and re-vegetated;

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Permit No.: 121-45433

Upon receipt of the Department's written approval of the Remediation Plan or revised Remediation Plan, and in accordance with the Department-approved schedule, investigate and remediate the soil, groundwater, surface water, wetlands, and/or sediments that was/were contaminated by the spill or release of regulated substance(s) in accordance with the Department-approved Remediation Plan;

Submit "Progress Reports" to the Department on a quarterly basis. The Progress Reports shall be due by the 30th day of the month following each calendar quarter (i.e. April 30, July 30, October 30, and January 30), and describe the actions taken in the previous quarter to comply with the requirements of this Order, including the requirements in plans or other documents approved by the Department under this Order; and

Take any and all actions necessary to obtain access to any property necessary to comply with the obligations under this Order.

Additional Requirements:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CORRESPONDENCE WITH THE DEPARTMENT:**

All correspondence with the Department concerning this Order shall be addressed to:

Robert Bechtel, Env. Group Manager District of Columbia Operations  
270 Chestnut St  
Meadville PA 16335 (814) 573-3610  
email: rbechtel@pa.gov

**DOCUMENT REVIEW AND APPROVAL BY THE DEPARTMENT:**

With regard to the Remediation Plan and any other document submitted pursuant to the requirements of this Order, the Department will review the document and will approve, approve with modification(s), or disapprove the document, or portion thereof, in writing. If the document, or any portion thereof, is disapproved by the Department, a revised document shall be submitted to the Department that addresses the Department's concern within a reasonable time, as specified by the Department. The Department will approve, modify and approve, or disapprove the revised document in writing. Upon approval by the Department, the document, including the schedules identified in the document, shall become a part of this Order for all purposes and shall be enforceable as such.

White - Receiving Official

Yellow - DEP, DOGO

Pink - Department Representative

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Project Name/Site ID/Facility Number: Lower Reno 6  
Permit No.: 121-45433**APPEAL NOTICE**

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of Practice and Procedure may be obtained from the Board. The appeal form and the Board's rules of Practice and Procedure are also available in Braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.**

**IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483).**

DEPARTMENT REPRESENTATIVE	RECEIVING OFFICIAL
Signature: <u>Robert R. Berthel</u>	The undersigned representative hereby acknowledges receipt of this order and attachment(s) hereto. This signature does not constitute an acknowledgement that any or all of the violations listed in this Order and attachment(s) hereto have occurred or continue to occur.
Name: <u>Robert R. Berthel</u>	
Title: <u>Environmental Group Manager</u>	
Address: <u>230 Chestnut St.</u> <u>Meadville PA 16335</u>	
Phone Number: <u>(814) 573-3610</u>	
Date: <u>7/21/2023</u>	Signature: <u>Harry L. Rhoades III</u> Name: <u>HARRY L. RHOADES</u> Date: <u>7-21-23</u> (Please Print)

\_\_\_\_\_ attached pages are part of this order for all purposes and shall be enforceable as such (as applicable).

**EXHIBIT D****Wells with Unnecessary Equipment**

<b>Permit Number</b>	<b>Well Name and Number</b>
121-44422	Lower Reno 4A
121-44465	Lower Reno 3A
121-44466	Lower Reno 5A
121-45433	Lower Reno 6
121-45434	Lower Reno 7
121-45435	Lower Reno 8
121-45437	Lower Reno 11
121-45440	Lower Reno 18

# ATTACHMENT G



**AQUA PENNSYLVANIA, INC.**  
**RECEIVER FOR**  
**VENANGO WATER COMPANY**

Dear Venango Water Customer,

Aqua Pennsylvania, Inc. (“Aqua”) has been operating the Venango Water Company (“VWC”) as Receiver as ordered by the Pennsylvania Public Utility Commission (“PUC”) since August 12, 2023.

***Our work to date***

Aqua worked diligently since taking over as Receiver to lift the Do Not Consume that had been in place since July 21, 2023. Actions included stabilizing the VWC system to ensure there was adequate water supply for sanitary purposes, trucking water from Aqua’s Emlenton water system to fill the VWC tank and for flushing purposes, and testing and sampling throughout the distribution system and source to ensure the water meets DEP drinking water regulations. On September 1, 2023, Aqua provided notice to the VWC customers that the Do Not Consume was lifted after consultation and approval of the Pennsylvania Department of Environmental Protection (“DEP”).

Aqua will now continue operating the system under the PUC’s Order until a determination is made by the PUC under the Section 529 of the Public Utility Code, 66 Pa. C.S. § 529 (“529 Proceeding”). The 529 Proceeding will determine whether a capable public utility should acquire the VWC system.

***Next Steps for Customers***

Under the PUC’s Order, Aqua is required to assume the customer service, billing and collections functions of VWC.

***Customer Service***

With Aqua, you have access to our U.S.-based, state-of-the-art customer service call centers:

- Our representatives are available to assist with your service and billing needs Monday through Friday between 8 a.m. and 5 p.m. at **877.987.2782**.
- For emergencies outside of these hours, you can call **877.987.2782** and the issue will be addressed promptly by our operations team.
- We also provide updates and resources to our customers through Facebook, Twitter and Instagram. You can follow us at @MyAquaWater.



### ***Billing & Payment***

Enclosed is Aqua's first bill to the VWC customers, which has been estimated based on prior consumption history. Aqua will work to reconcile this estimated read with later actual readings in future billings to VWC customers. Customers may review their rights as it pertains to estimated billings under 52 Pa. Code § 56.12. Your base rates will not change while the 529 proceeding is conducted. Aqua will continue to bill you in accordance with the VWC tariff which can be found on Aqua's website at [https://www.aquawater.com/\\_assets/doc/venango-water-co-tariff-no-3-effective-11-15-2018.pdf](https://www.aquawater.com/_assets/doc/venango-water-co-tariff-no-3-effective-11-15-2018.pdf).

When it comes to paying your bill, Aqua has several payment options for customers:

- You may mail your payment to:
  - Aqua
  - P.O. Box 70279
  - Philadelphia, PA 19176-0279
  
- Aqua e-billing, which allows you to pay your bill online and receive an electronic bill.
  
- If you use direct debit to autopay your current bill or a bill-payer service from your bank account, you must take the following steps once you receive your first Aqua bill that has your account number – please allow appropriate time to follow this process and for your bank to make the change:
  - **Change the payee designation to Aqua Pennsylvania**
  - Update the payee account number to your new 16-digit account number on your enclosed bill.
  - Change the mailing address for the payment to the remittance address on your Aqua bill.
  
- Learn much more about bill payment options at <https://www.aquawater.com/customers/pay-my-bill/index.php>

We look forward to serving you while we operate the VWC system.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Venango Water Company – Ex Parte** :  
**Emergency Order Naming Aqua** : **Docket No. M-2023-3042180**  
**Pennsylvania, Inc. as Receiver** :  
: :  
: :  
**Section 529 Investigation of Venango** : **Docket No. I-2023-3042312**  
**Water Company** :

**CERTIFICATE OF SERVICE**

I hereby certify that I have this 11th day of October 2023 served a true and correct copy of the foregoing document upon the persons and in the manner indicated below:

**VIA ELECTRONIC MAIL**

Carrie B. Wright, Prosecutor  
Bureau of Investigation and Enforcement  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120  
carwright@pa.gov

NazAarah Sabree, Small Business Advocate  
Office of Small Business Advocate  
555 Walnut Street  
1<sup>st</sup> Floor, Forum Place  
Harrisburg, PA 17101  
ra-sba@pa.gov

Christine Maloni Hoover, Esq.  
Deputy Consumer Advocate  
Christopher M. Andreoli, Esq.  
Assistant Consumer Advocate  
Aron J. Beatty, Esq.  
Senior Assistant Consumer Advocate  
Office of Consumer Advocate  
555 Walnut Street  
5<sup>th</sup> Floor, Forum Place  
Harrisburg, PA 17101  
choover@paoca.org  
candreoli@paoca.org  
abeatty@paoca.org

Paul Diskin, Director  
Bureau of Technical Utility Services  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17120  
pdiskin@pa.gov

**VIA ELECTRONIC MAIL AND U.S. MAIL**

Randall L. Rhodes, Secretary  
Venango Water Company  
P.O. Box 397  
Reno, PA 16343  
vwc-rlr@pa.rr.com

  
\_\_\_\_\_  
Alexander R. Stahl

Dated: October 11, 2023



**VIA E-FILING**

January 9, 2024

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17120

**Re: Venango Water Company – Ex Parte Emergency Order Naming Aqua  
Pennsylvania, Inc. as Receiver  
Docket No. M-2023-3042180**

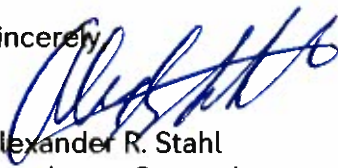
**Section 529 Investigation of Venango Water Company  
Docket No. I-2023-3042312**

Dear Secretary Chiavetta:

Enclosed please find Aqua Pennsylvania, Inc.'s ("Aqua") Second Status Report to the Pennsylvania Public Utility Commission ("PUC" or the "Commission") in accordance with Aqua's Receivership duties for the Venango Water Company established via the Commission's Ex Parte Emergency Order Entered August 11, 2023, Ordering Paragraph 4, Appendix A Paragraph 1.o., in Docket No. M-2023-3042180, and ratified by the Commission's Ratification Order Entered August 24, 2023. This status report is being filed in both the M-Docket and I-Docket referenced above.

If you have any questions regarding this filing, please contact me at 610-645-1130.

Sincerely,



Alexander R. Stahl  
Regulatory Counsel

cc: Certificate of Service  
Daniel Searfoorce, Bureau of Technical Utility Services (via email)  
John Van Zant, Bureau of Technical Utility Services (via email)  
Sean Donnelly, Bureau of Technical Utility Services (via email)



**SECOND STATUS REPORT TO THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

VENANGO WATER COMPANY  
AQUA PENNSYLVANIA, INC., AS RECEIVER

DOCKET NO. M-2023-3042180

DOCKET NO. I-2023-3042312

**Dated: January 9, 2024**

## A. **BACKGROUND**

On August 11, 2023, the Pennsylvania Public Utility Commission (“PUC” or the “Commission”) issued an Ex Parte Emergency Order at Docket No. M-2023-3042180 (“Receivership Order”) naming Aqua Pennsylvania, Inc. (“Aqua” or the “Company”) as Receiver for the Venango Water Company (“VWC”).<sup>1</sup> The VWC system serves approximately 215 customers and is comprised of two spring sources (Bellows and Shaffer Springs), one storage tank, and approximately 7 miles of mains. The Receivership Order was ratified by the Commission through its Ratification Order entered on August 24, 2023. Aqua was directed to assume its Receivership role on August 12, 2023. Included within the Commission’s Receivership Order, the Company was directed to “[s]ubmit an initial status report to the Commission within 60 days of assuming operations and then quarterly thereafter to detail any relevant updates pursuant to duties and responsibilities assigned through receivership.”<sup>2</sup> Aqua submitted its Initial Status Report on October 11, 2023.

Aqua now submits its Second Status Report (“Status Report”) on the operations of VWC as directed by the Commission.

## B. **SECOND STATUS REPORT**

### 1. **Financial**

The Receivership Order directed Aqua to establish the financial position of VWC at the time Aqua assumed its Receivership role.<sup>3</sup> Aqua is working to establish the financial position of VWC as of the start of Aqua’s Receivership, however, Aqua does not have access to all financial records of VWC. VWC has previously submitted Class C Annual Reports to the Commission which includes financial and operational data, the most recent of which was submitted on June 30, 2023 and available on the Commission’s website.<sup>4</sup> Aqua will continue to track expenses and capital improvements related to the VWC system through deferred accounting treatment via establishment of a regulatory asset in accordance with Aqua’s Receivership duties.<sup>5</sup>

Aqua and the Pennsylvania Infrastructure Investment Authority (“PENNVEST”) have discussed funding opportunities for construction of a pipeline that would deliver water from the City of Franklin, Venango County, and for the construction of a new water storage tank. PENNVEST provided options for this project including an Aqua loan, a Venango loan or a White Knight Program loan. PENNVEST indicated that a grant would not likely be offered due to the higher median income of Sugar Creek Borough. The White Knight program would afford an opportunity for low-interest loan, but Aqua would have to commit at least \$650,000 and Aqua would have to produce a letter of intent to own the VWC’s assets. Ownership of the VWC system will ultimately be determined by the Commission through this Section 529 proceeding.

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<sup>1</sup> In re: Venango Water Company, Docket No. M-2023-3042180, Ex Parte Emergency Order, Ordering Paragraph No. 4 (August 11, 2023) (hereinafter “Receivership Order”).

<sup>2</sup> Id. Ordering Paragraph No. 4, Appendix A Paragraph 1.o.

<sup>3</sup> Id. Ordering Paragraph 4, Appendix A Paragraph 1.r.

<sup>4</sup> See <https://www.puc.pa.gov/pdocs/1791853.pdf>.

<sup>5</sup> Receivership Order, Ordering Paragraph 4, Appendix A Paragraphs 1.s and 2.b.

## 2. Operations and Capital Expenditures

On August 12, 2023, Aqua began its Receivership duties for the VWC system. Since the Initial Status Report, Aqua has completed the following improvements to the VWC system:

- i. Installed winterization on the temporary water storage tank and booster station used for hauling water.
- ii. Began leak detection in the system to address water loss, and Aqua will be continuing leak detection efforts.
- iii. Removed above ground chlorine contact tanks at Shaffer Spring.
- iv. Purchased utility task vehicle in order to access the VWC spring sources.
- v. Water hauling reduced from once or twice a week to once every 2-3 weeks.

In November 2023, Aqua met with the City of Franklin's Council to discuss options of a bulk water agreement. The City Council indicated it would make a decision on availability of water and present its terms after January 1, 2024. The City's decision regarding provision of water to VWC will be key to the ultimate conclusion of the current situation as a pipeline from the City of Franklin would provide a permanent alternate source of drinking water for VWC customers.

Aqua is developing a recommended capital plan for the VWC system and will provide recommendations on capital improvements in a subsequent status report.<sup>6</sup> Along with the capital plan Aqua will be providing a breakdown of costs incurred during the Receivership in a future status report.

Since the First Status Report, Aqua received one Notice of Violation ("NOV") regarding payment of the Chapter 302 Operator Certification Service Fee, included as **Attachment A**. However, this NOV was due to a timing issue of payment arriving during the holidays and when the list of NOVs was generated. This NOV has been resolved with DEP.

Aqua was informed by the Rhodes family that they intended to cease providing operations service to the remaining systems owned by the Blaine Edwin Rhodes Estate ("Rhodes Utilities") effective December 31, 2023.<sup>7</sup> Aqua was subsequently informed that the Rhodes family intended to continue its current operations until a resolution can be reached. On January 3, 2024, the Commission's Bureau of Investigation and Enforcement ("I&E") filed a Petition requesting the

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<sup>6</sup> Id. Ordering Paragraph 4, Appendix A Paragraph 1.c.

<sup>7</sup> In addition to VWC, systems owned by the Blaine Edwin Rhodes Estate include Sugarcreek Water Company, West Hickory Water Company, Plumer Water Company, Fryburg Water Company, Cooperstown Water Company, and Blaine E. Rhodes Sewer Company.

Commission open a 529 proceeding regarding the Rhodes Utilities.<sup>8</sup> Aqua is currently reviewing I&E's petition.

As Aqua continues to operate the VWC system to ensure compliance with the Receivership Order, Aqua will make improvements necessary to provide quality and reliable service. Aqua will have further information on operational issues in later reports.

**C. CONCLUSION**

Aqua will continue to investigate the system's operations and financial status and will make necessary improvements to operate the VWC system to ensure quality service to the VWC customers for the period of its Receivership duties during the 529 proceeding. Aqua will provide an update to this Status Report on or before April 8, 2024.

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<sup>8</sup> See *Pa. Pub. Util. Comm'n v. The Blane Edwin Rhodes Estate*, Docket Nos. P-2024-3045205 and I-2024-\_\_\_\_\_ (Jan. 3, 2024).

# ATTACHMENT A



January 4, 2024

**NOTICE OF VIOLATION**

VENANGO WATER CO  
PO BOX 397  
RENO PA 16343-0397

Dear Permittee:

On July 1, 2023, the Department of Environmental Protection (DEP) issued an Available Operator Report (AOR) for completion, and an invoice for payment of Chapter 302 Water and Wastewater Operator Certification Program annual service fees under the authority of 25 Pa. Code §302.1202(b) and §302.202. The details of this invoice are as follows:

Permittee Name:	VENANGO WATER CO
Facility Name:	VENANGO WATER CO
Permit No.:	6610014
Account No.:	739628
Amount Due:	\$100
Due Date:	August 31, 2023

Additionally, in October 2023, DEP issued email notice to systems who had not paid the annual fee and provided an extension to the due date. **As of the date of this letter, the Chapter 302 Operator Certification Service Fee has not been paid.** We remind you that failure to pay the annual fee in full and/or failure to submit the AOR constitutes violations of 25 Pa. Code §302.202(c) and 302.1202(b), respectively, and subjects the permittee named above to enforcement action under the Water and Wastewater Systems Operators' Certification Act, 63 P.S. § 1014(c). The Act provides for up to \$1,000 per day in civil penalties and up to \$1,000 per day in summary criminal penalties for each violation. Each day of continued violation constitutes a separate offense. Continued failure to submit the fee will require an interest payment when the next annual fee invoice is transmitted. Other actions may be pursued such as revocation of your permit and/or referral to the Office of the Attorney General. You should also be aware that this violation is a matter of public record and may be found on DEP's website at [www.dep.pa.gov/DATA AND TOOLS/EFACTS](http://www.dep.pa.gov/DATA_AND_TOOLS/EFACTS).

Please submit the AOR and provide payment within **15 days** from the date of this letter. Otherwise, DEP may use any, and all, enforcement procedures, penalties and remedies afforded under the Water and Wastewater Systems Operators' Certification Act to compel compliance. Checks should be made payable to the "Commonwealth of Pennsylvania." Please include your permit number with all correspondence. The AOR and payment should be mailed to the following address:

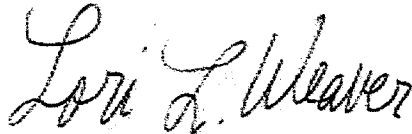
January 4, 2024

ATTN: Chapter 302 Annual Service Fee  
PA Department of Environmental Protection  
P.O. Box 8467  
Harrisburg, PA 17105-8467

This Notice of Violation is neither an order nor any other final action of the Department. It neither imposes nor waives any enforcement action available to the Department under any of its statutes. If the Department determines that an enforcement action is appropriate, you will be notified of the action.

If you have any questions about this notice, you have already submitted the AOR and payment, or would like a re-print of the AOR and Invoice please contact me at [lorweaver@pa.gov](mailto:lorweaver@pa.gov) or 717.772.4056.

Sincerely,

A handwritten signature in cursive script that reads "Lori L. Weaver".

Lori L. Weaver  
Water Program Specialist  
Operator Certification Water and Wastewater

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

<b>Venango Water Company – Ex Parte</b>	:	
<b>Emergency Order Naming Aqua</b>	:	<b>Docket No. M-2023-3042180</b>
<b>Pennsylvania, Inc. as Receiver</b>	:	
	:	
<b>Section 529 Investigation of Venango</b>	:	<b>Docket No. I-2023-3042312</b>
<b>Water Company</b>	:	

**CERTIFICATE OF SERVICE**

I hereby certify that I have this 9th day of January 2024 served a true and correct copy of the foregoing document upon the persons and in the manner indicated below:

**VIA ELECTRONIC MAIL**

Carrie B. Wright, Prosecutor  
Bureau of Investigation and Enforcement  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120  
carwright@pa.gov

NazAarah Sabree, Small Business Advocate  
Office of Small Business Advocate  
555 Walnut Street  
1<sup>st</sup> Floor, Forum Place  
Harrisburg, PA 17101  
ra-sba@pa.gov

Christine Maloni Hoover, Esq.  
Deputy Consumer Advocate  
Christopher M. Andreoli, Esq.  
Assistant Consumer Advocate  
Aron J. Beatty, Esq.  
Senior Assistant Consumer Advocate  
Office of Consumer Advocate  
555 Walnut Street  
5<sup>th</sup> Floor, Forum Place  
Harrisburg, PA 17101  
choover@paoca.org  
candreoli@paoca.org  
abeatty@paoca.org

Paul Diskin, Director  
Bureau of Technical Utility Services  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17120  
pdiskin@pa.gov

**VIA ELECTRONIC MAIL AND U.S. MAIL**

Randall L. Rhodes, Secretary  
Venango Water Company  
P.O. Box 397  
Reno, PA 16343  
vwc-rlr@pa.rr.com

  
\_\_\_\_\_  
Alexander R. Stahl

Dated: January 9, 2024

April 8, 2024

**Via E-File**

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17105

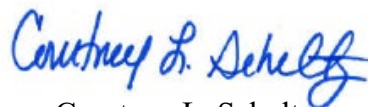
**Re: Aqua Pennsylvania Inc., as Receiver for Venango Water Company (“VWC”)  
Section 529 Investigation of VWC  
Section 529 Investigation of Rhodes Utilities  
Docket Nos. M-2023-3042180, I-2023-3042312, and P-2024-3045205**

Dear Secretary Chiavetta:

On behalf of Aqua Pennsylvania, Inc. (“Aqua”), in connection with the above-referenced matters, enclosed is Aqua’s Third Status Report for VWC for filing. Please contact me if anything further is required.

Thank you for your attention to this matter.

Respectfully submitted,



Courtney L. Schultz

cc: All Parties per Certificate of Service

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Venango Water Company – Ex Parte	:	
Emergency Order Naming Aqua	:	M-2023-3042180
Pennsylvania, Inc. as Receiver	:	
	:	
Section 529 Investigation of Venango	:	I-2023-3042312
Water Company	:	
	:	
Section 529 Investigation of Sugarcreek Water	:	P-2024-3045205
Company, West Hickory Water Company,	:	
Plumer Water Company, Fryburg Water	:	
Company, Cooperstown Water Company and	:	
Blaine E. Rhodes Sewer Company	:	

**CERTIFICATE OF SERVICE**

I, Courtney L. Schultz, Esquire, hereby certify that I am on this day serving copies of Aqua’s Third Status Report for Venango Water Company, upon the participants listed below in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant):

The Honorable Mark A. Hoyer  
Deputy Chief Administrative Law Judge  
Pennsylvania Public Utility Commission  
P.O. Box 3265  
Harrisburg, PA 17105-3265  
mhoyer@pa.gov  
mswarner@pa.gov

Carrie B. Wright, Prosecutor  
Bureau of Investigation and Enforcement  
Pennsylvania Public Utility Commission  
P.O. Box 3265  
Harrisburg, PA 17105-3265  
carwright@pa.gov

Christy M. Appleby  
Office of Consumer Advocate  
555 Walnut Street  
Forum Place, 5<sup>th</sup> Floor  
Harrisburg, PA 17101-1923  
[CAappleby@paoca.org](mailto:CAappleby@paoca.org)

Randall L. Rhodes  
Venango Water Company  
P.O. Box 397  
Reno, PA 16343  
vwc-rlr@pa.rr.com

NazAarah Sabree  
Rebecca Lyttle  
Office of Small Business Advocate  
555 Walnut Street  
Forum Place, 1<sup>st</sup> Floor  
Harrisburg, PA 17101  
[ra-sba@pa.gov](mailto:ra-sba@pa.gov) ; relyttle@pa.gov

Alexander Stahl, Esq.  
Aqua Pennsylvania, Inc.  
762 West Lancaster Avenue  
Bryn Mawr, PA 19010  
[astahl@aquaamerica.com](mailto:astahl@aquaamerica.com)



By: \_\_\_\_\_  
Courtney L. Schultz, Esquire  
PA Bar No.: 306479

Dated: April 8, 2024



**THIRD STATUS REPORT TO THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

VENANGO WATER COMPANY  
AQUA PENNSYLVANIA, INC., AS RECEIVER

DOCKET NO. M-2023-3042180

DOCKET NO. I-2023-3042312

DOCKET NO. P-2024-3045205

**Dated: April 8, 2024**

## A. **BACKGROUND**

On August 11, 2023, the Pennsylvania Public Utility Commission (“PUC” or the “Commission”) issued an Ex Parte Emergency Order at Docket No. M-2023-3042180 (“Receivership Order”) naming Aqua Pennsylvania, Inc. (“Aqua” or the “Company”) as Receiver for the Venango Water Company (“VWC”).<sup>1</sup> The VWC system serves approximately 215 customers and is comprised of two spring sources (Bellows and Shaffer Springs), one storage tank, and approximately 7 miles of mains. The Receivership Order was ratified by the Commission through its Ratification Order entered on August 24, 2023.<sup>2</sup> Aqua was directed to assume its Receivership role on August 12, 2023. Included within the Commission’s Receivership Order, the Company was directed to “[s]ubmit an initial status report to the Commission within 60 days of assuming operations and then quarterly thereafter to detail any relevant updates pursuant to duties and responsibilities assigned through receivership.”<sup>3</sup> Aqua submitted its Initial Status Report on October 11, 2023. Aqua submitted its Second Status Report on January 9, 2024

Aqua now submits its Third Status Report (“Status Report”) on the operations of VWC as directed by the Commission.

## B. **THIRD STATUS REPORT**

### 1. **Financial**

The Receivership Order directed Aqua to establish the financial position of VWC at the time Aqua assumed its Receivership role.<sup>4</sup> Aqua is working to establish the financial position of VWC as of the start of Aqua’s Receivership, however, Aqua does not have access to all financial records of VWC. VWC has previously submitted Class C Annual Reports to the Commission which includes financial and operational data, the most recent of which was submitted on June 30, 2023 and available on the Commission’s website.<sup>5</sup> Aqua will continue to track expenses and capital improvements related to the VWC system through deferred accounting treatment via establishment of a regulatory asset in accordance with Aqua’s Receivership duties.<sup>6</sup>

Aqua and the Pennsylvania Infrastructure Investment Authority (“PENNVEST”) have discussed funding opportunities for construction of a pipeline that would deliver finished water from the City of Franklin, Venango County, construction of a new water storage tank and other ancillary system components. PENNVEST provided options for this project including an Aqua loan, a Venango loan or a White Knight Program loan. PENNVEST indicated that a grant would not likely be offered due to the higher median income of Sugar Creek Borough. The White Knight program would afford an opportunity for low-interest loan, but Aqua would have to commit at least \$650,000 and Aqua would have to produce a letter of intent to own the VWC’s assets.

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<sup>1</sup> In re: Venango Water Company, Docket No. M-2023-3042180, Ex Parte Emergency Order, Ordering Paragraph No. 4 (August 11, 2023) (hereinafter “Receivership Order”).

<sup>2</sup> Id., Order (August 24, 2023).

<sup>3</sup> Id. Ordering Paragraph No. 4, Appendix A Paragraph 1.o.

<sup>4</sup> Id. Ordering Paragraph 4, Appendix A Paragraph 1.r.

<sup>5</sup> See <https://www.puc.pa.gov/pdocs/1791853.pdf>.

<sup>6</sup> Receivership Order, Ordering Paragraph 4, Appendix A Paragraphs 1.s and 2.b.

Ownership of the VWC system will ultimately be determined by the Commission through this Venango 529 Proceeding.

## **2. Operations and Capital Expenditures**

On August 12, 2023, Aqua began its Receivership duties for the VWC system. Since the Second Status Report, Aqua has completed the following improvements to the VWC system:

- i. Aqua located the transmission mains from both the Shaffer Spring and the Bellows Spring to the respective well stations. The location of the transmission lines was previously unknown.
- ii. Aqua has ceased hauling water during the winter months as the Shaffer Spring was able to supply enough water for customer consumption.
- iii. Electrical upgrades were made to the Shaffer Spring Station bringing the building up to electrical code, including installation of a new 200-amp service, 120/240-volt single phase overhead service, new receptacles, and lighting.
- iv. A portable generator with extended fuel tank was purchased for the Shaffer Spring disinfection system. This will allow chlorine disinfection in the event of a power outage.
- v. The soda ash chemical injection quill, feed lines, and chemical feeder were replaced when the existing chemical feed pump failed. A broken isolation valve in the Shaffer Spring treatment plant was replaced.

In November 2023, Aqua met with the City of Franklin's Council to discuss options concerning a bulk water agreement. The City Council indicated it would make a decision on availability of water and present its terms after January 1, 2024. Aqua is currently negotiating a water supply agreement with the City of Franklin; however, if terms cannot be reached Aqua will evaluate developing a new well in the Reno area.

Aqua is developing a recommended capital plan for the VWC system and will provide recommendations on capital improvements in a subsequent status report, which will be dependent on whether a new well or an interconnection with the City of Franklin is determined to be the source of supply for the VWC system going forward.<sup>7</sup> Also in a future status report, along with the capital plan, Aqua will be providing a breakdown of costs incurred during the Receivership.

Aqua has not received any notices of violation since the last status report.

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<sup>7</sup> Id. Ordering Paragraph 4, Appendix A Paragraph 1.c.

### 3. Other Proceedings

Aqua was informed by the Rhodes family that they intended to cease providing operations service to the remaining systems owned by the Blaine Edwin Rhodes Estate (“Rhodes Utilities”) effective December 31, 2023.<sup>8</sup> Aqua was subsequently informed that the Rhodes family intended to continue its current operations until a resolution can be reached. On January 3, 2024, the Commission’s Bureau of Investigation and Enforcement (“I&E”) filed a Petition requesting the Commission open a 529 proceeding regarding the Rhodes Utilities.<sup>9</sup> On February 15, 2024, I&E filed a Petition to Consolidate the Venango 529 Proceeding with the Rhodes Utilities 529 Proceeding. On March 20, 2024, Administrative Law Judge (“ALJ”) Mark J. Hoyer issued the First Interim Order Amending Caption and Consolidating the Section 529 Investigations Of Venango Water Company, Sugar Creek Water Company, West Hickory Water Company, Plumer Water Company, Fryburg Water Company, Cooperstown Water Company, And Blane E. Rhodes Sewer Company, And Ordering Notice To Be Provided To All Customers Of These Utilities Of The Initiation Of A Section 529 Investigation Proceeding In The Same Manner As A Proposed General Rate Increase And Ordering These Utilities To Preserve Records.<sup>10</sup> ALJ Hoyer’s First Interim Order consolidated the Venango 529 Proceeding and the Rhodes Utilities 529 Proceeding.

In accordance with the First Interim Order, Aqua provided notice of the Venango 529 Proceeding and the Rhodes Utilities 529 Proceeding in VWC customer bills that were sent on March 29, 2024, a copy of which is included in this Status Report as **Attachment A**.

### C. CONCLUSION

Aqua will continue to investigate the VWC system’s operations and financial status and will make necessary improvements to operate the VWC system to ensure quality service to the VWC customers for the period of its Receivership duties during the 529 proceeding. Aqua will provide an update to this Status Report on or before July 8, 2024.

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<sup>8</sup> In addition to VWC, systems owned by the Blaine Edwin Rhodes Estate include Sugarcreek Water Company, West Hickory Water Company, Plumer Water Company, Fryburg Water Company, Cooperstown Water Company, and Blaine E. Rhodes Sewer Company.

<sup>9</sup> See *Pa. Pub. Util. Comm’n v. The Blaine Edwin Rhodes Estate*, Docket No. P-2024-3045205 (Jan. 3, 2024) (hereinafter “Rhodes Utilities 529 Proceeding”).

<sup>10</sup> Venango Water Company – Ex Parte Emergency Order Naming Aqua Pennsylvania, Inc. as Receiver; Section 529 Investigation of Venango Water Company; Section 529 Investigation of Sugarcreek Water company, West Hickory Water Company, Plumer Water Company, Fryburg Water Company, Cooperstown Water Company and Blaine E. Rhodes Sewer Company, Docket Nos. M-2023-3042180, I-2023-3042312, and P-2024-3045205 (March 20, 2024). (hereinafter “First Interim Order”).

# ATTACHMENT A

**NOTICE OF SECTION 529 PROCEEDINGS**

To Venango Water Company Customers:

**The Section 529 Proceedings**

Venango Water Company (“VWC”) is your water service provider. By Ex Parte Emergency Order entered on August 11, 2023, the Pennsylvania Public Utility Commission (“PUC”) named Aqua Pennsylvania, Inc. (“Aqua”) as Receiver for the VWC system during the pendency of the investigation instituted under Section 529 of the Public Utility Code, 66 Pa. C.S. § 529 (“VWC 529 Proceeding”). The Docket Numbers for the VWC Proceeding are M-2023-3042180 and I-2023-3042312. Aqua has been operating the VWC system as Receiver since August 12, 2023. Through the VWC 529 Proceeding the PUC will determine whether a capable public utility should acquire VWC.

In addition to the VWC 529 Proceeding, a second Section 529 proceeding has been opened regarding six other utilities under common ownership with VWC – Section 529 Investigation of Sugarcreek Water Company, West Hickory Water Company, Plumer Water Company, Fryburg Water Company, Cooperstown Water Company and Blaine E. Rhodes Sewer Company (“Rhodes Estate 529 Proceeding”). The Docket Number for the Rhodes Estate 529 Proceeding is P-2024-3045205. The Rhodes Estate 529 Proceeding has been consolidated with the VWC 529 Proceeding (together, referred to as the “Section 529 Proceedings”).

**Notice of the Section 529 Proceedings and Opportunity to Participate**

As a customer of VWC, you are entitled to receive Notice of the Section 529 Proceedings and an opportunity to participate in them.

**Actions You Can Take**

You are not required to participate in the Section 529 Proceedings. The burden to prosecute the Section 529 Proceedings is with the PUC’s Bureau of Investigation and Enforcement. Should you wish to participate, there are three ways to do so:

1. Sending a letter to the PUC. You can tell the PUC why you support or object to a capable public utility acquiring the subject system(s). This information can be helpful when the PUC investigates the issues. Send your letter, referencing the Docket Numbers M-2023-3042180, I-2023-3042312, and P-2024-3045205, to the Secretary’s Bureau, Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, 2<sup>nd</sup> Floor, Room-N201, Harrisburg, PA 17120. You can also contact the Pennsylvania Office of Consumer Advocate (“OCA”) with questions, concerns and comments. The OCA is an active party representing the interests of residential customers. The telephone number for the OCA is 717-783-5048 or toll-free 800-684-6560.

2. You can file a formal Petition to Intervene asking the PUC to allow you to be a party – the petition must state who you are, why you want to be a party, and what your specific concerns are. Petitions should include the Docket Numbers M-2023-3042180, I-2023-3042312, and P-2024-3045205, and be sent to the Secretary’s Bureau, Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, 2<sup>nd</sup> Floor, Room-N201, Harrisburg, PA 17120.

3. You can attend or be a witness at a public input hearing, if one is held, where you will have the opportunity to present your views to the Administrative Law Judge and the parties. All testimony given “under oath” becomes part of the official case record. If no public input hearings are held, you still have the right to attend any hearings that are held in the case but will not be permitted to testify unless you have requested and been granted permission to intervene or are called by a party as a witness.

AQUA PENNSYLVANIA, INC., AS RECEIVER FOR  
VENANGO WATER COMPANY

Dated: March 29, 2024

## Aqua Pennsylvania's Quick Action Makes for a Safer Schuylkill County



By **Helen Harris**

Published: 5:24 am EDT April 3, 2024 Updated: 11:39 am EDT April 2, 2024



Aqua replaced 37 non-functioning fire hydrants in Shenandoah Borough, West Mahanoy, and Butler Townships, enhancing public safety.

In a major step toward improving public safety for the people of [Shenandoah Borough](#), [West Mahanoy](#), and [Butler Townships](#), Aqua Pennsylvania successfully replaced 37 inoperable fire hydrants less than six months after acquiring the water system from the [Municipal Authority of the Borough of Shenandoah \(MABS\)](#) in July 2023.



“Within the first three weeks of ownership, we identified nearly 25 percent of the fire hydrants protecting this community as inoperable. It became an immediate priority,” said Aqua Pennsylvania President [Marc Lucca](#). “Our work on fire hydrants marks a real improvement that people can see, and rest assured knowing they will operate when required. We’re proud to serve this community and our partnership with emergency responders who put their lives on the line when responding to fire emergencies.”

Shenandoah Borough officials praised [Aqua's](#) quick work in fixing this serious problem.

“I’m pleased with the progress being made, especially with addressing the issue of the inoperable hydrants, with the safety of the residents being paramount in the town,” said Shenandoah Borough Manager [Tony Sajone](#). “Since the onset, the Borough has had a very good working relationship with Aqua, which is instrumental in facing the many challenges that the future will bring in updating the current infrastructure system.”

Learn more about [Aqua](#) and how, for over 135 years, it’s protected and provided water. Aqua provides water and wastewater services to more than three million people in eight states, and that number continues to grow.



Featured Shenandoah

## Aqua replaces 37 inoperable fire hydrants so far in Shenandoah area

**SHENANDOAH** – Just under six months after they took control of Shenandoah’s water system, Aqua Pennsylvania has replaced 37 inoperable hydrants, the Bryn Mawr-based company said in an update Tuesday.

The private water company’s \$12 Million purchase of the Municipal Authority of the Borough of Shenandoah closed in late July.

“Within the first 3 weeks of ownership we identified nearly 25% of the fire hydrants protecting this community to be inoperable. It became an immediate priority,” said Aqua President Marc Lucca in a media release. “Our work on fire hydrants marks a real improvement that people can see, and rest assured knowing they will operate when required. We’re proud to serve this community and our partnership with emergency responders who put their lives on the line when responding to fire emergencies.”

As of Tuesday, 37 hydrants had been replaced. Aqua initially said 45 hydrants were inoperable in August, and more were bagged later.

Some [were replaced that month](#), including some that had been missing for years.

The latest wave of replacements [began in December](#).

“I’m pleased with the progress being made, especially with addressing the issue of the inoperable hydrants, with the safety of the residents being of paramount importance in the town,” said Borough Manager Tony Sajone. “Since the onset, the Borough has had a very good working relationship with Aqua, which is instrumental in facing the many challenges that the future will bring in updating the current infrastructure system.”

Thirteen fire hydrants, Aqua said, were “deemed as either unnecessary or poorly located” and are not being replaced.

The MABS system covers Shenandoah borough, the northern half of West Mahanoy Township including Shenandoah Heights, Raven Run, William Penn, and Lost Creek, as well as the villages of Connerton and Rappahannock in Butler Township and several houses on Mahanoy Avenue in Girardville.

# The Shenandoah Sentinel

Upper Schuylkill County's Community Connection

## Aqua contractor begins replacement of more hydrants

🕒 December 20, 2023 The Shenandoah Sentinel



KAYLEE LINDENMUTH / SHENANDOAH SENTINEL - The worksite at Chester and West Streets in Shenandoah where a contractor was replacing a fire hydrant on Dec. 20, 2023.

**SHENANDOAH** – The next round of fire hydrant replacements have begun in Shenandoah.

Dan Shingara Enterprises, Irish Valley, was at work replacing hydrants at Poplar and Jardin and at Chester and West Streets on the south side of town.

They are contracted by Aqua Pennsylvania, the new owners of Shenandoah's water system, [who had previously said a quarter of the hydrants in the system were inoperable.](#)



## As more hydrants are bagged, Aqua provides update

**SHENANDOAH** – Some more fire hydrants in Shenandoah and the William Penn/Lost Creek area are now bagged and Aqua Pennsylvania says most of them will be replaced in the next few months.

*The Sentinel* sought an update this week from the Montgomery County-based company that purchased the Municipal Authority of the Borough of Shenandoah after fresh bags were placed on hydrants downtown and in the township.

They previously had said about a quarter of the hydrants in the MABS were inoperable [and many were bagged in August](#), with some being replaced at that time.

At that time, Aqua called the evaluation of its hydrants “an important first step... to make sure they offer fire protection, and to start the repair or replacement process for hydrants that aren’t working.”

An Aqua spokesperson told *the Sentinel* Tuesday, “Most of the hydrants currently bagged will be replaced within the next few months, including some unbagged hydrants that are otherwise operable but have other maintenance issues.”

“The industry standard for minimum water main sizes required to support fire hydrants is 6”. However, there are bagged hydrants (and some unbagged) are located on mains less than 6”,” they continued. “This group of hydrants may not be replaced and will be removed if they cannot be connected to a larger nearby main and/or cannot provide adequate fire flow as determined by our engineering team.”

# REPUBLICAN HERALD

## Aqua replacing, repairing 45 fire hydrants deemed 'inoperable' in Shenandoah water system

By Hyun Soo Lee Staff Writer  
Aug 16, 2023

1 of 5



A "Not In Service" bag covers a fire hydrant Monday at East Coal and North Bower streets in Shenandoah.

JACQUELINE DORMER /

STAFF PHOTOGRAPHER

SHENANDOAH — Nearly a quarter of the fire hydrants in and near Shenandoah have been deemed inoperable by Aqua Pennsylvania Inc., which has taken over the borough water system.

The Bryn Mawr-based water company said it conducted an evaluation and found that 45 of 195 hydrants in the system, or 23%, are out of service.

Aqua is working on replacing and repairing the hydrants, some of which have been covered over with bags that say "Not in Service" on them.

On July 24, Aqua officially completed its purchase of the Municipal Authority of the Borough of Shenandoah, serving about 3,000 customers throughout Shenandoah, much of West Mahanoy Twp. and a small part of Butler Twp.

In a recent news release, the company said an important first step was to evaluate all hydrants to "make sure they offer fire protection" and to start the repairs or replacements of hydrants that aren't working.

Aqua has notified local fire departments of its plans and is working closely with them through the process, the company said.

"We got right to work when we began operating MABS last month, including our fire hydrant inspection, which supports fire protection and improves system reliability and operations," Aqua President Marc Lucca said in the release. "This is an important first step as we begin to make the necessary improvements to the community's water infrastructure."

The company recently installed a few new hydrants, including one on Monday outside Oravitz Home for Funerals Inc. at 40 N. Jardin St.

Owner Stephen F. Oravitz said there had not been a hydrant at that location for two years, as the previous one had been removed due to a slow leak.

"Instead of repairing the hydrant, they (MABS) just shut it off and took it out, so we didn't have anything there for about two years," he said.

The new hydrant is from Mueller Co. in Albertville, Alabama.

Oravitz said the new repairs and replacements will help boost safety across town in the event of fires.

"The workers there from Aqua seemed very knowledgeable and courteous, and they cleaned up nicely when they were done," he said.

In November 2020, the Shenandoah Borough Council approved the sale of MABS to Aqua for about \$12 million.

The Pennsylvania Public Utility Commission approved the sale July 13, allowing Aqua to take over the assets later that month.

Upon closing of the sale, the borough paid off MABS' outstanding debt of \$5.3 million and received the net balance of \$6.7 million for its own uses.

Tony Sajone, borough manager, said the borough has not decided how it will spend the money but that it will hold public input meetings to discuss options.

Aqua plans to invest \$23 million in upgrades to Shenandoah's water system over the next 10 years, including \$10 million for water main replacements.

The company will also launch a water meter replacement and installation program to help address water loss, which has been estimated at 60%.

Aqua currently serves approximately 1.5 million customers in 32 counties throughout Pennsylvania. For more information, visit [AquaWater.com](http://AquaWater.com).

Attempts to contact Shenandoah Fire Chief Rick Examitas and other fire personnel for more information on the hydrant repairs were unsuccessful.

## IN QUICK RESPONSE TO HURRICANE IDA, AQUA PA HELPS PA RESIDENTS WEATHER THE STORM



This month marks six months since Hurricane Ida rolled through southeastern Pennsylvania, bringing record rainfall and damaging flooding to areas of southeastern PA – including the Pickering West Water Treatment Plant, Aqua Pennsylvania’s largest suburban

Philadelphia treatment facility. At Aqua, we are committed to delivering safe and reliable drinking water for all, and this event highlighted just how critical that commitment truly is.

For perspective on just how powerful the storm was, 20 percent of the annual rainfall normally expected fell in a six-hour-period. This hurricane brought historic and catastrophic flooding – you may recall that astonishing image of Philadelphia’s Vine Street Expressway completely underwater. The flooding inundated and damaged most of the treatment plant’s infrastructure, which normally delivers 30 million gallons per day to approximately 1 million people in three counties. For nine days, our team managed the recovery of the plant by altering its operations so we could provide water to the service area, and deal with related storm aftermath at our other nearby water treatment facilities.

We were forced to implement a boil water advisory in two towns and issue a voluntary request for water conservation while we modified the distribution of water from other plants. Immediately after floodwaters receded, a team of employees and contractors worked around the clock to optimize production at our other plants and ensure service continued without interruption. Throughout this entire time, our number one priority was to provide service to our customers – safe, reliable access to a critical resource they need to live and work.



While we are not immune to floods that can happen annually, our team puts various plans in place to ensure our services remain dependable and accessible for all. We recognize the importance of having actionable natural disaster plans in place to help mitigate some of the potential effects of this hurricane and future storms.

One of the main reasons we avoided a large-scale boil water advisory and were able to keep the water flowing was due to the many sources of drinking water and robust distribution infrastructure throughout southeastern Pennsylvania, allowing us to reroute the water supply to compensate for the loss. In addition, the quick thinking, response, and guidance of our dedicated Aqua crew members prevented the problem from worsening and affecting our customers for a longer duration.



Additional tactics that helped us remain strong and continue water flow was a combination of media, social and digital outreach, customer specific email and text alerts, and focused, strategic communication that

proved effective. Aqua was able to fully saturate all available media channels to reach a significant number of people in a short period of time – the storm came in fast, and we reacted swiftly and efficiently. Our conservation messaging resulted in a customer response driving a measurable reduction in water consumption, affording us time to redirect water flow and help us avoid a larger scale issue.

Through the heroic efforts of our people, and the benefit of years of infrastructure investment throughout our system, Aqua was able to restore the operation of the plant from total outage in 9 days while sustaining service. Our plan is to employ corrective actions from this experience as we invest in operational strategies and infrastructure to ensure fast recovery and resilience from future circumstances. As a large water company with the available resources to endure these seemingly more frequent events, our customers should rest easy knowing that they have a water company serving them that can “weather the storm.”

*Marc A. Lucca is President of Aqua Pennsylvania, Inc.*

*Aqua Pennsylvania serves approximately 1.5 million people in 32 counties throughout the Commonwealth of Pennsylvania. Visit [AquaAmerica.com](http://AquaAmerica.com), or follow Aqua on Facebook at [facebook.com/MyAquaAmerica](https://facebook.com/MyAquaAmerica) and on Twitter at [@MyAquaAmerica](https://twitter.com/MyAquaAmerica).*

# The Philadelphia Inquirer

## Aqua Pennsylvania to customers: Go ahead and open the taps

The water company ended its request to reduce nonessential water, put in place after the remnants of Hurricane Ida on Sept. 1 knocked out its largest treatment plant.

Aqua Pennsylvania customers can go ahead and open the taps: The water company on Thursday ended its request to [reduce nonessential water](#) use that was put in place after the remnants of Hurricane Ida on Sept. 1 knocked out its largest treatment plant.

The [Bryn Mawr](#) water company owned by Essential [Utilities](#) Inc. said that it has recovered sufficient storage on its suburban water system to rescind its request for customers to conserve. "As we return to normal routines, let's enjoy this essential resource, but not be wasteful," Marc Lucca, president of Aqua Pennsylvania, said in a statement.

Record water levels breached the flood walls of Aqua's Pickering West treatment plant in [Schuylkill](#) Township, near Phoenixville, inundating the plant that supplies up to 40% of the drinking water for Aqua's suburban customers in Chester, Montgomery, Delaware, and Bucks Counties.

The company was able to maintain supply to most of its customers by ramping up production at other treatment plants located throughout its system.

But water pressure fell in some locations and Aqua last week advised customers in East Whiteland and Charlestown Townships to boil water. It rescinded the boil water alert on Sept. 10, but still asked customers to conserve until that request was lifted on Thursday.

Aqua has 372,000 water customers in Chester, Delaware, Montgomery, and Bucks Counties and serves an estimated population of about 1 million in Philadelphia's collar counties.



## Aqua Ends Request for Southeastern Pennsylvania Customers to Conserve Water in Ida's Aftermath



By Mark Hostutler

Published: 5:16 am EDT September 17, 2021 Updated: 10:07 pm EDT September 16, 2021



Image via Aqua.

Aqua Pennsylvania has ended its request that customers reduce nonessential water use to aid the recovery of normal water supply in the utility's southeastern Pennsylvania service area.

On Sept. 10, [Aqua](#) announced the recovery of partial operations at its Pickering West water treatment plant, which was heavily damaged by the devastating floods caused by remnants of Hurricane Ida. This recovery, along with customer conservation efforts, helped the utility bring drinking water supply for Chester, Delaware, Montgomery, and Bucks counties back to normal operation levels.

Marc Lucca, president of Aqua Pennsylvania, thanked customers who answered his call for water conservation.

"From everyone at Aqua, I thank all our customers in southeastern Pennsylvania for their support and cooperation," said Lucca. "With your help, we have recovered distribution system water storage to within normal levels and are able to end our earlier request. Aqua customers can now resume normal water use."

Lucca said the devastating effects of the storm emphasized the critical importance of access to safe drinking water.

"As we return to normal routines, let's enjoy this essential resource, but not be wasteful," he said.

The Pickering West water treatment plant normally provides up to 40 percent of Aqua's drinking water supply to its southeastern Pennsylvania service area. Aqua's many sources of drinking water and robust water distribution infrastructure throughout the four-county system allowed for rerouting of water supply to compensate for the loss.

Aqua Pennsylvania serves approximately 1.5 million people in 32 counties throughout the Commonwealth of Pennsylvania. Visit [AquaAmerica.com](http://AquaAmerica.com) for more information or follow Aqua on Facebook at [facebook.com/MyAquaAmerica](https://facebook.com/MyAquaAmerica) and on Twitter at [@MyAquaAmerica](https://twitter.com/MyAquaAmerica).





# Philadelphia suburbs on the long road to recovery after Ida

[Jim Melwert](#) September 7, 2021 4:46 pm



Historic flooding from the Schuylkill River completely damaged Aqua's 1-million-gallon clear-well tank that stored treated drinking water prior to it being pumped from the plant to customers' homes and businesses. *Photo credit Aqua Pennsylvanianormal*

**PHILADELPHIA (KYW Newsradio)** — Five days since Ida bulldozed the region, there are still significant complications across the Philadelphia suburbs.

Aqua Pennsylvania had to [shut down its Pickering East and West water treatment plants](#) due to the flooding. President Marc Lucca said those plants provide up to 40% of their daily water supply for customers in Bucks, Montgomery, Chester, and Delaware counties.

"I've been in this business for 30 years," he said. "I've seen a lot of storm damage. I've worked in different parts of the country. I have never seen anything like it."

Lucca said they have other treatment plants and wells, but with the loss of one of their major suppliers, they need customers across the system to [continue to chip in to make sure everyone has water](#). Simple steps like turning off sprinklers, not watering the lawn or washing the car, or only running the washing machine or dishwasher with a full load.





Historic flooding at Aqua's Pickering West water treatment plant damaged the facility's key automated control instrumentation. An Aqua employee points out the high-level water mark. *Photo credit Aqua Pennsylvanianormal*



The control room where operators monitored plant operations was destroyed. *Photo credit Aqua Pennsylvanianormal*



A large tree limb was among the debris found in the filter room. *Photo credit Aqua Pennsylvanianormal*

In Upper Dublin, the township building, police department, an elementary school and the high school were [all damaged by a tornado](#). Upper Dublin School District Superintendent Steve Yanni said while parts of the district were hit hard, others have little to no damage. Regardless, the community is mobilizing as one.

"The community's been really great. I think the people that were unaffected realize how lucky they were and are grateful they weren't affected," he said.

At least the silver lining to the coronavirus pandemic, Yanni said, is they are already set up to do virtual classes for students in storm-affected schools.

The district is also working to accommodate families who don't have power or need a place for their kids to go during the day.

Damage assessment teams are out across Montgomery County surveying the harder-hit areas.

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## WATERSHED

## Philly officials say the water is safe. How do we know that?

More than 100 samples of water have been taken in 12 locations in the river, outside the plant, and in the raw water storage basin.



 Aqua Lab Director Alicia Beauchamp tests water samples from the March 25 Delaware River chemical spill at the company's Bryn Mawr headquarters. (Courtesy of Aqua Water)

On Tuesday evening, the city of Philadelphia gave its residents the all clear to drink their tap water, after more than an estimated 8,000 gallons of a water-based latex finishing solution spilled from the [Trinseo Altuglas](#) plant in Bristol, Pa. into the Delaware River late Friday night.

Much of the chemical mixture settled in a containment pond, but rainfall contributed to the milky white liquid spilling into the stormwater system, and eventually the Delaware River. By early Sunday evening, the discharge had halted. Clean up continues at the site, but any danger to drinking water systems has passed.

WHYY spoke to a number of experts to find out how these spills are handled, how the water is tested, and why it's safe to drink.

## What chemicals were spilled into the Delaware River?

The chemicals included:

- [butyl acrylate](#): a clear, flammable liquid used in the manufacture of resins, sealants and paint formulations. It's one of the chemicals that was released during the East Palestine, Ohio. train derailment.
- [ethyl acrylate](#): a colorless liquid used in the production of acrylic resins, water-based latex paints, plastics, and rubber.
- [methyl methacrylate](#): a colorless flammable liquid used to make plastics, resins, paints, and coatings.

Trinseo, the company responsible for the spill, only provided the brand name of the product for the first 13 hours of the spill, according to the Philadelphia Water Department, making it impossible to test for specific chemicals at that time. The chemical components were not provided until about 1:30 p.m. on Saturday.

## How was contamination prevented in Philadelphia?

The Baxter water treatment plant is the only one of the city's three plants connected to water from the Delaware River. The Philadelphia Water Department shut intakes to the Baxter water treatment plant as a precaution. The plant had stored enough clean water prior to the spill that it could send to residents' taps.

## How was the water monitored?

More than a hundred samples of water have been taken in 12 locations in the river, outside the plant, and in the raw water storage basin.

Scientists used gas chromatography and mass spectrometry to test for the chemicals. This is an analytical technique that allows scientists to separate components of a complex mixture — such as the various components in water — and analyze them to get information about the structure of those components, and how much of it is present.

The standard technique has been around for about 50 years, and is commonly used for trace analysis of environmental water samples.

Environmental analytical chemist Chuck Powley of PFAS Solutions in Delaware said the technology is very reliable, and that the three chemicals of concern are compatible with this technique.

"These are very common chemicals. They've been around for quite a while, and there are standard EPA methods for analyzing them in water," he said.

The method can detect chemicals to single parts per billion.

"You can think of that in terms of, if you have a billion dollars, and you gave someone \$1, the amount that person has is one part per billion," said Jon Scaffidi, an administrative scientist at the Philadelphia Water Department's Bureau of Laboratory Services, during a press conference Tuesday.

Following the Friday chemical spill, Aqua, which supplies water to eight states and has a site in Bristol, tested samples day and night for 63 kinds of chemicals.

The company was already prepared to test for butyl acrylate, because it serves water in Ohio, where the train derailment took place. Even though Aqua doesn't regularly test for the other two chemicals, it had the technology in place to do so, said Christopher Crockett, vice president and chief environmental, safety, & sustainability officer of essential utilities.

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It's a complicated process, however.

"Most people think this testing is like the CSI Miami montage, where you go and they play a song, and next thing you know, they have all the test results back," Crockett said. "But, you have to process it, set it up, and then it takes about an hour to run ... you're taking a couple dozen or so samples at a time ... And basically you're waiting for the machine to run to get the results."

Scientists also must review the data to make sure no errors were made.

The Philadelphia Water Department also utilized three additional private labs to help with testing, a spokesperson for the department said.

"This was important to maximize turn-around time of results," he said in an email. "Finding specialized labs that can test for these chemicals at the parts-per-billion level absolutely added to the challenges of the spill response."

Computer modeling also predicted the path of the spill and how long the chemical compound would take to work its way down the Delaware River. Crockett likens it to

dumping a bunch of rubber ducks in the water.

"It would basically simulate how those rubber ducks would move down through the Delaware River, and when those rubber ducks would get to different places and where they were going," he said.

Because the Delaware River is tidal, the path is a bit tricky.

"When you dump the ducks in, they might go downstream 10 miles, but then they might come back up 8 miles with the tide," he said. "After 24 hours, they've only moved 2 miles downstream, net. So it's kind of like three steps forward, one step back. The computer basically simulates exactly that sloshing back and forth, and how long it will take for something to move its way down through there."

## What do tests finally show?

The three chemicals were never found in the water. Testing in the river demonstrated that as the contaminated water diluted and traveled down the river, the risk to the drinking water system passed. There is no longer the possibility of the chemicals entering the Baxter plant.

Crockett said the city was prepared to handle the situation because of what he likes to call “utility first responders.”

“There are utility workers in the water industry that are constantly dealing with these issues so that [residents] don’t have to think about it. So it doesn’t have to become, ‘Should I buy bottled water or not?’” he said. “There are probably a dozen or more of these types of events every year in the Delaware Valley ... We have systems like the early warning system, and we have [standard operating procedures] ... that we drill for like this so that when these things happen, everything works like it should have.”

## **Was Philadelphia the only water system threatened by the spill?**

No. Aqua Water has a plant in Bristol, but the company shut down the intake. Aqua recently reopened after ensuring no contaminants entered its system. New Jersey American Water has a plant in Delran, and they too reported that their testing showed no presence of the contaminants. Burlington, N.J. also has a plant right across the river from the spill site.

## **What agencies participated in responding to the spill?**

The U.S. Coast Guard is the lead federal agency responding to the spill. Others include the EPA, the Pennsylvania Department of Environmental Protection, the New Jersey Department of Environmental Protection, and the Pennsylvania Fish and Boat Commission.



# What just happened? Making sense of Philly's tango with tainted water.

Let's rewind. This past Sunday afternoon, iPhone sirens blared and the following message flashed across the screen of hundreds of thousands of Philadelphians:

*“City of Phila recommends using bottled drinking water from 2PM 3/26/2023 until further notice for all Phila Water Department customers. Contaminants have not been found in the system at this time but this is out of caution due to a spill in the Delaware River.”*

What ensued were some of the scariest and most confusing few days in recent memory.

Worried citizens packed into big-box and grocery stores alike, buying up all the bottled water, moving on to the Gatorade and triggering international media attention. Over the next 48 hours, officials within the Kenney

messaging seeking to reassure city residents, saying there was no sign of contamination in the city's water supply and moving back the timeline for when it could potentially arrive. Mostly, they were met with suspicion and scorn from all corners, including residents, media outlets and candidates seeking to replace Kenney in the mayor's office later this year.

Then, on Tuesday night, word came down that it was all over, just like that.

*“City declares water is safe, will not be impacted by spill,”* the latest smartphone message asserted.

So ... what gives?

As a journalist who has sat in many tense rooms as communities grappled with tainted water supplies, here's what I saw, based on my reading of all available information and conversations with water experts.

Just after midnight on Saturday,

authorities say a pipe ruptured at a chemical plant called Trinseo Altuglas in Bristol, a little over eight miles up the Delaware River from Philadelphia's Baxter Water Treatment Plant, the city's largest. Reportedly, some 8,000 gallons of a trio of chemicals used in plastic production leaked into the nearby Otter Creek near its confluence with the Delaware.

Chris Crockett, a former deputy commissioner at the Philadelphia Water Department and now chief environmental and safety officer at suburban water provider Essential Utilities (aka Aqua Pennsylvania), told me that emergency response infrastructure quickly went into effect.

In 2005, the Philadelphia Water Department led the creation of the Delaware Valley Early Warning System, which is essentially a contamination alert system for drinking water utilities across the region. When a chemical spill or similar incident occurs, the system automatically models how and when it

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will move through the region's waterways and warns utilities with vulnerable water intakes.

The Pennsylvania Department of Environmental Protection (PADEP) confirmed to *Grid* that the event was categorized as "high risk," which generated both phone calls and emails to all potentially impacted water providers and also calculated "a time of travel to downriver intakes." Utilities were free to make their own decisions from there.

For Aqua Pennsylvania, their actions were a no-brainer, Crockett says. One of their intakes on the Delaware was located less than one-half mile upstream from the plant, making it vulnerable as the river's tidal action can push contaminants northward. Crockett says the company had flexibility to replace the water with other sources throughout its suburban network and leave the plant offline until it was sure the chemicals were gone.

In fact, Crockett said a spill of the

Altuglas magnitude isn't even that out of the ordinary. Every year brings many kinds of spills or accidents across the watershed. In 2004, nearly 300,000 gallons of oil spilled into the river in Paulsboro. The following year, 100 million gallons of toxic fly ash entered the upper watershed. In 2012, more than 20,000 gallons of vinyl chloride leaked into the river from New Jersey.

So what happened in Philadelphia this time around? By various accounts, after word of the spill went out, water department officials began reviewing models of how the chemical plume could move down the river, while also coordinating with agencies like the Environmental Protection Agency and U.S. Army Corps of Engineers on what actual testing of river water was showing.

The circumstances in the war room likely looked like this:

1. Altuglas claimed three chemicals had leaked. While each one comes with various health effects, toxics experts generally have said that none would be likely to seriously harm people at low levels, after being diluted by the robust Delaware River. But that wasn't certain, and it is also not unheard of for chemical companies to update the list of spilled chemicals after the fact to include something potentially more nefarious.

While modeling and testing the river is useful, it is not foolproof. Chemicals can become caught up in rocky outcrops and appear to dissipate only to reemerge later. Crockett, whose lab tested many of the samples taken over the past few days, echoed City officials in saying that all testing of river water and various intakes showed no detectable levels of the chemicals except at the epicenter of the spill.

2. While modeling and testing the river is useful, it is not foolproof. Chemicals can become caught up in rocky outcrops and appear to dissipate only to reemerge later. Crockett, whose lab tested many of the samples taken over the past few days, echoed City officials in saying that all testing of river water and various intakes showed no detectable levels of the chemicals except at the epicenter of the spill. But, that does not create certainty that the chemicals were not still lurking somewhere in significant amounts and making their way

toward the city's intake.

3. Scars remain fresh on the national psyche from the train derailment and chemical releases in East Palestine, Ohio, in early February. And the two incidents shared a common chemical: butyl acrylate, which the CDC says can "cause redness, tearing, and irritation of the eyes, runny nose, scratchy throat, difficult breathing, and redness and cracking of the skin."

Facing all these variables, in a Monday press conference, Mayor Kenney said the City's ultimate decision was to ensure that no amount whatsoever of the chemical spill reached the tap water of Philadelphians, by alerting the public and putting the Baxter plant on a minimum operating level. Thus, the City chose drastic action even as the chemical threat may well have been a phantom.

Again, speaking as someone who has been in rooms where public officials deny any public hazard exists even when it clearly does, I think the City's reaction

could have been far worse. And by Tuesday, it appeared the authorities were convinced that the threat, to the extent there ever was one, had passed. In the end, all available evidence suggests Philadelphians were kept safe.

But that still leaves hard questions about the City's communication strategy.

Somewhere, someone made the decision to push out the first mass-text alert on Sunday, triggering the start of panic. Officials with PADEP confirmed to *Grid* that the sending of such alerts was at the sole discretion of the city's officials. The calculus behind their decision and reasons for the specific wording used — "use bottled water until further notice" — are at this point unknown.

Next, the City's slow drip-drip of updates, keeping fresh the specter of maybe-soon-to-be-contaminated drinking water, might have been meant to reassure, but in many ways did the opposite.

Ultimately, a great amount of accountability should be placed on Trinseo Altuglas and environmental regulators. What failed, why and what will be done to prevent it — or something even worse at the next plant down the river — from happening in the future?

But in Philadelphia, the trials of the last few days suggest a deep need for City officials to take a hard look at their crisis communications playbook and perhaps do some cleanup of their own.

NEWS

# Philly drinking water deemed safe but chemical spill monitoring ongoing, officials say

The threat of contamination will pass by Thursday, according to city officials, but water testing will continue through next week.

Philadelphia officials say tap water from the Baxter treatment plant is safe to drink at least through 3:30 p.m. Tuesday as they continue to monitor the impact of a chemical spill from a plant upstream on the Delaware River.

So far, no contaminants related to Friday night's inadvertent discharge of 8,100 gallons of tainted water from the Trinseo plant in Bristol, [Bucks County](#), have been detected at the Baxter water treatment facility, which supplies drinking water for more than half of the city.

Officials said at a briefing Monday that the threat of contamination should pass by Wednesday night or Thursday. The Philadelphia Water Department said it would continue testing drinking water into next week, though, to ensure the water is safe.

Randy Hayman, the department's commissioner and CEO, said tests have been conducted at 12 locations along the Delaware River, including just outside the Baxter plant.

"All the tests so far have been negative," Hayman said.

Mike Carroll, deputy managing director for the Office of Transportation, Infrastructure and Sustainability, said testing "has been going on around the clock and will continue." The latest test was at 4 p.m. Monday.

City officials say that residents can safely continue to use the water in their homes. "It is safe to drink and use tap water to cook with it, to brush your teeth, to bathe in," Carroll said.

The contaminants may not reach the city water supply, but if they do, officials said, they should have the capacity to treat the water, given that the chemicals would be highly diluted and pose a low risk.

If the city is unable to fully remediate any chemicals from the system, officials said they will have a plan to distribute water.

Anne Nadol, the city's commerce director, said restaurants and businesses should also have no fear of using tap water for now. She said officials hope to give another update Tuesday morning.

Officials are recommending that schools, day cares, and restaurants continue to operate.

"Let's be clear," said Mayor [Jim Kenney](#). "The city has been monitoring this since it first occurred on Friday night. PWD has been active since the weekend, working with the U.S. Coast Guard. The Pennsylvania Department of Environmental Protection is constantly monitoring and testing the work to ensure the health of the public."

No traces of the chemicals have been found in any water system along the Pennsylvania or New Jersey sides of the river.

## The chemical spill

Friday's spill occurred at a chemical plant owned by Trinseo, a manufacturing firm that makes plastics and latex binders. The company said that an "equipment failure" resulted in 8,100 gallons of latex emulsion solution dumped into Otter Creek, a tributary of the Delaware River. The solution is about 50% water and 50% latex polymer, according to the company. The solution also contains butyl acrylate, one of the chemicals released in February's train derailment in [East Palestine, Ohio](#), when rail cars caught fire and left a cloud of toxic smoke over the town, causing an evacuation and health scare.

The plant that produces acrylic products such as Altuglas, [similar to plexiglass](#), has a history of mishaps — including at least four recent contamination incidents. It is located within a cluster of industrial companies along the Delaware River north of Philadelphia that has hosted chemical giants since the early 20th century.

Throughout its history, the site has been subject to frequent monitoring by government regulators. Over the past decade, the U.S. Coast Guard twice before detected releases of acrylates, which can be toxic, from the Bristol facility into the Delaware. The EPA had separately flagged two other acrylate releases.

## A big concern in Philly

Friday's spill highlighted the city's vulnerability when it comes to water: It is at the mercy of river water and cannot draw from underground aquifers, unlike water departments in communities such as Camden, which gets water from wells in addition to the river.

The Philadelphia Water Department provides drinking water for 1.7 million residents of the city as well as Lower Bucks County. It operates three main drinking plants that treat hundreds of millions of gallons of water daily. The Baxter treatment plant in [Torresdale](#) takes in water from the Delaware River and serves about 58% of the city. The Queen Lane and Belmont plants take in water from the [Schuylkill](#).

The plants use an elaborate process that screens out solids, doses it with chlorine, and filters through layers of sand, gravel, and carbon. The water is dosed again with chlorine to preserve it on a journey through miles of pipe to individual homes and businesses. The system complies with [National Primary Drinking Water Regulations](#) for about 100 contaminants.

But the city does not normally look for, or treat, any of the three chemicals released in the spill.

## **Early warning system worked**

Chris Crockett, chief environmental, safety and sustainability officer for water company Aqua Pennsylvania, said none of the water systems it operates surrounding Philadelphia has detected the chemicals released in the spill.

Crockett said water officials throughout the region were notified quickly of the spill through the Delaware Valley Early Warning System, which he helped start when he worked for the Philadelphia Water Department. The system acts as a regional information hub during spills.

Aqua, as well as other water utilities in the system, were already testing for butyl acrylate because officials moved to put testing standards in place in the Philadelphia area after the East Palestine derailment.

The EPA has not issued guidance for maximum contaminant levels for butyl acrylate. But the Centers for Disease Control has offered guidance of a maximum of 500 parts per billion.

He said the system's computer modeling predicted the path of the spill and how long the chemical compound would take to work its way down the river.

"I know the public is worried about this," Crockett said. "But the systems that we have put in place on the Delaware River actually worked exactly like they were supposed to."

Philadelphia is using the same detection standards as Aqua, according to Carroll. And the modeling has helped city officials figure out where chemicals from the spill are heading.

"The smallest amount we can detect is in a single part per billion," Carroll said. "We've detected none of the material in any of the testing that we've done."



PHILADELPHIA (CBS) -- Aqua Pennsylvania leaders credit quick, scientific-based decision-making for protecting one of its water treatment plants that's roughly 2,000 feet from where the chemical spill in Bristol floated into the Delaware River.

Aqua's water treatment plant in Bristol serves about 30,000 customers in several places, including Bristol Borough and Bristol Township.

Todd Duerr, Aqua Pennsylvania's vice president of operations, said the treatment team immediately made their way to the plant after being notified of the chemical spill Friday night.

"They went down toward the spill site. They looked at what the water was. They saw there were some traces of a white substance," Duerr said. "We didn't know what it was, so we decided to shut the plant down."

Duerr said the plant had the advantage of being upstream of the spill.

"As the water starts to move downstream, we know we had fresh water upstream coming past our intake," Duerr said. "So, we knew there was no danger."

But a river's water level rises and falls throughout the day.

Once the Delaware River starts to rise, water gets pushed back upstream, which significantly increases the risk of the leaked chemical floating back towards the plant.

Aqua Pennsylvania devised a plan, where they closely monitored the river levels. Once the river started to rise, Aqua closed its river intake and reopened it only after the river's level started to drop. A falling river level means water is back flowing downstream.

"Let's watch the river. Let's do some scientific testing at our laboratories, a few other things in our treatment system," Duerr said. "We didn't turn the plant on until we were confident we knew what the situation was."

Aqua Pennsylvania President Marc Lucca said so far, their testing has shown no traces of the chemical in their water supply.

"We train for these types of things. We practice these types of events all the time," Lucca said. "We are here 24/7, 365 to protect their drinking water so they never have to think about it."

Aqua Pennsylvania said the chemical is now far enough downstream that they only have to be in a heightened state of alert for another 1-2 days.

# Quick actions prevented chemical spill from impacting water supply in Philadelphia suburbs

**BRISTOL, Pa.** - Quick actions from those in charge of a water treatment facility near a chemical spill along the Delaware River prevented the harmful toxins from entering the plant.

Health officials in Bucks County said Sunday that between 8,100 and 12,000 gallons of a water-based latex-finishing solution spilled into the river late Friday because of a burst pipe at the Trinseo Altuglas chemical facility in Bristol Township.

The midnight spill happened at low tide less than half a mile upstream from the AQUA Pennsylvania water treatment facility. AQUA President Mark Lucca said by the time he heard about the spill the plant had already been shutdown thanks in part to early warning sensors that helped them decide to shut off water intake from the river.

"The first thing people are asking us is 'is my water safe to drink?' It absolutely is safe to drink, how do we know? Because it never got into the plant" Lucca said.

AQUA's local water reserves were fairly high, so Bristol's water supply was never threatened. And even if it was, AQUA says it would have been able to call on more supply from company resources in nearby Delaware and Montgomery counties.

"We have a lot of resources within Southeastern Pennsylvania to move water from one area to another, which is what got us through all the plant was shut down," AQUA Vice President Todd Duerr said.

AQUA says it waited until shortly after the next high tide to reopen the facility to ensure clean water from upstream flushed the potentially chemical-tainted water down the Delaware River. The plant normally operates 24-hours a day, but their operations are currently cut in half.

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"Whenever the tide would go out, recognize that the water upstream is fresh, there's nothing in that," Duerr said. "Every day the plume is moving further and further downstream, so with all those data points in mind, we decided if the plant should come on or not."

The data-driven water company says it will continue to use information collected on a daily basis to decide when to safely return the plant to 100% capacity.

# The Philadelphia Inquirer

## How the Ohio train derailment had local water officials prepared for the Bristol spill

Chris Crockett, chief environmental, safety and sustainability officer for Aqua Pennsylvania, said none of the water systems it operates surrounding Philadelphia has detected the acrylate compounds released in the spill.

Crockett said the company's EPA-accredited lab in [Bryn Mawr](#) is able to detect down to one part per billion, but hasn't found anything.

However, he said that Aqua, as well as other water systems in the region, were prepared to test for butyl acrylate because it was one of the chemicals of concern in the East Palestine, Ohio, derailment in February.

Crockett said water officials throughout the region were notified quickly of the Friday spill through the Delaware Valley Early Warning System, which he helped start when he formerly worked for the Philadelphia Water Department. The unique system acts as a regional clearinghouse for spill information.

Local officials had already worked on guidance for testing butyl acrylate into the system. The EPA has issued no guidance for maximum contaminant levels for the compound. But the CDC offered guidance of a maximum of 500 parts per billion.

He said the system's computer modeling predicted the path of the spill and how long the chemical compound would take to work its way down the river. Because the Delaware River is tidal in the Philadelphia area, the water sloshes back and forth as it slowly makes its way downstream.

As a result, it could take several days from the time of the spill to where it passes by Philadelphia. At that point, Crockett said, it would also likely be so diluted as to be undetectable.

"I know the public is worried about this," Crockett said. "But the systems that we have put in place on the Delaware River actually worked exactly like they were supposed to."

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
MICHAEL CONVERY**

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**Topics Addressed:**

**Capital Expenditures**

DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 12**

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1                                   **I.       INTRODUCTION AND BACKGROUND**

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

3   A.     Michael Convery. My business address is 762 W. Lancaster Avenue, Bryn Mawr,  
4         Pennsylvania 19010.

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

6   A.     I am employed by Aqua Pennsylvania, Inc., (“AP”) as Planning and Engineering Director.

7   **Q.     Please provide a brief description of your education and work experience.**

8   A.     I graduated from Penn State University in 2008 with a Bachelors of Science in  
9         Environmental Systems Engineering. I joined AP in 2009 as Project Engineer. I was  
10        promoted to Project Manager at AP and then moved to Aqua Services, Inc. (“Aqua  
11        Services”) as Senior Project Manager. I then was promoted to Manager of Hydraulic  
12        Modeling and Planning in Aqua Services. I was promoted to my current role of Director  
13        of Planning and Engineering of AP. I am Registered Professional Engineering in  
14        Pennsylvania and Maryland.

15   **Q.     Have you previously testified before the Pennsylvania Public Utility Commission**  
16         **(“PUC” or the “Commission”)?**

17   A.     No.

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

19   A.     The purpose of my testimony is to provide an overview of the reasons why AP and Aqua  
20         Pennsylvania Wastewater, Inc. (“APW”) (together with AP, “Aqua PA” or the  
21         “Company”) continues to need to upgrade and improve its water and wastewater  
22         infrastructure. In particular, I will focus on per- and poly-fluoroalkyl substances (“PFAS”)  
23         and lead service lines (“LSL”).

1 **Q. Are you sponsoring any exhibits associated with your direct testimony?**

2 A. No.

3 **Q. Are you responsible for any responses to the Commission’s filing requirements and/or**  
4 **standard data requests that were included with Aqua PA’s initial filing in this case?**

5 A. Yes. I am sponsoring certain responses to the Commission’s standard filing requirements,  
6 as well as standard data requests, where my name is listed as the sponsoring witness for a  
7 given response.

8 **II. AQUA PA’S CAPITAL INVESTMENT**

9 **Q. Please describe the key driver involved in the Company’s capital investment**  
10 **decisions.**

11 A. The primary driver of the Company’s capital investment decision making process is  
12 compliance with state and federal rules and regulations from our environmental regulators.

13 **A. WATER INFRASTRUCTURE**

14 **Q. Can you provide a few examples of major projects that are included in the Company’s**  
15 **claimed utility plant for the future test year (“FTY”) and fully projected future test**  
16 **year (“FPFTY”) for its water operations?**

17 A. Yes. Below provides a discussion of major projects during the FTY and FPFTY.

18 1. Neshaminy to Bethayres (36-inch)-PH 3B Water Main Replacement

19 The Company plans to replace approximately 2,700 linear feet (“LF”) of  
20 transmission main with 36-inch TR-Flex ductile iron (“DI”) pipe along Philmont Avenue  
21 in the Company’s Main southeast (“SEPA”) system in Montgomery County. The existing  
22 main has experienced frequent leaks leading to extensive surface damage. The existing

1 main is also undersized and the replacement main will enhance system reliability and  
2 improve customer service.

3 2. Coventry Lane, Westtown Water Main Replacement

4 The Company plans to replace approximately 3,000 LF of distribution main with  
5 12-inch DI pipe along Coventry Lane and South Matlack Street in the Company's Main  
6 SEPA system in Chester County. The replacement main will enhance system reliability  
7 and improve customer service.

8 3. Marshallton Thorndale Road, West Bradford

9 The Company plans to install approximately 12,000 LF of 12-inch DI transmission  
10 main with 36-inch DI at Marshallton Thorndale Road in the Company's Spring Run system  
11 in Chester County. This main will interconnect two sections of the Company's distribution  
12 system to improve water quality, enhance system reliability, and improve customer service.

13 4. South Concord Rd SR 2006, Westtown

14 The Company plans to replace approximately 5,700 LF of distribution main with  
15 12-inch DI pipe along South Concord Road in the Company's Main SEPA system in  
16 Chester County. The existing main has experienced frequent leaks leading to extensive  
17 surface damage. The existing main is also undersized and the replacement main will  
18 enhance system reliability and improve customer service.

19 5. South Oak Lane, Aldan Borough

20 The Company plans to replace approximately 2,000 LF of distribution main with  
21 20-inch DI pipe along South Oak Avenue and approximately 1,000 LF of distribution main  
22 with 16-inch ductile iron DI pipe along Providence Road in the Company's Main SEPA  
23 system in Delaware County. The existing main has experienced frequent leaks leading to

1 extensive surface damage. The existing main is also undersized and the replacement main  
2 will enhance system reliability and improve customer service.

3 6. East Eagle Road, Haverford Twp

4 The Company plans to replace approximately 3,900 LF of distribution main with  
5 16-inch DI pipe along East Eagle Road and approximately 2,300 LF of distribution main  
6 with 8-inch DI pipe along West Darby Road in the Company's Main SEPA system in  
7 Delaware County. The existing main has experienced frequent leaks leading to extensive  
8 surface damage. The replacement main will enhance system reliability and improve  
9 customer service.

10 7. New Pretreatment Facility-Crum

11 The Crum water treatment plant ("WTP") is permitted for 24 million gallons per  
12 day ("MGD") at full design capacity. However, the pretreatment stage has not been reliable  
13 in the summer months when organic loading is high, resulting in the WTP being unable to  
14 operate at permitted capacity due to poor settling performance at the sedimentation basins  
15 with carryover overloading the filters. Specifically, there is unwanted sediment build-up  
16 near the top of the plate settlers resulting in clogging and inhibited settling. It is also noted  
17 that the existing sludge collection system in the sedimentation basins is outdated and  
18 underperforming. This project is necessary to add a fourth sedimentation basin to the  
19 pretreatment train and install a modern and more efficient sludge collection system in all  
20 basins. The addition of the 4<sup>th</sup> basin will reduce settled water turbidity, reduce operations  
21 and maintenance ("O&M") frequency and costs through less backwashing of filters, and  
22 better-concentrated residual management. The addition will also ensure that the Crum  
23 WTP will be able to reliably meet the permitted capacity with one basin out of service

1 and consistently achieve settled water turbidity goals established by the American Water  
2 Works Association (“AWWA”) Partnership for Safe Drinking Water.

3 8. Pickering East WTP Rehabilitation Phase 1 – Filter Additions

4 The Phase 1 Expansion of the Pickering East WTP includes the demolition of the  
5 existing clearwell, construction of six new gravity filters in a new filter building, and  
6 associated site work. The expansion will increase capacity from 15 MGD to 28 MGD,  
7 providing operational reliability to the contiguous system. The Pickering WTP complex is  
8 the primary water producer in AP’s Main SEPA system and its operation is critical to  
9 supplying communities in Montgomery, Chester, and Delaware Counties. The filter  
10 expansion will ensure resiliency in providing safe drinking water to communities during  
11 catastrophic events as was experienced during Hurricane Ida in 2021 as more fully  
12 explained in the Direct Testimony of Todd M. Duerr (Statement No. 11).

13 9. Bear Gap No. 2 Dam Rehabilitate Primary Spillway

14 Bear Gap No. 2 Dam was constructed in the 1920s and impounds 592 MG of water  
15 and provides a raw source for the Roaring Creek WTP. It is classified as a high hazard dam  
16 (Class B-1) under current Pennsylvania Department of Environmental Protection  
17 (“PADEP”) Dam Safety regulations. The concrete chute spillway is a means to bypass  
18 excess flow safely over the dam. In 1946 and 1972, the erodible bedrock foundation caused  
19 incidents that required significant repairs. Since the 2017 Oroville Dam incident, chute  
20 spillways have been reevaluated to look for physical factors that contribute to spillway  
21 failure. The current spillway at Bear Gap No. 2 presents 33 of the 41 of the most common  
22 risk factors. The new project aims to mitigate each of those factors by removing the existing  
23 principal and auxiliary spillways and constructing a new spillway with a labyrinth weir that

1 can safely pass the Probable Maximum Flood. The chute will be designed with an internal  
2 drainage system to prevent undermining, and the bedrock foundation will be protected to  
3 minimize internal erosion. The project also includes improvements to the outlets works to  
4 maintain operation during construction and remote sensors to provide onsite safety and  
5 flood emergency information to County Emergency Management Agencies.

6 10. Shenango WTP – Contact Basin

7 The Shenango WTP is permitted for 16 MGD at full design capacity. Currently,  
8 the WTP has no pre-treatment, and water pumped into the plant comes into contact with  
9 the filters within 30 to 45 minutes. During the summer months when total organic carbon  
10 loading is high, higher levels of disinfection byproducts are formed. Phase 1 of the project  
11 will include the addition of a Raw Water Basin to increase pre-filter contact time and the  
12 addition of Powder Activated Carbon Silo and feed system to reduce total organic carbon  
13 (“TOC”) loading and reduce disinfection by-products (“DBP”).

14 **B. LEAD SERVICE LINE REPLACEMENT**

15 **Q. Does AP have a LSL replacement program?**

16 A. Yes. The LSL replacement program and the changes to the lead and copper rules, including  
17 the implementation of those rules through the U.S. Environmental Protection Agency  
18 (“EPA”) and PADEP, is more fully explained in the Direct Testimony of Todd M. Duerr  
19 (Statement No. 11).

20 **Q. Is the LSL replacement program another significant driver of capital the Company  
21 must expend to comply with EPA and PADEP regulations.**

22 A. Yes. AP has filed an amended Long-Term Infrastructure Improvement Plan (“LTIIIP”),  
23 which includes a LSL replacement plan (“LSLR Plan”) to comply with Commission

1 regulations. The LSLR Plan includes a significant amount of capital to comply with the  
2 EPA’s regulations for replacement of LSLs over a 10-year period. However, these amounts  
3 may be subject to increases if AP must comply with PADEP’s proposed implementation  
4 of the EPA’s regulations.

5 **Q. Please describe the current status of AP replacements of LSLs in its system and any**  
6 **significant replacement projects.**

7 A. Below is a description of the status of AP’s LSL replacements in Pennsylvania and a major  
8 replacement project in AP’s system.

9 1. Lead Service Line (“LSL”) Replacements – Customer Side

10 AP is required by the EPA, the PADEP, and the Commission to identify and replace  
11 all customer-side lead and galvanized service lines. To date AP has 102,148 customer  
12 service lines to identify and 11,126 customer service lines to replace. AP is actively  
13 working on reducing these numbers through records research, identification through meter  
14 replacements, in-person surveys, customer self-identification, test holes, and service line  
15 replacements.

16 2. West Chester Lead Service Line Replacement

17 The purpose of this project is to identify and replace any known and found lead or  
18 galvanized customer water service lines throughout the West Chester system. These efforts  
19 will ensure that lead is eradicated from consumer drinking water in that system. There are  
20 13,982 customers within the West Chester system. To date AP has identified 406 lead and  
21 galvanized customer service lines that need replacement. AP has replaced 96 lead and  
22 galvanized customer service lines in West Chester and will continue to undertake  
23 replacements through the remainder of 2024 and into 2025.

1                                   **C.      PFAS RELATED INFRASTRUCTURE**

2   **Q.    Do the Company’s capital investment decisions reflected in the FTY and FPFTY in**  
3       **this case also reflect specific investments to address new regulatory requirements**  
4       **related to PFAS?**

5   A.    Yes, each of the FTY and FPFTY reflect such capital investments.

6   **Q.    Why does AP plan to place capital projects into service to address PFAS at this time?**

7   A.    Aqua PA witness Todd M. Duerr (Statement No. 11) more fully identifies and describes  
8       (1) PFAS, (2) why PFAS present specific health and safety concerns, (3) the new federal  
9       and state regulatory requirements that AP must be fully compliant with by 2029, (4) AP’s  
10      plan to comply with these requirements, and (5) specific O&M expenses that will be  
11      incurred by the Company to address PFAS.

12 **Q.    Please provide a description of the types of PFAS-related capital projects that AP**  
13 **plans to place into service during the FTY and FPFTY.**

14 A.    The projects described below are the types of projects that AP is implementing in the FTY  
15      and FPFTY.

16       1.    WTP PFAS Treatment Piloting and Rapid Scale Small Column Testing (“RSSCT”)

17           AP plans to implement treatment for PFAS at several surface WTPs to comply with  
18      the proposed federal Maximum Contaminant Level (“MCL”). The PADEP requires pilot  
19      testing for permitting of PFAS treatment of surface water sources. In response to a request  
20      by AP, PADEP indicated that a pilot study at the Neshaminy WTP could support permitting  
21      of several other WTPs with similar treated water quality provided that a separate evaluation  
22      of simultaneous compliance is completed for each WTP. This testing program will  
23      evaluate the ability of granular activated carbon (“GAC”) and ion exchange (“IX”) resin

1 technologies as process additions to the Neshaminy WTP for the removal of PFAS. These  
2 technologies have been selected for evaluation because they are two of the best available  
3 options for PFAS removal per the PADEP. The program will also include bench-scale  
4 evaluations for five additional surface WTPs in the form of RSSCTs. The Neshaminy  
5 WTP pilot will be conducted on-site at the WTP using a filter pilot skid with four 6-inch  
6 diameter columns allowing for four different filter media to be tested concurrently. Pilot  
7 operations will take place over a 9-month period.

8 2. Chalfont Well #11 PFAS Treatment

9 The Chalfont Well #11 facility serves customers within our Chalfont Borough  
10 service territory. The treatment will consist of GAC pressure vessels and chemical  
11 treatment system upgrades. This treatment will be installed to comply with the current  
12 PADEP MCL and the EPA MCL. The treatment will be in service by Q4 of 2024.

13 3. Hatboro Well #6 and #8 PFAS Treatment

14 Hatboro wells #6 and #8 directly serve the Hatboro service area within the AP Main  
15 SEPA system. The treatment will consist of IX resin pressure vessels, chemical treatment  
16 system upgrades, and onsite hypochlorite generation. The treatment is being installed to  
17 comply with the current PADEP MCL and the EPA MCL. The treatment will be in service  
18 by Q4 of 2024.

19 4. Perkiomen Woods PFAS Treatment

20 The Perkiomen Woods Well Station includes a single well that is the sole source of  
21 water supply to the Perkiomen Woods development. The proposed PFAS treatment system  
22 at the Perkiomen Woods Well Station will include two trains of Anion IX treatment each

1 consisting of two vessels, a pre-filtration system upstream of the Anion IX vessel trains,  
2 and well pump replacement. The project is schedule to be in service by Q4 2024.

3 5. North Hills PFAS Treatment

4 The North Hills Well Facility is located in Abington Township and is part of our  
5 AP Main SEPA system. This project consisted of a full pilot study to evaluate the best  
6 treatment method for PFAS for the project-specific raw water quality. GAC and IX were  
7 piloted for this effort. IX was chosen as the best-suited treatment method based on the raw  
8 water quality. The project consisted of IX pressure vessels for PFAS treatment, chemical  
9 treatment system improvements, prefiltration for the IX system, and pump upgrades. The  
10 pilot data as a result of this project can be used to compared similar water quality for  
11 treatment in other well facilities throughout Pennsylvania. This project was in service in  
12 July 2023.

13 **Q. Are these projects required for Aqua PA to continue to provide safe and reliable**  
14 **service to its customers?**

15 A. Yes.

16 **D. WASTEWATER INFRASTRUCTURE**

17 **Q. Can you provide a few examples of major projects that are included in the Company's**  
18 **claimed utility plant for the FTY and FPFTY for its wastewater operations?**

19 A. Yes. Below is a description of the major wastewater projects through the FPFTY.

20 1. Bacton Hill and Planebrook Sewer Extension

21 The Bacton Hill and Planebrook projects are two sanitary sewer extensions in East  
22 Whiteland Township that we were required to complete within one year of obtaining all  
23 necessary permits per our asset purchase agreement for the East Whiteland sewer system.

1 The Bacton Hill sewer extension will include approximately 9,200 LF of new gravity sewer  
2 mains and 2,100 LF of new low-pressure sewer main which will provide service to 52 new  
3 customers. The Planebrook sewer extension will include approximately 5,300 LF of new  
4 gravity sewer mains and 2,600 LF of new low-pressure sewer main which will provide  
5 service to 84 new customers.

6 2. Upgrade Willistown Knoll Pump Station

7 The Willistown Knoll pump station is inaccessible for vehicles due to its location.  
8 This project will install a bridge and a new access road to improve access to the pump  
9 station for maintenance, future upgrade projects, and emergency response which will  
10 improve service reliability and prevent sanitary sewer overflows (“SSOs”). The estimated  
11 cost of this project is \$375,000.

12 3. Penn Township Wastewater Treatment Plant (“WWTP”) Upgrade II

13 Phase II of the Penn Township project is targeted at achieving a much lower Total  
14 Nitrogen (“TN”) effluent limitation in our stream discharge due to losing reuse of our  
15 effluent for horticultural purposes. PADEP recently provided Preliminary Treatment  
16 Requirements for a stream discharge relocated to the unnamed tributary behind our Penn  
17 Township WWTP. It will include a CAP Load for TN and Total Phosphorus which as flow  
18 increases, the concentration of both of these parameters will decrease. The project will  
19 also include the provision of drip irrigation disposal on our existing rapid infiltration Basin  
20 site.

21 4. Deerfield Wastewater Treatment Plant Convert to Pump Station (Consolidation)

22 The Deerfield Knoll WWTP is near the end of its useful life and would require  
23 major upgrades or rehabilitation in the near future to continue operating in compliance.

1 After examining the costs, it was determined that it would be less expensive to convert the  
2 Deerfield Knoll WWTP into a pump station and send the flow to APW's nearby Willistown  
3 Woods WWTP. The estimated cost of this project is \$1,750,000.

4 5. Penn London WWTP to Pump Station (Consolidation)

5 The Penn London WWTP is one of APW's most expensive WWTP to operate when  
6 comparing cost per thousand gallons treated. The primary reason for this high cost of  
7 treatment is that the WWTP serves only one school, and during the summer months the  
8 WWTP cannot operate in compliance due to low flows and insufficient organic loading.  
9 Therefore, during the summer, the flow must be pumped and hauled elsewhere for  
10 treatment and disposal which results in high costs. APW determined that it would be more  
11 cost effective to convert the Penn London WWTP into a pump station and send the flow to  
12 APW's nearby Penn Township WWTP. The estimated cost of this project is \$750,000.

13 6. Cheltenham Interceptor A

14 Interceptor A has a long history of SSOs due to insufficient capacity during wet  
15 weather flows. Wet weather flows are contributed by APW's Cheltenham system,  
16 Abington Township, Jenkintown Borough, and the Philadelphia Water Department. Due  
17 to the limited dry weather and insufficient wet weather operating conditions, the PADEP  
18 has implemented a Correction Action Plan ("CAP") and Connection Management Plan  
19 ("CMP") for the Cheltenham Interceptor A. Based on hydraulic modeling work and  
20 coordination with stakeholders, it was determined that pipe upsizing of the lower portion  
21 of Interceptor A in addition to a storage tank is necessary to achieve routine compliance in  
22 managing wet weather flows.

23 7. Inflow and Infiltration ("I&I") Work 2025 – Cheltenham

1           This project consists of a variety of sewer main inspection and pipe  
2 repair/rehabilitation work throughout the Cheltenham collection system targeted to reduce  
3 I&I. Based on pipe defects identified through APW’s inspection work, sewer mains will  
4 be replaced in part or in whole as well as structural cast in place pipe (“CIPP”) liners.  
5 Defective laterals (portions owned by APW) may also be included. This work is being  
6 performed to maintain compliance with the PADEP’s CAP for the Cheltenham System.  
7 The work in 2025 is estimated at \$900,000.

8           8.     I&I Work Phase V – East Norriton

9           This project consists of sewer main inspection and pipe repair/rehabilitation work  
10 within specific subbasins of the East Norriton collection system. APW has identified  
11 subbasins that contribute the greatest amount of I&I during wet weather events. Sewer  
12 main CIPP will be installed in the existing vitrified clay pipe in the priority basins. This  
13 project is one of a multi-year phased plan to reduce I&I within the collection system. This  
14 phase of the project is estimated at \$1,225,000.

15           9.     Germantown Pump Station Upgrade – East Norriton

16           The Germantown Pump Station is the third largest of nine total pump stations  
17 within the East Norriton Sewage collection system with three 100 horsepower Pumps. This  
18 project will consist of an overall upgrade to the facility including upgrade of non-code  
19 compliant electrical equipment, new electrical service, new emergency power transfer  
20 switch, new pump control system, expansion of the existing building footprint to allow for  
21 code compliance safety clearances to all equipment, repairs to the existing building, and  
22 upgrades to the mechanical piping systems. The pumps were previously rebuilt under a  
23 separate project.

1 **III. CONCLUSION**

2 **Q. Does this conclude your Direct Testimony at this time?**

3 A. Yes, it does. However, I reserve the right to supplement my Direct Testimony as may be  
4 necessary during the course of this proceeding.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**DOCKET NOS. R-2024-3047822, R-2024-3047824**

**AQUA PENNSYLVANIA, INC.  
AQUA PENNSYLVANIA WASTEWATER, INC.**

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**PREPARED DIRECT TESTIMONY OF  
RITA F. BLACK  
DIRECTOR, COMMUNITY ASSISTANCE PROGRAMS  
ESSENTIAL UTILITIES**

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DATE SERVED: May 23, 2024  
DATE ADMITTED: \_\_\_\_\_

**Statement No. 13**

**PREPARED DIRECT TESTIMONY  
OF RITA F. BLACK**

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

2 A. My name is Rita F. Black and my business address is located at 375 North Shore Drive,  
3 Pittsburgh, Pennsylvania 15212.

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

5 A. I am employed by Essential Utilities, Inc. (“Essential”) as the Director of Community  
6 Assistance Programs. In this role, I lead assistance programs for Aqua Pennsylvania, Inc.  
7 and Aqua Pennsylvania Wastewater, Inc. (collectively “Aqua PA”), and Peoples Natural  
8 Gas Company LLC (“Peoples”), as well as the regulated utilities of Essential operating in  
9 other states.

10 **Q. Please describe your educational and professional background.**

11 A. Following receipt of a Bachelor of Science Degree in Accounting from Robert Morris  
12 University, I joined Peoples and began a career spanning more than 30 years across the  
13 areas of customer service, rates and regulatory affairs, and low-income programming.  
14 From 2001 through 2014, I worked in the Rates and Regulatory Affairs department of  
15 Peoples as an analyst. My responsibilities as an analyst in the Rates and Regulatory Affairs  
16 department included the development and administration of the Universal Service Rider  
17 and preparation of the Universal Service Energy and Conservation Plan (“USECP”), as  
18 well as tariff filings, testimony preparation and other analytical projects. In 2014, I was  
19 promoted to Manager, Customer Relations for Peoples and was responsible for oversight  
20 of all low-income programming, including its Customer Assistance Program (“CAP”),  
21 Low Income Usage Reduction Program (“LIURP”), Emergency Furnace and Houseline

1 Repair Program (“EFHRP”), Hardship Fund, and Customer Assistance, Referral and  
2 Evaluation Services (“CARES”). In addition to oversight of low-income programming, I  
3 was also responsible for compliance on customer related issues for Pennsylvania, West  
4 Virginia, and Kentucky. I was promoted to Director, Customer Relations in 2016 and was  
5 subsequently promoted to Director, Community Assistance Programs in April of 2021 with  
6 responsibility for all regulated states under the Essential footprint, including Aqua PA. In  
7 this role, my oversight of low-income programming has expanded to include our water and  
8 wastewater entities. I retain responsibility for natural gas low-income programming and  
9 compliance across our natural gas footprint.

10 **Q. Have you testified previously in any regulatory proceeding?**

11 A. Yes. I have testified in hearings conducted by the Pennsylvania Public Utility Commission  
12 (“PUC” or “Commission”) for formal complaints. I have also submitted direct and rebuttal  
13 testimony in base rate proceedings for Peoples<sup>1</sup> and Aqua PA<sup>2</sup>.

14 **Q. What is the purpose of your Direct Testimony in this case?**

15 A. In my current role, I provide leadership and guidance on low-income issues, including  
16 development, design, and implementation of low-income programming for Aqua PA. I also  
17 lead our Aqua Assistance Collaborative (“AAC”), whose members include representatives  
18 from the PUC’s Bureau of Consumer Services (“BCS”), the PUC’s Office of  
19 Communications, the Office of Consumer Advocate (“OCA”), the Pennsylvania Utility  
20 Law Project (“PULP”), and other stakeholders. My testimony will provide an overview of  
21 the programs approved in Aqua PA’s previous base rate case,<sup>3</sup> describe the transition from

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<sup>1</sup> See Docket Nos. R-2010-2201702; R-2012-2285985; R-2023-3044549.

<sup>2</sup> See Docket Nos. R-2021-3027385, R-2021-3027386

<sup>3</sup> See Docket Nos. R-2021-3027385, R-2021-3027386.

1 the former Helping Hand Collaborative to the AAC, provide an overview of the Consumer  
 2 Education and Outreach Plan (“CEOP”), introduce the newly branded Aqua Aid hardship  
 3 fund, formerly known as Helping Hand, and I will provide an overview of implementation  
 4 and customer adoption of Aqua PA’s programs, including projections for expected  
 5 enrollment and participation. I will also propose changes to the leak repair/conservation  
 6 program approved in the Aqua PA’s last rate case. Specifically, I will propose separate  
 7 budgets for leak repair and conservation. I will also put forth a proposed segmentation of  
 8 leak repair program dollars as suggested through collaboration with ACC.

9 **Q. Please list the exhibits that you are sponsoring as a witness.**

10 A. I am sponsoring Exhibit Nos. RFB-1, RFB-2, RFB-3, and RFB-4, and they are attached to  
 11 my Direct Testimony.

12 **Q. Please provide an overview of the universal service programs currently available to  
 13 Aqua PA customers.**

14 A. Aqua PA offers a suite of programs designed to improve affordability for low-income  
 15 households. Specifically, Aqua PA developed a CAP that provided tiered discounts for  
 16 households up to 200% of the Federal Poverty Limit (“FPL”). The tiered discounts are as  
 17 follows:

18 Water Discounts

	Up to 100% FPL	100 to 101% FPL	151 to 200% FPL
Fixed Base Facility Customer Charge	100%	100%	100%
Consumption Charge (first 2,000 gallons)	100%	50%	0%

19  
 20  
 21

1 Wastewater Discounts

	Up to 100% FPL	100 to 101% FPL	151 to 200% FPL
Fixed Base Facility Customer Charge	75%	65%	50%
Consumption Charge (first 2,000 gallons)	100%	50%	0%

2

3 Similar discounts are provided to flat billed wastewater customers. These discounts to flat  
4 billed wastewater customers range and are set forth below for each tier.

5 Tier 1 - Between 63.65% - 71.45%

6 Tier 2 - Between 45.93% - 59.05%

7 Tier 3 - Between 25.66% - 42.40%

8 In addition to the discounts, which are designed to improve affordability on a current bill  
9 basis, Aqua PA’s CAP also offers Arrearage Forgiveness. At the time of enrollment, any  
10 balance owed to Aqua PA is frozen as a pre-CAP balance, eligible for Arrearage  
11 Forgiveness. Each month, when the CAP participants pay their discounted monthly bill on  
12 time, a \$25 Arrearage Forgiveness credit towards the pre-CAP balance is applied to the  
13 account, until the pre-CAP balance has been full exhausted. While participating in CAP,  
14 customers do not accrue late payment charges if their payments are not made on time.

15 Aqua PA also implemented a leak repair and conservation program that provides  
16 \$100,000 annually for the purchase of conservation kits and to repair leaks that are  
17 negatively impacting income eligible customers, either through increased bills, or the  
18 prospect of termination due to willful waste. Aqua PA uses the 200% FPL threshold for  
19 this and all assistance programs.

20 Prior to its last base rate proceeding, Aqua PA operated a hardship fund called  
21 “Helping Hand.” A hardship fund is a fund of last resort, intended to provide support to

1 customers facing arrearages that could lead to termination of service or require assistance  
2 to restore service. Helping Hand was also the name of the prior payment assistance  
3 program which was replaced by CAP. While the Helping Hand payment assistance  
4 program was eliminated, the hardship fund remained. In order to avoid confusion between  
5 the retired and existing Helping Hand program, and to increase engagement for the  
6 hardship fund, it was renamed “Aqua Aid” in 2023.

7 **Q. Please describe the ACC you mentioned in your opening remarks.**

8 A. Aqua PA has had a collaborative stakeholder group which includes OCA and PULP for a  
9 number of years. This group was called the “Helping Hand Collaborative” and met  
10 approximately twice a year to receive updates on Aqua’s Helping Hand programs and to  
11 give input into those programs. Following the approval of the universal service programs  
12 in Aqua PA’s most recent rate case, I began to lead to the engagement of this stakeholder  
13 group and sought to expand its role in working with Aqua PA. The first project we focused  
14 on with this group was the development of Aqua PA’s first CEOP. We also discussed the  
15 rollout of the new programs and how to ensure that we were launching the programs in an  
16 accessible way for our customers. We determined that, particularly in these early years of  
17 the programs, it is critical that we engage with these stakeholders on a more regular basis.  
18 Therefore, we increased the meetings to four times per year and established a consistent  
19 cadence for the meetings: February, May, August, and November for 2024. As we were  
20 moving away from the Helping Hand brand, we changed the name to the “Aqua Assistance  
21 Collaborative” to better describe our work together. Its members currently include  
22 representatives from OCA, PULP, BCS and the PA PUC Office of Communications. We  
23 are currently recruiting for social service agencies to join this group as well.

1 **Q. You mentioned the ACC’s first focus area was the development of the CEOP. Please**  
2 **describe the CEOP.**

3 A. The CEOP is an annual plan that seeks to both educate consumers and attract enrollments  
4 into the Aqua PA’s universal service programs, particularly CAP. It includes activities for  
5 general audience education and outreach along with target audience efforts. The current  
6 CEOP is provided as Exhibit RFB-1. General audience activities include bill inserts,  
7 website information and social media advertisements. Targeted efforts in the initial CEOP  
8 focused on the transition from Helping Hand to CAP as well as Low Income Household  
9 Water Assistance Program (“LIHWAP”) recipients. LIHWAP was a temporary federally  
10 funded assistance program that provided grants to income eligible customers with arrears  
11 and as such, provided a unique opportunity for us to identify customers most in need of  
12 CAP. We also participate in local in-person outreach events such as BeUtilityWise,  
13 consumer fairs and senior fairs.

14 **Q. Please describe the transition from Helping Hand to Aqua Aid.**

15 A. Helping Hand was a two-pronged assistance program that had been in place for a number  
16 of years. It provided a payment plan option under which customers that were income  
17 eligible and in arrears could participate to receive the benefit of a \$25 credit towards their  
18 arrears for each timely payment made on their account. The second prong was a hardship  
19 fund under which customers could receive assistance with short term needs, such as  
20 reducing an account balance that occurred due to a water leak.

21 The payment plan prong of Helping Hand was replaced by CAP. CAP retained the  
22 \$25 credit per month as an Arrearage Forgiveness benefit, but importantly added discounts

1 on monthly bills based on income. This was an important expansion of benefits to improve  
2 overall affordability, particularly for those with the lowest incomes.

3 The hardship fund remained intact after the institution of CAP. We were finding,  
4 however, that it was not well utilized by customers who could potentially benefit from the  
5 fund. While call center agents could offer a Helping Hand grant to a customer they were  
6 working with, educating customers of this potential assistance and encouraging use was  
7 still challenging. It was our goal to revamp the program, increasing visibility and, in turn,  
8 use of the fund. By providing income guidelines that would be public to customers, we  
9 hope to encourage more participation. We also thought it would be most helpful to rebrand  
10 the program as Aqua Aid in order to differentiate it from the former Helping Hand. This  
11 was particularly important because some agencies posted information indicating to  
12 customers that Helping Hand had ended, leading customers to believe assistance was no  
13 longer available. While the information regarding the ending of the program was particular  
14 to the Helping Hand payment plan, we understood it was confusing to customers. We  
15 decided to use the Aqua Aid name and logo used in other states to not only address this  
16 confusion, but to provide more consistency across the Essential water and wastewater  
17 companies. We relaunched the hardship program as Aqua Aid in late 2023.

18 **Q. What are the guidelines for Aqua Aid?**

19 A. There are general guidelines, as well as flexibility for special circumstances. The income  
20 threshold is 200% FPL or below for customers applying for assistance with arrears or to  
21 restore service following termination. We do provide enrollment flexibility up to 250% FPL  
22 for special needs customers, such as senior or disabled customers. The general grant  
23 guideline is a maximum of \$500 once per calendar year, however the grant amount could

1 be higher if circumstances warrant. We also wanted to ensure flexibility is given for those  
2 with high bills due to a water leak, in cases in which the leak has been repaired. The  
3 guidelines are reflected on page 4 of Exhibit RFB-2, which is the deck reviewed with ACC  
4 at the February, 2024 meeting. Aqua Aid was a key area of discussion at the February  
5 meeting as we were seeking input from stakeholders on the general guidelines, as well as  
6 feedback on the level of detail we should include on our website related to Aqua Aid.

7 In order to promote Aqua Aid under its new name, and encourage both applications  
8 for assistance and donations from customers looking to help their neighbors, all June 2024  
9 bills have or will include a two-sided bill insert focused on promotion of Aqua Aid. One  
10 side includes information for those seeking assistance while the other side covers the  
11 donation procedure available to customers. The bill insert is provided as Exhibit RFB-3.

12 **Q. Let's move on to the programs that were approved in the prior base rate proceeding,**  
13 **beginning with CAP. Is the program fully operational?**

14 A. Yes. Instituting a complex CAP that included tiered discount benefits along with Arrearage  
15 Forgiveness was a significant lift for both Aqua PA's customer information system and the  
16 business. Following approval of the universal service programs, work began to build out  
17 the rate schedules necessary to support three levels of discounts for water customers and  
18 three levels of discounted rates for wastewater customers within the Aqua PA's billing  
19 system. Aqua PA also hired two employees to the Community Assistance Program team  
20 to begin support of the universal service programs. Some significant system changes were  
21 necessary to support the CAP design. The most challenging upgrade to Aqua PA's billing  
22 system surrounded freezing the pre-CAP balance to allow for Arrearage Forgiveness  
23 benefits. It was important that these balances be frozen from not only collections, but also

1 to reflect that the pre-CAP balance is deferred on the monthly billing statement. Our  
2 Information Technology (“IT”) team, in partnership with the Aqua PA’s billing  
3 department, was able to devise a way to freeze the balances, provide clarity on the bill, and  
4 ensure that the \$25 credits could be automatically posted when payments were made by  
5 CAP customers on the due date.

6 Another challenge to launching CAP was preparing Aqua PA’s processes to allow  
7 for customers to apply for CAP through the Dollar Energy Fund (“DEF”), our CAP  
8 administrator, ensuring that at the time of application, a hold is placed on the customer’s  
9 account to allow them sufficient time to complete the application process, and to allow for  
10 their account to be enrolled at the proper discount level when they have been approved to  
11 participate. We now have a smooth daily process by which files are shared between DEF  
12 and Aqua PA to complete these functions.

13 **Q. Were there any changes in CAP eligibility from the proposal in the prior base rate**  
14 **proceeding to the approved CAP?**

15 A. Yes. There was a significant change. We proposed that customers be able to self-attest  
16 income in order to enroll in CAP, similar to how payment arrangements and the prior  
17 Helping Hand program were handled. We created enrollment projections on the  
18 assumption that our proposed program would be approved under the self-attestation  
19 method. Under the Commission’s Final Order, however, CAP enrollment was limited to  
20 those customers who provided proof of income to participate.<sup>4</sup> We were also required to  
21 implement a recertification process similar to that of Peoples. Within 60 days of entry date

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<sup>4</sup> R-2021-3027385, May 12, 2022 Order, Page 339.

1 of the Order, Aqua PA was required to submit a written plan for income certification and  
2 recertification for CAP participation, which it did on July 14, 2022.

3 **Q. How did this requirement impact CAP enrollment?**

4 A. As I mentioned earlier in my testimony, upon receiving approval of the CAP, efforts began  
5 to build out the necessary functionality with the Aqua PA's billing system to support CAP  
6 and build the staff and processes necessary to manage the daily tasks for all of the approved  
7 programs. As these processes and system changes were implemented, we gradually began  
8 outreach, first to Helping Hand participants, to encourage them to enroll in CAP.

9 We saw challenges in enrolling customers with the new income documentation  
10 requirements. Unfortunately, customers with arrears often follow the path of least  
11 resistance, meaning when given option between making a verbal payment agreement and  
12 completing an application and submitting income documentation to participate in a more  
13 beneficial program, they may opt for the verbal agreement. This is a particular challenge  
14 when the program, such as Aqua PA's CAP, is brand new.

15 In order to ensure our vulnerable customers were participating and to provide an  
16 easy pathway for LIHWAP eligible customers to obtain a more affordable bill, we included  
17 a provision in our certification and recertification requirements to allow receipt of  
18 LIHWAP to act as proxy for submitted income. Because these customers had already  
19 proven their income eligibility to the state to obtain a LIHWAP grant, their eligibility for  
20 CAP has been validated. We were also able to reach agreement with the Department of  
21 Human Services ("DHS") to participate in a limited data sharing agreement, which  
22 provided Aqua PA with the household income and composition information used for  
23 approved LIHWAP grants for the purposes of automatically enrolling those customers into

1 CAP. We received that information in late 2023 and this has led to the biggest increase in  
2 CAP participation since the start of the program.

3 In Aqua PA's most recent base rate proceeding, we completed a needs assessment  
4 using census and Aqua PA customer data to project the potential eligible population. We  
5 then projected annually, for three years, the level of enrollment we expected to see, using  
6 income self-attestation as the basis of enrollment. We projected 10% of eligible customers  
7 would enroll in the first year, rising to 15% in year two and reaching the 25% level by end  
8 of year three. Current enrollment levels have reached roughly 6,000 across both water and  
9 wastewater. Under our original projections, we would have reached 10,682 in year one  
10 and grown to 16,023 in year two.

11 **Q. What level of participation are you currently projecting for CAP?**

12 A. I updated our needs assessment for currently available census data and Aqua PA active  
13 accounts as well to determine the basis for potential enrollment. Considering our current  
14 participation level, which reflects roughly 5% of estimated eligible customers, I am  
15 projecting that our CAP enrollment levels will grow to 12% this year and reach 20% by  
16 the end of 2025. To meet these projections, the performance of our CEOP will be critically  
17 important, along with ongoing input and guidance from ACC as we look for ways to  
18 increase customer awareness and acceptance levels for CAP. My calculations are reflected  
19 in Exhibit RFB-4.

20 **Q. The enrollment projections you have set are aggressive. What are your plans for  
21 meeting these projections?**

22 A. While the Aqua PA had a CAP-like plan in Helping Hand, there were restrictions to  
23 participation. Customers who did not maintain their monthly payments were removed from

1 the program. Customers who had participated in it previously were unable to re-enroll.  
2 Aqua PA's CAP is designed as a universal service program. It allows for participation  
3 based on income eligibility and does not include provisions that would take away the  
4 benefits if a customer missed a payment. As with all new things, it can take some time for  
5 customers and our customer contact employees to adopt a new program like CAP. As we  
6 entered 2024, we were seeing much stronger adoption with more referrals from call center  
7 personnel to our CAP administrator and an increase in customers contacting our team to  
8 learn more about CAP. It is prominent on Aqua PA's website, and we are promoting it  
9 through in-person events in local areas as well as broad outreach via email, bill inserts and  
10 paid advertising. We have added additional social service agencies to the network that  
11 accepts CAP applications. Customer contact personnel receive training about CAP and are  
12 encouraged to offer this information to all low-income customers they are working with.  
13 These efforts should also lead to word-of-mouth referrals from one customer to another.

14 **Q. Moving on from CAP, please provide a status update on the other program approved**  
15 **in the previous base rate proceeding, specifically, the \$100,000 in funding to support**  
16 **leak repairs and conservation kits.**

17 A. The leak repair program has proved to be a necessary program as it supports not only  
18 affordability, but health and safety. When we first proposed the program, we were looking  
19 for a safety net for low-income homeowners that were facing leak repairs they could not  
20 afford. When we began rolling the program out in 2023, we focused on two areas: 1)  
21 customers at threat of termination for willful waste of water; and 2) customers with high  
22 bills due to easily repairable leaks, such as a leaking toilet. We added language to the  
23 termination notices regarding willful waste of water to offer the program to those who may

1 need assistance in addressing a major service leak. We also created cards for our field  
2 personnel to share with consumers that may need help repairing a leak. As awareness of  
3 our program has grown, we are seeing an increase in requests for assistance.

4 **Q. Please describe how the leak program operates.**

5 A. Customers seeking assistance from the program contact our Community Assistance  
6 Programs team via telephone or email. We respond to them to learn more about their needs  
7 and to share eligibility information. If the customer is not already enrolled in CAP, we  
8 encourage them to apply for CAP, so they have both proved eligibility to be assisted with  
9 their leak issue, but also have the benefit of a reduced bill going forward. Once we know  
10 the customer is income eligible, we arrange for a local plumber to visit the home to address  
11 the leak. The invoice from the plumber is sent directly to Aqua PA for payment. In 2023,  
12 we repaired a leak in a water pit for a senior citizen customer who would otherwise have  
13 faced termination of service for willful waste of water. We also assisted with other service  
14 line leaks and a leaking toilet.

15 **Q. You mentioned an increase in requests for assistance. Please describe this further.**

16 A. In just the first three months of 2024, we have already more than doubled the number of  
17 customers we are assisting with leaks. Similar to 2023, some are minor repairs such as  
18 leaking toilets, typically under \$500, while others are substantial service line leaks in the  
19 \$4,000 to \$5,000 range. This trend is positive, in that it shows that this program is filling  
20 an important need for our vulnerable customers and we are seeing good utilization of the  
21 overall budget. However, it is also concerning because our overall annual budget of  
22 \$100,000 is intended to cover conservation kits, in addition to leak repairs.

23 **Q. How much of the budget is spent on conservation kits?**

1 A. We have been fortunate that an existing stock of conservation kits remains from the former  
2 Helping Hand program. This has allowed us to use all of our current repair fund dollars  
3 for repairs. This is important because 1,000 conservation kits, including shipping and  
4 handling to customers' homes, is roughly \$22,000.

5 **Q. Are you proposing an increase to the leak repair fund?**

6 A. Yes. If we subtract out the \$22,000 that would be spent on conservation kits, we would  
7 have roughly \$78,000 to use for leaks and repairs. In the first two months of the year, we  
8 have already spent \$14,000. Most of the customers we are serving through this program  
9 have incomes below the poverty level. We expect that as more customers learn about the  
10 program, the use will continue to increase. I am therefore proposing an increase to the  
11 annual budget of the leak repair fund, for leak repairs only, to \$132,000 for 2025. I  
12 developed these figures under the assumption that we will likely spend \$11,000 per month  
13 in repairs as more customers seek assistance because of increased awareness of the  
14 program.

15 **Q. In your opening remarks, you mention a 'segmentation' of leak repair funding.  
16 Please describe this proposal.**

17 A. At the February meeting of the ACC, we discussed the leak repair program. I shared the  
18 growth we are seeing in customer use of the program, along with examples of the types of  
19 repairs Aqua PA has performed. One of our stakeholders suggested that as we think about  
20 the budget, and to ensure that we are allocating dollars to meet the varying needs of our  
21 customers, that we consider this as a budget in three segments. Namely, service line repair,  
22 inside leak repair, and conservation kits, respectively. This stakeholder suggested that by  
23 segmenting these items and placing limits on them, we can have better control over the

1 limited funds. For example, since service line repairs can cost \$5,000 or more, under our  
2 current budget, we could serve roughly 16 customers with service line leaks and have  
3 nothing left for those with minor leaks that are directly impacting their water bills, leading  
4 to more collections risk. However, if we segment these dollars, there will be a limit to how  
5 much can be spent on service lines, reserving dedicated funds to leak repairs that directly  
6 affect affordability. I think this is a wise approach and would envision the increased  
7 budgets I am proposing to be segmented as such:

	<b>2025</b>
Service Line Repairs	\$50,000
Inside Leak Repairs	\$82,000
Conservation Kits	\$22,000

8

9 **Q. Does this conclude your Direct Testimony?**

10 A. Yes. I reserve the right to submit supplemental testimony if additional issues arise during  
11 the course of this proceeding. Thank you.



**VIA E-FILING**

December 4, 2023

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
P.O. Box 3265  
Harrisburg, PA 17105-3265

**RE: PA Public Utility Commission v. Aqua Pennsylvania, Inc.  
Docket No. R-2021-3027385  
PA Public Utility Commission v. Aqua Pennsylvania Wastewater, Inc.  
Docket No. R-2021-3027386**

Dear Secretary Chiavetta:

In accordance with the Pennsylvania Public Utility Commission's ("Commission") Opinion and Order entered May 15, 2022 at the above referenced dockets, Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater, Inc. (collectively "Aqua" or "Company") submits its second annual Consumer Education and Outreach plan ("CEOP") which is updated to reflect the Aqua's 2023 activities and progress statuses. The Company is also including examples of outreach materials and a list of priorities for 2024.

If you have any questions regarding the CEOP, please contact Rita Black – Director, Community Assistance Programs at 412-208-6530.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mary McFall Hopper".

Mary McFall Hopper  
Regulatory Counsel

cc: Certificate of Service  
Joseph Magee, Energy Policy Manager -Bureau of Consumer Services  
Thomas Charles, Director - Office of Communications

Enclosures

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

<b>PA Public Utility Commission v. Aqua Pennsylvania, Inc.</b>	: : : :	<b>Docket No. R-2021-3027385</b>
<b>PA Public Utility Commission v. Aqua Pennsylvania Wastewater, Inc.</b>	: : :	<b>Docket No. R-2021-3027386</b>

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a true and correct copy of the foregoing document upon the individuals and in the manner listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

**VIA E-MAIL**

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Dated: December 4, 2023

## Aqua Pennsylvania Consumer Education and Outreach Plan

### November 2023 Annual Report & Plan

#### Purpose:

- To provide a multi-pronged approach to consumer education with the goal of creating awareness of Aqua's income-based programs and connecting eligible populations to enrollment.
- To reach eligible customers, particularly those who are payment troubled or have very low income.
- To develop partnerships with other utilities and community social service agencies to connect eligible customers with the resource of Aqua CAP.

#### General Audience Education & Outreach Activities

Activity	Frequency	2023 Update
Bill Inserts	At least once annually	October 2023 bill insert followed by November 2023 email
Website self-screening tool (in development)	Available 24/7	Tool in development
Website program information	Available 24/7	Available
Social Media Advertisements	Periodic advertisements to increase awareness that include a link to begin the online application for CAP.	Included in media plan
Community education	Posters/handouts provided to schools, churches and social service agencies.	Examples attached

#### Additional Target Audience Education & Outreach Activities

Activity	Details	2023 Update
Incoming callers screened for eligibility	Application for service; bill payment discussions; termination/restoration calls; PFA calls	Training and resources for call centers complete
Direct mailing to current Helping Hand participants	Letter to Helping Hand participants that describes the additional benefits available in the new CAP.	Outreach to HH participants completed
Focused outreach to LIHWAP recipients	Letter/email to LIHWAP recipients offering the new CAP. This will emphasize income documentation is not required since LIHWAP can be used as proof of income eligibility.	Partnership w/DHS allowed for data sharing for the purposes of CAP enrollment.
Email Campaign to payment troubled households	Identify customers with arrears and/or low income using Aqua's billing system to generate an email campaign with links to Aqua's website to learn more and begin the application process through the online application.	Email campaign launched to all residential customers in November 2023.

Limited Income Events	Provide representatives and materials to local events: senior fairs, resource fairs, etc.	See attached report of attended events.
Direct calls to at risk customers	Using reporting of customers in arrears with potential low or limited incomes, members of the Community Assistance Programs team will make outbound calls and/or send letters.	These outreach efforts included ERAP recipients and others identified by the Aqua customer team.
Maintaining program info on resource websites	Use of Findhelp.org and PA 2-1-1 websites and others as identified.	Aqua's programs are included in Findhelp.org
Field contact employee referrals	Variety of tools including door hangers and flyers that will be maintained by Operations staff in their vehicles that can be shared with customers directly.	Cards for leak repair were distributed to field personnel. Door hangers for CAP are in development.

### Annual Training/Community Education Opportunities

Association	Training/Support	2023 Update
PA 211 Call Center	Training provided at least once per year regarding CAP eligibility and enrollment processes and water leak repair program.	In development
Resource Fairs	Held throughout the service territory on various dates. Aqua staff will answer questions/distribute information.	See attached report of attended events.
BeUtilityWise	Annual participation in planning, program development and presentations to attendees regarding Aqua CAP.	Participated in panel presentation at Harrisburg BeUtilityWise
Train the Trainer events	Offer training to additional local agencies, community partners.	In development
Utility sponsored zoom/in-person events	Partner with gas and electric utilities to participate in utility focused outreach efforts	In development
Outreach mailings	Targeting school districts with a high percentage of free/reduced lunch students; local churches	Planned for January 2024

### Special Needs/Limited English Proficiency/Protection From Abuse

- Outreach materials (posters/handouts) will be prepared in both English and Spanish translations. We will also provide materials in other languages if we find a need for a particular population.
- Support to vulnerable customers provided by CARES representatives when customers are having difficulty understanding and/or completing steps to enroll in CAP. Dedicated phone line and email address ([AquaCAP@aquaamerica.com](mailto:AquaCAP@aquaamerica.com); 412-208-6818)

## CAP Enrollment Methods

Method	Availability
Self-service online application	Available 24/7 at <a href="https://www.hardshiptools.org/MyApp/">https://www.hardshiptools.org/MyApp/</a>
Via telephone	Monday through Friday from 8 a.m. to 4:30 p.m. Customers can begin the application process and learn how to submit the required documentation to complete their enrollment.
Dollar Energy Fund Screening Agency	Applications by appointment with local agencies.

## Ease of Enrollment Efforts

- No income documentation required if customer has received LIHWAP.
- Online application available at: <https://www.hardshiptools.org/MyApp/>.
- Income documents can be submitted via upload, fax or US mail.

## Consumer Education & Outreach Plan Updates

As these programs are relatively new for Aqua Pennsylvania, establishing connections within the social service community and engagement from stakeholders will be important to building up the number and variety of outreach efforts and materials. In order to ensure the continued development of the CEOP receives appropriate attention, the Company continues to work with its advisory group whose members include representatives from the Office of Consumer Advocate, Pennsylvania Utility Law Project, PA PUC Office of Investigation & Enforcement, Bureau of Consumer Services, Office of Communications and social service agencies.

### 2024 Aqua Assistance Collaborative Meeting Dates:

- February 21
- May 22
- August 21
- November 20

### Key Focus Areas for 2024

- Building social service agency relationships for participation in collaborative meetings as well as direct community connections to increase awareness and enrollment.
- Increasing involvement in BeUtilityWise events throughout the service territory.
- Evaluating impact of media campaign to identify areas of success or modifications needed.

### Media Promotional Plan (attached)

- Target markets for promotional efforts tied to census and customer data regarding low-income populations
- Mix of print, transit and digital audio advertising across key counties.
- Timing includes fall push for enrollment, followed by spring push as moratorium ends.

Date	Event/Activity	Type (In person, Web, Hybrid)	Organization/Topic	Address (if applicable)	Number of Participants	Agency (if applicable)	Notes
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06/22/22	Church of Christian Compassion	In Person	ERAP/LIHWAP	Church of Christian Compassion (PHILA/DELCO/SEPA)	50	Customers	
09/23/22	Be Utility Wise	In Person	CAP/ERAP/LIWHAP	Sharon Hill (DELCO/SEPA)	50-75	Customers	State Senator Anthony Williams
10/21/22	Senior Expo	In Person	ERAP/LIHWAP	Springfield Township (DELCO/SEPA)	75-100	Customers	State Representative O'Mara
11/21/22	New Garden Town Hall	In Person	CAP/ERAP/LIWHAP	New Garden Elementary School (Chester County)	200+	Customers	New Garden Township
03/30/23	Consumer Utility Fair	In Person	CAP	Yeadon Borough (DELCO/SEPA)	75-100	Customers	State Senator Anthony Williams
08/13/23	Summertime Family Festival & Resource Fair	In person	CAP/ERAP/LIWHAP	Norristown, PA (Montgomery County)	200+	Customers	State Representative Craig Scott
11/14/2023	Utility Resource Fair	In Person	CAP/Leak Repair	Ridley Township (DELCO/SEPA)		Customers	Ridley Township Public Library
11/17/2023	Be Utility Wise	In Person	CAP	Harrisburg	100+	Social Service Agencies	Participated in CAP Panel to highlight Aqua's new programs





Need help with your water or wastewater bills?

We're here to help.



### Learn more about Aqua Pennsylvania's Customer Assistance Program (CAP)

If you or someone you know needs help with your water or wastewater bills, financial assistance is available. Aqua Pennsylvania's new program is designed to help customers experiencing financial difficulties by making monthly bills more affordable.

Assistance is available year-round to qualifying households.

### PROGRAM BENEFITS


- ➔ Discounts on monthly water and wastewater bills
- ➔ \$25 credit toward overdue balances when timely monthly payments are made

### Who is eligible?

Customers with income at or below the following guidelines may be eligible:

HOUSEHOLD SIZE	GROSS MONTHLY INCOME	GROSS ANNUAL INCOME
1	\$2,430	\$29,160
2	\$3,287	\$39,440
3	\$4,143	\$49,720
4	\$5,000	\$60,000
5	\$5,857	\$70,280
6	\$6,713	\$80,560
7	\$7,570	\$90,840
8	\$8,427	\$101,120
For each additional person add	\$428.33	\$5,140

 Apply online at [www.hardshiptools.org/MyApp](http://www.hardshiptools.org/MyApp)

 Apply over the phone at 1-888-282-6816

Scan the QR Code to get started today



# AQUA

An Essentia Utilities Company

¿Necesita ayuda con sus facturas de agua o aguas residuales?

Estamos aquí para ayudar.



## Obtenga más información sobre el Programa de Asistencia al cliente (CAP) de Aqua Pennsylvania

Si usted o alguien que conoce necesita ayuda con sus facturas de agua o aguas residuales, hay asistencia financiera disponible. El nuevo programa de Aqua Pennsylvania está diseñado para ayudar a los clientes con dificultades financieras haciendo que las facturas mensuales sean más fáciles de pagar.

El programa de ayuda está disponible durante todo el año para los hogares que cumplan con los requisitos financieros.

## BENEFICIOS DEL PROGRAMA

- Descuentos en las facturas mensuales de agua y alcantarillado
- Crédito de \$25 para saldos vencidos cuando se realizan pagos mensuales oportunos

## ¿Quién es elegible?

Los clientes con ingresos iguales o inferiores a los siguientes requisitos financieros pueden ser elegibles:

TAMAÑO DE LA FAMILIA	TOTAL DE INGRESOS MENSUALES	TOTAL DE INGRESOS ANUALES
1	\$2,430	\$29,160
2	\$3,287	\$39,440
3	\$4,143	\$49,720
4	\$5,000	\$60,000
5	\$5,857	\$70,280
6	\$6,713	\$80,560
7	\$7,570	\$90,840
8	\$8,427	\$101,120
Por cada personal adicional añadida	\$428.33	\$5,140



Aplicar en línea en  
[www.hardshiptools.org/MyApp](http://www.hardshiptools.org/MyApp)



Aplicar por teléfono al  
1-888-282-6816

Escanea el código QR para comenzar hoy





# Need help with your water or wastewater bills? We're here to help.

Learn more about CAP, Aqua Pennsylvania's financial assistance program available year-round for eligible customers.



SCAN TO LEARN MORE



Apply online at

[www.hardshiptools.org/MyApp](http://www.hardshiptools.org/MyApp)



Apply over the phone at

1-888-282-6816



# Water leaks happen. We're here to help.

# AQUA<sup>SM</sup>

An Essential Utilities Company

Aqua Pennsylvania's Leak Repair Program helps limited income customers experiencing a water leak. We believe everyone deserves access to clean, safe, reliable water.

Contact our Assistance Team to learn how we can help with your repair:

Call: 412-208-6818

Email: [AquaCAP@AquaAmerica.com](mailto:AquaCAP@AquaAmerica.com)



LEARN MORE:



 [AquaWater.com](http://AquaWater.com)

 [@MyAquaWater](https://www.facebook.com/MyAquaWater)

 [@MyAquaWater](https://www.instagram.com/MyAquaWater)

 [@MyAquaWater](https://twitter.com/MyAquaWater)

# Pérdidas de Agua pueden suceder. Estamos aquí para ayudar.

# AQUA<sup>SM</sup>

An Essential Utilities Company

El programa de Reparación de Pérdidas de Agua en Aqua Pennsylvania ayuda a clientes que están experimentando una pérdida de agua por un escape. Consideramos que todos merecen acceso a agua limpia, segura y confiable.

**Contacte a nuestro equipo de asistencia para saber cómo lo podemos ayudar con la reparación.**

Llame al: **412-208-6818**

Correo electrónico:  
**AquaCAP@AquaAmerica.com**



PARA APRENDER MÁS:



[AquaWater.com](http://AquaWater.com)



[@MyAquaWater](https://www.facebook.com/MyAquaWater)



[@MyAquaWater](https://www.instagram.com/MyAquaWater)



[@MyAquaWater](https://twitter.com/MyAquaWater)

## VERIFICATION

I, Rita F. Black, Director, Community Assistance Programs, hereby state that the facts set forth in the foregoing letter dated November 30, 2023 at Docket No. R-2021-3027385 and R-2021-3027386 are true and correct to the best of my knowledge, information, and belief and that I expect to be able to prove the same at any hearing held in this matter. I understand that my statement herein is make subject to the penalties of 18 Pa. C.S.§4904 (relating to unsworn falsification to authorities).

A handwritten signature in blue ink that reads "Rita F. Black". The signature is written in a cursive style with a horizontal line underneath it.

Rita F. Black  
Director, Community Assistance Programs  
Essential Utilities, Inc.

Dated: December 4, 2023

NYSE: WTRG

# Aqua Assistance Collaborative February 21, 2024



# Aqua Assistance Statistics







	Last Meeting (8/30/23)	Current
Enrollment	1,299	4,958*
Discounts provided		\$464,576.02 (through 12/31)
Arrearage forgiveness		\$68,974.63 (through 12/31)
Aqua Aid		\$7,914.70 (Oct through 12/31)
Leak Repair		\$13,754 (2023) \$8,388.96 (2024 YTD)

\*In final stages of reviewing/enrolling customers who received a LIHWAP grant via data sharing agreement.

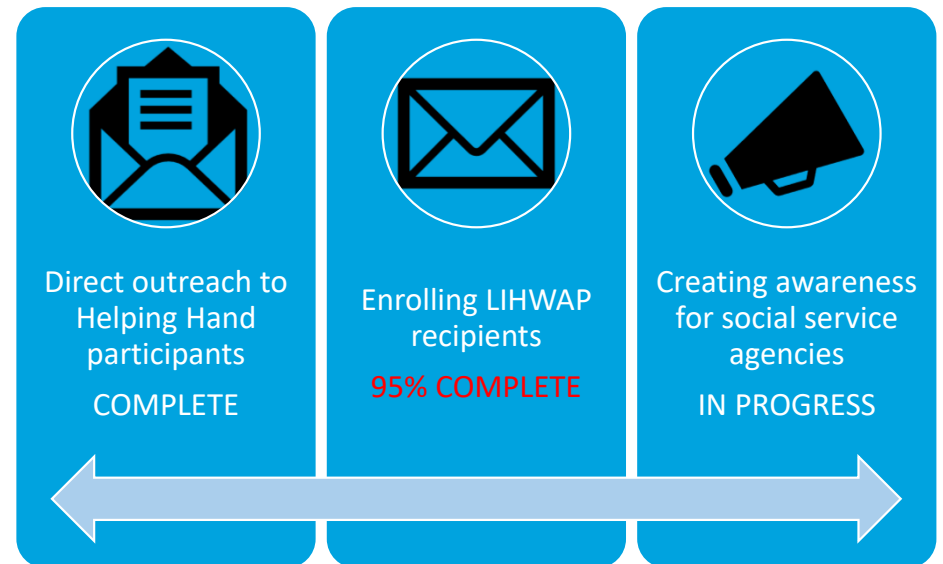
# Consumer Outreach & Education Plan Update – CAP Promotion



## General Residential Audience

-  Bill messaging/inserts/emails
  - ANNUAL INSERT/RECURRING EMAILS
-  Mailings to new acquisitions
  - AS OCCURS
-  Social media promotion
  - ONGOING
-  Website information
  - COMPLETE
-  Community events
  - ONGOING

## Targeted Outreach



# Eligibility Guidelines



## General Guidelines

- Arrears, termination notice or service off
- Residential
- Single family
- Income at or below 200% FPL
- One grant per account per calendar year
- Customer must enroll in CAP

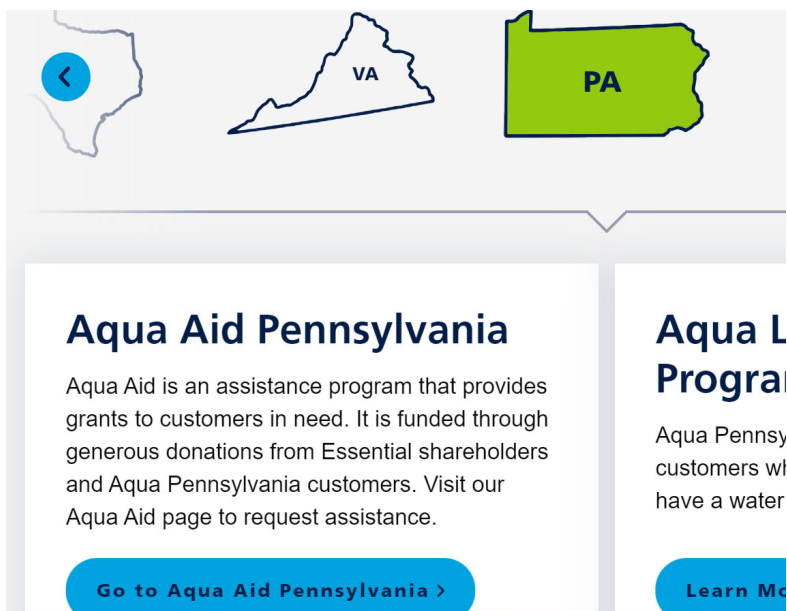
## Additional Flexibilities

- High bill due to leak (leak has been repaired)
- Special needs (seniors, disabled, etc.) can be served up to 250% FPL
- General grant guideline is \$500 maximum, but larger grants could be approved depending on circumstance.
- Other circumstances that warrant assistance to customers who do not fit the general guidelines for participation.

# Aqua Aid – Website Info



Currently limited info on website: Topic for discussion: Income chart? Guidelines? Special needs income exceptions



## About Aqua Aid Pennsylvania

The program is focused on customers within the communities Aqua serves and is funded by generous donations from our shareholders and Aqua Pennsylvania customers.

## How are funds awarded and disbursed?

To learn more and apply please contact our team at [AquaCAP@AquaAmerica.com](mailto:AquaCAP@AquaAmerica.com) or call 412-208-0618.



# Leak Repair Program Examples

From small jobs to multiple issues in one home



- Household income – 84% FPL
- Leak repair services completed:
  - Reset toilet & replace inside parts
  - Kitchen faucet
  - Rebuild bathtub faucet
  - Replace washing machine hoses & install new single bowl laundry tub.
- \$2,800 total expenditure

Other examples of services provided:

- Replace leaking service line – 180% FPL \$4,800
- Install valve and flapper on leaking toilet \$295

All customers screened for CAP eligibility/participation.  
Aqua Aid assistance provided for high bill as needed.

**Annual budget for leak repair & conservation kits: \$100,000**

## Conservation Kits

- Helping Hand program sent kits to new enrollees, but enrollment levels were very small
- Many CAP participants are low users (i.e. less than 2,000 gallons per month)

### Topic for discussion:

- Prioritize by high usage alone?
- Provide to customers who received leak repair services?
- Other ideas/best practices?



NYSE: WTRG

# Aqua Assistance Collaborative 2024

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## 2024 Meeting Dates

- February 21
- May 22
- Aug 21
- Nov 20

## Participants

- Social service agencies or other stakeholders  
– **Please share recommendations**

## Topics

- Program updates
- Participation statistics
- Trends/barriers/areas of improvement

# Appendix



# October Bill Insert



## Need help with your water or wastewater bills? We're here to help.

Learn more about CAP, Aqua Pennsylvania's financial assistance program available year-round for eligible customers.



SCAN TO LEARN MORE



Apply online at  
[www.hardshiptools.org/MyApp](http://www.hardshiptools.org/MyApp)



Apply over the phone at  
1-888-282-6816





## CAP Enrollment Opportunities



We plan to expand available agencies beyond the current HH agencies to more communities.

- Dollar Energy has an online application at its website [www.dollarenergy.org/myapp](http://www.dollarenergy.org/myapp) that is available for Aqua customers
- Customers may apply via phone at 1-888-282-6816
- Participating agencies: Central Susquehanna Opportunities Inc; Community Action of Montgomery County

### Income Verification

- Monthly or annual income
- Paystubs; benefit statements; tax forms
- Zero Income Form can be submitted to enroll a customer for 6 months while they obtain income (i.e. benefits)
- Income docs waived if rec'd LIHWAP



## Customer Assistance Program (CAP) Discounts

WATER	WASTEWATER
<p>Base Facility Customer Charge: Tiers 1-3: \$0 <b>100% discount on fixed</b></p>	<p>Base Facility Customer Charge: Tier 1: <b>75% discount on fixed</b> Tier 2: <b>65% discount on fixed</b> Tier 3: <b>50% discount on fixed</b></p>
<p>Consumption Charge: <b>100% discount on consumption of first 2k gallons</b> for residential water customers at or below 100% FPL. <b>50% discount on consumption of first 2k gallons</b> for residential water customers with incomes between 101 and 150% FPL. <b>0% discount on consumption</b> for residential water customers with incomes between 151% and 200% FPL.</p>	<p>Consumption Charge: <b>100% discount on consumption of first 2k gallons</b> for residential water customers at or below 100% FPL. <b>50% discount on consumption of first 2k gallons</b> for residential water customers with incomes between 101 and 150% FPL. <b>0% discount on consumption</b> for residential water customers with incomes between 151 and 200% FPL.</p>

In addition to the discounts above, participating customers that enter the program with arrearages receive \$25 in Arrearage Forgiveness benefits for each timely payment made.

# Aqua Leak Repair & Conservation Program

**Water leaks happen.  
We're here to help.**



Aqua Pennsylvania's Leak Repair Program helps limited income customers experiencing a water leak. We believe everyone deserves access to clean, safe, reliable water.

Contact our Assistance Team to learn how we can help with your repair:  
Call: **412-208-6818**  
Email: **AquaCAP@AquaAmerica.com**

LEARN MORE:



[AquaWater.com](http://AquaWater.com) [@MyAquaWater](https://www.facebook.com/MyAquaWater) [@MyAquaWater](https://www.instagram.com/MyAquaWater) [@MyAquaWater](https://www.twitter.com/MyAquaWater)

**Annual budget: \$100,000**

Added paragraph about assistance to 10 day leak shutoff notices

**. If your income is limited and you would like to apply for assistance with this repair through Aqua's Leak Repair program, please contact our Assistance Team at 412-208-6818 or via email at [AquaCAP@aquaamerica.com](mailto:AquaCAP@aquaamerica.com).**

Promoted to CSRs, through website, and field distributed information summer of 2023.

**Conservation kits:** Previously purchased kits from HH program will be used prior to purchasing additional kits

# AQUA

An Essential Utilities Company

## Do you need help with your water or wastewater bills?

Learn about Aqua Aid Pennsylvania, *formerly Helping Hand*, a financial assistance program funded by donations from customers like you.



◀ **Scan here to learn more and apply**



For additional information call  
**412-208-6818**



or reach out via email:  
**AquaCAP@AquaAmerica.com**



Exhibit RFB-3



## Who is eligible?

Customers with income at or below the following guidelines may be eligible:

HOUSEHOLD SIZE	GROSS MONTHLY INCOME	GROSS ANNUAL INCOME
1	\$2,510.00	\$30,120.00
2	\$3,406.67	\$40,880.00
3	\$4,303.33	\$51,640.00
4	\$5,200.00	\$62,400.00
5	\$6,096.67	\$73,160.00
6	\$6,993.33	\$83,920.00
For each additional person add	\$896.67	\$10,760.00

# AQUA

An Essential Utilities Company

## Neighbors helping neighbors

Would you like to support Aqua customers in need of financial assistance? Learn how to make a tax-deductible donation to Aqua Aid Pennsylvania, *formerly Helping Hand*.



### ◀ Scan here to donate

Making a donation is easy:

- ✓ Provide your Aqua account number, name and address.
- ✓ Select the frequency and amount of your donation.

**Want to donate via mail? Make checks payable to:**

Aqua Pennsylvania, Attn: Aqua Aid  
762 West Lancaster Ave, Bryn Mawr, PA 19010

Exhibit RFB-3



	WATER PARTICIPATION RATE				SEWER PARTICIPATION RATE				W & S TOTAL PARTICIPATION RATE			
		2024		2025		2024		2025		2024		2025
Aqua PA Residential Customers	388,660				46,971				435,631			
Estimate of Eligible Customers:		Existing	12%	20%		Existing	12%	20%		Existing	12%	20%
1.0x FPL	43,388	3,591	5,207	8,678	4,795	37	575	959	48,183	3,628	5,782	9,637
1.0-1.5x FPL	26,469	1,355	3,176	5,294	2,893	24	347	579	29,363	1,379	3,524	5,873
1.5-2.0x FPL	28,428	610	3,411	5,686	3,169	17	380	634	31,597	627	3,792	6,319
	98,285	5,556	11,794	19,657	10,858	78	1,303	2,172	109,143	5,634	13,097	21,829
Potential CAP Customers % of Total Resid. Customers	25.3%	1.4%	3.0%	5.1%	23.1%	0.2%	2.8%	4.6%	25.1%	1.3%	3.0%	5.0%