

**I&E Statement No. 1**  
**Witness: Anthony D. Spadaccio**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Direct Testimony**

**of**

**Anthony D. Spadaccio, CRRA**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Summary of the PWSA Compliance Plan**

**Introduction of I&E Witnesses**

**Documents Supporting the Compliance Plan**

**Projected Expenditures**

**52 Pa. Code § 73.7 – Capital Investment Plan Report**

**I&E Overall Recommendation**

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1 **INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Anthony D. Spadaccio. My business address is Pennsylvania Public  
4 Utility Commission, Commonwealth Keystone Building, 400 North Street,  
5 Harrisburg, Pennsylvania 17120.

6

7 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

8 A. I am employed by the Pennsylvania Public Utility Commission (Commission) in  
9 the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial  
10 Analyst.

11

12 **Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT EXPERIENCE?**

13 A. My educational and professional background is set forth in Appendix A, which is  
14 attached.

15

16 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
17 **PROCEEDING?**

18 A. The purpose of my testimony is to summarize the Compliance Plan requirements  
19 and determine whether the Pittsburgh Water and Sewer Authority (PWSA) has  
20 sufficiently demonstrated that its operations are either currently or will be in  
21 compliance with the Public Utility Code and applicable rules, regulations, and  
22 orders of the Commission. Next, I will introduce I&E's witnesses and state the

1 topics each witness will address. Finally, I will provide testimony regarding  
2 documentation PWSA has failed to provide, PWSA's capital spending, and I&E's  
3 overall recommendation.

4  
5 **Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?**

6 A. Yes. I&E Exhibit No. 1 contains schedules relating to my testimony.  
7

8 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN ANY OTHER**  
9 **PROCEEDING INVOLVING PWSA?**

10 A. Yes. I submitted testimony in PWSA's base rate proceedings (Docket Nos. R-  
11 2018-3002645 and R-2018-3002647), regarding financial matters including the  
12 revenue requirement, debt service coverage ratios (DSCR), PAYGO, the rate  
13 stabilization fund, and PWSA's credit ratings.  
14

15 **COMPLIANCE PLAN PROCEEDING**

16 **Q. PLEASE PROVIDE SOME BACKGROUND AND CONTEXT**  
17 **REGARDING THE REQUIREMENT THAT PWSA FILE A**  
18 **COMPLIANCE PLAN.**

19 A. The Pennsylvania Public Utility Code (Code) was amended by Act 65 of 2017,  
20 which granted the Commission jurisdiction over water, wastewater, and  
21 stormwater service provided by entities created by Pennsylvania cities of the  
22 second class under the Municipal Authorities Act. Currently, Pittsburgh is the



1       only city of the second class in Pennsylvania. As a result, PWSA falls under the  
2       Commission's jurisdiction effective April 1, 2018. The amendments of Act 65  
3       were codified in Chapter 32 of the Code. Specific to this proceeding, 66 Pa.C.S.A.  
4       § 3204 required PWSA to file its Compliance Plan within 180 days of April 1,  
5       2018:

6               (b)    **Compliance plan.** -- Within 180 days of the effective date of  
7                    this section, an authority shall file a compliance plan with the  
8                    commission which shall include provisions to bring an  
9                    authority's existing information technology, accounting,  
10                  billing, collection and other operating systems and procedures  
11                  into compliance with the requirements applicable to  
12                  jurisdictional water and wastewater utilities under this title and  
13                  applicable rules, regulations and orders of the commission. The  
14                  compliance plan shall also include a long-term infrastructure  
15                  improvement plan in accordance with Subchapter B of Chapter  
16                  13 (relating to distribution systems).<sup>1</sup>  
17

18              (c)    **Commission review.** -- The commission shall review the  
19                    compliance plan filed by an authority under subsection (b) and  
20                    may order the authority to file a new or revised compliance  
21                    plan if the compliance plan fails to adequately ensure and  
22                    maintain the provision of adequate, efficient, safe, reliable and  
23                    reasonable service.<sup>2</sup>  
24

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<sup>1</sup> 66 Pa.C.S.A. § 3204(b).

<sup>2</sup> 66 Pa.C.S.A. § 3204(c).

1   **Q.   HAS THE COMMISSION ISSUED ANY DOCUMENTS THAT PROVIDE**  
2       **GUIDANCE REGARDING THE PWSA COMPLIANCE PLAN**  
3       **PROCEEDING?**

4   **A.**   Yes. The Commission issued the following documents at Docket Nos. M-2018-  
5       2640802 (water) and M-2018-2640803 (wastewater) that provided guidance: (1) a  
6       March 15, 2018 Final Implementation Order (FIO); (2) a September 26, 2018  
7       Secretarial Letter entitled “Procedure for Commission review of the September 28,  
8       2018 Compliance Plan and LTIIP filings of the Pittsburgh Water and Sewer  
9       Authority”; (3) a November 28, 2018 Corrected Secretarial Letter (“November 28  
10      Secretarial Letter”); (4) a November 28, 2018 Corrected Technical Staff Report  
11      and Directed Questions; (5) and a December 20, 2018 Reconsideration Order. The  
12      FIO set a September 28, 2018 filing date for the Compliance Plan, the November  
13      28, 2018 Secretarial Letter assigned the plan to the Office of Administrative Law  
14      Judge and separated the proceeding into two stages (Stage 1 and 2), and the parties  
15      were asked to answer the Directed Questions.

16           As set forth in the November 28 Secretarial Letter, Stage 1 is directed  
17      toward urgent infrastructure remediation and improvement, and the revenue and  
18      financing requirements of maintaining service that supports public health and  
19      safety. Stage 2 will address important PWSA billing issues and the development

1 of a proposed PWSA stormwater tariff.<sup>3</sup> The Commission further elaborated that  
2 Stage 1 will address all issues except PWSA's compliance with Chapter 14 of the  
3 Public Utility Code, Chapter 56 of the Commission's regulations, and  
4 development of PWSA's stormwater tariff, all of which will be addressed in Stage  
5

6 **Q. IF THE COMMISSION DETERMINES THAT PWSA'S COMPLIANCE**  
7 **PLAN FAILS TO ADEQUATELY ENSURE AND MAINTAIN THE**  
8 **PROVISION OF ADEQUATE, EFFICIENT, SAFE, RELIABLE AND**  
9 **REASONABLE SERVICE, WHAT ACTION MAY THE COMMISSION**  
10 **TAKE?**

11 A. I am advised by counsel that, pursuant to 66 Pa. C.S. § 3204(c), the Commission  
12 may order PWSA to file a new or revised Compliance Plan that addresses the  
13 deficiencies identified in this proceeding.  
14

15 **INTRODUCTION OF I&E WITNESSES**

16 **Q. PLEASE DESCRIBE THE ROLE OF I&E IN THIS COMPLIANCE PLAN**  
17 **PROCEEDING.**

18 A. I&E represents the public interest, balancing the needs of ratepayers, utilities, and  
19 regulated community as a whole. I&E's role in this proceeding is to review the

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<sup>3</sup> November 28 Secretarial Letter, p. 3.

1 Compliance Plan and examine whether PWSA has shown its operations comply  
2 with Public Utility Code, regulations, and Orders of the Commission.

3  
4 **Q. IS I&E PROVIDING DIRECT TESTIMONY IN THIS PROCEEDING**  
5 **FROM WITNESSES OTHER THAN YOURSELF?**

6 A. Yes. Below, I have provided the names and corresponding statement numbers of  
7 each additional I&E witness, and I have also identified the topics that each witness  
8 addresses. Additionally, for uniformity, the I&E witnesses have adopted PWSA  
9 witness Robert A. Weimar's numbering system, which is based upon PWSA's  
10 numbering of the Directed Questions contained in the Pennsylvania Public Utility  
11 Commission Technical Staff Initial Report dated November 28, 2018 (Corrected).<sup>4</sup>  
12 I note that the numbering system that witness Weimar uses is contained in PWSA  
13 Exhibit RAW/C-1, and it contains the questions numbered as 1 through 120.

14  
15 Witness: D. C. Patel, Fixed Utility Financial Analyst (I&E Statement No. 2):

- 16 • 52 Pa. Code § 65.16 – System of Accounts, (Directed Questions Nos. 37-  
17 38);
- 18 • 52 Pa. Code § 69.261 – Customer Assistance Program (CAP), (Directed  
19 Questions Nos. 57-60);
- 20 • PWSA Services Contract with the City of Pittsburgh Cooperation  
21 Agreement, (Directed Questions Nos. 71-77);

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<sup>4</sup> PWSA Exhibit RAW/C-1.

- Capital Lease Agreement, (Directed Questions Nos. 78-79);
- Residency Requirement, (Directed Questions Nos. 80-81);
- Billing Arrangement with the Allegheny County Sanitary Authority (ALCOSAN), (Directed Questions Nos. 91-95);
- Billing Arrangement with Pennsylvania-American Water Company (PAWC), (Directed Questions No. 96);
- Bulk Wastewater Conveyance Agreements, (Directed Questions Nos. 114-120); and
- Uncollectible Revenue.

Witness: Ethan H. Cline, Fixed Utility Valuation Engineer (I&E Statement No. 3):

- System and Operation Activities, (Directed Questions Nos. 6.1-6.12);
- 52 Pa. Code § 65.7 - Metered Service, (Directed Questions Nos. 17-20);
- 52 Pa. Code § 65.8 – Meters, (Directed Questions Nos. 21-27);
- 52 Pa. Code § 65.14 - Measurement, (Directed Questions Nos. 34-36);
- 52 Pa. Code § 65.17 – Standard of Design, (Directed Questions Nos. 39-40);
- 52 Pa. Code § 65.20 – Water Conservation Measures, (Directed Questions Nos. 41-43);
- Municipality Authorities Act Versus 52 Pa. Code § 65.21 – 65.23;
- 52 Pa. Code § 65.169 – Policy Statement Interpreting Terms Included in 66 Pa. Code § 1326, Standby Charge, (Directed Questions Nos. 55-56);
- 52 Pa. Code § 73.3 – Annual Depreciation Reports, (Directed Questions Nos. 62-66);
- Unmetered and/or Unbilled Usage (including City usage), (Directed Questions Nos. 82-90);

- Plan to Address Non-Revenue Water, (Directed Questions Nos. 102-106);  
and
- Bulk Water: Sales for Resale, (Directed Questions Nos. 107-113).

Witness: Israel E. Gray, Fixed Utility Valuation Engineer (I&E Statement No. 4):

- Projects related to the November 2017 Consent Order and Agreement between PWSA and the Pennsylvania Department of Environmental Protection (Directed Question No. 7)
- Water Supply, Production & Storage, and Wastewater Conveyance Projects, (Directed Questions Nos. 8-14);
- 52 Pa. Code § 65.2 - Accidents, (Directed Questions No. 16);
- 52 Pa. Code § 65.11 – Mandatory Conservation Measures, (Directed Questions Nos. 28-30);
- 52 Pa. Code § 69.1601 – Unscheduled Service Interruptions and Associated Actions, (Directed Questions No. 61);
- 52 Pa. Code § 101 – Public Utility Preparedness through Self-Certification, (Directed Question No. 70);
- PWSA’s plan to address lead levels in the water supply and replacement of lead service lines, (Directed Questions Nos. 97-101); and
- LTIP issues.

1 **Q. SHOULD YOUR TESTIMONY BE CONSTRUED AS A COMPLETE**  
2 **ANALYSIS OF PWSA'S COMPLIANCE WITH THE PUBLIC UTILITY**  
3 **CODE AND ALL APPLICABLE RULES, REGULATIONS, AND ORDERS**  
4 **OF THE COMMISSION?**

5 A. No. Each I&E witness's testimony, including my own, represents areas of non-  
6 compliance that were identifiable within the scope of information available and  
7 the timeframe allotted for this proceeding. Due to the size, scope, and  
8 complexities of this proceeding, it is important to note that any unaddressed issue  
9 does not necessarily indicate I&E's agreement. I&E reserves the right to revisit  
10 any unaddressed issues or expand upon any previously explored issues in future  
11 PWSA proceedings.

12  
13 **Q. WHAT MATERIALS HAVE YOU REVIEWED TO PREPARE YOUR**  
14 **DIRECT TESTIMONY?**

15 A. I have reviewed the documents that have been specifically identified above which  
16 include PWSA's Compliance Plan, its Compliance Plan Supplement, the Final  
17 Implementation Order, the Secretarial Letters, the Directed Questions, and the  
18 direct testimony submitted by PWSA. I have also reviewed documents made  
19 available through the discovery process in this case. Finally, as mentioned above,  
20 I also submitted testimony in PWSA's recent base rate proceeding at Docket Nos.  
21 R-2018-3002645 and R-2018-3002647 (I&E Statement Nos. 1, 1-R, and 1-SR,

1 along with corresponding Exhibit Nos. 1 and 1-SR) and have drawn upon that  
2 prior analysis in this proceeding.

3  
4 **Q. WHAT AREAS DID YOUR REVIEW FOCUS ON?**

5 A. My review primarily focused on “Documents Supporting the Compliance Plan”,  
6 (Directed Questions No. 1); “Projected Expenditures”, (Directed Questions Nos.  
7 2-5); and “52 Pa. Code § 73.7 – Capital Investment Plan Report”, (Directed  
8 Questions Nos. 68-69). Further, some of the issues raised in my PWSA base rate  
9 case testimony regarding debt requirements for infrastructure improvements bear  
10 relevance in this proceeding and will be referenced herein.<sup>5</sup>

11  
12 **DOCUMENTS SUPPORTING THE COMPLIANCE PLAN<sup>6</sup>**

13 **Q. HAS THE COMMISSION REQUIRED THAT PWSA PROVIDE CERTAIN**  
14 **DOCUMENTS FOR THE RECORD IN ITS COMPLIANCE PLAN CASE?**

15 A. Yes. In its Directed Questions, the Commission provided a list of 13 documents  
16 that PWSA was directed to introduce into evidence in this case. The required  
17 documents are listed on pages 2-3 of the Commission’s Directed Questions and

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<sup>5</sup> At Docket Nos. R-2018-3002645 and R-2018-3002647, I&E Statement No. 1.

<sup>6</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 2-3; Exhibit RAW/C-1, Directed Questions No. 1.



1 they are comprised of various documents that PWSA indicated that it relied on to  
2 support the Compliance Plan.

3  
4 **Q. DID PWSA COMPLY WITH THIS REQUEST?**

5 A. Only in part. At time of this testimony, PWSA has not provided the following  
6 documentation:

- 7 • The formal plan to document all stormwater assets and conditions at CP  
8 page 14;
- 9 • Memorandum of understanding between the City and PWSA for operation,  
10 maintenance, repair, and capital improvements related to stormwater and  
11 the City at CP pages 14-15;
- 12 • The 2017 PWSA prepared responses to the U.S. EPA Municipal Separate  
13 Storm Sewer Systems stormwater permit at CP page 14;
- 14 • The Performance Audit Report by the Office of City Comptroller;
- 15 • A City-sponsored assessment by Infrastructure Management Group (IMG);
- 16 • The Pennsylvania Department of Environmental Protection (PA DEP) and  
17 U.S. EPA audits;
- 18 • The schedule of Capital Improvement Projects filed by PWSA with the PA  
19 DEP on or about November 30, 2017 in response to the October 25, 2017  
20 Administrative Order, if different from the PWSA Capital Improvement  
21 Plan for years 2017-2021 referenced at CP page 22;

- 1       •     The September 18-22, 2017 PA DEP Comprehensive Performance  
2             Evaluation for the Aspinwall Water Filtration Plant referenced at CP page  
3             22;
- 4       •     The Wet Weather Feasibility Study, Wet Weather Plan and Long-term Wet  
5             Weather Control Plan referenced at CP page 24 to the extent that these  
6             affect the CP; and
- 7       •     The Green First Plan referenced at CP page 25 to the extent that it affects  
8             the CP.

9

10   **Q.     WHAT IS YOUR RECOMMENDATION REGARDING PWSA'S FAILURE**  
11       **TO PROVIDE THESE DOCUMENTS?**

12   A.     I recommend that PWSA immediately provide, as part of this proceeding, all of  
13             the missing documents I have identified so that the review the Commission  
14             requested is possible.

1        **PROJECTED EXPENDITURES**<sup>7</sup>

2        **Q.     BRIEFLY DISCUSS PWSA’S PROJECTED EXPENDITURES PLAN.**

3        A.     Page 7 of PWSA’s Compliance Plan provides some rationale as to why PWSA has  
4            not succeeded in achieving the necessary capital improvements, including the  
5            economic conditions of the City of Pittsburgh, a high rate of management  
6            turnover, and poor decisions based on political motives.

7            In response to the Commission’s Directed Questions regarding projected  
8            expenditures, PWSA witness Jennifer Presutti confirms that PWSA plans to issue  
9            \$1.25 billion in additional debt to fund its Capital Improvements over the next five  
10          years. Ms. Presutti additionally discusses PWSA’s need to maintain its present  
11          “A” bond rating, its ability to secure future rate increases, the possibility of  
12          Distribution System Improvement Charge (DSIC) funding, and PWSA’s various  
13          planned funding sources going forward.<sup>8</sup>

14  
15       **Q.     WHAT CONCERNS DO YOU HAVE REGARDING THE LARGE**  
16            **AMOUNT OF DEBT PWSA IS PLANNING TO ISSUE IN THE NEXT**  
17            **FIVE YEARS?**

18       A.     If PWSA does not achieve its projected revenues in coming years, its increasing  
19            debt ratio and ability to meet its DSCR covenants would likely be compromised.

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<sup>7</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 3; Exhibit RAW/C-1, Directed Questions Nos. 2-5.

<sup>8</sup> PWSA St. No. C-3, p. 3-6.

1 This could potentially lead to credit rating downgrades, which could reduce access  
2 to capital and cause higher debt costs. This could ultimately lead to higher costs  
3 for ratepayers and failed projected capital improvement projects. Both Moody's  
4 Investor Service and S&P Global Ratings offer a detailed analysis regarding  
5 PWSA's credit strengths and weaknesses that include consideration of PWSA's  
6 future capital spending.<sup>9</sup> However, these analyses were before the Commission's  
7 recent approval of a \$21 million annual base rate increase, allowing for increased  
8 spending on capital improvement projects.

9  
10 **Q. HAS THERE BEEN ANY CHANGE TO PWSA'S BOND COVENANT**  
11 **REQUIREMENTS REGARDING DSCR SUBSEQUENT TO THE**  
12 **AMENDED AND RESTATED TRUST INDENTURE BETWEEN PWSA**  
13 **AND THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.**  
14 **AMENDED AND RESTATED AS OF NOVEMBER 1, 2017?**

15 A. No. The DSCR requirements remain at 1.10x for total debt service and 1.25x for  
16 senior debt service.<sup>10</sup>

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<sup>9</sup> I&E Exhibit No. 1, Schedule 1.

<sup>10</sup> I&E Exhibit No. 1, Schedule 2.

1   **Q.    WHAT FUNDING SOURCES DOES PWSA INTEND TO UTILIZE FOR**  
2       **ITS CAPITAL PROJECTS GOING FORWARD?**

3   A.    Ms. Presutti states, “All funding is anticipated to be bond funded, unless PennVest  
4       funding, grants, PAYGO, or DSIC funding becomes available.”<sup>11</sup>

5  
6   **Q.    WHAT COMMENTS DO YOU HAVE REGARDING PWSA’S FUTURE**  
7       **FUNDING SOURCES?**

8   A.    It is important to recognize that determining the exact sources of financing for  
9       capital expenditures is difficult to precisely identify until the time of application.  
10       Ideally, PWSA will pursue the lowest cost debt option available, which would  
11       likely be through PennVest or DSIC. For example, on October 17, 2018, PWSA  
12       was awarded \$49,128,404 in PennVest funding to be used for lead line  
13       replacement projects. The funding was made up of a grant of \$13,687,173 and a  
14       loan in the amount of \$35,441,231 at a fixed interest rate of 1.00%.<sup>12</sup> Although  
15       PWSA is currently in discussions for the potential of a multi-year PennVest  
16       program to cover private lead service line replacements,<sup>13</sup> nothing is guaranteed.

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<sup>11</sup> I&E Exhibit No. 1, Schedule 3.

<sup>12</sup> PWSA St. No. C-3, p. 6, lines 10-13.

<sup>13</sup> I&E Exhibit No. 1, Schedule 4.

1   **Q.   PLEASE SUMMARIZE PWSA’S DISCUSSION REGARDING THE**  
2   **IMPLEMENTATION OF DSIC FUNDING.**

3   A.   According to Mr. Weimar, although PWSA has not elected to request approval of  
4       a DSIC mechanism at this time, it is currently under consideration. He further  
5       discusses the potential for accelerated infrastructure improvements if and/or when  
6       a DSIC is implemented.<sup>14</sup>

7       Ms. Presutti also acknowledges that PWSA is considering requesting approval of a  
8       DSIC. Additionally, she provides calculations that would allow for spending of  
9       approximately \$5,902,688 per year or \$11,805,376 per year based on a DSIC  
10      approval of a 5% or 10% respectively, of distribution revenues.<sup>15</sup>

11  
12   **Q.   DO YOU RECOMMEND PWSA PURSUE DSIC FUNDING?**

13   A.   Yes. Once PWSA meets the eligibility criteria, I recommend it pursue DSIC  
14       funding.

15  
16   **Q.   WHAT IS THE BASIS FOR YOUR RECOMMENDATION OF PWSA TO**  
17   **PURSUE DSIC FUNDING?**

18   A.   I believe that DSIC funding would be a better option to utilize than PWSA’s  
19       current proposal for a continuously increasing PAYGO (pay-as-you-go) fund. In

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<sup>14</sup> PWSA St. No. C-1, pp. 60-70.

<sup>15</sup> PWSA St. No. C-3, pp. 4-5.

1 its 2018 base rate case, PWSA requested \$1,500,000 in order to establish a  
2 PAYGO fund. PWSA projected this fund would increase to \$4,000,000 in FY  
3 2020, \$7,000,000 in FY 2021, \$10,000,000 in FY 2022, and \$15,000,000 in FY  
4 2023.<sup>16</sup> This implied that PWSA projected its PAYGO fund would increase by  
5 900% by FY 2023. PWSA witness Debbie Lestitian stated in base rate case  
6 testimony that PWSA intended PAYGO funding to be used for capital  
7 improvement projects.<sup>17</sup> In lieu of PAYGO funding, not only would the  
8 implementation of a DSIC mechanism possibly provide for a greater amount of  
9 funding more quickly, it would also provide for more accountability. The DSIC  
10 only allows for spending on eligible property determined by a Long-Term  
11 Infrastructure Improvement Plan, which, in this case, has been filed on September  
12 28, 2018 as required by the Commission.<sup>18</sup> On the other hand, PWSA did not  
13 propose any spending parameters for its utilization of the PAYGO funds, so the  
14 same level of accountability for spending does not exist for those funds as it would  
15 for DSIC spending.

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<sup>16</sup> Docket Nos. R-2018-3002645 and R-2018-3002647, PWSA Statement No. 2, Exhibit DML-2, p. 1.

<sup>17</sup> Docket Nos. R-2018-3002645 and R-2018-3002647, PWSA Statement No. 2, pp. 16-17.

<sup>18</sup> PWSA St. No. C-1, p. 65, lines 4-9.

1   **Q.   DO YOU HAVE ANY FINAL COMMENTS REGARDING PWSA TAKING**  
2       **ON SUCH A LARGE BURDEN OF DEBT?**

3   A.   Yes. As discussed in greater detail in my testimony in the base rate proceeding  
4       referenced above, while infrastructure improvements are necessary, it is  
5       imperative that PWSA be proactive and continuously plan and strategize to  
6       employ debt wisely and obtain the least cost debt possible. It is important that  
7       PWSA produces positive results in its capital improvement plan with the funding  
8       and revenues received going forward. Further, PWSA should not be under the  
9       impression that it can hold ratepayers captive in future base rate proceedings under  
10      the mistaken assumption that such requested increases must be granted, which  
11      there is no guarantee, in order to maintain bond ratings and DSCR covenants.  
12      Principally, it is vital to avoid a cyclical pattern of needing more money than  
13      previously projected due to poor planning and execution of capital improvement  
14      projects. Finally, along with mitigating PWSA's debt burden, the implementation  
15      of DSIC funding could potentially lead to a reduced frequency of rate case filings  
16      and the expense that goes with them.



1           **52 PA. CODE § 73.7 - CAPITAL INVESTMENT PLAN REPORT**<sup>19</sup>

2   **Q.     WHAT ARE THE REQUIREMENTS OF 52 PA. CODE § 73.7 – CAPITAL**  
3       **INVESTMENT PLAN REPORT?**

4   **A.     52 Pa. Code § 73.7 requires the following:**

5           (a)    A public utility with gross intrastate revenues in excess of \$20 million  
6                   per year providing electric service, gas service or water service,  
7                   except gas and petroleum transportation pipeline companies, shall file  
8                   a capital investment plan report every 5 years. The first capital  
9                   investment plan report shall be filed with the Office of Special  
10                  Assistants by August 31, 2000.

11          (b)    Thereafter, the capital investment plan report for electric, water and  
12                   gas public utilities shall be filed with the Office of Special Assistants  
13                   on or before August 31 of the year in which the report is due.

14          (c)    The public utility shall file a copy of its capital investment plan report  
15                   required under this chapter with the Office of Consumer Advocate  
16                   and the Office of Small Business Advocate at the same time that it  
17                   files the report with the Office of Special Assistants.

18  
19   **Q.     PLEASE EXPLAIN PWSA’S POSITION REGARDING THE**  
20       **REQUIREMENT OF A CAPITAL INVESTMENT PLAN REPORT.**

21   **A.     On page 90 of the Compliance Plan, regarding the PWSA Compliance Status,**  
22       **PWSA states:**

23           PWSA’s most recent Capital *Improvement* Plan was completed in 2017 for  
24           the period of 2017 through 2021. PWSA’s Capital Improvement Program  
25           focuses on sustaining cost effective operations, while optimizing the  
26           system’s asset performance and life expectancy. The 2017 2021 Capital

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<sup>19</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 13; Exhibit RAW/C-1, Directed Questions Nos. 68-69.

1 Improvement Program invests in programs that consider risk and  
2 consequence of asset failure and levels of service benefits.

3  
4 Further, on page 90 of the Compliance Plan, regarding the PWSA Compliance  
5 Plan, PWSA states:

6 As a newly regulated utility, PWSA plans to comply with the standards and  
7 requirements listed in Section 73.8 and file its long-term infrastructure  
8 improvement plan *in the place* of a capital investment plan report with the  
9 Office of Special Assistants.  
10

11 **Q. IS PWSA IN COMPLIANCE OR DOES IT PLAN TO BE IN**  
12 **COMPLIANCE WITH 52 PA. CODE § 73.7?**

13 A. No. PWSA did not provide testimony or other support explaining why its long-  
14 term infrastructure improvement plan (LTIIP) filings are an adequate substitute  
15 for Capital Investment Plan filings. I am advised by counsel that there are  
16 different requirements for an LTIIP and a Capital Investment Plan filing.  
17 Additionally, to my knowledge, PWSA has not requested a formal waiver of  
18 the requirement to file a Capital Investment Plan.

19  
20 **Q. WHAT IS YOUR RECOMMENDATION?**

21 A. Because PWSA has neither received an approved waiver nor provided  
22 adequate justification why its LTIIP filings are a substitute for the  
23 requirements of 52 Pa. Code §73.7, I recommend PWSA refile its Compliance  
24 Plan to indicate that it will file a Capital Investment Plan in compliance with  
25 52 Pa. Code § 73.7.

1           **SUMMARY OF I&E'S OVERALL RECOMMENDATION**

2   **Q.    WHAT IS I&E'S OVERALL RECOMMENDATION REGARDING**  
3           **PWSA'S COMPLIANCE PLAN?**

4   **A.    I&E recommends that the Commission direct PWSA to file a revised Compliance**  
5           **Plan that addresses the deficiencies identified by I&E witnesses including myself,**  
6           **D. C. Patel, Ethan H. Cline, and Israel E. Gray. The comprehensive list of**  
7           **deficiencies and recommendations is set forth in Appendix B below.**

8  
9   **Q.    DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

10   **A.    Yes. However, I reserve the right to supplement my testimony if additional issues**  
11           **or facts arise that may impact my recommendation.**

ANTHONY D. SPADACCIO

PROFESSIONAL EXPERIENCE AND EDUCATION

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**EMPLOYMENT**

Fixed Utility Financial Analyst 2014 – Present	PA Public Utility Commission Bureau of Investigation & Enforcement
Auditor 2012 – 2014	Public School Employee's Retirement System Bureau of Benefits Administration
Tax Technician 2010 – 2012	PA Department of Labor and Industry Unemployment Compensation Tax Services
Staff Accountant 2006 – 2009	Boyer & Ritter Certified Public Accountants

**EDUCATION & TRAINING**

*EDUCATION/CERTIFICATIONS:*

Society of Utility and Regulatory Financial Analysts – 2018  
Certified Rate of Return Analyst (CRRA)

Indiana University of Pennsylvania, A.A. Accounting - 2006

The Pennsylvania State University, B.S. Labor and Industrial Relations – 2003

The Pennsylvania State University - The Smeal College of Business - 2003

Certificates of Completion:

Business Management - 20 credits of instruction

General Business - 20 credits of instruction

*UTILITY SPECIFIC TRAINING/CONFERENCES:*

SURFA Annual Financial Forum – New Orleans, LA - 2018

SURFA Annual Financial Forum – Indianapolis, IN - 2016

Western NARUC Utility Rate School – San Diego, CA - 2015

Pennsylvania Public Utility Commission Rate School – Harrisburg, PA – 2014

ANTHONY D. SPADACCIO

PROFESSIONAL EXPERIENCE AND EDUCATION

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**EXPERIENCE**

I have submitted testimony or provided assistance in the following proceedings:

- Docket No. R-2018-3002645 & 3002647 – Pittsburgh Water & Sewer Authority\*
- Docket No. A-2018-3003517 & 3003519 – SUEZ Water Pennsylvania, Inc. (§1329)\*
- Docket No. R-2018-3000124 - Duquesne Light Company\*
- Docket No. R-2018-3000164 - PECO Energy Company – Electric Division\*
- Docket No. R-2018-2645296 - Peoples Gas Company LLC 1307(f)\*
- Docket No. R-2018-3000236 - Peoples Natural Gas – Equitable Division 1307(f)\*
- Docket No. R-2018-2645278 - Peoples Natural Gas Company, LLC 1307(f)\*
- Docket No. R-2017-2640058 - UGI Utilities, Inc. – Electric Division\*
- Docket No. R-2017-2595853 - Pennsylvania-American Water Company\*
- Docket No. A-2017-2606103 - Pennsylvania-American Water Company (§1329)\*
- Docket No. A-2016-2580061 - Aqua PA Wastewater, Inc. (§1329)
- Docket No. R-2016-2531551 - Wellsboro Electric Company\*
- Docket No. R-2016-2531550 - Citizens' Electric Company of Lewisburg, PA\*
- Docket No. R-2016-2542923 - PNG, LLC – Equitable Division (Rate MLX)\*
- Docket No. R-2016-2542918 - Peoples Natural Gas Company, LLC (Rate MLX)\*
- Docket No. P-2016-2543140 - Duquesne Light Company (DSP VIII)\*
- Docket No. R-2016-2529660 - Columbia Gas of PA, Inc.\*
- Docket No. R-2016-2538660 - Community Utilities of PA, Inc.
- Docket No. P-2016-2521993 - Columbia Gas of PA, Inc. (DSIC)\*
- Docket No. R-2015-2506337 - Twin Lakes Utilities, Inc.
- Docket No. R-2015-2479955 - Allied Utility Services, Inc.
- Docket No. R-2015-2479962 - Corner Water Supply & Service Corp.
- Docket No. R-2015-2470184 - Borough of Schuylkill Haven – Water Dept.
- Docket No. R-2014-2452705 - Delaware Sewer Company\*
- Docket No. R-2014-2430945 - Plumer Water Company
- Docket No. R-2014-2427189 - B.E. Rhodes Sewer Company
- Docket No. R-2014-2427035 - Venango Water Company
- Docket No. R-2014-2428745 - Metropolitan Edison Company
- Docket No. R-2014-2428744 - Pennsylvania Power Company
- Docket No. R-2014-2428743 - Pennsylvania Electric Company
- Docket No. R-2014-2428742 - West Penn Power Company

\*Testimony Submitted

**Summary of I&E Recommendations**

**I. Anthony D. Spadaccio, I&E Statement No. 1:**

**DOCUMENTS SUPPORTING THE COMPLIANCE PLAN:**

- PWSA should immediately provide, as part of this proceeding, all of the missing documents I have identified so that the review the Commission requested is possible.

**PROJECTED EXPENDITURES:**

- Once PWSA meets the eligibility criteria, I recommend it pursue DSIC funding.

**52 PA. CODE § 73.7 – CAPITAL INVESTMENT PLAN REPORT:**

- Because PWSA has neither received an approved waiver nor provided adequate justification why its LTIP filings are a substitute for the requirements of 52 Pa. Code §73.7, I recommend PWSA refile its Compliance Plan to indicate that it will file a Capital Investment Plan in compliance with 52 Pa. Code § 73.7.

**II. D.C. Patel, I&E Statement No. 2:**

**SYSTEM OF ACCOUNTS:**

- PWSA should revise its Compliance Plan to provide more information about the status of its selection of an Enterprise Resource Planning (ERP) contractor, projected ERP system cost, and a detailed implementation schedule.

- PWSA should provide periodic updates on the ERP system development to the Commission on a quarterly basis.
- PWSA should strive to complete the ERP project enabling full conversion of its system of account to NARUC USOA no later than December 31, 2020.

**CUSTOMER ASSISTANCE PROGRAM:**

- PWSA should continue collecting the types of data as mentioned in the Plan Supplement at page 19.
- Based on the data, analysis and evaluation of each low-income program, PWSA should formulate and present as soon as possible, a detailed CAP proposal and evaluation plan as described in 52 Pa. Code § 69.265(10) (relating to CAP design elements) to the Commission's Bureau of Consumer Services for the parties' and the Commission's review as part of PWSA's next base rate case proceeding.

**PWSA SERVICES CONTRACT WITH THE CITY OF PITTSBURGH**

**(COOPERATION AGREEMENT):**

- Define the City's and PWSA's relationship on a "business-like" basis and negotiate all terms and conditions of the agreement at arm's length to ensure fair, equitable, and reasonable terms for both the parties.

- Identify and list all services by the City to PWSA and vice versa with a detailed breakdown and related cost of service based on current market conditions.
- Eliminate the subsidy payment to PAWC and other municipal authorities by PWSA.
- Eliminate the free water services to the City and its instrumentalities, agencies, and other bodies.
- The City should be charged for wastewater and stormwater services at tariff rates and for the ALCOSAN wastewater treatment charges.
- Make the board, management and operational decisions, independent of the City influence as recommended by the Auditor General in its Performance Audit Report.
- In rebuttal, identify and provide the source of the claimed requirement that the City's Finance Director and Treasurer serve on PWSA's Board.
- If PWSA and the City cannot agree to the Cooperation Agreement that is consistent with PWSA's obligations as a regulated utility, then PWSA should not enter into any other agreement with the City. Instead, PWSA should allow either some or all services previously provided by the City to lapse in favor of services provided on a current market-based approach.



**CAPITAL LEASE AGREEMENT:**

- PWSA should be entitled to complete the transaction in 2025 by paying the one dollar (\$1.00) to purchase the water and wastewater system assets.

**RESIDENCY REQUIREMENT:**

- PWSA should eliminate its residency requirement for employment.  
Additionally, PWSA should be required to file a revised compliance plan that summarizes and adopts a plan to eliminate the residency requirement.

**BILLING ARRANGEMENT WITH THE ALLEGHENY COUNTY**

**SANITARY AUTHORITY (ALCOSAN):**

- ALCOSAN should establish and charge a market-based rate that is aligned with the volume of wastewater treated for PWSA's wastewater customers and a separate rate that is aligned with the additional volumes related to treatment of stormwater.
- PWSA should pay the established market-based rate to ALCOSAN via an annual or multi-year contract.
- PWSA should develop wastewater and stormwater tariff rates for current wastewater customers and future stormwater customers that accurately reflect the costs of paying for contracted treatment services and capturing the impact of uncollectibles in its own rates.

- PWSA and the City should amend the applicable current agreement and memorandum of understanding between the City, PWSA, and ALCOSAN before the next base rate case filing, or no later than December 31, 2019, whichever occurs first.
- Alternatively, if PWSA proves that it is legally prohibited from implementing the above recommendations, then the Commission should order PWSA to file a revised Compliance Plan that requests that the Commission to reform its contract with ALCOSAN under Section 508 of the Public Utility Code.

**BILLING ARRANGEMENT WITH PENNSYLVANIA-AMERICAN**

**WATER COMPANY (PAWC):**

- PWSA should revise its Compliance Plan to indicate that it will eliminate the rate subsidy to PAWC completely by either the time of its next base rate case filing or by no later than December 31, 2019, whichever occurs first.

**BULK WASTEWATER CONVEYANCE AGREEMENTS:**

- PWSA should be required to file all of its existing bulk wastewater contracts with the Commission in a separate docket within 120 days of the Commission's final order in this case.
- PWSA should negotiate the terms and conditions of all current bulk wastewater conveyance agreements to ensure that PWSA's wastewater conveyance charges/rates are just and reasonable reflecting true and current

cost of service and that municipal authorities be made responsible to share the cost of repairs and replacement of conveyance trunk lines.

- If PWSA enters into new or revised wastewater conveyance agreements with any municipal authorities before filing the next base rate case, but no later than December 31, 2019, it should file those new or revised agreements with the Commission within 15 days of execution under 66 Pa. Code § 507.

**UNCOLLECTIBLES - REVENUE LOSS:**

- PWSA should be ordered to revise its Compliance Plan to commit to the following actions: (1) PWSA will research the customers billing collection practices and policies implemented by other utilities (regulated gas, electric, and water distribution companies) serving PWSA's service territory and implement the best suited policies and practices consistent with the provisions of 52 Pa. Code; (2) PWSA will exercise all available avenues and options aggressively in an effort to reduce uncollectibles; (3) To ensure PWSA is accountable for its uncollectibles, it will provide a detailed annual report with data about implementation of collection measures and related results; and (4) PWSA will prioritize accounts with the highest uncollectible amounts, including commercial accounts, for collections.

**III. Ethan H. Cline, Statement No. 3:**

**SYSTEM AND OPERATIONS ACTIVITIES – OCTOBER 25, 2017 DEP**

**ORDER AND CAPITAL IMPROVEMENT PLAN:**

- I recommend PWSA provide an update to I&E-RB-26 regarding the status of the Aspinwall Treatment Plant High Service Pump station in its rebuttal testimony, PWSA should acknowledge whether it has or has not decided to move forward with the project at that time.
- PWSA should either provide the missing project timeline information through its rebuttal testimony or explain why such information is not available.
- In rebuttal, PWSA should provide both design engineer and company affiliation for each project, as asked by the Commission's Directed Questions, or explain why such information is unavailable.
- PWSA should provide more specific details about the funding sources that it plans to use for each project. As an alternative, if more specific information cannot be provided, PWSA should explain why and indicate when it anticipates being able to identify a specific funding source for each project.

**ASPINWALL CLEARWELL IMPROVEMENT PROJECT:**

- I recommend that the Commission find that PWSA will not be providing safe and reliable service until PWSA provides expedited plans to bypass the Clearwell and continue to provide service in the event of a failure.

- To comply with its obligation to ensure safe and reliable service, I recommend that the Commission order the Authority to submit a new Compliance Plan that expedites the completion of the Clearwell projects.

**52 PA. CODE § 65.7-METERED SERVICE:**

- PWSA should complete metering municipal buildings as soon as possible.

**52 PA. CODE § 65.8-METERS:**

- I recommend that PWSA update in its rebuttal testimony the following areas:
  - Whether the Authority has awarded the contract and remains on track to begin testing meters greater than three inches on April 1, 2019;
  - The identification and status of PWSA's parameters for testing meters two inches and larger as referenced in its response to I&E-RB-8 (I&E Ex. No. 3, Sch. 8),
  - The status of the realignment of the current warehouse to house a new meter test bench has been completed and the new test bench is in use, and
  - Whether PWSA is revising its original 2022 goal for commercial meter testing to extend that goal to 2024 (as with the residential meters).
- I recommend PWSA provide in rebuttal testimony a discussion of the feasibility of the meter testing triage plan referenced in the Commission's Directed Questions.

- I recommend that the Commission find the 2024 projected date of compliance to be acceptable pending PWSA providing the missing information as discussed above.

**52 PA. CODE § 65.14 SOURCE OF SUPPLY MEASUREMENT:**

- I recommend that the Commission order PWSA to file a revised Compliance Plan including an adequate plan to come into compliance with 52 Pa. Code § 65.14(a).
- I recommend that the Commission determine that PWSA plans for complying with 52 Pa. Code § 65.14 are unsatisfactory and that, in its revised Compliance Plan filing, PWSA should provide details and a timeline regarding how and when each of the meters listed on Table 4-3 of PWSA 40 year plan of 2012 will be operational and accurate.

**52 PA. CODE § 65.17-STANDARDS OF DESIGN:**

- I recommend that the Commission determine that PWSA is not in compliance with Section 65.17 unless and until PWSA provides a revised Compliance Plan that includes a timeline and projected completion date for the replacement of all 4-inch diameter water mains.

**52 PA. CODE § 65.20-WATER CONSERVATION MEASURES:**

- I recommend that the Commission order PWSA to file a revised Compliance Plan, including a detailed timeline and start date for which PWSA can commit to begin providing the required educational information to customers.

- I recommend PWSA provide the Commission with annual reports summarizing the progress of the efforts is necessary to ensuring that they are efficient, cost-effective, and yield results. An annual breakdown of costs and timelines should be included with the leak survey data.

**MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 –**

**65.23:**

- I recommend that PWSA be required to comply with 52 Pa. Code §§ 65.21-65.23 because I am advised by counsel that the Public Utility Code now supersedes the MAA regarding these matters.

**52 PA. CODE § 69.169- POLICY STATEMENT INTERPRETING TERMS**

**INCLUDED IN 66 PA. C.S. §1326, STANDBY CHARGE:**

- To the extent PWSA does not provide clarification in its rebuttal testimony, I recommend that the Commission find that PWSA's tariff is not in compliance with the Code and Commission regulations and order PWSA to provide a revised Compliance Plan detailing its proposal to remove this standby charge.

**52 PA. CODE § 73.3-ANNUAL DEPRECIATION REPORTS:**

- I recommend the Commission require PWSA to file a partial annual depreciation report, on the same schedule as a full annual depreciation report starting in 2020, detailing only known and newly constructed plant additions and retirements, as witness Presutti indicated the Authority is willing to consider (PWSA St. No. C-3, p. 10), so that the Commission can remain

apprised of the progress PWSA is making on its various capital projects each year.

**UNMETERED / UNBILLED USAGE (INCLUDING CITY USAGE):**

- I recommend that the Commission determine that PWSA's plans regarding unbilled and unmetered customers are not in compliance with the Code.
- Further, I recommend that PWSA introduce a flat rate, at minimum the customer charge for that customer's class, for all unbilled customers in its next base rate case.
- Additionally, as customers are metered, their usage should be billed immediately.
- Unmetered wastewater customers should also be billed a flat rate and immediately billed for usage when the building is metered, similar to water customers.
- It is appropriate for the Commission to determine in this compliance proceeding whether PWSA's current practice of recovering public fire hydrant costs from all rate classes complies with the Code.
- I recommend the Commission direct PWSA to file a revised Compliance Plan stating that PWSA will provide a new rate design reflecting allocation of all public fire hydrant costs to the City with its next rate case proposal.



**BULK WATER: SALES FOR RESALE:**

- In order to determine whether the terms of any bulk water sales contracts PWSA has entered into comport with the Code, I recommend the Commission Order PWSA to file all contracts and contract details PWSA has entered into with municipalities and other public utilities for bulk water sales (both before and since April 1, 2018) in a separate docket within 120 days of the final Commission Order in this proceeding so the Commission can investigate their compliance with the Code.

**IV. Israel E. Gray, I&E Statement No. 4:**

**COMPLIANCE WITH THE PENNSYLVANIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION CONSENT ORDER AND  
AGREEMENT OF NOVEMBER 17, 2017:**

- PWSA must keep the Commission updated on the progress of the Orthophosphate Program by providing quarterly reports to the Commission indicating the following: (1) Whether orthophosphate treatment has begun. If it has not, explain in detail why the orthophosphate treatment has not begun, including whether there have been any permitting issues or other actions that inhibit PWSA's progress moving forward with orthophosphate treatment; (2) When PWSA started testing for lead levels; and (3) The results of the lead level testing.

**WATER SUPPLY, PRODUCTION & STORAGE AND WASTEWATER**

**CONVEYANCE PROJECTS:**

- Provide the percentage of projects that are to be competitively bid or, if this information is unavailable, require PWSA to track and provide this information as part of a revised Compliance Plan filing.

**52 PA. CODE § 65.2 – ACCIDENTS:**

- File a revised Compliance Plan stating PWSA will update its Incident Investigation Policies to comply with its obligations under 52 Pa. Code. § 65.2(d) regarding telephone reports.

**52 PA. CODE § 65.11 – MANDATORY CONSERVATION MEASURES:**

- File a revised Compliance Plan stating PWSA will (1) develop mandatory water restriction procedures by no later than the close of 2019, and incorporate those procedures into PWSA's pending Emergency Response Plan; and (2) pursue interconnections with other regional water suppliers to enhance system resiliency.

**52 PA. CODE § 69.1601 – UNSCHEDULED SERVICE INTERRUPTIONS**

**AND ASSOCIATED ACTIONS:**

- Incorporate the following recommendations into its pending Emergency Response Plan: (1) provide additional information regarding whether PWSA has met its target of revising communication protocols to include notification to the Commission by the first quarter of 2019; and (2) notify the Commission

of any low pressure incident or other service interruption for which it notifies PA DEP.

**52 PA. CODE § 101 – PUBLIC UTILITY PREPAREDNESS THROUGH  
SELF – CERTIFICATION:**

- Regarding its obligations under 52 Pa. Code § 101, (1) involve TUS in the development of its physical security, cyber security, emergency response and business continuity plans.
- Either through additional information in this case, or through a revised Compliance Plan, if necessary, provide the Commission with a more detailed timeline for its anticipated completion of its physical security, cyber security, emergency response, and business continuity plans so that a date for certification of these obligations can be confirmed.

**PLAN TO ADDRESS LEAD LEVELS IN WATER SUPPLY AND THE  
REPLACEMENT OF LEAD SERVICE LINES:**

- PWSA should provide an explanation, in this proceeding, of why PWSA has not met its lead replacement targets and identify any factors that impacted its ability to meet those targets.
- PWSA should take all necessary actions to ensure that if it transitions its LSLR program into its SDWMP in the future, that the transition does not prolong lead line replacement timeframes or compromise replacement goals beyond 2026.

- PWSA's Board should issue a policy decision committing to continue to perform private-line replacements past 2019.

**LTIP ISSUES:**

- File a revised LTIP including: (1) a plan to expedite metering, demonstrating why and how PWSA chose its expedited metering plan; (2) a timeline along which PWSA will address and propose solutions for each and every PWSA-identified workforce challenge factor as it relates to the LTIP schedule; (3) further detail demonstrating how PWSA will build a workforce to meet the needs of increased capital spending, including how headcount projections were quantified and estimate of number of required contractors; and (4) detail on how PWSA will meet the need for increased coordination with local utilities and government.

Implementation of Chapter 32 of the	:	Docket Nos.
Public Utility Code Re Pittsburgh	:	M-2018-2640802 (Water)
Water and Sewer Authority	:	M-2018-2640803 (Wastewater)

### VERIFICATION

I, Anthony D. Spadaccio, hereby state that the facts set forth in the foregoing document 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. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities)

  
\_\_\_\_\_  
Anthony D. Spadaccio

4/4/2019  
Date

**I&E Exhibit No. 1**  
**Witness: Anthony Spadaccio**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Exhibit to Accompany**

**the**

**Direct Testimony**

**of**

**Anthony Spadaccio, CRRA**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Summary of the PWSA Compliance Plan**

**Introduction of I&E Witnesses**

**Documents Supporting the Compliance Plan**

**Projected Expenditures**

**52 Pa. Code § 73.7 – Capital Investment Plan Report**

**I&E Overall Recommendation**

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, Set RR-1 to RR-7 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RR-6:** Reference the Compliance Plan filed on September 28, 2018, Appendix A, p. 16, Focus Area 3. Provide the most recent Credit Rating Agency reports from Moody’s Investors Service and S&P Global Ratings.

**Response:** See I&E-RR-6 Attach A and B.

Response                      Edward Barca, Treasurer  
Provided by:                The Pittsburgh Water and Sewer Authority

Dated:                        January 25, 2019

# RatingsDirect®

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## Summary:

# Pittsburgh Water and Sewer Authority; Water/Sewer

### Primary Credit Analyst:

Theodore A Chapman, Dallas (1) 214-871-1401; theodore.chapman@spglobal.com

### Secondary Contact:

Erin Boeke Burke, New York 212-438-1515; Erin.Boeke-Burke@spglobal.com

## Table Of Contents

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Rationale

Outlook



**Summary:**

# Pittsburgh Water and Sewer Authority; Water/Sewer

## Credit Profile

US\$217.345 mil fltg rate note rfdg of first ln synthetic rate debt ser 2017C dtd 12/05/2017 due 09/01/2040

*Long Term Rating*

A/Stable

New

## Rationale

S&P Global Ratings assigned its 'A' rating to the Pittsburgh Water and Sewer Authority (PWSA), Pa.'s series 2017C floating rate first-lien revenue bonds. The outlook is stable.

We have applied our primary utility revenue bond criteria to determine the authority's general creditworthiness and have applied this rating to its senior-lien issues. We rate PWSA's subordinate lien one notch lower based on the application of our criteria "Assigning Issue Credit Ratings Of Operating Entities" (published May 20, 2015, on RatingsDirect) given the open status of the senior lien and the likelihood that PWSA will continue to use the senior lien from time to time. Our view of PWSA's general creditworthiness is based on its very strong enterprise risk profile and its strong financial profile.

The authority has been subject to scrutiny from local and state elected officials who voiced concerns over authority operations, subsequently asking the state to perform an audit of PWSA. The results of the audit, released in November 2017, outlined a number of findings that in the Auditor General's opinion include "aging and deteriorating infrastructure issues and financial and operational long-term viability issues..." and were an important factor in HB 1490, which would place PWSA under the state Public Utility Commission's (PUC) oversight as of April 1, 2018. The bill, approved by the General Assembly and awaiting Governor Wolf's signature, would authorize the PUC to regulate the authority's rates and fees. We understand that this would only apply to future rate cases, not the aggregate 49% increases recently approved for fiscal years 2018, 2019 and 2020. While rate regulation of municipal owned systems is less common in Pennsylvania and the exact details of the scope of regulatory oversight is not yet finalized, we view this as currently neutral to credit quality. We have noted that generally rate regulation in Pennsylvania is supportive of credit quality, although we would first look primarily to a history of the magnitude of what is awarded versus what is requested in rate cases, as well as the timing, and how much of the substantial capital improvement plan (CIP) can be put into the rate base with each review; the PUC is compelled to respond within 180 days. In our view, while serious, the legislation is indicative of the identified need for infrastructure investments to which we have observed all parties seem to agree are necessary. The CIP contains projects that are both based on PWSA's prioritization as well as those reflecting consent decrees; much of the existing infrastructure was also built to serve a much larger population and a workforce much different from today's. We understand that PWSA remains cooperative and in fact continues to work with all parties toward a long-term solution. There also has not been resolution between PWSA and the vendor for the now-expired management and operations agreement. PWSA alleged concerns primarily with water treatment

techniques and meter replacements and the vendor countered with allegations of its own. We can predict neither the timing nor outcome and are not factoring this into our credit analysis.

I&E Exhibit No. 1 Schedule 1 Page 4 of 16
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The enterprise risk profile reflects our view of Pittsburgh's:

- Role as the anchor and economic engine for western Pennsylvania, based on an employment base that has reinvented itself from one which once relied heavily on manufacturing and industrial jobs;
- Rates for service that remain affordable, but have been pressured over the last decade by the unfunded mandates; and,
- Operational management assessment (OMA) that we view as "good" even despite the aforementioned challenges.

The financial risk profile reflects our view of the system's:

- Adequate all-in debt service coverage (DSC) and liquidity, and while both appear to be on the cusp of steady improvement, a five-year CIP of \$1.17 billion through fiscal 2022--roughly 90% of which is intended to be funded with additional debt--will pressure the overall financial risk profile;
- Decreasing exposure to interest rate risk and contingent liabilities. Just over half of PWSA's \$645 million in total outstanding long-term debt is variable rate, including \$104 million in direct-purchase agreements with various financial institutions. In recent years, however, PWSA has been able to not only negotiate a more favorable cost of borrowing but also eliminated language in the continuing covenant agreements that could expose it to remote but, potentially material, contingent risks. All of the variable-rate debt is synthetically fixed-rate, although the current positions of the interest-rate swaps remain unfavorable; and,
- Good financial management practices and policies.

The first-lien bonds are secured by a senior-lien pledge on the net revenues of the authority's waterworks and sanitary sewer system. A fully funded reserve in the amount of maximum annual debt service (MADS) provides additional liquidity on the senior-lien bonds. Under the current master trust indenture, certain cash reserves are permitted to be applied toward compliance with the rate covenant of either sufficiency (1x) across all liens from net revenues alone, or 1.2x from net revenues plus available reserves in the revenue fund, although the amended indenture proposes to strengthen these covenants. PWSA has only very rarely had to rely on those reserves to satisfy the rate covenant in recent years, and by our calculation not at all since 2010.

We understand that the proceeds of the series 2017C bonds will be used to advance refund a portion of the authority's series 2008B-1, 2008B-2 and 2008D-2 bonds. The bonds will be issued initially at 70% of the LIBOR rate, with a maximum interest rate at any time of 12%. The bond purchase date is Dec. 1, 2020, although they are callable six months prior to that. This feature, in our view, along with a soft put, preclude the introduction of any contingent liquidity risk. Once the series 2017C transaction closes, PWSA expects to have achieved the required consent of two-thirds of bondholders such that new covenants will take effect on Jan. 19, 2019. Primarily, PWSA intends to bolster its rate covenant to achieve at least 1.25x annual DSC of its senior-lien obligations plus 1.1x on its subordinate-lien debt service and that net revenues alone (excluding any rate stabilization fund transfers) must be at least sufficient to cover all annual debt service. We have noted in the past that the existing legal provisions are permissive, and would view the new covenants as adequately removing this weakness.

Following the series 2017C transaction, PWSA will have approximately \$519.5 million in outstanding senior-lien obligations, \$103.6 million in subordinate-lien debt, and \$31.4 million in state PENNVEST loans. As of November

2017, PWSA has also drawn \$27.9 million on an \$80 million committed line of credit with JPMorgan Chase Bank NA.

### Enterprise risk

Pittsburgh Water and Sewer Authority provides drinking water and sewer collection to over 82,000 metered accounts to most, but not all, of the city, as well as eight neighboring municipalities and one wholesale customer for needs ranging from emergency interconnections and peaking to full requirements. It also provides sewer collection to the entire city. While median household effective buying income (MHHEBI) is only 77% that of the U.S., the local economy has long since transitioned from its historic manufacturing base. Although those sectors are still part of the employment base, financial services, health care, and a booming technology sector are all important contributors to the metropolitan statistical area (MSA). The Pittsburgh MSA has seen \$1.8 billion in venture capital invested in the telecommunications and high-technology sectors in the last decade, and also saw a major energy sector boom—one which has since waned—from activity in the Marcellus and Utica shales. The stability of the regional economy is reflected in an unemployment rate of 4.1% as of September 2017. We do not view there to be any dependence on the authority's principal customers, given they include another water authority and the University of Pittsburgh.

Based on our OMA, we view PWSA to be a '3' on a scale of 1-6, with '1' being the strongest. An assessment of "standard," in our opinion, implies that overall alignment between the system's operational characteristics and its management is sufficient but not comprehensive. While we note, for example, that the city has an essentially unlimited raw-water supply from the Allegheny River and overall system capacity that could support a population several times the size of the current one, it is also the case that the authority's main focus remains the renewal and replacement of its aging underground infrastructure. PWSA is also dealing—directly and indirectly—with mandates from environmental regulators to address combined sewer overflows and wastewater treatment requirements. For example, Allegheny County Sanitary Authority's (ALCOSAN) 2008 consent decree is expected to cost \$3.6 billion by the final 2026 deadline; PWSA represents about 35% of ALCOSAN's total operating revenues based on the 2017 budget. PWSA has also been working its way through its own consent decree since 2004. Most of the projects in scope for PWSA's consent decree have already reached substantial completion, and some of the remaining projects have been proposed to environmental authorities to be addressed using green infrastructure. Although management has been separating the sewer system in the areas of growth and redevelopment, 77% of the collection system is still a combined storm and sanitary infrastructure. The water distribution system is also an identified area of opportunity given the relatively high nonrevenue water percentage, although this includes free service to the city that PWSA is compelled to provide. The city also entered into a consent decree in November 2017 for corrective actions related to federal lead and copper rule requirements in its drinking water system. To support the CIP, the authority's board has adopted a practice of multiyear rate adjustments, most recently base-rate adjustments of 28%, 10% and 11% in fiscal years 2018, 2019 and 2020, respectively. PWSA also passes through all costs from ALCOSAN, although it is uncertain if the state PUC will provide management the ability to continue to pass through administratively any cost increase from ALCOSAN or if it will require some kind of regulatory approval. Based on S&P Global Ratings' universal assumption of 6,000 gallons of both water and sewer service, a monthly residential bill as of fiscal 2018 will be nearly \$100, or over 3.0% of MHHEBI.

### Financial risk

Annual DSC for PWSA has consistently been 1.3x or better, even when treating transfers and subsidy payments as an operating expense. In addition to making a transfer payment to the city's general fund, PWSA also provides the city

free service. It also provides a legacy payment that ultimately subsidizes the cost of water to a portion of the Pittsburgh area not served by PWSA, although it is possible PWSA could gain relief from that payment once under PUC oversight. All-in DSC by our calculation has been closer to 1.1x; all-in coverage is our adjusted debt service calculation that includes all utility system obligations regardless of lien or accounting treatment.

The system's liquidity remains an area of consistency and credit strength. Total available reserves also include the line of credit, in place through July 2020. All told, liquidity remains sound, usually equivalent to four-to-six months of operating expenses. Given the goal of setting rates to achieve DSC of 1.3x or better and funding the CIP using 10% to 15% pay-as-you-go sources, the authority's financial forecast is one that, in our view, could realistically generate the requisite CIP funding to boost operational performance and lead to stronger and more consistent financial performance, all of which could, in turn, lead to a higher rating, even if beyond our two-year outlook horizon. We would approach upward rating potential cautiously, however, until there is greater detail to--and a record of--PUC oversight.

Based on our financial management assessment (FMA), we view the authority to be a '2' on a scale of 1-6, with '1' being the strongest. An FMA of "good" indicates that we consider practices currently good, but not comprehensive. The authority maintains many best practices we believe are critical to supporting credit quality, particularly in the finance department. These practices, however, may not be institutionalized or formalized in policy, or may not be as robust as comparable utilities with an FMA of "strong." The FMA of "good" includes a well-detailed long-term financial plan that management intends to implement to support its identified capital commitments. The authority also has implemented new, more comprehensive and conservative budgeting assumptions that better capture annual revenue requirements. We understand that the authority's management team regularly tracks budget-to-actual performance and that the new management team is instituting a number of additional best practices to target consistently higher levels of financial performance, minimizing the need to meet a rate covenant of either sufficiency (1x) across all liens from net revenues alone, or 1.2x from net revenues plus unrestricted cash and investments in the authority's revenue fund.

## Outlook

The stable outlook reflects S&P Global Ratings' expectation that the authority's demonstrated willingness to raise rates, including its practice of multiyear rate increases, will minimize any reliance on available cash balances just to meet its rate covenant in coming years and allow that cash to be deployed for utility purposes. Even though management has unwound nearly all of the contingent risks associated with its long-term debt structure, its capital structure remains complex. It is also predicated in part on rating stability, which is why we are assuming management will try to resolve some of the ongoing concerns regarding operations and governance as soon as practicable. We will also likely keep in place the one-notch rating distinction between the first- and subordinate-lien debt.

## Upside scenario

As the potential financial risks continue to become more remote over time and reliance on cash reserves remains infrequent, a higher rating could still be warranted, even if beyond our outlook horizon and even from a stable outlook. We assume that PUC oversight will eventually be supportive of credit quality, but we would first look at the scope of

regulation, then the record of the timing and magnitude of rate relief, and how the myriad of capital expenditures will be financed before considering an 'A+' rating.

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**Downside scenario**

Conversely, should the size and scope of the capital program cause the financial profile to weaken, we could lower the rating.

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## CREDIT OPINION

15 October 2018



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# Pittsburgh Water & Sewer Authority, PA

Update following downgrade to A3; outlook negative

## Summary

Pittsburgh Water & Sewer Authority, PA's credit profile is highly constrained by its narrow cash position, with roughly 60 days' cash on hand expected at the close of 2018, well below average for similarly sized peers. While we expect definitive improvements to operations and controls given Pennsylvania Public Utility Commission oversight, effective as of April 2018, the Authority is also pressured by the need for major capital spending. The system's infrastructure has been impaired by years of disinvestment. Coupled with a substantial consent decree through ALCOSAN and elevated lead levels in the city's water, the Authority will necessarily add to its already high leverage in the near term.

Moody's downgraded Pittsburgh Water & Sewer Authority, PA's First Lien Revenue Bonds to A3 from A2 on October 15, 2018. Approximately \$570 million of first lien revenue debt was affected by the rating action. The outlook remains negative.

## Credit strengths

- » Diverse, urban Pittsburgh (A1 stable) service area, supported by strong "eds & meds" presence
- » Considerable size; system assets include water conveyance and treatment, and sewer conveyance that ties to ALCOSAN
- » Significant rate increase just implemented; PUC oversight should bring improvements and controls

## Credit challenges

- » Substantial debt burden; debt ratio is 116%
- » Narrow coverage and liquidity
- » Long term inadequate maintenance of infrastructure has led to severe inefficiencies and has contributed to a projected \$2.3 billion in capital improvement needs; plan to be implemented over ten years
- » Projected doubling (roughly) of the capital budget within one year's time presents further challenges to planning and administration
- » Exposure to a large regional consent decree through ALCOSAN
- » Elevated lead levels in water persist

## Rating outlook

The negative outlook reflects our concern that historical operating and maintenance inefficiencies will continue, posing a challenge to full implementation of a much needed capital improvement plan. While the PUC has taken on an oversight role, and we expect the effects of regulation to be generally positive, PWSA is still in the beginning stages of addressing its major capital needs and operating deficiencies.

In the absence of substantially improved maintenance of the Authority's infrastructure, and a substantially improved liquidity position, the negative outlook reflects our expectation of continued downward rating pressure.

## Factors that could lead to an upgrade

- » Meaningful reduction in leverage
- » Substantial improvement in liquidity that is maintained over several reporting periods.

## Factors that could lead to a downgrade

- » Further narrowing of debt service coverage and liquidity position
- » Inability to raise rates with necessary frequency to meet debt service coverage covenants while also funding significant deferred capital improvements
- » New revenues not deployed effectively to address near term infrastructure and operating needs
- » Escalation of environmental concerns, particularly lead levels in treated drinking water

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.



## Key indicators

Exhibit 1

System Characteristics					
Asset Condition (Net Fixed Assets/ Annual Depreciation)	43 years				
System Size - O&M (in \$000s)	\$157,220				
Service Area Wealth: MFI % of US median	87.1%				
Legal Provisions					
Rate Covenant (x)	1.10				
Debt Service Reserve Requirement	DSRF funded at lesser of standard 3-prong test (Aa)				
Management					
Rate Management	A				
Regulatory Compliance and Capital Planning	Baa				
Financial Strength					
	2013	2014	2015	2016	2017
Operating Revenue (\$000)	\$142,657	\$164,255	\$174,164	\$180,727	\$202,996
System Size - O&M (\$000)	\$109,254	\$125,766	\$131,694	\$148,593	\$173,392
Net Revenues (\$000)	\$47,112	\$53,014	\$57,455	\$49,174	\$47,071
Net Funded Debt (\$000)	\$761,001	\$756,321	\$747,615	\$727,526	\$817,394
Annual Debt Service (\$000)	\$43,770	\$47,519	\$58,346	\$59,380	\$57,818
Annual Debt Service Coverage (x)	1.08	1.12	0.98	0.83	0.81
Cash on Hand	113 days	91 days	78 days	53 days	23 days
Debt to Operating Revenues (x)	5.3x	4.6x	4.3x	4.0x	4.0x

Source: Moody's Investors Service and Pittsburgh Water &amp; Sewer Authority audited financial statements

## Profile

PWSA is an authority of the city of Pittsburgh, providing water treatment and conveyance to 84% of the city's population and sewer conveyance for the entire city.

## Detailed credit considerations

### Service Area and System Characteristics: Large and Stable Pittsburgh Service Area; Considerable Aged Infrastructure Concerns

The authority provides water distribution and wastewater collection and conveyance for the city of Pittsburgh and neighboring municipalities. The city's healthy and growing economy, as well as its exposure to the strong "eds & meds" presence from healthcare and higher education institutions, are positives for the authority.

The authority's 10 largest customers (33% of revenues) include Riverbend Properties (formerly Bay Valley Foods), Fox Chapel Authority (Aa3 no outlook), University of Pittsburgh (Aa1 stable), Carnegie Mellon University, Allegheny County (A1 positive), the city's public housing authority, and a state prison. All of the authority's five largest customers have been in the city for at least 75 years.

The authority continues to maintain an ample water supply, providing water to a population of approximately 306,000. The system is permitted to draw up to 100 million gallons per day (MGD) from the Allegheny River, its sole water source, though average demand for water is well below that level, at 70 MGD. The authority treats drinking water at one plant located on the river, as well as a microfiltration plant at one of its reservoirs. The authority has capacity to store approximately 3 days' worth of finished water for uninterrupted supply to its customers.

The authority does not treat wastewater. It transmits all of its sewage to the Allegheny County Sanitary Authority (ALCOSAN, revenue bonds rated A1). There is no contractual limit to the amount of sewage that can be conveyed, however, during wet weather events, the existing system frequently overflows.

The system currently experiences unusually large water loss. The authority estimates that it loses close to 50% of its pumped water annually due to its aged infrastructure and insufficient maintenance. This is perhaps an over-estimate, but definitive loss is not currently calculable, as key points of the system are not metered. A modernization of the metering system with mapping is a crucial part of the authority's latest five year Capital Improvement Plan (CIP). Other important improvements include engaging enough personnel to carry out maintenance of the system's general infrastructure up to current industry standards. These kinds of ordinary updates and infrastructure improvements are sorely lacking today, adding to cost inefficiencies, and exacerbating the natural wear and tear on an already aged system.

In April of 2016, the authority was ordered by the Pennsylvania Department of Environmental Protection (PADEP) to test for lead in the drinking water treated by PWSA, related to an unauthorized use of alternative corrosion control chemicals. Samples from 100 homes in June 2016 found lead of 22 parts per billion (ppb) at the 90th percentile. The EPA action level for lead at the 90th percentile is 15ppb, at which level additional testing in terms of frequency and number of samples is required and mitigation efforts are needed. About 83% of sample results were below the action level and some were non-detect. The authority believes these lead readings are due to lead in the pipes bringing water to individual homes, rather than lead in system mains. The largely random dispersion of where high lead levels have been found seems to support this hypothesis.

In June 2018, the authority had its first lead level reading below the EPA threshold in two years, at 10ppb at the 90th percentile. The authority continues to comply with pipe replacement requirements, and will continue to test for lead through December 2018.

#### **Debt Service Coverage and Liquidity: Rate Increase To Strengthen Debt Service Coverage**

Liquidity and reserve levels continue to narrow, with the authority reporting an \$11 million operating deficit in 2017, reducing cash to \$11 million at year end 2017, or a very narrow 29 days' cash on hand in the operating fund. When reserve funds are included, the days cash calculation improves to 54 days, though this is well below the authority's own historical operating norms as well as deficient versus similarly sized peers. Median days' cash on hand for Moody's-rated water and sewer systems in the US generating revenues of more than \$100 million annually is 392 days.

Also as of audited 2017 financials, debt service coverage absent the use of free cash is below one time, at 0.81x, falling below the previous years' coverage of 0.96x. We note that PWSA is not in violation of its bond covenants, as its indenture allows for the use of free cash to meet debt service requirements through fiscal year 2018. Beginning in 2019, however, the authority must meet a 1.10x coverage test on its consolidated debt service and a 1.25x coverage test on its senior debt service without the use of free cash. Notably, median debt service coverage for the above referenced peer group is 2.2x as of fiscal 2017, again well above PWSA's coverage ratio.

The authority implemented a 28% rate increase in early 2018 in order to meet its new covenant requirements. It also applied for a subsequent 17% rate increase with the PUC in July, though the commission has 270 days to approve or deny the request, which could delay further revenue increases until the first quarter of 2019. The authority has publicly projected a -\$7.5 million operating deficit for fiscal 2018. We believe this estimate to be conservative, largely due to the fact that the authority has not begun several projects that it had originally budgeted for the year. This should provide PWSA with a reserve cushion that is more favorable than current projections indicate, but the deferred projects are necessary and integral to the system's basic operations; continued delays to system maintenance are a strong credit negative.

The authority's substantial fixed cost burden also continues to pose credit concern. Total debt service, including ordinary swap payments, was a considerable \$52 million during fiscal year 2017, or 39% of total operating revenue. Debt service is the second largest expense the authority has after its "direct operating expense" of \$70 million. This level of fixed costs is problematic, as it reduces financial flexibility and crowds out other spending. The authority will necessarily increase its debt burden in the near term to address the beginning stages of its \$2.3 billion CIP.

We further note that at the time of our last review, the authority had expected 2017 to end with a surplus, while the actual result was a material deficit. The authority's fiscal challenges continue to be exacerbated by poor management and high turnover in senior administration. Unreliable information will also continue to pose negative credit pressure for the authority.

## LIQUIDITY

The authority has projected ending days' cash on hand for 2018 to be a narrow 56.8 days' including reserve monies, and a meager 8.8 days' when reserves are excluded. Our best estimates, based on year-to-date financials as of October 2018, show a somewhat more favorable cash position. Should the authority's original projections actually be realized, liquidity concerns would further pressure the credit profile.

Liquidity for capital expenditures is supported by an \$150 million revolving credit facility with JP Morgan Chase Bank, NA (Aa2 (cr)). An emergency \$20 million liquidity line is in place with PNC Bank, NA (A2 (cr)).

## Debt and Legal Covenants

The authority introduced a new indenture in 2017, which strengthened the rate covenant. The new requirement is 125% of senior debt service coverage plus 110% of subordinate debt service coverage. Free cash will no longer be used to increase coverage under the new indenture. The new test is effective for fiscal year 2019.

## DEBT STRUCTURE

The additional borrowing implied by the authority's capital needs will increase an already elevated debt burden. The authority's total debt is equal to 116% of fixed assets, well above similarly sized peers. The outstanding debt amortizes slowly, with only 36% of principal scheduled to be repaid in the next 10 years.

The authority maintains pronounced risks associated with its debt profile in the face of already-narrow coverage levels. The authority's \$675 million of bonded debt includes \$570 million of senior-lien bonds, and \$104 million of privately placed subordinate-lien bonds. The authority also maintains \$33 million outstanding in PennVest loans and an \$80 million revolving credit facility, of which \$52 million is currently drawn. With the 2017 indenture, the PennVest loans and JPM revolving credit facility, previously third lien debt, will now be allowable as parity to the subordinate bonds.

All of the subordinate-lien bonds and roughly \$219 million of senior-lien bonds are variable rate (approximately 48% of total bonds outstanding). The 48% rate is down from a high of 55%. Assured Guaranty Municipal Holdings Inc. (Baa2 stable / A2 insurance financial strength) insures much of the authority's variable rate bonds and all of the authority's swaps, and provides the surety policy for all debt service reserve funds. This counterparty concentration may adversely impact the authority should AGM's credit quality deteriorate. In addition, the authority's VRDO debt requiring liquidity and credit support is provided by Bank of America, N.A. (23%, A1 (cr)), and PNC Bank, N.A. (45%, A1 (cr)). The remaining variable rate debt is privately placed.

## DEBT-RELATED DERIVATIVES

The authority has entered into floating-to-fixed rate swaps in connection with all of its variable rate debt (\$322 million) under ISDA Master Agreements with JPMorgan (64%) and Merrill Lynch and Co., Inc. (36%, Baa1 RUR), whereby the authority pays a fixed interest rate semi-annually (4% on average) and receives SIFMA monthly.

AGM provides swap insurance for all swaps and, despite a negative \$91 million aggregate mark-to-market as of October 2017, no collateral is required to be posted unless an Insurer Event occurs. The amortization schedule for each swap mirrors that of the corresponding bonds and the swaps terminate at bond maturity. For all of the swaps, per the 2017 indenture, regularly scheduled swap payments are subordinate to subordinate bond debt service. Early termination is optional for the authority only, and termination by the counterparty depends upon specified termination events, including the downgrade of PWSA's underlying rating below investment grade. An authority termination payment would be subordinate to first and second lien debt service payments.

## PENSIONS AND OPEB

The authority's employees participate in the city's pension program. However, the authority itself is under no obligation to the city to fund any portion of the city pension plan.

## Management and Governance

Continued turnover at the senior managing level of the authority is a considerable credit concern and, in our view, has negatively impacted the authority's ability to provide accurate and timely information.

Management volatility is particularly concerning here, since the system has overwhelming capital needs, not only in its infrastructure, but also in its technology systems. Strong leadership will be critical given the proposed plan. In order to achieve the improvements set out in the CIP, even if only near term projects are considered, the authority will require consultants, extensive planning, and sizeable staff increases. Without strong governance, continued unresolved inefficiencies are a major concern. The authority also manages an extensive swap portfolio and a relatively tight liquidity position; strong governance of its finances is also crucial to the authority's future success.

The authority is currently managed by a seven member board, with at least six members appointed by the mayor and one by the city council. The authority provides water at no cost to city-owned buildings and public areas. The city and authority are in the process of renegotiating their cooperation agreement to more accurately reflect the exchange of services provided.

Pennsylvania's Public Utility Commission began oversight of the authority in April 2018. The PUC is responsible for regulating the authority's rate making, operating effectiveness, and debt issuance. We expect that the PUC will help to bring standardization and effective governance to the authority's future operations. While we expect the PUC to approve rate increases that will help PWSA to comply with its bondholder covenants, but the approval process for increases can be lengthy, and could pose short term pressures for the authority.

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

I&E Exhibit No. 1  
Schedule 1  
Page 16 of 16

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, Set RR-1 to RR-7 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RR-7:** Reference the Compliance Plan filed on September 28, 2018, Appendix A, p. 16, Focus Area 3. Explain in detail, if there has been any change to PWSA’s bond covenant requirements regarding debt service coverage ratios subsequent to the Amended and Restated Trust Indenture Between PWSA and The Bank of New York Mellon Trust Company, N.A. Amended and Restated as of November 1, 2017.

**Response:** The bond covenant requirement change that took effect on January 1, 2019 as stated in the Amended and Restated Trust Indenture as of November 1, 2017 is as follows:  
PWSA is required to meet a 1.10x debt service coverage ratio on its consolidated debt service and a 1.25x debt service coverage ratio on its senior debt service without factoring in unrestricted cash or the City of Pittsburgh Co-Op agreement Payments.

Response                      Edward Barca, Treasurer  
Provided by:                The Pittsburgh Water and Sewer Authority

Dated:                        January 25, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, Set RR-1 to RR-7 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RR-2:** Refer to PWSA’s discussion of capital investment as presented on p. 7 of its Compliance Plan filed on September 28, 2018 that contemplates PWSA increasing capital investment by \$155 million in 2019, \$256 million in 2020, and \$327 million in 2021 to address decades of deferred investment. For each year of investment, 2019 through 2021, identify the amount of funding that PWSA has or will plan to obtain from the following sources:

- A. Bond issuances;
- B. Internally generated funds;
- C. Long-term financing;
- D. Short-term financing;
- E. Grants;
- F. PennVest funding;
- G. Distribution System Improvement Charge (DSIC).

**Response:** See I&E-RR-1 Attach A which lists the source of funds for each project. All funding is anticipated to be bond funded, unless PennVest funding, grants, PAYGO, or DSIC funding becomes available.

Response  
Provided by: Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

Dated: January 25, 2019



**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-28** Identify PWSA’s specific plans for financing for lead service line replacements planned for 2020 through 2024, including possible use of a distribution system improvement charge and any grant/low interest loan opportunities.

**Response:** PWSA and PennVEST are in the process of discussing a potential multi-year grant/loan program to cover private side lead service line replacements. PWSA is also seeking other funding sources including federal funds for infrastructure projects and foundation funding.

PWSA is evaluating the use of a DSIC mechanism to finance lead service line replacements.

**Response  
Provided by:** Robert A. Weimar, Executive Director  
The Pittsburgh Water and Sewer Authority

**Dated:** February 28, 2019

**I&E Statement No. 1-SR**  
**Witness: Anthony D. Spadaccio**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Surrebuttal Testimony**

**of**

**Anthony D. Spadaccio, CRRA**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Documents Supporting the Compliance Plan**

**Projected Expenditures**

**52 Pa. Code § 73.7 – Capital Investment Plan Report**

**I&E Overall Recommendation**

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1 **INTRODUCTION OF WITNESS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Anthony Spadaccio. My business address is Pennsylvania Public  
4 Utility Commission, Commonwealth Keystone Building, 400 North Street,  
5 Harrisburg, Pennsylvania 17120.

6  
7 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

8 A. I am employed by the Pennsylvania Public Utility Commission (Commission) in  
9 the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial  
10 Analyst.

11  
12 **Q. ARE YOU THE SAME ANTHONY SPADACCIO WHO IS RESPONSIBLE**  
13 **FOR THE TESTIMONY AND EXHIBIT IDENTIFIED AS I&E**  
14 **STATEMENT NO. 1 AND I&E EXHIBIT NO. 1?**

15 A. Yes.

16  
17 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

18 A. The purpose of my surrebuttal testimony is to address statements made by  
19 Pittsburgh Water and Sewer Authority (PWSA or Authority) witnesses Robert A.  
20 Weimar, Executive Director (PWSA Statement No. C-1R) regarding PWSA's  
21 failure to file documents supporting the Compliance Plan (CP) and Jennifer  
22 Presutti, Budget Director (PWSA Statement No. C-3R) regarding financing

1 projected expenditures and filing a Capital Investment Plan Report. Finally, I will  
2 summarize I&E's overall surrebuttal position to include recommendations offered  
3 by I&E witnesses D.C. Patel (I&E Statement No. 2-SR), Ethan H. Cline (I&E  
4 Statement No. 3-SR), and Israel E. Gray (I&E Statement No. 4-SR).

5  
6 **RESPONSE TO PWSA WITNESS WEIMAR**

7 **Q. SUMMARIZE MR. WEIMAR'S RESPONSE IN REBUTTAL TESTIMONY**  
8 **REGARDING YOUR ASSERTION THAT PWSA FAILED TO FILE**  
9 **DOCUMENTS SUPPORTING THE COMPLIANCE PLAN.<sup>1</sup>**

10 **A.** Mr. Weimar disagrees with I&E's position that PWSA was required by the  
11 Commission to submit all of the requested documents listed in the Commission's  
12 Technical Staff Initial Report and Directed Questions - Stage 1 ("Directed  
13 Questions"). He opines that PWSA did not interpret the Directed Question's  
14 language for all of the identified documents to be entered into evidence as a  
15 mandate. Additionally, Mr. Weimar states, "PWSA reviewed the list of  
16 documents identified by the Commission and carefully considered which of those  
17 documents should be appropriately submitted as part of the evidence of this record  
18 to support PWSA's Compliance Plan."<sup>2</sup> Finally, Mr. Weimar submits that if any

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<sup>1</sup> PWSA Statement No. C-1R, pp. 6-7.

<sup>2</sup> PWSA Statement No. C-1R, p. 7, lines 3-6.

1 other party feels that a document is relevant to this case and is “otherwise  
2 admissible” they are free to move for its admission.  
3

4 **Q. WHAT IS YOUR RESPONSE TO MR. WEIMAR’S REBUTTAL**  
5 **TESTIMONY?**

6 A. Mr. Weimar’s interpretation of the Directed Questions is directly at odds with the  
7 Commission’s directive to PWSA. The Commission’s Directed Questions explicitly  
8 state that the list of documents identified is comprised of foundational documents  
9 relied upon in some fashion in PWSA’s Compliance Plan. Additionally, the  
10 Commission’s Directed Question acknowledge that although some of the  
11 documents identified may be publicly available, “it is unclear which version of  
12 these PWSA would use in support of the CP [Compliance Plan]. To that end,  
13 PWSA shall introduce into evidence those materials it intends to use as support for  
14 the CP. These include, but are not limited to, the following documents referenced  
15 in the CP:...”<sup>3</sup> My interpretation of this statement is that PWSA is to provide *at*  
16 *least* all of the documents listed in the Directed Questions; however, it is free to  
17 submit additional documentation as necessary to support its Compliance Plan.

---

<sup>3</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 2; Exhibit RAW/C-1, Directed Questions No. 1.

1   **Q.   PLEASE IDENTIFY THE DOCUMENTS THAT REMAIN**  
2       **OUTSTANDING.**

3   **A.   At time of this testimony, PWSA has not provided the following documentation:**

- 4       • The formal plan to document all stormwater assets and conditions at CP page  
5       14;
- 6       • Memorandum of understanding between the City and PWSA for operation,  
7       maintenance, repair, and capital improvements related to stormwater and the  
8       City at CP pages 14-15;
- 9       • The 2017 PWSA prepared responses to the U.S. EPA Municipal Separate  
10      Storm Sewer Systems stormwater permit at CP page 14;
- 11      • The Performance Audit Report by the Office of City Comptroller;
- 12      • A City-sponsored assessment by Infrastructure Management Group (IMG);
- 13      • The Pennsylvania Department of Environmental Protection (PA DEP) and U.S.  
14      EPA audits;
- 15      • The schedule of Capital Improvement Projects filed by PWSA with the PA  
16      DEP on or about November 30, 2017 in response to the October 25, 2017  
17      Administrative Order, if different from the PWSA Capital Improvement Plan  
18      for years 2017-2021 referenced at CP page 22;
- 19      • The September 18-22, 2017 PA DEP Comprehensive Performance Evaluation  
20      for the Aspinwall Water Filtration Plant referenced at CP page 22;

- The Wet Weather Feasibility Study, Wet Weather Plan and Long-term Wet Weather Control Plan referenced at CP page 24 to the extent that these affect the CP; and
- The Green First Plan referenced at CP page 25 to the extent that it affects the CP.

**Q. HAS YOUR RECOMMENDATION REGARDING PWSA'S FAILURE TO PROVIDE DOCUMENTS SUPPORTING THE COMPLIANCE PLAN CHANGED FROM YOUR DIRECT TESTIMONY?**

A. No. I continue to recommend that PWSA provide, as part of this proceeding, all of the missing documents identified in my direct testimony so the Commission can proceed with a proper review of the documents it requested.<sup>4</sup> Additionally, I reject Mr. Weimar's position that other parties are in the position to move for the admission of the missing documents. As pointed out in the Directed Questions, even if some of the documents are publicly available, PWSA is in the position to know which versions of those it relied upon to support its Compliance Plan. However, because both my recommendation and PWSA's position hinge on two different interpretations of the Commission's Directed Questions, I look forward to the Commission providing clarification to resolve this issue.

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<sup>4</sup> I&E Statement No. 1, pp. 10-12.



1        **RESPONSE TO PWSA WITNESS PRESUTTI**

2    **Q.    WHAT WAS YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
3        **CONCERNING PWSA'S FINANCING OF PROJECTED**  
4        **EXPENDITURES?**

5    A.    I recommended that PWSA pursue funding through the form of a distribution  
6        system improvement charge (DSIC) once it meets the eligibility criteria.<sup>5</sup>

7  
8    **Q.    SUMMARIZE MS. PRESUTTI'S RESPONSE IN REBUTTAL**  
9        **TESTIMONY REGARDING YOUR POSITIONS ON FINANCING**  
10       **PROJECTED EXPENDITURES.**

11   A.    Ms. Presutti expresses agreement that it is important to fund infrastructure  
12        improvements at the lowest reasonable cost to PWSA customers. She discusses  
13        the continued exploration of PENNVEST funding where they are working on a  
14        multi-year funding effort, evaluating the requirements to implement a DSIC, and  
15        expanding PWSA's current PAYGO program.<sup>6</sup>

---

<sup>5</sup> I&E Statement No. 1, Appendix B, p. 1.

<sup>6</sup> PWSA Statement No. C3-R, pp. 1-2.

1    **Q.    WHAT IS YOUR RESPONSE TO MS. PRESUTTI'S REBUTTAL**  
2           **TESTIMONY REGARDING FINANCING PROJECTED**  
3           **EXPENDITURES?**

4    A.    I believe Ms. Presutti recognizes the importance of proper planning and prudent  
5           spending in order to maintain PWSA's debt service coverage and bond covenants  
6           without unnecessarily overburdening ratepayers. I also believe it is wise for  
7           PWSA to continue pursuing PENNVEST funding in an attempt to achieve the  
8           lowest cost of debt possible.

9  
10   **Q.    HAS YOUR RECOMMENDATION REGARDING THE FINANCING OF**  
11          **PROJECTED CAPITAL EXPENDITURES CHANGED FROM YOUR**  
12          **DIRECT TESTIMONY?**

13   A.    No. I continue to maintain that PWSA should pursue DSIC funding, as it is more  
14          desirable than significantly increasing the reliance on PAYGO funding. This  
15          would reduce regulatory lag and provide for greater accountability.<sup>7</sup>

---

<sup>7</sup> I&E Statement No. 1, pp. 13-18.

1 **Q. WHAT WAS YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
2 **CONCERNING CAPITAL INVESTMENT PLAN REPORTS?**

3 A. I recommended that PWSA refile its Compliance Plan to indicate it will file a  
4 Capital Investment Plan Report in compliance with 52 Pa. Code § 73.7.<sup>8</sup> I also  
5 recommended that the Commission reject PWSA's proposal to rely upon its Long-  
6 Term Infrastructure Improvement Plan (LTIIP) filings as a substitute for Capital  
7 Investment Reports because PWSA did not justify how the LTIIP would be a  
8 viable substitute for the requirements of 52 Pa. Code §73.7.

9  
10 **Q. SUMMARIZE MS. PRESUTTI'S RESPONSE IN REBUTTAL**  
11 **TESTIMONY REGARDING YOUR POSITIONS ON FILING A CAPITAL**  
12 **INVESTMENT PLAN REPORT.**

13 A. Regarding the failure to file a Capital Investment Plan Report, Ms. Presutti  
14 acknowledges PWSA did not properly justify its rationale for its proposal to  
15 substitute its LTIIP filings for this report. She provides two reasons for this  
16 proposal, which include reducing regulatory burden and consideration of  
17 requesting the Commission expand the areas to be covered by PWSA's LTIIP.<sup>9</sup>

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<sup>8</sup> I&E Statement No. 1, Appendix B, p. 1.

<sup>9</sup> PWSA Statement No. C3-R, pp. 5-7.

1   **Q.   WHAT IS YOUR RESPONSE TO MS. PRESUTTI'S REBUTTAL**  
2       **TESTIMONY REGARDING FILING A CAPITAL INVESTMENT PLAN**  
3       **REPORT?**

4   A.   While I am sympathetic to the overwhelming scope and complexities of this  
5       proceeding, it must be noted that PWSA remains non-compliant with 52 Pa. Code  
6       § 73.7. Ms. Presutti suggests that PWSA is willing to *attempt* to submit this report  
7       starting in 2020.<sup>10</sup> Until the Commission grants PWSA a waiver or approves a  
8       request to expand the areas covered by PWSA's LTIP in substitution of the  
9       Capital Investment Plan Report, I continue to advocate for PWSA being required  
10      to file the report.

11  
12   **Q.   HAS YOUR RECOMMENDATION REGARDING FILING A CAPITAL**  
13       **INVESTMENT PLAN REPORT CHANGED FROM YOUR DIRECT**  
14       **TESTIMONY?**

15   A.   Only slightly. While my initial recommendation was for PWSA to refile its  
16       Compliance Plan to commit to immediately filing a Capital Investment Report, I  
17       appreciate Ms. Presutti's position regarding the many burdens that PWSA must  
18       face. With this in mind, I recommend that PWSA be required to file a Capital  
19       Investment Plan Report starting in 2020. While it will have more time to prepare

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<sup>10</sup> PWSA Statement No. C-3R, p. 6, lines 20-22.

1 for the reporting, it will also be on track to comply with 52 Pa. Code § 73.7.

2 Finally, to the extent that PWSA believes that it could use its LTIIP to satisfy the  
3 reporting requirements, it will have additional time to develop and support that  
4 position.

5  
6 **SUMMARY OF I&E'S OVERALL AND UPDATED RECOMMENDATION**

7 **Q. WHAT IS I&E'S OVERALL RECOMMENDATION REGARDING**  
8 **PWSA'S COMPLIANCE PLAN?**

9 A. I&E recommends that the Commission direct PWSA to file a revised Compliance  
10 Plan that addresses the deficiencies identified by the I&E witnesses including  
11 myself, D. C. Patel, Ethan H. Cline, and Israel E. Gray. Additionally, where  
12 possible and appropriate, I&E made specific recommendations that it is asking the  
13 Commission to consider and adopt as part of its Final Order in this case. The  
14 comprehensive list of identified deficiencies and I&E's recommendations has now  
15 been revised to reflect I&E's updated position for the surrebuttal phase of this  
16 case, and it is set forth in Appendix A below. For purposes of clarity, I&E has  
17 notated Appendix A to recognize areas of agreement between PWSA and I&E and  
18 those areas are designated by use of **boldface type**.

19  
20 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

21 A. Yes. However, I reserve the right to supplement my testimony if additional issues  
22 or facts arise that may impact my recommendation.

**Summary of I&E Surrebuttal Recommendations<sup>11</sup>**

**I. Anthony D. Spadaccio, I&E Statement No. 1-SR:**

**DOCUMENTS SUPPORTING THE COMPLIANCE PLAN:**

- PWSA should immediately provide, as part of this proceeding, all of the missing documents I have identified so that the review the Commission requested is possible.

**PROJECTED EXPENDITURES:**

- Once PWSA meets the eligibility criteria, I recommend it pursue DSIC funding.

**52 PA. CODE § 73.7 – CAPITAL INVESTMENT PLAN REPORT:**

- I recommend PWSA file a Capital Investment Plan Report starting in 2020 to comply with 52 Pa. Code § 73.7.

**II. D.C. Patel, I&E Statement No. 2-SR:**

**PWSA SERVICES CONTRACT WITH THE CITY OF PITTSBURGH  
(COOPERATION AGREEMENT):**

- I agree with Ms. Lestitian that if PWSA renegotiates and executes a new Cooperation Agreement by July 5, 2019, it will be subject to the Commission's review and approval process. I also agree with Ms.

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<sup>11</sup> Boldface type reflects areas of perceived consensus between PWSA and I&E.

**Lestitian that any payments to the City must be just, reasonable and substantiated.**

- PWSA should be required to consider implementation of an independent governance structure.
- PWSA should execute and file the renegotiated Cooperation Agreement with the Commission no later than July 5, 2019. **If the new agreement cannot be executed by July 5, 2019, PWSA will interact with the City at arms-length on a transactional cost basis.**

**CAPITAL LEASE AGREEMENT:**

- **PWSA should exercise its option to complete the transaction in 2025 by paying the one dollar (\$1) to purchase the water and wastewater system assets.**
- **PWSA will file any amendment or revised Capital Lease Agreement with the Commission.**

**RESIDENCY REQUIREMENT:**

- PWSA should eliminate its residency requirement for employment.

Additionally, PWSA should be required to file a revised Compliance Plan that summarizes and adopts a plan to eliminate the residency requirement.

**BILLING ARRANGEMENT WITH THE ALCOSAN:**

- ALCOSAN should establish and charge a market-based rate that is aligned with the volume of wastewater treated for PWSA's wastewater customers and a separate rate that is aligned with the additional volumes related to treatment of stormwater.
- PWSA should pay the established market-based rate to ALCOSAN via an annual or multi-year contract.
- PWSA should develop wastewater and stormwater tariff rates for current wastewater customers and future stormwater customers that accurately reflect the costs of paying for contracted treatment services and capturing the impact of uncollectibles in its own rates.
- PWSA and the City should amend the applicable current agreement and memorandum of understanding between the City, PWSA, and ALCOSAN before the next base rate case filing, or no later than December 31, 2019, whichever occurs first.
- Alternatively, if PWSA proves that it is legally prohibited from implementing the above recommendations, the Commission should order PWSA to file a revised Compliance Plan that requests the Commission reform its contract with ALCOSAN under Section 508 of the Public Utility Code.



- Implementation of a service charge to adjust for wastewater customer uncollectibles should be disallowed and all costs to serve, including, uncollectibles, should be captured in wastewater base rates.

**BILLING ARRANGEMENT WITH PAWC:**

- PWSA should revise its Compliance Plan to indicate that it will eliminate the rate subsidy to PAWC completely by either the time of its next base rate case filing or by no later than December 31, 2019, whichever occurs first.

**BULK WASTEWATER CONVEYANCE AGREEMENTS:**

- PWSA should be required to file all of its existing bulk wastewater contracts with the Commission in a separate docket within 120 days of the Commission's final order in this case.
- PWSA should negotiate the terms and conditions of all current bulk wastewater conveyance agreements to ensure that PWSA's wastewater conveyance charges/rates are just and reasonable reflecting true and current cost of service and that municipal authorities be made responsible to share the cost of repairs and replacement of conveyance trunk lines.
- If PWSA enters into new or revised wastewater conveyance agreements with any municipal authorities, PWSA should file these agreements with the Commission in accordance with the provisions of 66 Pa. Code § 507.

**SYSTEM OF ACCOUNTS:**

- **PWSA should provide periodic updates on the ERP system development to the Commission on a quarterly basis.**
- **PWSA should revise its Compliance Plan to provide more information about the status of its selection of an Enterprise Resource Planning (ERP) contractor, projected ERP system cost, and a detailed implementation schedule.**
- **PWSA should strive to complete the ERP project enabling full conversion of its system of account to NARUC USOA no later than December 31, 2020.**

**UNCOLLECTIBLES - REVENUE LOSS:**

- **I have acknowledged PWSA's commitment to implement appropriate collection strategies and providing periodic reporting about collection practices and results.**
- **I agree with PWSA's proposal to address the issue of uncollectibles in the Compliance Plan - Stage 2 proceeding.**

**CUSTOMER ASSISTANCE PROGRAM:**

- **I have acknowledged PWSA's commitment to gather relevant data and present a detailed CAP in its next base rate case filing.**
- **PWSA should collaborate with BCS for receiving constructive feedback in the proposed CAP as being the first plan for PWSA.**

**III. Ethan H. Cline, Statement No. 3-SR:**

**SYSTEM AND OPERATIONS ACTIVITIES – OCTOBER 25, 2017**

**PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL**

**PROTECTION (“DEP”) ORDER AND CAPITAL IMPROVEMENT PLAN:**

- I recommend the Commission order PWSA to provide an update to I&E-RB-26 regarding the status of the Aspinwall Treatment Plant High Service Pump station in a revised Compliance Plan. As part of the information provided in its revised Compliance Plan PWSA should acknowledge whether it has or has not decided to move forward with the project at that time.
- PWSA should either provide the missing project timeline information through a revised Compliance Plan filing or explain why such information is not available.
- In a revised Compliance Plan filing, PWSA should provide both design engineer and company affiliation for each project, as asked by the Commission’s Directed Questions, or explain why such information is unavailable.
- PWSA should provide more specific details about the funding sources that it plans to use for each project. As an alternative, if more specific information cannot be provided, PWSA should explain why and indicate when it anticipates being able to identify a specific funding source for each project.

**ASPINWALL CLEARWELL IMPROVEMENT PROJECT:**

- I recommend that the Commission find that PWSA will not be providing safe and reliable service until PWSA provides expedited plans to bypass the Clearwell and continue to provide service in the event of a failure.
- To comply with its obligation to ensure safe and reliable service, I recommend that the Commission order the Authority to submit a revised Compliance Plan that expedites the completion of the Clearwell projects.

**52 PA. CODE § 65.7-METERED SERVICE:**

- PWSA should complete metering municipal buildings as soon as possible.
- I continue to recommend that PWSA finance the installation of the meters.
- However, if the Commission rejects my recommendation and permits PWSA to charge certain customers for meter installation, as an alternative, I recommend that the City's 50% discount be rejected and that it be assessed the full cost of the meter installation.

**52 PA. CODE § 65.8-METERS:**

- I recommend that PWSA provide information regarding the following areas:
  - Whether the Authority has awarded the contract and remains on track to begin testing meters greater than three inches on April 1, 2019;

- **The identification and status of PWSA’s parameters for testing meters two inches and larger as referenced in its response to I&E-RB-8 (I&E Ex. No. 3, Sch. 8),**
  - **The status of the realignment of the current warehouse to house a new meter test bench has been completed and the new test bench is in use, and**
  - **Whether PWSA is revising its original 2022 goal for commercial meter testing to extend that goal to 2024 (as with the residential meters).**
- **I recommend PWSA provide in its revised Compliance Plan filing a discussion of the feasibility of the meter testing triage plan referenced in the Commission’s Directed Questions.**
  - **I recommend that the Commission find the 2024 projected date of compliance to be acceptable pending PWSA providing the missing information as discussed above.**

**52 PA. CODE § 65.14 SOURCE OF SUPPLY MEASUREMENT:**

- **I recommend that the Commission order PWSA to file a revised Compliance Plan including an adequate plan to come into compliance with 52 Pa. Code § 65.14(a).**

- **I recommend that the Commission determine that PWSA plans for complying with 52 Pa. Code § 65.14 are unsatisfactory and that, in its revised Compliance Plan filing, PWSA should provide details and a timeline regarding how and when each of the meters listed on Table 4-3 of PWSA 40-year plan of 2012 will be operational and accurate.**

**52 PA. CODE § 65.17-STANDARDS OF DESIGN:**

- I recommend that the Commission determine that PWSA is not in compliance with Section 65.17 unless and until PWSA provides a revised Compliance Plan that includes a timeline and projected completion date for the replacement of all 4-inch diameter water mains.

**52 PA. CODE § 65.20-WATER CONSERVATION MEASURES:**

- I recommend that the Commission order PWSA to file a revised Compliance Plan, including a detailed timeline and start date for which PWSA can commit to begin providing the required educational information to customers.
- I recommend PWSA provide the Commission with annual reports summarizing the progress of its efforts as necessary to ensure that they are efficient, cost-effective, and yield results. An annual breakdown of costs and timelines should be included with the leak survey data.

**MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 –**

**65.23:**

- I recommend that PWSA be required to comply with 52 Pa. Code §§ 65.21-65.23 because I am advised by counsel that the Public Utility Code now supersedes the Municipality Authorities Act regarding these matters.

**52 PA. CODE § 69.169- POLICY STATEMENT INTERPRETING TERMS**

**INCLUDED IN 66 PA. C.S. §1326, STANDBY CHARGE:**

- **To the extent PWSA does not provide clarification in its rebuttal testimony, I recommend that the Commission find that PWSA's tariff is not in compliance with the Code and Commission regulations and order PWSA to provide a revised Compliance Plan detailing its proposal to remove this standby charge.**
- I now recommend that PWSA submit a report to the Commission, Office of Consumer Advocate, and any other interested parties as part of its next base rate case detailing its efforts to ensure that residential customers who have been assessed the private fire protection customer charges are recompensed for the total amount paid each month since April 1, 2018.

**52 PA. CODE § 73.3-ANNUAL DEPRECIATION REPORTS:**

- **I recommend the Commission require PWSA to file a partial annual depreciation report, on the same schedule as a full annual depreciation report starting in 2020, detailing only known and newly constructed plant**

additions and retirements, as witness Presutti indicated the Authority is willing to consider (PWSA St. No. C-3, p. 10), so that the Commission can remain apprised of the progress PWSA is making on its various capital projects each year.

**UNMETERED / UNBILLED USAGE (INCLUDING CITY OF PITTSBURGH (“CITY”) USAGE):**

- I recommend that the Commission determine that PWSA’s plans regarding unbilled and unmetered customers are not in compliance with the Code.
- Further, I recommend that PWSA introduce a flat rate, at minimum the customer charge for that customer’s class, for all unbilled customers in its next base rate case.
- Additionally, as customers are metered, their usage should be billed immediately.
- Unmetered wastewater customers should also be billed a flat rate and immediately billed for usage when the building is metered, similar to water customers.
- It is appropriate for the Commission to determine in this compliance proceeding whether PWSA’s current practice of recovering public fire hydrant costs from all rate classes complies with the Code.



- **I recommend the Commission direct PWSA to file a revised Compliance Plan stating that PWSA will provide a new rate design reflecting allocation of all public fire hydrant costs to the City with its next rate case proposal.**

**BULK WATER: SALES FOR RESALE:**

- In order to determine whether the terms of any bulk water sales contracts PWSA has entered into comport with the Code, I recommend the Commission Order PWSA to file all contracts and contract details PWSA has entered into with municipalities and other public utilities for bulk water sales (both before and since April 1, 2018) in a separate docket within 120 days of the final Commission Order in this proceeding so the Commission can investigate their compliance with the Code.

**IV. Israel E. Gray, I&E Statement No. 4-SR:**

**52 PA. CODE § 65.2 – ACCIDENTS:**

- **In order to comply with its obligations under 52 Pa. Code. § 65.2(d) regarding telephone reports, PWSA has updated its updated its Incident Investigation Policies to provide telephone notification to Commission staff immediately *upon becoming aware* of the reportable accidents enumerated in 52 Pa. Code § 65.2. This satisfied my initial recommendation.**

**52 PA. CODE § 101 – PUBLIC UTILITY PREPAREDNESS THROUGH  
SELF-CERTIFICATION:**

- Regarding its obligations under 52 Pa. Code § 101, PWSA should (1) involve TUS in the development of its physical security, cyber security, emergency response and business continuity plans.
- PWSA should continue its efforts to provide the Commission with compliant and completed physical security, cyber security, emergency response, and business continuity plans so that it will be able to file a Self-Certification Form by no later than February 28, 2020.
- PWSA should provide I&E with a status report on the progress of its physical security, cyber security, emergency response, and business continuity plans by October 31, 2019.

**WATER SUPPLY, PRODUCTION & STORAGE AND WASTEWATER  
CONVEYANCE PROJECTS:**

- PWSA should continue its effort to track cost effectiveness and that it make the information obtained available to the Commission in its next base rate case.

**52 PA. CODE § 65.11 – MANDATORY CONSERVATION MEASURES:**

- File a revised Compliance Plan stating PWSA will (1) develop mandatory water restriction procedures by no later than the close of 2019, and incorporate those procedures into PWSA's pending Emergency Response Plan; and (2) pursue interconnections with other regional water suppliers to enhance system resiliency.

**52 PA. CODE § 69.1601 – UNSCHEDULED SERVICE INTERRUPTIONS  
AND ASSOCIATED ACTIONS:**

- Incorporate the following recommendations into its pending Emergency Response Plan: (1) provide additional information regarding whether PWSA has met its target of revising communication protocols to include notification to the Commission by the end of 2019; and (2) notify the Commission of any low pressure incident or other service interruption for which it notifies PA DEP.

**COMPLIANCE WITH THE PENNSYLVANIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION CONSENT ORDER AND  
AGREEMENT OF NOVEMBER 17, 2017:**

- PWSA will provide the Commission with the same quarterly reports of its orthophosphate program as it is required to provide to Pa DEP.
- The orthophosphate quarterly updates should also be provided to TUS as well as to I&E.

**PLAN TO ADDRESS LEAD LEVELS IN WATER SUPPLY AND THE  
REPLACEMENT OF LEAD SERVICE LINES:**

- PWSA should take all necessary actions to ensure that if it transitions its LSLR program into its SDWMP in the future, that the transition does not prolong lead line replacement timeframes or compromise replacement goals beyond 2026.
- PWSA's Board should issue a policy decision committing to continue to perform private-line replacements past 2019.

**LTIP ISSUES:**

- PWSA should file a revised LTIP including: (1) a plan to expedite metering, demonstrating why and how PWSA chose its expedited metering plan; (2) a timeline along which PWSA will address and propose solutions for each and every PWSA-identified workforce challenge factor as it relates to the LTIP schedule; (3) further detail demonstrating how PWSA will build a workforce to meet the needs of increased capital spending, including how headcount projections were quantified and estimate of number of required contractors; and (4) detail on how PWSA will meet the need for increased coordination with local utilities and government (including adopting a plan with the City to ensure that additional engineering staff will improve coordination efforts or that other necessary action to improve such efforts is taken).

**I&E Statement No. 1-RS  
Witness: Anthony D. Spadaccio**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Supplemental Rebuttal Testimony**

**of**

**Anthony D. Spadaccio, CRRA**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Procedural Update**

**Compliance Plan Progress**

**I&E Overall Recommendation**

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1        **INTRODUCTION OF WITNESS**

2        **Q.    PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3        A.    My name is Anthony Spadaccio. My business address is Pennsylvania Public  
4            Utility Commission, Commonwealth Keystone Building, 400 North Street,  
5            Harrisburg, Pennsylvania 17120.

6  
7        **Q.    BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

8        A.    I am employed by the Pennsylvania Public Utility Commission (Commission) in  
9            the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial  
10          Analyst.

11  
12       **Q.    ARE YOU THE SAME ANTHONY SPADACCIO WHO IS RESPONSIBLE**  
13       **FOR THE TESTIMONY AND EXHIBIT IDENTIFIED AS I&E**  
14       **STATEMENT NO. 1, I&E EXHIBIT NO. 1, AND I&E STATEMENT NO. 1-**  
15       **SR IN THIS PROCEEDING?**

16       A.    Yes. I submitted my direct testimony and exhibit, I&E Statement No. 1 and I&E  
17          Exhibit No. 1, on April 5, 2019 and my surrebuttal testimony, I&E Statement No.  
18          1-SR, on May 17, 2019.

1 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL REBUTTAL**  
2 **TESTIMONY?**

3 A. The purpose of my supplemental rebuttal testimony is to provide a status update of  
4 Pittsburgh Water and Sewer Authority (PWSA or Authority) Compliance Plan  
5 proceeding and to present a summary of the remaining I&E compliance plan  
6 issues.

7  
8 **Q. WILL YOU BE DISCUSSING SPECIFIC ISSUES PRESENTED IN YOUR**  
9 **DIRECT OR SURREBUTTAL TESTIMONIES?**

10 A. No. The issues presented and discussed in my direct and surrebuttal testimonies  
11 have been satisfactorily resolved. I&E witnesses D.C. Patel, Ethan H. Cline, and  
12 Israel E. Gray will specifically be responding to updated information presented in  
13 the supplemental direct testimonies submitted by various PWSA witnesses.

14  
15 **Q. DOES THIS TESTIMONY CONTAIN A SUMMARY OF ALL OF I&E'S**  
16 **UNRESOLVED ISSUES IN THIS CASE?**

17 A. Yes. The attached Appendix A contains a comprehensive summary of unresolved  
18 issues, and issues to be addressed in Stage 2 of this proceeding.



1        **PROCEDURAL UPDATE**

2        **Q.    HAVE YOU READ THE SUPPLEMENTAL DIRECT TESTIMONY OF**  
3        **ALL PWSA WITNESSES?**

4        A.    Yes.

5  
6        **Q.    DO YOU AGREE THAT PWSA WITNESS ROBERT A. WEIMAR**  
7        **PRESENTS AN ACCURATE PROCEDURAL UPDATE FOR THIS**  
8        **PROCEEDING?**

9        A.    Yes. As described by Mr. Weimar<sup>1</sup>, in a Secretarial Letter dated May 15, 2019,  
10       the Commission granted the parties in this proceeding a three-month extension of  
11       the litigation schedule to engage in settlement discussions. The letter also ordered  
12       certain consumer-related issues be moved to Stage 2 of the proceeding so that they  
13       could be discussed in the Commission's Bureau of Consumer Services-led  
14       workshops.<sup>2</sup>

15  
16       **Q.    PLEASE COMMENT ON THE PROGRESS MADE ON THE ISSUES**  
17       **PRESENTED BY I&E OVER THE PAST THREE MONTHS.**

18       A.    Following its in-depth analysis and development of issues throughout the course  
19       of this proceeding, I&E participated in every settlement discussion and worked  
20       diligently with PWSA and the other parties to discuss, and where possible,

---

<sup>1</sup> PWSA Supplemental St. No. C-1SD, pp. 1-5.

<sup>2</sup> Secretarial Letter, Grant of Expedited Motion for Extension of Deadlines, Dated May 15, 2019.

1 collaborate to resolve many of the issues in this vast and complex case. The result  
2 of these efforts made over the last three months has led to a resolution on a large  
3 majority of the issues. Again, the remaining unresolved issues are set forth in the  
4 attached Appendix A.

5  
6 **SUMMARY OF I&E'S OVERALL AND UPDATED RECOMMENDATION**

7 Q. WHAT IS I&E'S OVERALL UPDATED RECOMMENDATION REGARDING  
8 PWSA'S COMPLIANCE PLAN?

9 A. I&E recommends that the Commission determine that, as outlined more  
10 specifically below, PWSA's Compliance Plan has not sufficiently demonstrated  
11 that its operations are either currently or will be in compliance with the Public  
12 Utility Code and applicable rules, regulations, and orders of the Commission. The  
13 remaining areas of deficiency and I&E's recommendations regarding those areas  
14 are identified in Appendix A, below, which outlines the issues that remain  
15 unresolved or have been moved to Stage 2 of this proceeding to facilitate further  
16 assistance to PWSA.

17  
18 Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL REBUTTAL  
19 TESTIMONY?

20 A. Yes. However, I reserve the right to supplement my testimony if additional issues  
21 or facts arise that may impact my recommendation.

**Summary of I&E Supplemental Rebuttal Recommendations**

**I. D.C. Patel, I&E Statement No. 2-RS:**

**PWSA SERVICES CONTRACT WITH THE CITY OF PITTSBURGH**  
**(COOPERATION AGREEMENT):**

- PWSA should be required to consider implementation of an independent governance structure.
- PWSA should execute and file the renegotiated Cooperation Agreement with the Commission no later than July 5, 2019. If the new agreement cannot be executed by July 5, 2019, PWSA will interact with the City of Pittsburgh (City) at arms-length on a transactional cost basis.

**RESIDENCY REQUIREMENT:**

- PWSA should eliminate its residency requirement for employment.  
Additionally, PWSA should be required to file a revised Compliance Plan that summarizes and adopts a plan to eliminate the residency requirement.

**\*\*UNCOLLECTIBLES - REVENUE LOSS:**

- I have acknowledged PWSA's commitment to implement appropriate collection strategies and providing periodic reporting about collection practices and results.
- I agree with PWSA's proposal to address the issue of uncollectibles in the Compliance Plan - Stage 2 proceeding.

**\*\*CUSTOMER ASSISTANCE PROGRAM (CAP):**

- I have acknowledged PWSA's commitment to gather relevant data and present a detailed CAP in its next base rate case filing.
- PWSA should collaborate with BCS for receiving constructive feedback in the proposed CAP as being the first plan for PWSA.

**II. Ethan H. Cline, Statement No. 3-RS:**

**52 PA. CODE § 65.7-METERED SERVICE:**

- I continue to recommend that PWSA finance the installation of the meters.
- However, if the Commission rejects my recommendation and permits PWSA to charge certain customers for meter installation, as an alternative, I recommend that the City's 50% discount be rejected and that it be assessed the full cost of the meter installation.

---

**\*\*Item moved to stage 2.**

**MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 –**

**65.23:**

- I recommend that PWSA be required to comply with 52 Pa. Code §§ 65.21-65.23 because I am advised by counsel that the Public Utility Code now supersedes the Municipality Authorities Act regarding these matters.

**UNMETERED / UNBILLED USAGE (INCLUDING CITY USAGE):**

- I recommend that the Commission determine that PWSA's plans regarding unbilled and unmetered customers are not in compliance with the Code.
- Further, I recommend that PWSA introduce a flat rate, at minimum the customer charge for that customer's class, for all unbilled customers in its next base rate case.
- Additionally, as customers are metered, their usage should be billed immediately.
- Unmetered wastewater customers should also be billed a flat rate and immediately billed for usage when the building is metered, similar to water customers.

**III. Israel E. Gray, I&E Statement No. 4-RS:**

**PLAN TO ADDRESS LEAD LEVELS IN WATER SUPPLY AND THE  
REPLACEMENT OF LEAD SERVICE LINES:**

- PWSA should take all necessary actions to ensure that if it transitions its LSLR program into its SDWMP in the future, that the transition does not prolong lead line replacement timeframes or compromise replacement goals beyond 2026.
- PWSA's Board should continue to perform private-line replacements past 2019, but its newly adopted income-based reimbursement policy for such replacement should be rejected.

**I&E Statement No. 2**  
**Witness: D. C. Patel**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 and M-2018-2640803**

**Direct Testimony**

**of**

**D. C. Patel**

**Bureau of Investigation and Enforcement**

**Concerning:**

**COMPLIANCE PLAN -**

**System of Accounts, Customer Assistance Program,  
PWSA Services Contract with the City of Pittsburgh (Cooperation Agreement),  
Capital Lease Agreement, Residency Requirement, Billing Arrangement with the  
Allegheny County Sanitary Authority, Billing Arrangement with Pennsylvania-  
American Water Company, Bulk Wastewater Conveyance Agreements, and  
Uncollectibles - Revenue Loss**

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1           **INTRODUCTION**

2   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3   A.   My name is D. C. Patel, and my business address is Pennsylvania Public Utility  
4       Commission, 400 North Street, Harrisburg, PA 17120.

5  
6   **Q.   BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7   A.   I am employed by the Pennsylvania Public Utility Commission (Commission) in  
8       the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial  
9       Analyst.

10  
11   **Q.   WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND?**

12   A.   An outline of my education and employment background is set forth in the  
13       attached Appendix A.

14  
15   **Q.   PLEASE DESCRIBE THE ROLE OF I&E IN THIS PROCEEDING.**

16   A.   I&E is responsible for representing the public interest in proceedings before the  
17       Commission. I&E's analysis in this proceeding is based on its responsibility to  
18       represent the public interest. This responsibility requires the balancing of the  
19       interests of ratepayers, the regulated utility, and the regulated community as a  
20       whole.

1   **Q.   WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2   A.   The purpose of my testimony is to review and make recommendations regarding  
3       the adequacy of the Pittsburgh Water and Sewer Authority (PWSA) Compliance  
4       Plan (Plan) filed with the Commission on September 28, 2018, including its  
5       Compliance Plan Supplement (Plan Supplement) filed on February 1, 2019 and  
6       PWSA's responses to the Commission's Directed Questions filed on February 14,  
7       2019.

8  
9   **Q.   DID YOU SUBMIT WRITTEN TESTIMONY AS AN EXPERT WITNESS**  
10   **IN THE RECENT PWSA BASE RATE CASE?**

11   A.   Yes. I submitted direct and surrebuttal testimony in PWSA's base rate case  
12       proceeding at Docket Nos. R-2018-3002645 and R-2018-3002647.

13  
14   **Q.   DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?**

15   A.   Yes. I&E Exhibit No. 2 contains schedules that support my direct testimony. I  
16       will also refer PWSA's base rate case filing and my direct testimony and exhibit  
17       (I&E Statement No. 2 and I&E Exhibit No. 2) in the recently concluded PWSA  
18       base rate case proceedings at Docket Nos. R-2018-3002645 and R-2018-3002647.

1   **Q.   DO YOU HAVE ANY COMMENTS REGARDING THE OVERALL SCOPE**  
2       **OF YOUR DIRECT TESTIMONY?**

3   A.   Yes. Since the PWSA came under the Commission's jurisdiction for regulation and  
4       oversight for the first time, there are various compliance requirements of statute,  
5       regulation, and Commission orders with which it must comply. In this testimony, I  
6       am addressing some of the issues from PWSA's Plan filing. However, with respect  
7       to issues I have not addressed, I&E does not waive its right to address those issues in  
8       future base rate proceedings, or in any other proceeding. Further, issues not  
9       addressed in this proceeding should not be construed as I&E's agreement with  
10      PWSA on those issues. Lastly, I&E reserves its right to make further  
11      recommendations in future proceedings regardless of whether it was addressed in  
12      this testimony.

13  
14      **52 PA CODE § 65.16 - SYSTEM OF ACCOUNTS<sup>1</sup>**

15   **Q.   WHAT IS THE REQUIREMENT OF 52 PA CODE § 65.16 FOR SYSTEM**  
16       **OF ACCOUNTS?**

17   A.   Title 52 Pa. Code § 65.16(a) mandates that a public utility providing water service,  
18       having an annual operating revenue of \$750,000 or more (average of the last three  
19       consecutive years) shall keep its accounts in conformity with the most recent

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<sup>1</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 8; Exhibit RAW/C-1, Directed Questions Nos. 37-38.

1 Uniform System of Accounts (USOA) for Class A Water Utilities, as prescribed by  
2 the National Association of Regulatory Utility Commissioners (NARUC).

3  
4 **Q. HAS THE COMMISSION PROVIDED ANY PREVIOUS GUIDANCE**  
5 **REGARDING THE IMPORTANCE OF PWSA CONVERTING ITS**  
6 **CURRENT SYSTEM OF ACCOUNTS TO THE NARUC USOA?**

7 A. Yes. In its Final Implementation Order for Chapter 32, which the Commission  
8 used to provide guidance to PWSA and stakeholders as PWSA transitioned to its  
9 status as a regulated utility, the Commission pointed out that “[t]he chart of  
10 accounts specified under USOA is fundamental to ratemaking.”<sup>2</sup> As a result, the  
11 Commission directed PWSA to develop a schedule to convert its accounts to the  
12 NARUC USOA and to present that schedule as part of its September 2018  
13 Compliance Plan.<sup>3</sup>

14  
15 **Q. WHAT IS PWSA’S PROPOSAL IN THE PLAN TO COMPLY WITH 52 PA**  
16 **CODE § 65.16?**

17 A. PWSA states that it has begun a mapping exercise in the fourth quarter of fiscal  
18 year (FY) 2018 to map the current chart of accounts to the NARUC chart of  
19 accounts, in order to conduct a gap analysis (PWSA Compliance Plan, p. 63).  
20 During the FY 2020 budgeting process, which is expected to occur in the second

---

<sup>2</sup> *Implementation of Chapter 32 of the Public Utility Code re Pittsburgh Water and Sewer Authority*, M-2018-2640802 et al. Final Implementation Order, p. 35 (March 15, 2018).

<sup>3</sup> *Id.* at pp. 35-36.

1 quarter of FY 2019, PWSA will incorporate additional general ledger codes into its  
2 budget and begin tracking those codes to fill in the voids identified in the gap  
3 analysis. This will ultimately smooth the transition to the NARUC chart of  
4 accounts when the new system comes online. While this is not an immediate full  
5 conversion to the NARUC chart of accounts, PWSA will have the ability to  
6 generate financial statements using the current system in the interim, and financial  
7 statements using the NARUC chart of accounts as early as FY 2020.

8  
9 **Q. WHAT IS PWSA'S RESPONSE TO THE COMMISSION'S DIRECTED**  
10 **QUESTION WHETHER THE PROPOSED TIMELINE FOR**  
11 **GENERATING FINANCIAL REPORTS UNDER THE NARUC USOA IS**  
12 **REASONABLE AND APPROPRIATE? <sup>4</sup>**

13 A. PWSA witness Jennifer Presutti states that in Stage I, using the in-house manual  
14 mapping exercise for the chart of accounts, PWSA intends to file all Commission-  
15 required financial reports for 2019 based on the NARUC USOA using a manual  
16 process. Additionally, PWSA has begun the work to procure a new Enterprise  
17 Resource Planning (ERP) system to fully convert all individual accounts to the  
18 NARUC USOA in Stage II, which will take place after PWSA implements its new  
19 ERP system (PWSA Statement No. C-3, pp. 7-8). After the ERP system is

---

<sup>4</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 8; Exhibit RAW/C-1, Directed Question No. 38.

1 implemented, financial reports using the NARUC USOA will be fully automated  
2 in Stage II.

3  
4 **Q. HAS PWSA PROVIDED ADEQUATE ASSURANCE THAT IT WILL BE**  
5 **ABLE TO FULLY IMPLEMENT NARUC USOA FINANCIAL**  
6 **REPORTING IN FY 2020?**

7 A. No.

8  
9 **Q. PLEASE EXPLAIN.**

10 A. As stated above, PWSA is committing in general for full conversion of NARUC  
11 USOA under Stage II upon implementation of a new ERP system. However, Ms.  
12 Presutti did not elaborate on the status of selecting an ERP contractor, the  
13 projected ERP system cost, or an ERP implementation schedule.

14 In response to I&E-RE-4, PWSA witness Presutti made a general statement  
15 that the new ERP system is anticipated to be implemented in FY 2020. She further  
16 stated that PWSA can implement NARUC USOA reporting more rapidly if the  
17 procurement and implementation timeline shortens (I&E Exhibit No. 2, Schedule  
18 1). In the absence of specific information about the ERP system procurement and  
19 development, challenges of data migration to ERP system, system data testing,  
20 hardware upgrades, employee training, and the timeline for implementation of  
21 each ERP module, it is speculative to say that a full conversion of PWSA's system  
22 of accounts to NARUC USOA will be completed in FY 2020.

1 **Q. WHAT IS YOUR RECOMMENDATION?**

2 A. First, I recommend that PWSA should revise its Compliance Plan to provide more  
3 information about the status of its selection of an ERP contractor, projected ERP  
4 system cost, and a detailed implementation schedule. Second, PWSA should  
5 provide periodic updates on the ERP system development to the Commission on a  
6 quarterly basis. Third, PWSA should strive to complete the ERP project enabling  
7 full conversion of its system of account to NARUC USOA no later than December  
8 31, 2020.

9  
10 **52 PA CODE §§ 69.261-69.267 – CUSTOMER ASSISTANCE PROGRAM<sup>5</sup>**

11 **Q. WHAT ARE THE REQUIREMENTS FOR CUSTOMER ASSISTANCE**  
12 **PROGRAMS PER 52 PA CODE §§ 69.261-69.267?**

13 A. 52 Pa. Code § 69.261 through 52 Pa. Code § 69.267 detail the Commission's  
14 Policy Statement on Customer Assistance Programs (CAP), describes the purpose  
15 of CAP and provides various guidelines for CAP implementation. 52 Pa. Code  
16 § 69.261 states that CAPs are designed as alternatives to traditional collection  
17 methods for low income, payment troubled customers. Also stated at 52 Pa. Code  
18 § 69.261, Class A electric utilities and natural gas utilities with gross intrastate  
19 annual operating revenues in excess of \$40 million should adopt the guidelines

---

<sup>5</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 11-12; Exhibit RAW/C-1, Directed Questions Nos. 57-60.

1 prescribed in 52 Pa. Code §§ 69.263-69.265 (relating to CAP development, scope  
2 of CAP programs, and CAP design elements) implementing residential CAPs.  
3

4 **Q. DOES PWSA HAVE A CAP?**

5 A. Yes.  
6

7 **Q. PLEASE SUMMARIZE PWSA'S CAP.**

8 A. PWSA's program has the following four elements (PWSA Compliance Plan, p. 76  
9 and I&E Exhibit No. 2, Schedule 2, p. 1):

- 10 • Winter Shut Off Moratorium (passed by the PWSA Board of Directors (Board)  
11 on October 26, 2017);
- 12 • Bill Discount Program (authorized by the PWSA Board on November 8,  
13 2017);
- 14 • Hardship Program (implemented on April 2, 2018); and
- 15 • Private Lead Line Replacement Community Environmental Project  
16 (implemented on August 6, 2018).

17 PWSA provided the following data regarding its CAP enrollment: (1) 2,677  
18 customers enrolled in the bill discount program as of February 2019; (2) 1,042  
19 customers enrolled in the winter shut off moratorium during December 2018  
20 through March 2019; and (3) 157 customers approved for the hardship program in  
21 2018 and 18 customers were approved in first two months of 2019 (I&E Exhibit  
22 No. 2, Schedule 2, pp. 2-4).



1 **Q. IN YOUR ROLE AS AN EXPERT WITNESS IN PWSA'S 2018 BASE RATE**  
2 **CASE, DID YOU ADDRESS PWSA'S CAP?**

3 A. Yes. I stated PWSA's initiative and effort to design and implement its CAP were  
4 commendable, though not mandatory. Additionally, I recommended PWSA's Bill  
5 Discount Program (BDP) should continue without any change until more data  
6 about current BDP implementation was available. (I&E Statement No. 2-R, pp.  
7 14-15 at Docket Nos. R-2018-3002645 and R-2018-3002647).

8  
9 **Q. DID THE PARTIES AGREE TO CERTAIN TERMS REGARDING PWSA'S**  
10 **BDP AS PART OF THE 2018 BASE RATE CASE SETTLEMENT?**

11 A. Yes. The settlement, which was approved by Commission Order on February 27,  
12 2019, revised PWSA'S BDP to provide a 75% discount on minimum water and/or  
13 wastewater charge for customers with income at or below 150% of the federal  
14 poverty level.<sup>6</sup>

15  
16 **Q. WHY DOES PWSA BELIEVE ITS CAP IS APPROPRIATE?**

17 A. PWSA states that while provisions of 52 Pa. Code § 69.261 through 69.267 apply  
18 only to electric and large natural gas companies, it recently implemented a CAP  
19 that was developed based on the Commission's recommended design and modeled  
20 upon the program implemented by Pennsylvania-American Water Company.

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<sup>6</sup> *Pa. PUC v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2018-3002645 & R-2018-3002647, Joint Petition for Settlement, p. 19.

1 **Q. HAS PWSA PROPOSED ANY REFINEMENTS TO ITS CAP IN THE PLAN**  
2 **SUPPLEMENT?**

3 A. PWSA's Plan Supplement lists various proposed actions and steps to address low  
4 income customer issues, i.e., additional data collection, consultation with the  
5 Dollar Energy Fund, formation of a Low-Income Assistance Advisory Committee,  
6 additional Bill Discount Program funding, a revision to the Bill Discount Program  
7 rate, and the continuation of program outreach efforts (PWSA Plan Supplement,  
8 pp. 19-22 and PWSA Statement No. C-4, pp. 21-22).

9  
10 **Q. WHAT IS PWSA'S RESPONSE TO THE COMMISSION'S DIRECTED**  
11 **QUESTION ABOUT WHETHER AND HOW PWSA'S CAP COMPLIES**  
12 **WITH THE PROVISIONS OF 52 PA CODE § 69.265(1) AND § 69.266?**<sup>7</sup>

13 A. 52 Pa. Code § 69.265(1) states that the CAP funding should be derived from  
14 payments from CAP participants; LIHEAP grants; operations and maintenance  
15 expense reductions; and universal service funding mechanism for EDCs.

16 Although, PWSA witness Julie Quigley discusses PWSA's Bill Discount Program  
17 in relation to 52 Pa. Code § 69.265(2)(i)(A) (PWSA Statement No. C-4, pp. 26-  
18 27), she does not discuss 52 Pa. Code § 69.265(1) as requested in the Directed  
19 Question.

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<sup>7</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 11; Exhibit RAW/C-1, Directed Question No. 57.

1           Regarding compliance with 52 Pa. Code § 69.266 pertaining to cost  
2           recovery, PWSA witness Quigley states that PWSA's CAPs are very new with the  
3           design and cost recovery structures just approved in February of 2019 by the  
4           Commission as a part of the rate case proceeding. Given this, PWSA is now in the  
5           process of gathering the data necessary to appropriately evaluate its programs to  
6           include their revenue and expense impacts, which will be addressed in PWSA's  
7           next base rate case (PWSA Statement No. C-4, p. 27).

8  
9   **Q.   WHAT IS PWSA'S RESPONSE TO THE COMMISSION'S DIRECTED**  
10   **QUESTION ABOUT WHETHER AND HOW PWSA'S CAP COMPLIES**  
11   **WITH 66 PA CODE § 1304?<sup>8</sup>**

12   **A.**   66 Pa. C.S. § 1304 concerns discrimination in rates. PWSA witness Quigley states  
13           that none of PWSA's CAPs offer low-income customers different "rates" as all  
14           residential customers are billed in accordance with PWSA's tariff (PWSA  
15           Statement No. C-4, pp. 25-26). She also opines that PWSA's low-income  
16           assistance programs are a reasonable way to balance the need to provide financial  
17           assistance to low-income customers to better position them to be able to pay more  
18           of their PWSA bills, and therefore, lessen the burden of uncollectible accounts  
19           expense that other PWSA customers will be required to pay (PWSA Statement No.  
20           C-4, p. 26). Lastly, she states that the PWSA's BDP is generally consistent with

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<sup>8</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 11; Exhibit RAW/C-1, Directed Question No. 57.

1 other tariff provisions approved by the Commission and “therefore, the  
2 Commission has already determined that PWSA’s CAPs are not legally prohibited  
3 by Section 1304 of the Public Utility Code” (PWSA Statement No. C-4, p. 26).

4  
5 **Q. DO YOU ACCEPT MS. QUIGLEY’S RATIONALE THAT PWSA’S CAP IS**  
6 **APPROPRIATE AND HER DISCUSSION CONCERNING COMPLIANCE**  
7 **WITH 52 PA CODE § 69.265(1) AND § 69.266, AND 66 PA CODE § 1304?**

8 A. I generally agree that PWSA should have a CAP. However, it is too soon to  
9 determine whether PWSA’s programming is appropriate to its customer base.

10  
11 **Q. WHAT DO YOU RECOMMEND?**

12 A. First, in the absence of a full year’s worth of data, PWSA should continue  
13 collecting the types of data as mentioned in the Plan Supplement at page 19.  
14 PWSA has already agreed to track this information per the recently approved base  
15 rate case settlement, and it should continue to track this information, at least until  
16 its next base rate case proposal.<sup>9</sup> At that time, also per the rate case settlement,  
17 PWSA has committed to submit a detailed plan to outline program parameters for  
18 its low- income assistance programs.<sup>10</sup> Second, based on the data, analysis and  
19 evaluation of each low-income program, PWSA should formulate and present as  
20 soon as possible, a detailed CAP proposal and evaluation plan as described in 52

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<sup>9</sup> *Pa. PUC v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2018-3002645 & R-2018-3002647, Joint Petition for Settlement, pp. 17-18.

<sup>10</sup> *Id.* at 19-20.

1 Pa. Code § 69.265(10) (relating to CAP design elements) to the Commission's  
2 Bureau of Consumer Services for review and subsequently for the parties' and  
3 Commission's review as part of PWSA's next base rate proceeding per the rate  
4 case settlement.

5  
6 **PWSA SERVICES CONTRACT WITH THE CITY OF PITTSBURGH**  
7 **(COOPERATION AGREEMENT)<sup>11</sup>**

8 **Q. PLEASE SUMMARIZE THE CURRENT COOPERATION AGREEMENT**  
9 **BETWEEN THE CITY OF PITTSBURGH AND PWSA.**

10 **A.** The City of Pittsburgh (City) and PWSA executed a Cooperation Agreement dated  
11 June 15, 1995, effective January 1, 1995, to identify the services the City would  
12 provide to PWSA and how PWSA would pay the City for those services  
13 (Compliance Plan, Appendix B). In exchange for services, PWSA would provide  
14 the City with the following through 2035:

- 15 • Equalization payments (rate subsidy) to Pennsylvania-American Water  
16 Company ("PAWC") for residents in certain portions of the City not serviced  
17 by PWSA.
- 18 • Actual direct expenses, public works salaries and wages, and overhead  
19 expenses for services provided by the City to PWSA.

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<sup>11</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Questions Nos. 71-77.

- 1 • Up to 600 million gallons of water each year (free of cost) to the City
- 2 departments, agencies, and instrumentalities. For use of water in excess of 600
- 3 million gallons, PWSA may offset that cost against money owed to the City
- 4 under this agreement.
- 5 • Reimbursement of certain worker's compensation benefits.
- 6

7 **Q. WHAT IS PWSA'S PROPOSAL IN THE PLAN TO ADDRESS THE**

8 **COOPERATION AGREEMENT ISSUE?**

9 A. PWSA's Plan at p. 106 states that it is committed to developing a modern

10 Cooperation Agreement that is fair to the City, PWSA, and its ratepayers.

11 Accordingly, PWSA is currently negotiating with the City to revise the payment

12 under the agreement to reflect only actual services provided. The revised

13 agreement will be filed with the Commission under 66 Pa. Code § 507.

14 In the Plan Supplement at pp. 26-27, PWSA noted the following:

15 (1) PWSA will provide quarterly updates on the status of negotiations with the

16 City beginning by April 30, 2019; (2) it will continue to renegotiate the agreement

17 with City in good faith; (3) it formally notified and provided the City of the record

18 and outcome of the base rate case proceeding, and similarly, will notify the

19 outcome of the Compliance Plan; (4) it will notify all parties within 15 days of

20 execution of the amended Cooperation Agreement; (5) it will recognize that in

21 PWSA's next base rate case, I&E may recommend disallowance of any payments

22 to the City pursuant to the amended agreement if those services are not supported

1 by invoices with complete documentation; and (6) it recognizes that in PWSA's  
2 next base rate case, I&E reserves the right to impute revenues to PWSA for the  
3 provision of free services to the City.

4  
5 **Q. AS AN EXPERT WITNESS IN PWSA'S 2018 BASE RATE CASE**  
6 **PROCEEDING, DID YOU ADDRESS THE COOPERATION**  
7 **AGREEMENT?**

8 A. Yes. I recommended that the Cooperation Agreement be renegotiated to ensure  
9 fair, equitable, reasonable, and arm's length terms for the City and PWSA (I&E  
10 Statement No. 2-SR, p. 35 at Docket Nos. R-2018-3002645 and R-2018-3002647).  
11 Among other things, I noted the Auditor General raised following five concerns  
12 that need to be addressed in the renegotiated terms of the agreement: <sup>12</sup>  
13 • The City does not know how much water it actually uses each year because  
14 PWSA does not have a complete list of all City-owned properties that receive  
15 free water and many City-owned properties are not metered;  
16 • The PWSA Board and the City, as part of renegotiating the agreement, need to  
17 consider whether the PAWC rate subsidy is necessary;

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<sup>12</sup> Performance Audit Report of November 2017 issued by the Pennsylvania Department of the Auditor General, pp. 31-34 (I&E Exhibit No. 2, Schedule 3, pp. 36-39).

- 1       • The City is invoicing PWSA on quarterly basis for direct expenses plus
- 2       overhead of \$1,787,500 with the total invoice amount of \$7,150,000 on an
- 3       annual basis without any detailed explanation or support for these invoices and
- 4       PWSA is making payments;
- 5       • PWSA is paying on behalf of the City for fire hydrant service charges invoiced
- 6       by the various water companies; and
- 7       • PWSA does not charge the City to service 7,400 hydrants in its service area
- 8       because PWSA does not charge the City for water.

9

10   **Q.   DO YOU SHARE THE SAME CONCERNS AS THE AUDITOR GENERAL**

11   **ABOUT THE TERMS OF THE AGREEMENT?**

12   A.   Yes. I raised similar concerns in my PWSA base rate proceeding testimony,

13       including, among other things, my concern that PWSA did not provide a detailed

14       breakdown of the \$7,150,000 annual payment it makes to the City. (I&E

15       Statement No. 2, p. 36-41 at Docket Nos. R-2018-3002645 and R-2018-3002647).

16

17   **Q.   UNDER THE COOPERATION AGREEMENT, IS PWSA OBLIGATED TO**

18   **PAY THE CITY \$7,150,000 ANNUALLY?**

19   A.   No. I am advised by counsel that under the Cooperation Agreement, PWSA is

20       only obligated to pay/reimburse the City for actual expenses incurred for the

21       services provided (Compliance Plan, Appendix B, p. 7). PWSA is under no

22       obligation to make a fixed, lump-sum annual payment of \$7,150,000.



1   **Q.   DO YOU HAVE SPECIFIC CONCERNS REGARDING PWSA’S**  
2       **PAYMENTS TO THE CITY?**

3   A.   Yes. As I stated in my base rate case testimony, the quarterly payments  
4       aggregating to an annual amount of \$7,150,000 to the City are lacking sufficient  
5       cost justification and do not reflect payment for actual services.

6  
7   **Q.   WHAT IS THE BASIS FOR YOUR ASSERTION THAT PAYMENTS ARE**  
8       **LACKING SUFFICIENT COST JUSTIFICATION?**

9   A.   First, in the base rate case proceeding, when asked by I&E, PWSA was unable to  
10      provide detailed invoices with breakdown for services and itemized charges with  
11      supporting documentation for the quarterly payments made in 2017 pursuant to the  
12      agreement (I&E Exhibit No. 2, Schedule 12, pp. 6-12 at Docket Nos. R-2018-  
13      3002645 and R-2018-3002647). Second, PWSA’s witness Debbie M. Lestitian in  
14      her direct testimony (PWSA Statement No. C-2) attached two confidential  
15      Exhibits, DML/C-1 and DML/C-2, which are being used by PWSA and the City in  
16      renegotiation of the terms of the Cooperation Agreement that include brief  
17      identification of the estimated costs:

18           Exhibit DML/C-1: List of PWSA incurred costs on behalf of the City;

19           Exhibit DML/C-2: List of City estimate of costs incurred for PWSA.

20      These exhibits are marked confidential and contain a broad listing of services with

1 cost estimates. On behalf of PWSA, the City estimates it spends approximately:

- 2 • \$4,606,068 for the Office of Management and Budget (OMB) (pension  
3 costs, fuel and fleet);
- 4 • \$4,722,317 for the Department of Public Works (DPW) (street  
5 sweeping, litter can cleaning, yard debris, litter cans);
- 6 • \$3,708,682 for the Department of Mobility and Infrastructure (DOMI)  
7 (landslides, milling, base work, wedge curb installation, utility  
8 coordination, street resurfacing castings, permits)

9 There are also various line item costs related to public safety described not yet  
10 determined or estimated.

11 On behalf of the City, PWSA estimates it incurs costs totaling \$19,348,481.  
12 Costs over \$1 million include \$6,700,000 for “PWSA Development Costs for City  
13 Stormwater Costs”; \$3,493,997 “Pa American Water Subsidy”; \$2,138,351 “Water  
14 Costs on City Metered Accounts”; \$1,776,000 “Fire Hydrant Charge for City  
15 Hydrants”; \$1,707,269 “Water & Wastewater Costs for Zoo/Phipps”; and  
16 \$1,108,211 “Wastewater Costs on City Metered Accts.”

17 These documents do not include a detailed and itemized breakdown, cost  
18 basis, and supporting calculation for these costs.

1   **Q.   WHAT IS PWSA’S RESPONSE TO THE COMMISSION’S DIRECTED**  
2       **QUESTION ON IDENTIFICATION AND QUANTIFICATION OF**  
3       **COSTS?**<sup>13</sup>

4   A.   Regarding identification and quantification of costs (market, cost plus, or some  
5       other method), PWSA’s witness Lestitian states that PWSA estimates the annual  
6       total cost of services it provides to the City of \$20 million and the City estimates  
7       the annual total cost of services it provides to PWSA of \$13 million as listed in the  
8       confidential version of PWSA Statement No. C-2, p. 10 and PWSA Exhibit No.  
9       DML/C-1 and PWSA Exhibit No. DML/C-2. Further, she states that cost of  
10      service reflects actual or market costs but didn’t discuss the basis of cost  
11      estimation (PWSA Statement No. C-2, p. 10).

13   **Q.   DID I&E SEEK SUBSTANTIATION FOR THESE COSTS?**

14   A.   Yes. I&E sought supporting detail for Exhibits DML/C-1 and DML/C-2 in  
15      discovery. However, PWSA in its response to I&E-RE-35, did not provide  
16      detailed, itemized explanation and substantiation for the estimated costs listed in  
17      the Exhibit DML/C-1 and DML/C-2 (I&E Exhibit No. 2, Schedule 3, p. 1).  
18      PWSA confirms that information presented in the exhibits are draft working  
19      documents (PWSA Statement No. C-2, p. 10), which implies there is no detailed  
20      breakdown or basis for the City invoice charges paid by PWSA to-date.

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<sup>13</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Question No. 71.

1   **Q.   WHAT SPECIFIC CONCERNS DO YOU HAVE WITH PWSA’S LACK OF**  
2   **SUPPORT FOR COST CHARGED BY THE CITY?**

3   A.   Although, certain costs charged by the City to PWSA appear plausible, such as  
4       pension and fleet and fuel costs for PWSA personnel and vehicles respectively,  
5       PWSA provided no evidence supporting these costs. Other costs assigned to  
6       PWSA by the City appear completely unrelated to the provision of utility service,  
7       such as the \$4,722,317 street sweeping, litter can cleaning, litter cans cost, “yard  
8       debris”, and “landslides.” As I explained above, PWSA did not provide any  
9       supporting detail for these costs. I am advised by counsel that without supporting  
10      detail justifying these costs, PWSA’s rates inclusive of these costs are unjust and  
11      unreasonable. Further, with the notable exception of the unclear expense “PWSA  
12      Development Costs for City Stormwater Costs”, the largest costs estimated for  
13      services provided from PWSA to the City are for revenues currently foregone by  
14      PWSA, as explained elsewhere in I&E testimony.

15           Additionally, Ms. Lestitian’s direct testimony and the above exhibits reveal  
16      that the estimated total value of PWSA’s services to the City is far more than the  
17      total value of services provided by the City (PWSA Statement No. C-2, p. 10 and  
18      PWSA Exhibit Nos. DML/C-1 and DML/C-2). Even though the contract is not  
19      finalized and, as I describe above, contains numerous objectionable aspects, these  
20      estimates clearly demonstrate the \$7,150,000 invoiced from the City to PWSA is  
21      unreasonable.

1 **Q. WHAT IS PWSA'S RESPONSE CONCERNING THE COMMISSION'S**  
2 **DIRECTED QUESTION OF WHETHER THE COMMISSION MAY**  
3 **EXERCISE JURISDICTION UNDER 66 PA CODE § 508 TO REVISE THE**  
4 **COOPERATION AGREEMENT AND THE MOST APPROPRIATE**  
5 **VEHICLE FOR ANY SUCH REVISION?<sup>14</sup>**

6 A. PWSA witness Ms. Lestitian states that if PWSA is unable to renegotiate a more  
7 modern and fair agreement, PWSA proposes that the Commission initiate an  
8 investigation to pursue necessary modifications (PWSA Statement No. C-2, p. 12).

9  
10 **Q. WHAT IS THE CURRENT STATUS OF PWSA'S COOPERATION**  
11 **AGREEMENT NEGOTIATIONS?**

12 A. Ms. Lestitian states that:

- 13 • On February 4, 2019, PWSA gave 90 days' notice to the City to terminate the  
14 agreement effective May 5, 2019 (PWSA Statement No. C-2, p. 8).
- 15 • If PWSA is not successful in negotiating a new agreement, it will interact with  
16 the City at arms-length on a transactional basis and will invoice the City and  
17 pay the City invoices on the basis of fair market value (PWSA Statement No.  
18 C-2, p. 9).
- 19 • The revised agreement will be filed with the Commission under 66 Pa. Code §  
20 507 (PWSA Statement No. C-2, p. 9).

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<sup>14</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Question No. 77.

- 1       • If PWSA is not successful in negotiating a new agreement with the City, it will  
2       propose that the Commission initiate an investigation to determine services  
3       actually received and provided by PWSA and the associated cost and utilize its  
4       power under 66 Pa. Code § 508 to vary or reform the agreement (PWSA  
5       Statement No. C-2, pp. 9-10).

6  
7   **Q.   WHAT IS YOUR RESPONSE TO MS. LESTITIAN’S STATEMENTS?**

8   A.   Ms. Lestitian did not specify or commit to a timeline for renegotiation of  
9       agreement terms and the execution of new/revised Cooperation Agreement despite  
10      PWSA having issued a notice of termination for the current agreement.

11  
12   **Q.   DO YOU HAVE CONCERNS REGARDING PWSA’S NEGOTIATION OF A**  
13   **NEW COOPERATION AGREEMENT?**

14   A.   Yes. Although PWSA committed in the rate case settlement to renegotiate the  
15      Cooperation Agreement in good faith,<sup>15</sup> as I discuss below, PWSA’s governance  
16      structure makes it difficult, if not impossible, for PWSA to renegotiate a  
17      Cooperation Agreement at arm’s length.

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<sup>15</sup> *Pa. PUC v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2018-3002645 & R-2018-3002647, Joint Petition for Settlement, pp. 21.

1    **Q.    WHY DO YOU THINK AN ARM’S LENGTH NEGOTIATION BETWEEN**  
2    **THE CITY AND PWSA IS DIFFICULT, IF NOT IMPOSSIBLE?**

3    A.    I am concerned that PWSA’s Board is not independent from the City and some  
4           members have a current conflict of interest. In response to I&E-RE-25, PWSA  
5           states that in accordance with the City’s home rule charter, the Board members of  
6           PWSA are appointed by the Mayor of the City and confirmed by the City Council.  
7           Currently, out of the total five PWSA board members, four members are currently  
8           or formerly employed by the City or elected representatives of the City. Paul  
9           Leger is former City Finance Director to the current Mayor; James Turner is  
10          former Chief of Staff to a former Mayor; Margaret Lanier is current City Finance  
11          Director and Treasurer; and Deborah Gross is current City Council member. Only  
12          one board member, Chaton Turner, is not or was not employed or of service to the  
13          City in any official capacity (I&E Exhibit No. 2, Schedule 3, pp. 2-3).

14                 Board members who currently serve the City present particular concern  
15                 regarding conflict of interest. The City Finance Director/Treasurer and City  
16                 Council members are both representatives of the City and have responsibility for  
17                 and interest in the City’s budget and financial health. It, therefore, appears  
18                 impossible for them to negotiate with PWSA’s at arm’s length when they have  
19                 responsibilities for both entities’ budgets. Further, PWSA has provided no  
20                 indication that these board members have recused themselves from participation in  
21                 negotiation of a new Cooperation Agreement with the City.

1           Considering the affiliation of current board members with the City,  
2           renegotiation of the terms and conditions of the Cooperation Agreement may not  
3           be renegotiated at arm's length, causing further financial burden for PWSA. This  
4           has also been observed by the Auditor General in its Performance Audit Report at  
5           pp. 2-3 (I&E Exhibit No. 2, Schedule 4, pp. 7-8).

6  
7   **Q.   WHAT IS YOUR RECOMMENDATION FOR PWSA'S BOARD TO BE**  
8   **ABLE TO FUNCTION INDEPENDENTLY?**

9   A.   I agree with the recommendation nos. 8 through 11 made by the Auditor General  
10       in its Performance Audit Report at pp. 37-38 in order to make the board,  
11       management and operational decisions, independent of the City influence (I&E  
12       Exhibit No. 2, Schedule 4, pp. 42-43). PWSA should demonstrate these  
13       recommendations have either been adopted or identify its plans to adopt them.

14       These recommendations include:

- 15       • Making Board, management, and operational decisions, including domiciliary,  
16       salaries, etc., independent from City influence;
- 17       • Work with the City to amend PWSA's Article of Incorporation to require  
18       PWSA Board seats to be filled by individuals not compensated by the City;
- 19       • Amend PWSA's Bylaws to include the necessary fiduciary responsibility of  
20       the Board as a whole, and the individual members;
- 21       • Require Board members to sign an acknowledgement that they understand and  
22       accept their fiduciary responsibility when serving on the Board.



1   **Q.   DO YOU HAVE ANY FURTHER COMMENTS REGARDING THIS**  
2   **RECOMMENDATION?**

3   A.   Yes. The Auditor General's report was published October 2017, and PWSA  
4       responded the same month (I&E Exhibit No. 2, Schedule 4, pp. 45-48). PWSA  
5       essentially accepted that these recommendations, including that the first two bullet  
6       points, would be included as part of a new Cooperation Agreement.

7  
8   **Q.   DID YOU IDENTIFY ANY MANDATE THAT THE DIRECTOR OF**  
9   **FINANCE AND TREASURER BE PWSA BOARD MEMBERS?**

10   A.   No. The Auditor General's report states PWSA's Articles of Incorporation require  
11       the City's Director of Finance and the City Treasurer to be permanent PWSA  
12       Board members (I&E Exhibit No. 2, Schedule 4, p. 7). However, I could not  
13       identify any requirement that the Director of Finance and Treasurer be a PWSA  
14       board member. Therefore, it is unclear where this claim originates, and I  
15       recommend that in rebuttal PWSA identify and provide the source of the  
16       requirement that the City's Finance Director and Treasurer be PWSA Board  
17       members.

1   **Q.   WHAT DO YOU RECOMMEND FOR THE COOPERATION**  
2       **AGREEMENT AND RELATED BOARD GOVERNANCE ISSUES?**

3   A.   Similar to my recommendations in PWSA's base rate proceeding, all the relevant  
4       terms of the agreement should be renegotiated to comply with the following  
5       important criteria:

- 6       • Define the City's and PWSA's relationship on a "business-like" basis and  
7       negotiate all terms and conditions of the agreement at arm's length to ensure  
8       fair, equitable, and reasonable terms for both the parties.
- 9       • Identify and list all services by the City to PWSA and vice versa with a  
10      detailed breakdown and related cost of service based on current market  
11      conditions.
- 12      • Eliminate the subsidy payment to PAWC and other municipal authorities by  
13      PWSA as discussed in this testimony at pp. 48-52.
- 14      • Eliminate the free water services to the City and its instrumentalities, agencies,  
15      and other bodies (I&E statement No. 3, pp. 54-63 (Direct Testimony of I&E  
16      witness Cline)).
- 17      • The City should be charged for wastewater and stormwater services at tariff  
18      rates and for the ALCOSAN wastewater treatment charges as discussed in this  
19      testimony at pp. 40-47.
- 20      • Implement the governance reforms identified above by the Auditor General.

21           PWSA should strive to include the above terms in its pending renegotiated  
22       Cooperation Agreement. However, PWSA may have already concluded a pending

1 renegotiated agreement before the Commission issues an order in this proceeding.  
2 Either way, as PWSA recognizes, before the new Cooperation Agreement becomes  
3 effective, PWSA will need to file it for Commission review under 66 Pa. C.S. §  
4 507 (PWSA Compliance Plan, p. 106). To the extent a renegotiated agreement  
5 does not address the above concerns, the renegotiated agreement should be  
6 reformed under 66 Pa. Code § 508 prior to filing of the next base rate case to  
7 ensure ratepayers are not charged for unjust and unreasonable costs.

8  
9 **Q. IF THE CITY IS UNABLE TO NEGOTIATE THE COOPERATION**  
10 **AGREEMENT THAT COMPLIES WITH THE TERMS OF YOUR**  
11 **RECOMMENDATION, DO YOU HAVE ANY ALTERNATE**  
12 **RECOMMENDATION?**

13 **A.** Yes. If PWSA and the City cannot agree to a Cooperation Agreement that is  
14 consistent with PWSA's obligations as a regulated utility, PWSA should not enter  
15 into any other agreement with the City. Instead, PWSA should allow either some  
16 or all services previously provided by the City to lapse in favor of services  
17 provided on a current market-based approach.

1 **Q. WHAT IS PWSA’S RESPONSE TO THE COMMISSION’S DIRECTED**  
2 **QUESTIONS ON IDENTIFYING ALL CATEGORIES OF COSTS?<sup>16</sup>**

3 A Regarding identification of all categories of costs, PWSA witness Lestitian states  
4 that as noted above, PWSA identified all categories of costs associated with the  
5 Cooperation Agreement (PWSA Statement No. C-2, p. 11).

6  
7 **Q. DO YOU HAVE CONCERNS WITH PWSA’S RESPONSE?**

8 A. Yes. PWSA’s presentation of “categories of cost” is meaningless without  
9 justification of these costs. As I explained above, PWSA did not present a detailed  
10 breakdown of services including substantiation of such costs (I&E Exhibit No. 2,  
11 Schedule 3, p. 1).

12  
13 **Q. WHAT IS PWSA’S RESPONSE TO THE COMMISSION’S DIRECTED**  
14 **QUESTION ON WHETHER PWSA RECEIVES ANY SERVICES FROM**  
15 **THE CITY AT NO COST?<sup>17</sup>**

16 A. PWSA witness Lestitian states that services PWSA receives from the City are  
17 aggregated and PWSA pays a lump sum for these services. As a result, PWSA  
18 does not know which services are being received at no cost or if PWSA is paying  
19 for services that should be provided at no cost (PWSA Statement No. C-2, p. 11).

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<sup>16</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Question No. 72.

<sup>17</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Question No. 73.

1 **Q. DO YOU HAVE CONCERNS WITH THIS RESPONSE?**

2 A. Yes. PWSA witness Lestitian's response implies that there is no tracking of actual  
3 expenses incurred, and, therefore, no breakdown of the \$7,150,000 annual  
4 payment is available. This response underscores that if PWSA negotiates a new  
5 Cooperation Agreement, agreed-upon payments must be just, reasonable, and  
6 substantiated.

7  
8 **Q. WHAT IS PWSA'S RESPONSE TO THE COMMISSION'S DIRECTED**  
9 **QUESTION ON THE POTENTIAL TO TERMINATE THE**  
10 **COOPERATION AGREEMENT IN FAVOR OF MARKET-BASED**  
11 **PROCUREMENT PRACTICES?<sup>18</sup>**

12 A. PWSA witness Lestitian states that PWSA may terminate the Cooperation  
13 Agreement on 90 days' notice and PWSA terminated the agreement by notice to  
14 the City on February 4, 2019 (PWSA Statement No. C-2, p. 10).

15  
16 **Q. DO YOU AGREE WITH PWSA'S RESPONSE?**

17 A. Yes, in part. I am advised by counsel that Paragraph No. XVI of the Cooperation  
18 Agreement enables PWSA to terminate this agreement at any time upon 90 days  
19 written notice to the City (Compliance Plan, Appendix B, p. 10). However, PWSA  
20 did not respond to the Commission's inquiry regarding the potential to terminate

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<sup>18</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Question No. 74.

1 the Cooperation Agreement lapsing in favor of market-based procurement  
2 practices. I believe that if PWSA is not able to negotiate a Cooperation Agreement  
3 that is just, reasonable and substantiated, it should allow either some or all services  
4 previously provided by the City to lapse in favor of services provided on a market-  
5 based approach.

6  
7 **Q. WHAT IS PWSA’S RESPONSE TO THE COMMISSION’S DIRECTED**  
8 **QUESTION WHETHER THE COOPERATION AGREEMENT OR OTHER**  
9 **AGREEMENT PROVIDES THE CITY WITH FREE OR DISCOUNTED**  
10 **WASTEWATER SERVICE, STORMWATER SERVICE, OR POSSIBLE**  
11 **MODIFICATION OF NON-CONSUMPTION FIXED CHARGES (I.E.,**  
12 **FIXED CHARGES) FOR WATER SERVICE?<sup>19</sup>**

13 **A.** Regarding the question about providing free or discounted wastewater service or  
14 stormwater service, PWSA witness Lestitian states that in addition to water  
15 service, PWSA also provides free stormwater repairs in combined systems. Also,  
16 even though wastewater bills are not sent to some properties, PWSA still pays  
17 ALCOSAN treatment charges. Regarding water non-consumption (fixed)  
18 customer charges, there is no language in the Cooperation Agreement or any other  
19 agreement that expressly prohibits imposing a customer charge on the City.

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<sup>19</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), pp. 14-15; Exhibit RAW/C-1, Directed Question No. 75.

1        However, PWSA has followed the practice of not imposing any charge on the City  
2        related to the provision of water service (PWSA Statement No. C-2, p. 12).

3                The provision of free stormwater services as a combined system and  
4        wastewater treatment services to the City is not covered in the Cooperation  
5        Agreement.

6  
7        **Q.    IS PWSA’S PROVISION OF FREE WATER, WASTEWATER, AND**  
8        **STORMWATER SERVICE TO THE CITY CONSISTENT WITH PWSA’S**  
9        **OBLIGATIONS AS A REGULATED UTILITY?**

10     A.    No. I note that PWSA’s other ratepayers are bearing the cost of free service that  
11        the City enjoys. Additionally, this arrangement deprives PWSA of revenue that  
12        could be used to fund its operations. Finally, I am advised by counsel that  
13        PWSA’s provision of free service to the City violates its obligation to charge just  
14        and reasonable rates for utility service under Section 1301 of the Public Utility  
15        Code. Additionally, I am advised by counsel that PWSA’s provision of free  
16        service to the City conflicts with Section 1304 of the Public Utility Code, which  
17        prohibits any public utility from granting unreasonable rate preferences or  
18        advantages to any persons.<sup>20</sup> Counsel advises me that by providing free service to  
19        one customer, the City, at the expense of all other customers, PWSA violates this

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<sup>20</sup> 66 Pa. C.S. §1304.

1 provision. However, because I am not offering a legal opinion in this case, I note  
2 that counsel will address these matters through briefing.  
3

4 **CAPITAL LEASE AGREEMENT**<sup>21</sup>

5 **Q. PLEASE SUMMARIZE THE CURRENT CAPITAL LEASE AGREEMENT**  
6 **BETWEEN PWSA AND THE CITY OF PITTSBURGH.**

7 A. PWSA is party to a 30-year Capital Lease Agreement dated July 15, 1995 with the  
8 City of Pittsburgh, with an effective date of July 27, 1995 and an expiration date of  
9 September 1, 2025 for the City's leasing of properties described in the lease  
10 agreement (I&E Exhibit No. 2, Schedule 5, pp. 1-14). Subsequently, on July 27,  
11 1995 a Memorandum of Lease was entered between the parties and registered with  
12 the Recorder's Office of Allegheny County (I&E Exhibit No. 2, Schedule 5, pp.  
13 15-19). Pursuant to clause 3(b) of the lease agreement, PWSA has an option to  
14 acquire/purchase all the City's leased property (water and wastewater system) in  
15 consideration of a one-dollar (\$1.00) payment at the end of the lease term in 2025.  
16 The Capital Lease Agreement stipulated minimum lease payments of  
17 approximately \$101 million, all of which were paid during the initial three years of  
18 the lease (Compliance Plan, p. 107 and I&E Exhibit No. 2, Schedule 5, p. 1).

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<sup>21</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 15-16; Exhibit RAW/C-1, Directed Questions Nos. 78-79.



1 **Q. WHAT IS PWSA'S PROPOSAL IN THE PLAN?**

2 A. PWSA states that it intends to purchase the system for one dollar when eligible in  
3 2025 or to renegotiate a new arrangement with the City, allowing PWSA to  
4 acquire the assets sooner (PWSA Compliance Plan, p. 108 and PWSA Statement  
5 No. C-2, p. 13). PWSA further states that any revised lease agreement with the  
6 City will be filed with the Commission under Section 507 (PWSA Compliance  
7 Plan, p. 108).

8  
9 **Q. WHAT IS PWSA'S RESPONSE TO THE COMMISSION'S DIRECTED**  
10 **QUESTION ABOUT THE CITY'S OBLIGATION TO TRANSFER**  
11 **SYSTEM ASSETS TO PWSA FOR ONE DOLLAR UPON PWSA**  
12 **EXERCISING ITS PURCHASE OPTION IN 2025?**<sup>22</sup>

13 A. Ms. Lestitian states that it is PWSA's position that the City's acceptance of  
14 consideration or compensation binds the City to the one-dollar (\$1.00) transfer if  
15 PWSA seeks to exercise its option to purchase the water and wastewater system  
16 assets (PWSA Statement No. C-2, pp. 13-14).

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<sup>22</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 15-16; Exhibit RAW/C-1, Directed Question No. 79.

1   **Q.   HAS PWSA PROVIDED DOCUMENTS THAT RAISE CONCERNS**  
2       **ABOUT THE CITY COMPLYING WITH ITS OBLIGATION TO**  
3       **TRANSFER THE SYSTEM ASSETS TO PWSA FOR ONE DOLLAR IN**  
4       **2025?**

5   A.   Yes. In response to I&E-RE-20, PWSA states that it is not aware of any current  
6       action on the part of the City to terminate PWSA's option to acquire utility assets  
7       as identified in the Capital Lease Agreement. However, PWSA is aware of  
8       discussions related to this from the spring of last year (I&E Exhibit No. 2,  
9       Schedule 6, p. 1). PWSA further, states that according to public records, the City  
10      of Pittsburgh Resolution File # 2018-0287 was read and referred to on March 20,  
11      2018 by the City Council to a Standing Committee (Committee on  
12      Intergovernmental Affairs). Information and documentation are available from the  
13      City's Legislative Information Center (LIC) website<sup>23</sup> (I&E Exhibit No. 2,  
14      Schedule 6, p. 1).

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<sup>23</sup> <https://pittsburgh.legistar.com/LegislationDetail.aspx?ID=3380557&GUID=65B636AA-182B-49E4-BCF6-72C0712AEC61&Options=ID|Text|&Search=2018-0287>, accessed on March 14, 2019.

1   **Q.   HAVE YOU DISCOVERED ADDITIONAL INFORMATION ABOUT THE**  
2       **CITY’S PAST EFFORTS TO TERMINATE PWSA’S OPTION TO**  
3       **ACQUIRE THE UTILITY ASSETS IDENTIFIED IN THE CAPITAL**  
4       **LEASE AGREEMENT?**

5   A.   Yes. Based on information made available on the LIC website, it appears that the  
6       a draft resolution (File No. 2018-0287) was prepared and placed before the City’s  
7       Standing Committee on May 9, 2018 for authorizing a Cooperation Agreement  
8       between the City and PWSA to implement a revised governance structure for  
9       PWSA and further authorizing an amendment to the 1995 Capital Lease  
10      Agreement to terminate PWSA’s option to purchase the leased property in 2025  
11      (I&E Exhibit No. 2, Schedule 6, p. 3). The proposed draft of the Cooperation  
12      Agreement also contained a provision at Paragraph No. 9 to amend the 1995  
13      Capital Lease Agreement by removing the clause 3(b), which entitles PWSA to  
14      exercise the option to acquire leased properties for one dollar (\$1.00) in 2025 (I&E  
15      Exhibit No. 2, Schedule 6, p. 10). There is no further information available from  
16      PWSA about final approval of the City’s resolution and execution of the  
17      aforementioned Cooperation Agreement, but I believe that the Commission should  
18      be on notice of the City’s efforts to terminate PWSA’s purchase because any  
19      termination will deprive PWSA of the benefit of its bargain.

1   **Q.   WHAT IS YOUR RECOMMENDATION?**

2   A.   PWSA has fulfilled its end of the obligation by paying the minimum lease  
3       payments of approximately \$101 million, all of which were satisfied during the  
4       initial three years of the lease (Compliance Plan, p. 107 and I&E Exhibit No. 2,  
5       Schedule 6, p. 1); therefore, PWSA should be entitled to complete the transaction  
6       in 2025 by paying the one dollar (\$1.00) to purchase the water and wastewater  
7       system assets pursuant to the terms of 1995 Capital Lease Agreement.

8  
9       **RESIDENCY REQUIREMENT<sup>24</sup>**

10   **Q.   EXPLAIN PWSA’S EMPLOYEE RESIDENCY REQUIREMENT.**

11   A.   The City’s Home Rule Charter contains a domicile requirement (herein referred to  
12       as the residency requirement) that all persons employed by the City should live in  
13       the City (except for police officers). PWSA’s Board has adopted the same  
14       residency requirement for all its employees except for those specifically exempted  
15       from this requirement by the PWSA’s Executive Committee (PWSA Statement  
16       No. C-2, p. 14). As indicated in a discovery response that PWSA provided to  
17       I&E-RE-11 (I&E Exhibit No. 2, Schedule 7, p. 1), PWSA’s Domicile Policy is  
18       available on its website, and it does not codify any specific exemptions for the  
19       Policy and instead leaves the exemptions at the discretion of the Board. For ease

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<sup>24</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 15; Exhibit RAW/C-1, Directed Question No. 80-81.

1 of reference, a copy of PWSA's residency requirement, as it appears on PWSA's  
2 website, is attached as I&E Exhibit No. 2, Schedule 7, pp. 3-5).

3  
4 **Q. HAS PWSA IDENTIFIED OPERATIONAL CHALLENGES THAT IT**  
5 **FACES AS A RESULT OF ITS RESIDENCY REQUIREMENT?**

6 A. Yes. PWSA witness Lestitian addresses multiple reasons why this requirement  
7 presents challenges to PWSA operations. She begins by mentioning safety and  
8 reliability obligations under the Public Utility Code (66 Pa. Code § 1501) that  
9 require service to be "reasonably continuous and without unreasonable  
10 interruption or delay" and she indicates that PWSA's current domicile policy  
11 makes it challenging to meet those obligations (PWSA Statement No. C-2, pp. 14-  
12 16). Next, she discusses the Commission's Policy Statement that addresses  
13 Diversity at Major Jurisdictional Utility Companies (52 Pa. Code §§ 69.801-  
14 69.809). Then she explains multiple reasons why this residency requirement is not  
15 supportive of these goals.

16  
17 **Q. DOES PWSA'S RESIDENCY REQUIREMENT RESTRICT S ABILITY TO**  
18 **ATTRACT AND RETAIN ESSENTIAL EMPLOYEES?**

19 A. Yes. Ms. Lestitian indicates that the residency requirement restricts PWSA's  
20 ability to attract and retain capable and talented individuals with needed skills.  
21 Second, she asserts that the residency requirement is problematic because 300,000  
22 people live within the boundaries of the City, while 2.36 million people live in the

1 Pittsburgh metropolitan area. This gives PWSA a limited access to less than 16%  
2 of the total population. PWSA points out in its response to I&E-RE-12 that the  
3 lack of qualified City candidates has a primary impact on the following positions:  
4 professional engineers, SCADA manager, Project Manager, Senior Managers in  
5 engineering, compliance professionals, Project Managers, and Field Operations  
6 and Water Production departments (I&E Exhibit No. 2, Schedule 7, p. 2).  
7

8 **Q. HAS PWSA ADDRESSED ANY FINANCIAL IMPLICATION OF ITS**  
9 **RESIDENCY REQUIREMENT?**

10 A. Yes. The lack of qualified Water Treatment operators, Plumbers, Laboratory staff,  
11 Project Managers, Welders, Electricians and Mechanics within the City requires  
12 PWSA to hire outside contractors to address everyday maintenance and  
13 operational needs (I&E Exhibit No. 2, Schedule 7, p. 2). These contractors make  
14 up more than 10% of PWSA's regular staff and at a 150% to 200% cost premium,  
15 which adds approximately \$2 million annually in workforce cost (PWSA  
16 Statement No. C-2, pp. 15-16 and I&E Exhibit No. 2, Schedule 7, p. 2).  
17

18 **Q. DID PWSA INDICATE WHETHER ITS RESIDENCY REQUIREMENT**  
19 **RESTRICTS ITS ABILITY TO INCORPORATE DIVERSITY INTO ITS**  
20 **BUSINESS STRATEGY?**

21 A. Yes. Ms. Lestitian acknowledges the Commission's Policy Statement addressing  
22 diversity at Major Jurisdictional Utility Companies, which encourages major

1 public utilities to make efforts to incorporate diversity into their business  
2 strategy.<sup>25</sup> However, she indicates that PWSA's residency requirement presents a  
3 challenge to incorporating diversity by limiting the pool of applicants that PWSA  
4 may consider to only 16% of the Pittsburgh metropolitan area (PWSA Statement  
5 No. C-2, pp. 15-16).

6  
7 **Q. DO YOU AGREE WITH MS. LESTITIAN'S CONCERNS ABOUT PWSA'S**  
8 **RESIDENCY REQUIREMENT?**

9 A. Yes. From the information available, PWSA's residency requirement is driving up  
10 costs for ratepayers, hampering some of the most important parts of PWSA's  
11 operations, jeopardizing PWSA's ability to provide and maintain safe and  
12 effective service, and compromising PWSA's ability to make timely repairs and  
13 improvements that are necessary for safe service. In my opinion, the residency  
14 requirement compromises PWSA's ability to meet its obligations as a public  
15 utility. Further, I am advised by counsel that the results of the residency  
16 requirement are inconsistent with PWSA's obligations under the Public Utility  
17 Code and under the Commission's regulations.<sup>26</sup> However, since I am not  
18 offering a legal opinion, I will defer to counsel to address those inconsistencies in  
19 the briefing phase of this case.

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<sup>25</sup> 52 Pa. Code §§69.801-69.809.

<sup>26</sup> 66 Pa. C.S. §§ 1301, 1501; 52 Pa. Code §§69.801-69.809.

1   **Q.    WHAT IS PWSA’S PROPOSAL TO ADDRESS THIS ISSUE?**

2   A.    Despite the problematic impact of its residency requirement, PWSA makes no  
3       proposal to end the requirement.  Instead, Ms. Lestitian simply states that PWSA is  
4       working to stabilize its workforce through hiring of permanent workers in every  
5       position (PWSA Statement No. C-2, p. 16).

6  
7   **Q.    DO YOU AGREE WITH THIS APPROACH?**

8   A.    No.  Ms. Lestitian made only a general statement about PWSA’s plan to hire  
9       permanent workers in every position despite the limitation and challenges of  
10      hiring qualified people with the residency requirement in place.  She did not  
11      present any resolution to the current residency requirement, which is at odds with  
12      PWSA’s ability to operate safely, effectively and efficiently.

13  
14  **Q.    WHAT IS YOUR RECOMMENDATION FOR PWSA’S RESIDENCY**  
15  **REQUIREMENT?**

16  A.    I recommend that PWSA eliminate its residency requirement for employment.  
17       Additionally, PWSA should be required to file a revised Compliance Plan that  
18       summarizes and adopts a plan to eliminate residency requirement.  The current  
19       policy as it exists is detrimental to operating costs and PWSA’s ability to provide  
20       safe and reliable service.



1        **BILLING ARRANGEMENT WITH THE ALLEGHENY COUNTY**

2        **SANITARY AUTHORITY (ALCOSAN)**<sup>27</sup>

3        **The ALCOSAN Contract:**

4  
5        **Q.    IN YOUR ROLE AS AN EXPERT WITNESS IN PWSA’S 2018 BASE RATE**  
6        **CASE, DID YOU ADDRESS PWSA’S BILLING ARRANGEMENT WITH**  
7        **ALCOSAN?**

8        A.    Yes. Specifically, I explained that ALCOSAN provides wastewater treatment  
9        services to PWSA wastewater customers and pursuant to the 1995 Cooperation  
10       Agreement between the City and PWSA, PWSA pays ALCOSAN the full amount  
11       of its billings. PWSA in turn bills its customers for wastewater treatment charges  
12       assessed by ALCOSAN as a pass-through charge on customers’ bills. Thus,  
13       PWSA is fully responsible for collecting these pass-through charges from its  
14       wastewater customers (I&E Statement No. 2, p. 26 at Docket Nos. R-2018-  
15       3002645 and R-2018-3002647).

16  
17       **Q.    WHAT CONCERNS HAVE YOU PREVIOUSLY EXPRESSED**  
18       **REGARDING PWSA’S ALCOSAN BILLING ARRANGEMENT?**

19       A.    My concern is about the impact of this arrangement upon PWSA and its  
20       ratepayers. As I explained in PWSA’s rate case (I&E Statement No. 2, p. 27 at  
21       Docket Nos. R-2018-3002645 and R-2018-3002647), similar to uncollectibles of

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<sup>27</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 16-17; Exhibit RAW/C-1, Directed Question No. 91-95.

1 water and wastewater conveyance charges, PWSA does not collect the full amount  
2 of ALCOSAN charges from its wastewater customers (I&E Exhibit No. 2,  
3 Schedule 8, p. 1 at Docket Nos. R-2018-3002645 and R-2018-3002647). As a  
4 result of this arrangement, PWSA claimed a fully projected future test year  
5 (FPFTY) ALCOSAN billing loss/charge of \$3,699,738 as an operating expense in  
6 the ratemaking calculation based on a water and wastewater revenue collection  
7 factor of 95.57% (uncollectible rate 4.43%) (I&E Exhibit No. 2, Schedule 8, p. 2  
8 at Docket Nos. R-2018-3002645 and R-2018-3002647). The impact of this  
9 arrangement upon PWSA's ratepayers is highlighted by the fact that the  
10 ALCOSAN billing loss translates to an annual cost of approximately \$37.73 per  
11 wastewater customer ( $\$3,699,738 \div 98,059$ ) (using the average monthly  
12 wastewater customer count for the half-year ended June 30, 2018 (I&E Exhibit  
13 No. 2, Schedule 8, pp. 7 and 9 at Docket Nos. R-2018-3002645 and R-2018-  
14 3002647).

15  
16 **Q. AS A CONDITION OF SETTLEMENT OF PWSA'S 2018 BASE RATE**  
17 **CASE, DID PWSA AGREE TO ADDRESS CERTAIN ISSUES**  
18 **REGARDING ITS BILLING ARRANGEMENT WITH ALCOSAN?**

19 **A.** Yes. PWSA agreed that through an amended Compliance Plan, PWSA would  
20 reflect its commitment to evaluate the potential ways to address PWSA's contract

1 with ALCOSAN, including renegotiation of the contract.<sup>28</sup>

2

3 **Q. HAS PWSA PROPOSED WAYS TO ADDRESS THE ALCOSAN**  
4 **CONTRACT ISSUE IN THIS CASE?**

5 A. No. Instead, PWSA simply states that it is committed to evaluating potential ways  
6 to address PWSA's contract with ALCOSAN including renegotiation of the  
7 contract (Compliance Plan Supplement at pp. 28-29). However, in her direct  
8 testimony, Ms. Lestitian states that the contract does not contain language  
9 allowing disputed ALCOSAN charges to be re-coursed to ALCOSAN, and she  
10 concludes that PWSA is under a contractual obligation to continue the billing  
11 relationship with ALCOSAN (PWSA Statement No. 2-C, pp. 17-18); therefore, it  
12 is unclear whether and how PWSA remains committed to evaluating ways to  
13 address the contract.

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<sup>28</sup> Joint Petition for Settlement, Docket Nos. R-2018-3002645 and R-2018-3002647, pp. 22-23, Paragraph G(1)(b)).

1 **Q. THE COMMISSION DIRECTED PARTIES TO DISCUSS WHETHER THE**  
2 **COMMISSION HAS THE AUTHORITY TO REVISE THE PWSA**  
3 **CONTRACT WITH ALCOSAN.<sup>29</sup> DID PWSA ADDRESS THIS**  
4 **QUESTION?**

5 A. Yes. Ms. Lestitian indicates that it is PWSA's view that the Commission has  
6 authority under 53 P.S. §§ 3102.501-3102.507 and 66 Pa. C.S. §508 to vary,  
7 reform, and revise its contract with ALCOSAN.

8  
9 **Q. DO YOU AGREE WITH PWSA'S CONCLUSION REGARDING THE**  
10 **COMMISSION'S AUTHORITY TO REVISE PWSA'S ALCOSAN**  
11 **AGREEMENT?**

12 A. Although, I am not offering a legal opinion in this case, I am advised by counsel  
13 that the Commission does have the authority to revise the ALCOSAN contract  
14 under Section 508 of the Public Utility Code, "Power of the commission to vary,  
15 reform and revise contracts," which memorializes the Commission's power to  
16 vary, revise, and reform contracts with certain entities, including municipal  
17 corporations under circumstances like those in place here. I take no position  
18 regarding the Commission's authority under 53 P.S. §§ 3102.501-3102.507, as  
19 counsel advises me that since PWSA is now a regulated public utility, the

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<sup>29</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 17; Exhibit RAW/C-1, Directed Question No. 95.

1 referenced municipal statutes may no longer be relevant; however, I will leave it to  
2 counsel to address this issue in briefing, if necessary.  
3

4 **The ALCOSAN Billing Arrangement:**

5 **Q. HAS PWSA MADE ANY PROPOSALS IN THIS CASE REGARDING ITS**  
6 **BILLING ARRANGEMENT WITH ALCOSAN?**

7 A. Yes. With respect to current billings, PWSA is proposing to create an additional  
8 surcharge that would be applied to the ALCOSAN portion of the bill to reflect the  
9 additional cost relating to uncollectibles and billing costs that PWSA incurs for  
10 acting as the billing agent for ALCOSAN wastewater (PWSA Compliance Plan,  
11 p. 112 and Compliance Plan Supplement, p. 29). The surcharge proposal would be  
12 a part of PWSA's next base rate case for wastewater (PWSA Compliance Plan,  
13 p. 112).  
14

15 **Q. DO YOU AGREE WITH PWSA'S SURCHARGE PROPOSAL FOR**  
16 **ALCOSAN UNCOLLECTIBLES?**

17 A. No, because I am advised by counsel that PWSA's proposal does not comply with  
18 the Section 1408 of the Public Utility Code,<sup>30</sup> which, as it is listed below, indicates  
19 that the Commission should not permit a public utility to use a surcharge  
20 mechanism for uncollectible expenses: The commission shall not grant or order

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<sup>30</sup> 66 Pa. C.S.

1 for any public utility a cash receipts reconciliation clause or another automatic  
2 surcharge mechanism for uncollectible expenses. Any orders by the commission  
3 entered after the effective date of this chapter for a cash receipts reconciliation  
4 clause or other automatic surcharge for uncollectible expenses shall be null and  
5 void. This section shall not affect any clause associated with universal service and  
6 energy conservation.<sup>31</sup>

7  
8 **Q. WHAT IS YOUR RECOMMENDATION FOR THE ALCOSAN BILLING**  
9 **ISSUE?**

10 A. I continue to assert my recommendations made in direct testimony in the recent  
11 base rate proceeding (I&E Statement No. 2, pp. 27-28 at Docket Nos. R-2018-  
12 3002645 and R-2018-3002647) as indicated below, and I recommend that the  
13 Commission require PWSA to revise its Compliance Plan to adopt these terms:

14 First, ALCOSAN should establish and charge a market-based rate that is  
15 aligned with the volume of wastewater treated for PWSA's wastewater customers  
16 and a separate rate that is aligned with the additional volumes related to treatment  
17 of stormwater. Separating these rates and volumes will be necessary to align with  
18 PWSA's intent to implement a stormwater tariff.

19 Second, PWSA should pay the established market-based rate to ALCOSAN  
20 via an annual or multi-year contract.

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<sup>31</sup> 66 Pa. C.S. §1408.

1 Third, PWSA should develop wastewater and stormwater tariff rates for  
2 current wastewater customers and future stormwater customers that accurately  
3 reflect the costs of paying for contracted treatment services and capturing the  
4 impact of uncollectibles in its own rates.

5 Additionally, PWSA and the City should amend the applicable current  
6 agreement and memorandum of understanding between the City, PWSA, and  
7 ALCOSAN before the next base rate case filing, or no later than December 31,  
8 2019, whichever occurs first, to end the passthrough billing arrangement and  
9 establish ALCOSAN as a service company for treatment services.

10  
11 **Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?**

12 A. First, PWSA is required to perform ALCOSAN's billing for all PWSA wastewater  
13 customers, which includes 28,000 water customers of PAWC, 400 water customers  
14 of West View Water Authority, and 2,200 water customers of Wilkinsburg-Penn  
15 Joint Water Authority (I&E Exhibit No. 2, Schedule 8, pp. 4-5 at Docket Nos. R-  
16 2018-3002645 and R-2018-3002647). As stated above, ALCOSAN charges and  
17 receives full payment from PWSA that imposes full responsibility and risk on  
18 PWSA for the non-payment or partial payment from all types of wastewater  
19 customers and makes the month-to-month billing impact unpredictable for PWSA  
20 customers. This billing arrangement was established between the City and  
21 ALCOSAN in 1955 at a time when ALCOSAN was in the early stages of its  
22 operations (I&E Exhibit No. 2, Schedule 9, p. 1 at Docket Nos. R-2018-3002645

1 and R-2018-3002647). The justification for continuing with this arrangement no  
2 longer exists and ALCOSAN should have the operational, financial, and  
3 management capabilities to accurately determine and establish a rate to cover its  
4 own costs and stabilize costs and impact to billing for PWSA and its customers.  
5 This change would not only assist PWSA financially but would also make  
6 ALCOSAN more accountable for controlling its own costs.

7 Further, the Report of the Mayor's Blue-Ribbon Panel dated December 28,  
8 2017 has also recommended the transfer of ALCOSAN billing and collections  
9 responsibility to ALCOSAN (I&E Exhibit No. 2, Schedule 10, p. 13 at Docket  
10 Nos. R-2018-3002645 and R-2018-3002647).

11  
12 **Q. IF PWSA TAKES THE POSITION THAT IT CANNOT LEGALLY**  
13 **IMPLEMENT YOUR RECOMMENDATION, DO YOU HAVE ANY**  
14 **ALTERNATIVE RECOMMENDATIONS?**

15 A. Yes. If PWSA proves that it is legally prohibited from implementing my  
16 recommendation, then I recommend that the Commission order PWSA to file a  
17 revised Compliance Plan that requests the Commission to reform its contract with  
18 ALCOSAN under Section 508 of the Public Utility Code and indicate in its  
19 Compliance Plan that its Board will fully cooperate with the Commission in the  
20 effort to reform the ALCOSAN agreement.



**BILLING ARRANGEMENT WITH PENNSYLVANIA-AMERICAN  
WATER COMPANY (PAWC)<sup>32</sup>**

**Q. IN YOUR ROLE AS AN EXPERT WITNESS IN PWSA'S 2018 BASE RATE CASE, DID YOU ADDRESS PWSA'S BILLING ARRANGEMENT WITH PAWC?**

A. Yes. As I explained in PWSA's rate case, pursuant to the Cooperation Agreement between PWSA and the City, PWSA agreed to subsidize PAWC customer water rates for those served by PAWC within the City of Pittsburgh service area (Southern part of the City) for the gap in water rates between PWSA and PAWC. To illustrate the impact of the subsidy, I note that PWSA claimed a water rate subsidy expense of \$4,800,000 as other operating expense in the FPFTY in the recently concluded base rate case (I&E Statement No. 2, p. 31 at Docket Nos. R-2018-3002645 and R-2018-3002647).

**Q. DO YOU HAVE ANY CONCERNS ABOUT THE WATER RATE SUBSIDY COST?**

A. Yes. PWSA has undertaken a comprehensive Capital Improvement Plan that is set to incur a significant increase in spending of up to \$300 million by 2020. With significant upcoming capital expenditures and consequential increases in borrowing costs and O&M expenses, funding a water rate subsidy for another

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<sup>32</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 17; Exhibit RAW/C-1, Directed Question No. 96.

1 utility's customers is not a proper and justifiable expense for PWSA and its  
2 customers to bear. As illustrated in PWSA's recent base rate case, the rate subsidy  
3 is recouped from PWSA's regular water customers, which include low income  
4 customers, and the projected rate subsidy cost of \$4,800,000 translates to an  
5 annual cost of approximately \$65.78 per water customer ( $\$4,800,000 \div 72,972$ ,  
6 using an average monthly billed water customer count for the half year ended June  
7 30, 2018) (I&E Exhibit No. 2, Schedule 8, p. 7 at Docket Nos. R-2018-3002645  
8 and R-2018-3002647).

9  
10 **Q. DID PWSA'S COMPLIANCE PLAN ADDRESS ITS SUBSIDY PAYMENT**  
11 **TO PAWC?**

12 A. Yes. In its Compliance Plan at p. 113, PWSA states that negotiations on the  
13 Cooperation Agreement will include discussion with the City about termination of  
14 the subsidy agreement. Additionally, PWSA proposed to eliminate its water  
15 subsidy payment to PAWC in PWSA's next base rate case for water service.

16  
17 **Q. SINCE PWSA SUBMITTED ITS COMPLIANCE PLAN, HAS PWSA'S**  
18 **POSITION ON TERMINATING THE PAWC SUBSIDY IN ITS NEXT**  
19 **BASE RATE CASE FOR WATER SERVICE CHANGED?**

20 A. It appears that PWSA is no longer planning to take any definite action to terminate  
21 the subsidy as it previously indicated. Instead, Ms. Lestitian now claims that it is  
22 not possible to establish a certain date by which the subsidy to PAWC water

1 customers will be eliminated or phased out. She states that the resolution of this  
2 issue depends on the timing of PWSA's next rate case and level of increased rates  
3 to be approved by the Commission. She asserts that to the extent a subsidy  
4 remains in effect at that time, it will be addressed as part of the Cooperation  
5 Agreement (PWSA Statement No. C-2, p. 19).

6  
7 **Q. INSTEAD OF TERMINATING ITS SUBSIDY PAYMENT TO PAWC, IS**  
8 **PWSA CONSIDERING RELYING UPON ON ITS RATES EXCEEDING**  
9 **PAWC'S RATES?**

10 A. Yes, it appears so. PWSA indicates in its response to I&E-RE-22 that it anticipates  
11 both filing a rate case and receiving Commission approval of its rate case prior to  
12 April 1, 2020; therefore, if its plan materializes, PWSA indicates that its rates  
13 would exceed PAWC's, making the subsidy unnecessary (I&E Exhibit No. 2,  
14 Schedule 8, p. 1)

15  
16 **Q. IS PWSA'S PLAN TO RELY UPON A FUTURE RATE INCREASE**  
17 **INSTEAD OF TERMINATING THE PAWC SUBSIDY AN APPROPRIATE**  
18 **RESOLUTION?**

19 A. No. PWSA's plan to hope that a future rate case will eliminate its need to fund the  
20 subsidy is contingent upon many unknowns, such as the level and timing of any  
21 rate increase that may or may not be awarded. Furthermore, absent termination of  
22 the subsidy arrangement, PWSA would remain subject to the subsidy payment

1 indefinitely so that anytime that PWSA's rates would be lower than PAWC's,  
2 PWSA's subsidy obligation would be triggered. Further, it is unknown whether  
3 and when PAWC may ask for increases in its rates by filing a base rate case with  
4 the Commission, and PWSA does not appear to have considered this possibility in  
5 its plan.  
6

7 **Q. DOES PWSA'S SUBSIDY ARRANGEMENT CONFLICT WITH ITS**  
8 **OBLIGATIONS UNDER THE PUBLIC UTILITY CODE?**

9 A. Yes. I am advised by counsel that PAWC's subsidy arrangement conflicts with  
10 Section 1304 of the Public Utility Code, which prohibits any public utility from  
11 granting unreasonable rate preferences or advantages to any persons.<sup>33</sup> Counsel  
12 advises me that by subsidizing the rates of non-PWSA water customers at the  
13 expense of its own water customers, PWSA violates this provision. However,  
14 because I am not offering a legal opinion in this case, I note that counsel will  
15 address this matter through briefing.  
16

17 **Q. WHAT IS YOUR RECOMMENDATION?**

18 A. For the reasons explained above, I recommend that the Commission order PWSA  
19 to revise its Compliance Plan to indicate that it will eliminate the rate subsidy to

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<sup>33</sup> 66 Pa. C.S. §1304.

PAWC completely by either the time of its next base rate case filing or by no later than December 31, 2019, whichever occurs first.

#### **BULK WASTEWATER CONVEYANCE AGREEMENTS**

**Q. DOES PWSA HAVE BULK WASTEWATER CONVEYANCE AGREEMENTS FROM OTHER UTILITIES TO ALCOSAN?**

A. Yes. PWSA has contracts for the conveyance of bulk wastewater from other wastewater utilities or public authorities through PWSA's wastewater conveyance system to ALCOSAN's system. Many of the bulk wastewater conveyance agreements currently in effect were negotiated prior to the creation of ALCOSAN in 1955. PWSA indicates in its response to I&E-RE-23(B) that some agreements include cost sharing percentages for the repair and replacement of sewer main lines, and some do not include charges the municipalities are required to pay PWSA for conveyance and/or repairs (I&E Exhibit No. 2, Schedule 9, p. 1).

In its Plan at p. 124, PWSA states that Part I, Section B (Bulk Water Conveyance) of the proposed Wastewater Tariff applies to all bulk wastewater conveyance for other wastewater utilities or public authorities.

**Q. DOES PWSA INTEND TO FILE ALL OF ITS BULK WASTEWATER CONVEYANCE AGREEMENTS WITH THE COMMISSION?**

A. No. PWSA indicates that its position is that it is not required to file any agreements entered into prior to April 1, 2018.

1   **Q.    WHAT IS PWSA’S PROPOSAL FOR THE OLD BULK WASTEWATER**  
2   **CONVEYANCE AGREEMENTS?**

3   A.    “To the extent necessary” PWSA proposes to deal with these bulk wastewater  
4       conveyance agreements in the next wastewater base rate case and to file any new  
5       or revised agreements with the Commission under 66 Pa. Code § 507 (PWSA  
6       Statement No. C-2, p. 22).

7  
8   **Q.    DO YOU AGREE WITH PWSA’S POSITION?**

9   A.    No. I am advised by counsel that PWSA may have an obligation to file its  
10       existing contracts with the Commission; however, since I am not offering a legal  
11       opinion in this matter, I will defer to counsel to address this issue in briefing. But  
12       I also want to point out that PWSA admits that “some of the existing bulk  
13       wastewater conveyance agreements include cost sharing percentages for the repair  
14       and replacement of sewer main lines” (PWSA Statement No. 2-C, p. 23) so it  
15       appears that there may be a financial impact upon PWSA that the Commission will  
16       need to know more about.

17  
18   **Q.    DO THESE BULK WASTEWATER CONVEYANCE AGREEMENTS**  
19   **RAISE ANY COMPLIANCE ISSUES?**

20   A.    It is difficult to determine this with the limited information available. However,  
21       even PWSA admits the existence of a possible compliance issue in light of the  
22       requirement that rates be just and reasonable (PWSA Statement No. C-2, p. 22).

1 Because of the possibility that these unknown and unidentified bulk wastewater  
2 agreements may produce a rate impact that does not comport with PWSA's  
3 obligation to charge just and reasonable rates, PWSA should be required to file all  
4 of the existing contracts with the Commission in a separate docket so that they can  
5 be reviewed, and, if necessary, reformed in a manner that is consistent with  
6 PWSA's obligation under the Public Utility Code, the Commission's regulations,  
7 and Commission orders.

8  
9 **Q. CAN YOU CITE TO ANY OF PWSA'S EXISTING BULK WASTEWATER**  
10 **CONTRACTS THAT ILLUSTRATE COMPLIANCE ISSUES?**

11 A. Yes. PWSA's O'Hara Township 1991 Shut-off Agreement provides a good  
12 example of the types of concerns that may exist in other bulk wastewater  
13 agreements that are not known to the Commission. In that agreement, PWSA  
14 agreed to shut off water service if an O'Hara Township resident fails to pay for  
15 wastewater service provided by the Township (I&E Exhibit No. 2, Schedule 9, pp.  
16 3-6). PWSA claims that this arrangement is compliant with all provisions of the  
17 Municipality Authorities Act (PWSA St. No. 2-C, p. 24). However, I am advised  
18 by counsel that PWSA's termination of a customer's water service due to  
19 customers non-payment of services to a third party may not be consistent with  
20 PWSA's obligations under the Public Utility Code<sup>34</sup> and Commission's

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<sup>34</sup> 66 Pa. C.S. §1406 (Termination of utility service).

1 regulations that provide for termination only under limited circumstances.<sup>35</sup>

2 However, because I am not offering a legal opinion in this case, I note that counsel  
3 will address this matter through briefing.

4  
5 **Q. DO YOU ACCEPT PWSA'S PROPOSAL TO DEAL WITH BULK**  
6 **WASTEWATER CONVEYANCE AGREEMENTS IN ITS NEXT BASE**  
7 **RATE CASE AND FILE NEW OR REVISED BULK WASTEWATER**  
8 **CONVEYANCE AGREEMENTS WITH THE COMMISSION PURSUANT**  
9 **TO 66 PA CODE § 507?**

10 A. No. As explained above, there is not enough information available regarding  
11 PWSA's existing bulk wastewater agreements and the impact that they may be  
12 having on PWSA's finances and operations.

13  
14 **Q. WHAT DO YOU RECOMMEND?**

15 A. First, I recommend that, in general, PWSA be required to file all of its existing  
16 bulk wastewater contracts with the Commission in a separate docket within 120  
17 days of the final order in this case so that the Commission can determine if those  
18 contracts are consistent with PWSA's obligations as a regulated public utility.  
19 Second, PWSA should negotiate the terms and conditions of all current bulk  
20 wastewater conveyance agreements to ensure that PWSA's wastewater

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<sup>35</sup> 52 Pa. Code §§56.81 – 56.83 (Grounds for termination).



1 conveyance charges/rates are just and reasonable reflecting true and current cost of  
2 service and that municipal authorities be made responsible to share the cost of  
3 repairs and replacement of conveyance trunk lines. Third, if PWSA enters into  
4 new or revised wastewater conveyance agreements with any municipal authorities  
5 before filing the next base rate case, but no later than December 31, 2019, it  
6 should file those new or revised agreements with the Commission within 15 days  
7 of execution under 66 Pa. Code § 507.

8  
9 **UNCOLLECTIBLES - REVENUE LOSS**

10 **Q. WHAT ARE UNCOLLECTIBLES?**

11 A. Uncollectible accounts (herein referred to as uncollectibles) are specific  
12 receivables that are determined to be unrecoverable in whole or in part, either  
13 because the debtors do not pay or because the creditor finds it impracticable to  
14 enforce payment. Those accounts deemed unrecoverable are charged against  
15 income as uncollectible expense.

16  
17 **Q. IN DIRECT TESTIMONY, PWSA WITNESS QUIGLEY OPINES THAT**  
18 **THE COMMISSION HAS DEFERRED THE ISSUE OF PWSA'S**  
19 **UNCOLLECTIBLES TO STAGE 2 OF PWSA'S COMPLIANCE PLAN.**  
20 **DO YOU AGREE?**

21 A. No. Ms. Quigley's opinion is directly contradicted by an order that the  
22 Commission issued which indicated that issues related to appropriate revenue

1 management, like uncollectibles, are not reserved for Stage 2. Instead, the  
2 Commission indicated that Stage 1 is directed towards issues that include “the  
3 revenue and financing requirements of maintaining service that supports the public  
4 health and safety.”<sup>36</sup> As I will explain below, PWSA’s failure to enact a  
5 comprehensive plan to mitigate its high level of uncollectibles impacts its  
6 revenues and financing requirements.  
7

8 **Q. EXPLAIN PWSA’S CLAIMED REVENUE LOSS DUE TO**  
9 **UNCOLLECTIBLES.**

10 A. For purposes of context, I will illustrate this through reference to PWSA’s recent  
11 base rate case. In its ratemaking calculation for the rate case, PWSA applied a  
12 collection factor of 95.60% to the anticipated operating revenue of the future test  
13 year (FTY) ended December 31, 2018 and the FPFTY ending December 31, 2019  
14 to recognize that not all customer billings result in collections. This would have  
15 resulted in an estimated revenue loss of \$7,331,419 and \$8,584,827 in the FTY  
16 and FPFTY, respectively, due to estimated uncollectibles of 4.40% of customer  
17 billings (I&E Exhibit No. 2, Schedule 7, p. 1 at Docket Nos. R-2018-3002645 and  
18 R-2018-3002647). PWSA factored this loss in water and wastewater revenue  
19 when it calculated its FPFTY total revenue requirement for its rate case (I&E  
20 Exhibit No. 2, Schedule 7, pp. 5-6 at Docket Nos. R-2018-3002645 and R-2018-

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<sup>36</sup> *Assignment of the Pittsburgh Water and Sewer Authority Compliance Plan to the Office of Administrative Law Judge*, M-2018-2640802 et al., Reconsideration Order, p. 6 (December 20, 2018).

3002647). Therefore, as it is made clear by the significant revenue loss of \$8,584,827 that PWSA projected for its FPPTY, an amount that is almost one-third of the \$27 million rate request PWSA made, it is clear that addressing PWSA's uncollectibles is essential to its financial viability and to ensure that ratepayers are charged just and reasonable rates.

**Q. HAS PWSA PROVIDED ITS HISTORIC UNCOLLECTIBLES DATA?**

A. Yes. PWSA provided the following data about rolling uncollectibles/bad debt as of December 31, 2016, 2017, and 2018 (I&E Exhibit No. 2, Schedule 10, p. 1):

Customer Class	2016	2017	2018
Residential	\$8,935,875	\$8,964,670	\$9,247,131
Commercial	\$376,098	\$2,260,610	\$2,678,837
Other - Unknown	\$10,615,732	\$10,810,104	\$10,776,558
Total	\$19,927,705	\$22,035,384	\$22,702,526

PWSA states that it does not anticipate being able to collect these outstanding amounts because they are associated with properties that have been permanently vacated or razed, or with ratepayers subjected to discharges, bankruptcies, and/or utility shutoffs.

**Q. DO YOU HAVE CONCERNS ABOUT THE HIGH LEVEL OF UNCOLLECTIBLES OF 4.40% THAT RESULTS IN REVENUE LOSS?**

A. Yes.

1    **Q.    EXPLAIN YOUR CONCERNS.**

2    A.    As I explained in my role as an expert witness in PWSA's rate case, due to the  
3           high percentage of uncollectibles experienced and projected by PWSA, the  
4           revenue loss is significant, which impacts the net operating margin and  
5           consequently, the rates of all customers. This may also impact the financial credit  
6           rating of PWSA and, consequently, the borrowing cost. In short, a consistent high  
7           level of uncollectibles impacts the overall financial condition of PWSA unless  
8           closely monitored and reduced (I&E Statement No. 2, pp. 24-25 at Docket Nos. R-  
9           2018-3002645 and R-2018-3002647).

10  
11   **Q.    HAS PWSA PROVIDED YOU WITH ANY INFORMATION REGARDING**  
12   **UNCOLLECTIBLES ORGANIZED BY CUSTOMER CLASSIFICATION?**

13   A.    Yes. Through the discovery process, PWSA provided me with a listing of its top  
14           50 uncollectible account by customer classification. I am including this  
15           information for the most recent year provided, 2018, which PWSA has redacted to  
16           eliminate confidential customer information (I&E Exhibit No. 2, Schedule 10, pp.  
17           3-4).

18           My review of this information reveals the three highest uncollectible account  
19           totals (\$151,239.22, \$72,233.76, and \$69,511.45, respectively) are all associated  
20           with commercial accounts.

1   **Q.    IN ITS INITIAL COMPLIANCE PLAN FILED ON SEPTEMBER 28, 2018,**  
2       **DID PWSA PROVIDE ANY PLAN FOR MITIGATING ITS**  
3       **UNCOLLECTIBLES?**

4   **A.    No.**

6   **Q.    AS CONDITION OF SETTLEMENT OF ITS RATE CASE, DID PWSA**  
7       **COMMIT TO SUPPLEMENTING ITS COMPLIANCE PLAN TO**  
8       **ADDRESS REDUCTION OF ITS UNCOLLECTIBLES?**

9   **A.    Yes.**<sup>37</sup>

11 **Q.    DID PWSA SUPPLEMENT ITS COMPLIANCE PLAN TO ADDRESS ITS**  
12 **UNCOLLECTIBLES?**

13 **A.    Yes; however, PWSA provided only general information and it did not set forth a**  
14 **targeted plan for addressing uncollectibles. Specifically, in the Compliance Plan**  
15 **Supplement at pp. 23 and 25, PWSA states that:**

- 16       • PWSA is in the process of reviewing and analyzing its collection policies to  
17       identify ways in which it might reduce uncollectibles; and
- 18       • PWSA agrees to address the cost-effective manner of collecting overdue  
19       payments as part of the Plan, and it will cease sending unpaid  
20       water/wastewater charges to Jordan Tax Services.

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<sup>37</sup> Joint Petition for Settlement, Docket Nos. R-2018-3002645 and R-2018-3002647, p. 25, Paragraph H(4)(k).

1   **Q.   HAS I&E INDEPENDENTLY REQUESTED ADDITIONAL AND MORE**  
2       **SPECIFIC INFORMATION ABOUT PWSA’S PLAN TO ADDRESS**  
3       **UNCOLLECTIBLES?**

4   A.   Yes. Through the discovery process, I&E asked PWSA to identify the steps it has  
5       taken and the plan that it proposes to reduce its significant uncollectible amounts.  
6       In response to I&E-RE-16, PWSA simply stated that beginning in January 2019 its  
7       collection staff are being cross-trained to achieve higher collection rates.  
8       Additionally, PWSA also indicated that it intends to cancel the existing collection  
9       service contract of Jordan Tax Service and potentially pursue other collection  
10      agency relationships once the Commission enters an order approving the base rate  
11      case (I&E Exhibit No. 2, Schedule 10, p. 5).

13   **Q.   IS PWSA’S PLAN TO REDUCE UNCOLLECTIBLES SUFFICIENT?**

14   A.   No. Although, I agree that PWSA’s plan to train additional employees on  
15      collections issues is a good first step and I appreciate the efforts that PWSA is  
16      making to reevaluate its collection agency relationships, PWSA still has not  
17      provided a comprehensive plan to address its high level of uncollectibles. While I  
18      realize that it will take time for PWSA to come into full compliance with the  
19      Public Utility Code, and the Commission’s regulations and orders, ratepayers bear  
20      responsibility for these significant uncollectibles through higher rates.

1   **Q.   WHAT IS YOUR RECOMMENDATION FOR PWSA’S UNCOLLECTIBLE**  
2       **ISSUE?**

3   A.   I recommend that PWSA be ordered to revise its Compliance Plan to commit to  
4       the following actions: (1) PWSA will research the customers billing collection  
5       practices and policies implemented by other utilities (regulated gas, electric, and  
6       water distribution companies) serving PWSA’s service territory and implement the  
7       best suited policies and practices consistent with the provisions of 52 Pa. Code; (2)  
8       PWSA will exercise all available avenues and options aggressively in an effort to  
9       reduce uncollectibles; (3) To ensure PWSA is accountable for its uncollectibles, it  
10      will provide a detailed annual report with data about implementation of collection  
11      measures and related results; and (4) PWSA will prioritize accounts with the  
12      highest uncollectible amounts, including commercial accounts, for collections.

13  
14       **CONCLUSION**

15   **Q.   PLEASE SUMMARIZE ALL OF THE RECOMMENDATIONS HEREIN.**

16   A.   My recommendations included the following:

17       **System of Accounts:**

- 18       • PWSA should revise its Compliance Plan to provide more information about  
19       the status of its selection of an Enterprise Resource Planning (ERP) contractor,  
20       projected ERP system cost, and a detailed implementation schedule.
- 21       • PWSA should provide periodic updates on the ERP system development to the  
22       Commission on a quarterly basis.

- PWSA should strive to complete the ERP project enabling full conversion of its system of account to NARUC USOA no later than December 31, 2020.

**Customer Assistance Program:**

- PWSA should continue collecting the types of data as mentioned in the Plan Supplement at page 19.
- Based on the data, analysis and evaluation of each low-income program, PWSA should formulate and present as soon as possible, a detailed CAP proposal and evaluation plan as described in 52 Pa. Code § 69.265(10) (relating to CAP design elements) to the Commission's Bureau of Consumer Services for the parties' and the Commission's review as part of PWSA's next base rate case proceeding.

**PWSA Services Contract with the City of Pittsburgh (Cooperation**

**Agreement):**

- Define the City's and PWSA's relationship on a "business-like" basis and negotiate all terms and conditions of the agreement at arm's length to ensure fair, equitable, and reasonable terms for both the parties.
- Identify and list all services by the City to PWSA and vice versa with a detailed breakdown and related cost of service based on current market conditions.
- Eliminate the subsidy payment to PAWC and other municipal authorities by PWSA.



- 1 • Eliminate the free water services to the City and its instrumentalities, agencies,  
2 and other bodies.
- 3 • The City should be charged for wastewater and stormwater services at tariff  
4 rates and for the ALCOSAN wastewater treatment charges.
- 5 • Make the board, management and operational decisions, independent of the  
6 City influence as recommended by the Auditor General in its Performance  
7 Audit Report.
- 8 • In rebuttal, identify and provide the source of the claimed requirement that the  
9 City's Finance Director and Treasurer serve on PWSA's Board.
- 10 • If PWSA and the City cannot agree to the Cooperation Agreement that is  
11 consistent with PWSA's obligations as a regulated utility, then PWSA should  
12 not enter into any other agreement with the City. Instead, PWSA should allow  
13 either some or all services previously provided by the City to lapse in favor of  
14 services provided on a current market-based approach.

15 **Capital Lease Agreement:**

- 16 • PWSA should be entitled to complete the transaction in 2025 by paying the  
17 one dollar (\$1.00) to purchase the water and wastewater system assets.

18 **Residency Requirement:**

- 19 • PWSA should eliminate its residency requirement for employment.  
20 Additionally, PWSA should be required to file a revised compliance plan that  
21 summarizes and adopts a plan to eliminate the residency requirement.

1        **Billing Arrangement with the Allegheny County Sanitary Authority):**

- 2        • ALCOSAN should establish and charge a market-based rate that is aligned
- 3                with the volume of wastewater treated for PWSA's wastewater customers and
- 4                a separate rate that is aligned with the additional volumes related to treatment
- 5                of stormwater.
- 6        • PWSA should pay the established market-based rate to ALCOSAN via an
- 7                annual or multi-year contract.
- 8        • PWSA should develop wastewater and stormwater tariff rates for current
- 9                wastewater customers and future stormwater customers that accurately reflect
- 10               the costs of paying for contracted treatment services and capturing the impact
- 11               of uncollectibles in its own rates.
- 12        • PWSA and the City should amend the applicable current agreement and
- 13               memorandum of understanding between the City, PWSA, and ALCOSAN
- 14               before the next base rate case filing, or no later than December 31, 2019,
- 15               whichever occurs first.
- 16        • Alternatively, if PWSA proves that it is legally prohibited from implementing
- 17               the above recommendations, then the Commission should order PWSA to file a
- 18               revised Compliance Plan that requests that the Commission reform its contract
- 19               with ALCOSAN under Section 508 of the Public Utility Code.

1        **Billing Arrangement with Pennsylvania-American Water Company:**

- 2        • PWSA should revise its Compliance Plan to indicate that it will eliminate the
- 3                rate subsidy to PAWC completely by either the time of its next base rate case
- 4                filing or by no later than December 31, 2019, whichever occurs first.

5        **Bulk Wastewater Conveyance Agreements:**

- 6        • PWSA should be required to file all of its existing bulk wastewater contracts
- 7                with the Commission in a separate docket within 120 days of the
- 8                Commission's final order in this case.
- 9        • PWSA should negotiate the terms and conditions of all current bulk
- 10               wastewater conveyance agreements to ensure that PWSA's wastewater
- 11               conveyance charges/rates are just and reasonable reflecting true and current
- 12               cost of service and that municipal authorities be made responsible to share the
- 13               cost of repairs and replacement of conveyance trunk lines.
- 14        • If PWSA enters into new or revised wastewater conveyance agreements with
- 15               any municipal authorities before filing the next base rate case, but no later than
- 16               December 31, 2019, it should file those new or revised agreements with the
- 17               Commission within 15 days of execution under 66 Pa. Code § 507.

18        **Uncollectibles - Revenue Loss:**

- 19        • PWSA should be ordered to revise its Compliance Plan to commit to the
- 20               following actions: (1) PWSA will research the customers billing collection
- 21               practices and policies implemented by other utilities (regulated gas, electric,
- 22               and water distribution companies) serving PWSA's service territory and

1           implement the best suited policies and practices consistent with the provisions  
2           of 52 Pa. Code; (2) PWSA will exercise all available avenues and options  
3           aggressively in an effort to reduce uncollectibles; (3) To ensure PWSA is  
4           accountable for its uncollectibles, it will provide a detailed annual report with  
5           data about implementation of collection measures and related results; and (4)  
6           PWSA will prioritize accounts with the highest uncollectible amounts,  
7           including commercial accounts, for collections.

8  
9   **Q.    DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

10  **A.    Yes.**

**D. C. Patel**  
**Professional and Educational Background**

---

**EXPERIENCE:**

- **Pennsylvania Public Utility Commission**, Harrisburg, Pennsylvania  
June 2015 - Present  
  
Fixed Utility Financial Analyst, Bureau of Investigation and Enforcement
- **Pennsylvania Insurance Department**, Harrisburg, Pennsylvania  
March 2013 - June 2015  
  
Insurance Company Financial Analyst, Bureau of Company Licensing & Financial Analysis
- **Pennsylvania Department of Revenue**, Harrisburg, Pennsylvania  
November 2010 - March 2013  
  
Accounting Assistant, Bureau of Corporation Taxes (Accounting)
- **Hersha Hospitality Management**, Harrisburg, Pennsylvania  
June 2007 - November 2010  
  
Staff Accountant (Taxes), Accounting Department
- **Corporate Experience-India**  
February 1987 - April 2007  
  
Worked as Company Secretary for three different companies during this period that were publicly held companies and whose stocks were listed on the Stock Exchanges.

**EDUCATION/CERTIFICATION:**

- Gujarat State University, Ahmedabad, India:  
  
June 1980 - April 1983  
Bachelor of Commerce (Major concentration: Accounting with 38 credits)

**D. C. Patel**  
**Professional and Educational Background**

---

**EDUCATION/CERTIFICATION (continued):**

June 1983 - December 1988  
Bachelor of Law

- The Institute of Company Secretaries of India, New Delhi, India:

June 1983 - December 1985  
Post Graduate Professional Degree: Company Secretary

**RATE CASE TRAINING:**

- Attended 37<sup>th</sup> Western NARUC Utility Rate School in May 2016

**WORKED ON THE FOLLOWING CASES (Testimony not required):**

- R-2018-3001568 - PECO Energy Co. - Gas Operations (1307(f))
- R-2018-3000253 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- A-2017-2629534 - PPL Electric Utilities (Restructuring Plan)
- R-2017-2631441 - Reynolds Water Co.
- R-2017-2602611 - PECO Energy Co. - Gas Operations (1307(f))
- R-2016-2567893 - Andreassi Gas Co.
- R-2016-2525128 - Columbia Water Co. - Marietta Division
- R-2015-2479962 - Corner Water Supply and Service Corporation
- R-2015-2479955 - Allied Utility Services, Inc.
- R-2015-2493905 - Sands, Inc.

**SUBMITTED TESTIMONY IN THE FOLLOWING CASES:**

- R-2018-3002645 and 3002647 - Pittsburgh Water & Sewer Authority
- R-2018-3000834 - Suez Water Pennsylvania, Inc.
- R-2018-2647577 - Columbia Gas of Pennsylvania, Inc.
- R-2017-2595853 - Pennsylvania American Water Co.
- P-2016-2526627 - PPL Electric Utilities Corp. (DSP IV)
- R-2016-2529660 - Columbia Gas of Pennsylvania, Inc.
- R-2016-2554150 - City of DuBois - Bureau of Water
- R-2016-2580030 - UGI Penn Natural Gas, Inc.

**I&E Exhibit No. 2**  
**Witness: D. C. Patel**

**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**v.**

**PITTSBURGH WATER AND SEWER AUTHORITY**

**Docket Nos. M-2018-2640802 and M-2018-2640803**

**Exhibit to Accompany**

**the**

**Direct Testimony**

**of**

**D. C. Patel**

**Bureau of Investigation and Enforcement**

**Concerning:**

**COMPLIANCE PLAN**

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 1 Page 1 of 1
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**Request: I&E-RE-4:** Reference PWSA's Compliance Plan concerning the discussion of its compliance status and interim plan with 52 Pa. Code Section 65.16: System of Accounts (NARUC - USOA) as presented on pp. 62-63. Under its current proposal, PWSA indicates that it will have the ability to generate reports of financials under the NARUC - USOA by no later than FY 2021. Provide the following information:

- A. Explain how PWSA estimated FY 2020 to FY 2021 as the time period for generating a report of financials by the current system and by the USOA chart of accounts;
- B. State the earliest time PWSA can fully convert to the USOA chart of accounts and explain why this is the earliest time possible; and
- C. Explain current and future potential developments that may cause PWSA to revise either the timeline or the process that it proposes. If so, identify the development(s) and indicate how it/they will impact the timeline as proposed.

**Response:**

- A. Given the complexity of procuring and implementing a new and ERP system, PWSA believes that it will be able to provide
- B. reporting using the NARUC chart of accounts after full implementation, anticipated to be in FY2020. Through 2019, PWSA will manually convert the information provided through its current financial system and its current chart of accounts into the preferred format.
- C. PWSA can implement this sooner, should the procurement and implementation timeline shorten.

**Response**  
**Provided by:** Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:** January 25, 2019



**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 2 Page 1 of 4
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**Request: I&E-RE-10:** Reference PWSA’s Compliance Plan concerning the discussion of its compliance status and plan with 52 Pa. Code Section 69.267: Customer Assistance Programs (CAP) as presented on pp. 75-76. Identify the date that PWSA implemented or plans to implement each of the following CAP elements:

- A. Winter Shut Off Moratorium;
- B. Bill Discount Program;
- C. Hardship Program; and
- D. Private Lead Line Replacement Community Environmental Project.

**Response:**

- A. 10/26/17
- B. 11/8/17
- C. 4/2/18
- D. 8/6/18

**Response** Julie Quigley, Director of Administration  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated:** January 25, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Pittsburgh United, Set II in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 2 Page 2 of 4
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**Supplemental Response**

**Request: UNITED II-5** How many customers enrolled in PWSA’s Bill Discount Program (BDP) since the program’s inception, disaggregated by month and income tier? This is a continuing request. Please provide updated information at the conclusion of each month. If possible, please provide the data in response to this question in a form which is the same or substantially similar to the following table:

<b>2018</b>	0-50% FPL	51-100% FPL	101-150% FPL
January			
...			
<b>2019</b>			
January			
...			

**Response:**

<b>2018</b>	
January	87
February	1,118
March	1,758
April	1,882
May	1,968
June	2,022
July	2,068
August	2,124
September	2,174
October	2,240
November	2,222
December	2,360
<b>2019</b>	
January	2,504
February	2,677

PWSA has an online dashboard to the data that the Dollar Energy Fund (DEF) collects from its customers. This dashboard does not contain a report on customer poverty levels under the Bill Discount Program.

**Response  
Provided by:**

Julie Quigley, Director of Administration  
The Pittsburgh Water and Sewer Authority

**Dated:**

March 6, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Pittsburgh United, Set II in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2  
Schedule 2  
Page 3 of 4

**Request: UNITED II-6** How many customers have participated in PWSA's Hardship Program, disaggregated by month and income tier? This is a continuing request. Please provide updated information at the conclusion of each month. If possible, please provide the data in response to this question in a form which is the same or substantially similar to the table provided in UNITED II-5.

**Response:**

<b>2018</b>	
April	10
May	20
June	28
July	13
August	42
September	2
October	18
November	17
December	7
<b>2019</b>	
January	11
February	7

**Response** Julie Quigley, Director of Administration  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated:** March 6, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Pittsburgh United, Set II in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 2 Page 4 of 4
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**Request: UNITED II-7**      How many customers have participated in PWSA's winter moratorium, disaggregated by month and income tier? This is a continuing request. Please provide updated information at the conclusion of each month. If possible, please provide the data in response to this question in a form which is the same or substantially similar to the table provided in UNITED II-5.

**Response:**

<b>2018</b>	
December	323
<b>2019</b>	
January	493
February	213
March	13

**Response  
Provided by:**

Julie Quigley, Director of Administration  
The Pittsburgh Water and Sewer Authority

**Dated:**

March 6, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement, Set RE-35 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 3 Page 1 of 3
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**Request: I&E-RE-35**      Provide detailed, itemized explanation and substantiation for the estimated costs at Exhibit DML/C-1 and DML/C-2

**Response:**      All proposed services and cost calculations for PWSA costs incurred on behalf of the City reflect actual annual costs.

All proposed services and cost calculations for City costs incurred on behalf of PWSA reflect actual annual costs.

The active pension costs were calculated by the City of Pittsburgh's actuary, and confirmed by the PWSA Finance team. Cost calculations for PWSA's allocation are based on the City of Pittsburgh's MMO, ARC, and the Parking Tax diversion to the fund. The PWSA active pension costs are based on the current total salaries. The PWSA has made its first pension payment to the City of Pittsburgh on February 22, 2019.

The PWSA fleet maintenance cost and fuel usage cost reflect actual costs.

As these are draft, working documents for the two parties during the Cooperation Agreement negotiations, the services and costs are subject to change. The PWSA will verify the amounts that the City of Pittsburgh is proposing by a) determining if the cost is appropriate and benefits PWSA's ratepayers, and b) that the detailed backup provided by the City of Pittsburgh is accurate.

**Response**      Debbie M. Lestitian, Chief Corporate Counsel and Chief of Administration  
**Provided by:**      The Pittsburgh Water and Sewer Authority

**Dated:**      March 20, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set RE-25 through RE-34 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 3 Page 2 of 3
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**Request: I&E-RE-25**

Reference Statement No. 1, page 17, which references the need for PWSA's Board to approve certain projects and agreements.

Provide the following information:

- A. A copy of PWSA's Articles of Incorporation and all amendments thereto;
- B. A copy of all PWSA bylaws;
- C. Indicate the number of members that the Board should have at full complement;
- D. Indicate the number of members currently on the Board;
- E. If a full Board complement does not exist, indicate why;
- F. Identify the name and position of each member of the PWSA Board; and
- G. Is any member of the PWSA Board also employed by the City of Pittsburgh ("City") and/or serve the City in any official capacity (i.e. City Councilperson, City Treasurer, and/or City Director of Finance). If yes, identify the Board member and indicate the capacity in which he/she serves City.

**Response:**

- A. See I&E-RE-25 Attach A.
- B. See I&E-RE-25 Attach B.
- C. Seven
- D. Five
- E. In accordance with the City of Pittsburgh Home Rule Charter, PWSA Board members are appointed by the Mayor of the City of Pittsburgh and confirmed by Pittsburgh City Council. The Mayor has not appointed two additional members. Board membership is dependent on the Mayor's nomination and City Council approval. Board nominations for the two open Board positions are yet to be released.
- F. Officers were elected at the public meeting on February 22, 2019 as follows:

Chairperson Paul Leger  
Vice Chairperson Margaret Lanier  
Secretary James Turner  
Treasurer James Turner

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set RE-25 through RE-34 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 3 Page 3 of 3
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Assistant Secretary/Treasurer Deborah L. Gross  
Board Member Chaton Turner

- G. Paul Leger, retired former City Finance Director for current  
Mayor William Peduto

James Turner, retired former Chief of Staff to a former Mayor  
Sophie Masloff

Margaret Lanier, current City Finance Director and City  
Treasurer for current Mayor William Peduto

Deborah Gross, current City Council Member

**Response** Debbie M. Lestitian, Chief Corporate Counsel and Chief of Administration  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated:** March 11, 2019

# PERFORMANCE AUDIT REPORT

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## The Pittsburgh Water and Sewer Authority

### Governance

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November 2017



Commonwealth of Pennsylvania  
Department of the Auditor General

Eugene A. DePasquale • Auditor General



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**Commonwealth of Pennsylvania  
Department of the Auditor General  
Harrisburg, PA 17120-0018  
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**EUGENE A. DePASQUALE  
AUDITOR GENERAL**

October 30, 2017

Ms. Debbie Lestitian  
Chairperson  
The Pittsburgh Water and Sewer Authority  
Penn Liberty Plaza I  
1200 Penn Avenue  
Pittsburgh, PA 15222

Dear Chairperson Lestitian:

This report contains the results of the Department of the Auditor General's performance audit of the Pittsburgh Water and Sewer Authority (PWSA). We audited the PWSA within the context of governance. The audit covered the period January 1, 2014, through June 30, 2017, unless otherwise noted, with updates through the report date.

We conducted our performance audit under our authority granted by Sections 402 and 403 of The Fiscal Code, 72 P.S. §§ 402 and 403, and in accordance with applicable generally accepted government auditing standards, as issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objective.

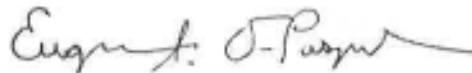
Our audit objective was to determine whether PWSA's governance structure and delineation of decision-making responsibilities were adequate to provide effective oversight of PWSA's operations.

This report presents one finding and offers 17 recommendations to the PWSA Board and/or management to improve the governance structure of the PWSA and to eliminate the financial burden placed on the PWSA by the City of Pittsburgh (City). We found that PWSA's aging and deteriorating infrastructure issues and financial and operational long-term viability issues result from years of mismanagement and conflicted leadership causing a crisis in the authority's governance.

This report is being released prior to the release of a report by an advisory firm contracted by the City and the PWSA to develop options to possibly restructure the PWSA. Once those options have been presented, which is scheduled to be in November 2017, a "blue ribbon" panel will evaluate the options provided by the firm and make a recommendation to the City and the PWSA on what option(s) would be best. We are hopeful that the panel's conclusions and our report's recommendations will be used by the next permanent Executive Director to implement much needed improvements that will allow the PWSA to continue to provide its customers with safe, reliable drinking water.

In closing, I want to thank PWSA for its cooperation and assistance during our audit. Based on its response, PWSA generally agrees with our finding and recommendations and has already begun to implement changes. We will follow up at the appropriate time to determine whether and to what extent all recommendations have been implemented.

Sincerely,



Eugene A. DePasquale  
Auditor General

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## Executive Summary

The Pittsburgh Water and Sewer Authority's (PWSA) purpose is to ensure the long-term vitality of the Pittsburgh region by providing safe reliable, and efficient drinking water delivery, sanitary sewage conveyance, and storm water removal services. Currently, the PWSA is governed by a Board of Directors (Board) consisting of seven members: two members hold the positions of the City of Pittsburgh's (City) Director of Finance and the City's Treasurer, respectively; one member must be a City councilperson, and four additional members are appointed by the Mayor of Pittsburgh. The Board appoints an Executive Director to lead PWSA's operations.

Our performance audit had one objective which was to determine whether PWSA's governance structure and delineation of decision-making responsibilities were adequate to provide effective oversight of PWSA operations. This focus was developed after the City's Controller released a draft performance audit which addressed various PWSA issues that we had been requested to audit by the Pittsburgh City Council, with concurrence by the City's Mayor and full endorsement by the PWSA Board.

This report presents one finding and offers 17 recommendations to the PWSA Board and/or management to improve the governance structure of the PWSA and to eliminate the financial burden placed on the PWSA by the City. Based on its response, PWSA generally agrees with our finding and recommendations and has already begun to implement changes.

**Finding 1 – PWSA's aging and deteriorating infrastructure issues and financial and operational long-term viability issues result from years of mismanagement and conflicted leadership causing a crisis in the authority's governance.**

The citizens of Pittsburgh have been plagued for the past few years by the dysfunctional operations of the PWSA, including a heavy debt load, deteriorating infrastructure, constant operational problems, lack of leadership, and frequent senior-level management turnover. These issues are evidence of a governance crisis that must be addressed as soon as possible. The Board needs to develop both a short-term and long-term executable plan to eliminate the potentially imminent risks of not providing safe, reliable drinking water to its customers. This plan will need to be coordinated with the potential restructuring of the PWSA, based on the results from a contracted advisory firm, due to be released in November 2017 and the evaluation of a "blue ribbon" panel.

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Mismanagement and lack of leadership has resulted in PWSA's aged and deteriorating infrastructure condition in 2017.

We found that since the early days of its creation, the PWSA has been charged with financing and operating a neglected water and sewer system even though the City retains ownership. In 1995 a new lease agreement was executed, which required the PWSA to issue revenue bonds in order to pay the City \$101 million upfront for the opportunity to operate the system until 2025. This set the stage for the PWSA to continue to issue debt to deal with an old and deteriorating system.

By 2012, PWSA was struggling to find a permanent Executive Director. Further, based on a study conducted by Veolia Water North America Northeast (Veolia) that evaluated PWSA's administrative functions, engineering and construction, and operations, more than 100 improvements ideas were identified that were grouped into seven key performance indicators (KPIs): customer service; communications; safety; compliance; capital projects; finance; and leadership and training. In essence, the issues identified by the study, indicated a lack of proper management and leadership that likely existed for several years prior to 2012.

By 2017, the current Interim Executive Director considers the system "deplorable." Based on our audit, we identified three key factors that contributed to the system's negative condition:

- PWSA was operated and managed by Veolia for three and one-half years. In addition to supplying three key individuals to operate PWSA, Veolia focused on implementing efficiencies and operational effectiveness which, per the contract, was paid, in part, for cost savings realized or for a pre-established amount for implementing KPIs. Therefore, it appears that the former Interim Executive Director could have been conflicted about which was more important — making decisions that would benefit Veolia's profitability or serving as PWSA's Executive Director with loyalty to its Board, employees, and customers.
- PWSA had frequent leadership turnover since 2014, including four individuals who have served as (Interim) Executive Director.
- PWSA severely under invested in capital improvements. From 2012 through 2016, only \$157 million was invested although, according to a PWSA official, the PWSA should be investing \$200 million annually.

City influence impairs PWSA's decision making and causes a financial burden.

We also found that the PWSA's original governing documents demonstrate that the City never intended the PWSA to ever be truly independent from the City. The Articles of Incorporation require the City's Director of Finance and the City Treasurer to be permanent PWSA Board members along with the Pittsburgh Home Rule Charter requiring a City Councilperson to be

appointed to the Board. The remaining four members are appointed by the mayor to the Board, which could also include other City employees; therefore, all Board members have direct or indirect ties to the City's Mayor. However, most concerning are the City employees and the City Councilperson, who receive compensation from the City, of which there are currently four PWSA Board members. The City-compensated members may be influenced by the wishes of their employer, the City Mayor's Office, despite the Board members owing a specific fiduciary duty to the entity (PWSA) they serve and its customers. We found that the Board's bylaws do not address the fiduciary responsibility of each Board member nor are the Board members required to sign an acknowledgement of their understanding and willingness to fulfill their fiduciary duties.

We also found that the 1995 cooperation (co-op) agreement between the PWSA and the City is outdated and is a financial burden to the PWSA. One of the intents of the agreement was to establish what services the City would provide to the PWSA and how the PWSA would pay the City for these services. In exchange for the services provided by the City, the PWSA was required to provide the City the following through 2035:

- Up to 600 million gallons of free water each year. However, we found that the PWSA does not track how much water the City uses annually, partly because PWSA does not have a complete list of all city-owned properties and many city-owned properties are not metered.
- Equalization payments for citizens in certain portions of the City not serviced by PWSA. We found that for the three-year period ended December 31, 2016, PWSA paid approximately \$4.8 million to Pennsylvania American Water.
- Actual direct expenses and overhead expenses for services provided by the City, which totaled \$7.15 million annually during the audit period. However, we found that the quarterly invoices did not contain a detailed explanation of what the charges were for, and PWSA was paying the invoices without question.

We also found that the PWSA is paying for fire hydrant service charges invoiced by other water companies servicing the City and that the PWSA did not charge the City to service the 7,400 hydrants in its own service area. These items should be considered in renegotiating the co-op agreement with the City. According to a 2011 amendment to the co-op agreement, both the PWSA and the City acknowledged that the services provided by both parties have changed, but no negotiations occurred and no amended agreement was executed.

Finally, we found that City influence has impacted decisions and policies approved by the PWSA Board. Specifically, we note that in 2016 the Domicile policy (requiring employees to live in the City of Pittsburgh) was drafted at the Board's request (dated May 1, 2016) even though, according to several interviews, this policy is the biggest impediment to hiring and retaining employees. PWSA officials and former and current Board members indicated that the

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domiciliary requirement was influenced by the Mayor's Office because this policy is in place at all City government offices. Additionally, we noted that the City requested the PWSA to adopt a "Conflict of Interest" policy even though this issue is already addressed in PWSA's *Ethics Handbook*. Although the Board made two substantial changes to the City-provided policy, the Board did approve the policy.

**Overall conclusion:** The PWSA Board, current Interim Executive Director, and senior-level management inherited an aging and deteriorating water system infrastructure, a culture of mismanagement, a heavy debt load, and ongoing City influence. The City, through the years, has enjoyed financial benefits from its agreements with the PWSA, which has resulted in a financial burden on the PWSA, but has not meaningfully participated in investing in its own infrastructure. PWSA's mismanagement of the system, based on the 2012 Veolia study, demonstrates an ongoing leadership dilemma. We hope that the conclusions reached by the "blue ribbon" panel and the recommendations offered in this report will provide the PWSA with guidance for positive and lasting improvements.



The Pittsburgh Water and Sewer Authority

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## Introduction and Background

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Pursuant to a February 1, 2017, request by the Pittsburgh City Council, concurrence by the Mayor of Pittsburgh, and with full endorsement by the Board of the Pittsburgh Water and Sewer Authority (PWSA), the Department of the Auditor General decided to conduct a performance audit of the PWSA. The request asked that we conduct an audit regarding various issues, including high lead levels and billing concerns. However, because the City of Pittsburgh's City Controller subsequently released a 172-page draft performance audit on February 16, 2017, addressing these issues and other objectives covering the period 2011 through 2016,<sup>1</sup> we chose not to repeat these objectives and concentrate our efforts on governance. We discuss the contents of the City Controller's report later in this section.

We began this performance audit in March 2017, with the objective being to determine whether PWSA's governance structure and delineation of decision-making responsibilities were adequate to provide effective oversight of PWSA operations. The audit was conducted under our authority of Sections 402 and 403 of The Fiscal Code, 72 P.S. §§ 402 and 403, and in accordance with applicable *Government Auditing Standards* issued by the Comptroller General of the United States. Our audit covered the period of January 1, 2014, through June 30, 2017, unless otherwise indicated, with updates through the report date.

In the sections that follow, we present background information related to the PWSA. We provide a brief history on the creation of the PWSA and the governance that established the organization. We also provide a brief summary of the agreements in place between the City of Pittsburgh and the PWSA and contracts for management and consulting services that were in effect prior to, and during our audit period. We also briefly discuss the audit objectives contained in the Pittsburgh City Comptroller Report, the possibility of oversight by the Pennsylvania Public Utility Commission, and a current evaluation of PWSA's organizational structure and operations by an outside consulting firm.

### Creation of the Pittsburgh Water and Sewer Authority

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Pittsburgh City Council approved a resolution<sup>2</sup> in February 1984 to organize an authority under the former Municipality Authorities Act of 1945.<sup>3</sup> The Commonwealth of Pennsylvania's Department of State issued a certificate of incorporation for the Pittsburgh Water and Sewer

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<sup>1</sup> [http://apps.pittsburghpa.gov/co/Draft\\_Pittsburgh\\_Water\\_and\\_Sewer\\_Authority\\_February\\_2017.pdf](http://apps.pittsburghpa.gov/co/Draft_Pittsburgh_Water_and_Sewer_Authority_February_2017.pdf) (accessed September 12, 2017).

<sup>2</sup> Pittsburgh City Council Resolution 36 of 1984.

<sup>3</sup> **Former Act** 53 P.S. § 301 *et seq.* As shown in the definition of "Authority" under the current act (Act 22 of 2001, as amended), there were two former acts including the "Municipality Authorities Act of 1935" (Act 191) and the "Municipality Authorities Act of 1945" (Act 164). The current act is entitled, "Municipality Authorities Act" and now has been recodified at 53 Pa.C.S. § 5601 *et seq.*, as amended.

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Authority on February 17, 1984. Under the current Act, authorities “shall be for the purposes of financing working capital; acquiring, holding, constructing, financing, improving, maintaining and operating, owning or leasing, either in the capacity of lessor or lessee...and providing financing for insurance reserves.”<sup>4</sup> This stipulation covers a variety of public service ventures including waterworks, water supply works, water distribution systems, sewers, sewer systems or parts thereof, and sewage treatment plants.

In March 1984, the City of Pittsburgh (City) entered into a 50-year lease and management agreement. The diagram below shows the delineation of responsibilities as outlined in the lease agreement.

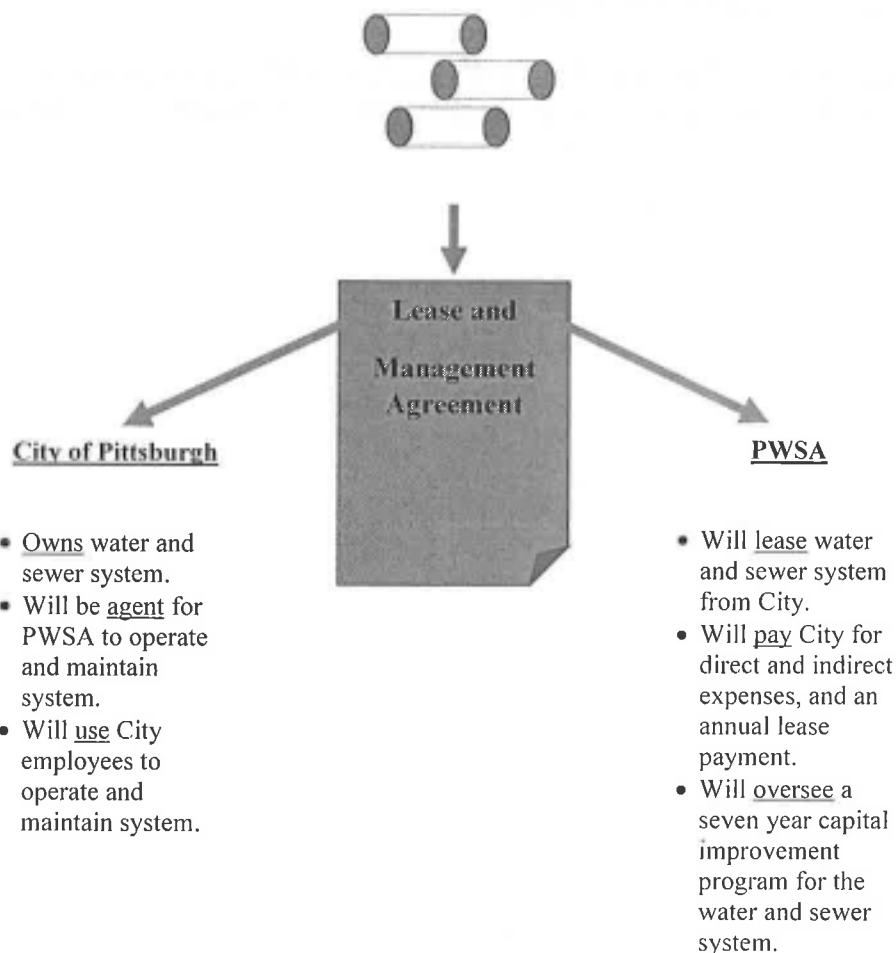
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<sup>4</sup> 53 Pa.C.S. § 5607(a). The former act’s language was similar and stated as follows: “Every Authority...shall be for the purpose of acquiring, holding, constructing, improving, maintaining, and operating, owning, leasing, either in the capacity of lessor or lessee, buildings to be devoted wholly or partially for public uses and for revenue-producing purposes.” Former Act 53 P.S. § 301.

## City of Pittsburgh and Pittsburgh Water and Sewer Authority

## Original (1984) Agreement

## Water and Sewer



The primary purpose of the PWSA at the time was to oversee a \$200,000,000 capital improvement program designed to refurbish the infrastructure of the entire water system. Capital improvements included upgrades to the water treatment plant, distribution system and projects to cover open reservoirs. The program was to ensure that the water system met the rapidly expanding water quality requirements of the federal and state Safe Drinking Water Acts.<sup>5</sup>

<sup>5</sup> <http://pgh2o.com/history> (accessed September 11, 2017). The citation for the federal and state Safe Drinking Water Acts are as follows: 42 U.S.C. § 300f *et seq.* and 35 P.S. § 721.1 *et seq.*

## The Pittsburgh Water and Sewer Authority

**Changes that Occurred in 1995**

In July 1995, PWSA entered into a new 30-year capital lease agreement with the City of Pittsburgh that terminated the 1984 lease and management agreement. PWSA provided the City a total of approximately \$101.4 million with an option to acquire all leased water and sewer property for one dollar at the expiration of the lease in 2025. In accordance with the lease, the PWSA was to issue approximately \$103 million in revenue bonds to pay the City for what it considered rent payments under the agreement.<sup>6</sup> In consideration of PWSA prepaying approximately \$5.4 million, the lease provided the following schedule of lease/rent payments due to the City.

Payment Date	Payment Amount
July 27, 1995	\$ 35.0 million
January 2, 1996	\$ 20.0 million
August 1, 1996	\$ 20.0 million
January 2, 1997	\$ 21.0 million
<b>Lease Payments to City</b>	<b>\$ 96.0 million</b>
Lease Prepayments to City	\$ 5.4 million
<b>Total Lease Payments to City</b>	<b>\$ 101.4 million</b>

PWSA took over operational control of the water system from the City as a result of this agreement. This lease gave control of the Authority's properties to PWSA's Board.<sup>7</sup> However, ownership of the assets remained with the City until the end of the lease in 2025.

Also, in July 1995, PWSA entered into a 40-year cooperation (co-op) agreement with the City of Pittsburgh. Under this agreement, the City was no longer the agent for PWSA and PWSA employees were no longer considered City employees; however, the City continued to provide some of the same services to PWSA as it did under the 1984 lease agreement, such as providing telephone and data services, vehicle fuel and repair, legal aid, computer services, payroll services and administering benefit programs. In exchange, and under the terms of this co-op agreement, PWSA is providing the City the following through 2035:<sup>8</sup>

- Up to 600 million gallons of water each year.
- Equalization payments for citizens in certain portions of the City not serviced by PWSA.
- Actual direct expenses and overhead expenses for services provided by the City to the PWSA (which, during the audit period, totaled \$7.15 million annually, or four quarterly payments of \$1,787,500).

<sup>6</sup> PWSA issued \$103 million in revenue bonds and paid the \$101.4 million. The remaining \$1.6 million from the revenue bond proceeds would have been used to pay the expenses of issuing the bond.

<sup>7</sup> Capital Lease Agreement, effective July 27, 1995.

<sup>8</sup> Cooperative Agreement between the City of Pittsburgh and PWSA effective January 1, 1995.

The Pittsburgh Water and Sewer Authority

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## Regulatory Requirements

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As a sewer/water authority, the PWSA must conform to government regulations. The federal Environmental Protection Agency (EPA) set forth the Clean Water Act of 1972<sup>9</sup> that was intended to protect the nation's water resources.<sup>10</sup> It dealt primarily with keeping drinking water from being permeated with pollutants from such things as sewage as well as industrial and agricultural runoff. The EPA has implemented the National Pollutant Discharge Elimination Systems (NPDES) permitting program to enforce the tenants of the Clean Water Act. The EPA is authorized to designate state environmental agencies to ensure Clean Water Act compliance through the NPDES permitting process.<sup>11</sup>

The EPA also sets standards for drinking water per the Safe Drinking Water Act of 1974. In Pennsylvania, the Department of Environmental Protection (DEP) is charged with enforcing these water quality standards for water systems like the PWSA. As such, the DEP is responsible for issuing permits to entities that treat and deliver water to customers. The DEP has the authority to require municipalities to make changes to their water systems when those systems do not comply with the Clean Water Act standards. When a municipality's water system is deemed to be in non-compliance with standards, it is within the prerogative of the DEP to issue consent orders that will require the affected municipalities to make the necessary changes.<sup>12</sup>

According to DEP and Allegheny County Health Department (ACHD) officials we interviewed, ACHD monitors and inspects the PWSA on behalf of the DEP. ACHD can issue notices of deficiencies; however, it is DEP's responsibility to enforce regulations and issue penalties. After the ACHD performs an inspection, they and the DEP meet to communicate the results of the inspection to the PWSA.

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## PWSA's System Today

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Today, PWSA's water system:

- Provides water and services to approximately 82,000 customers throughout the City of Pittsburgh.
- Operates and maintains a 117 million gallons per day rapid sand type treatment plant.
- Operates a microfiltration plant.
- Maintains approximately 1,000 miles of water pipes.

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<sup>9</sup> 33 U.S.C. § 1251 *et seq.*, as amended. Now called the Federal Water Pollution Act.

<sup>10</sup> <http://www.3riverswetweather.org/about-wet-weather-issue/wet-weather-regulations/federal> (accessed September 13, 2017).

<sup>11</sup> *Ibid.*

<sup>12</sup> <http://www.3riverswetweather.org/about-wet-weather-issue/wet-weather-regulations/state> (accessed September 13, 2017).

- Maintains over 25,000 valves and 7,400 fire hydrants.
- Operates one raw water pump station.
- Operates ten finished water pump stations.
- Maintains four in-ground reservoirs.
- Maintains 13 storage tanks (two of which are above-ground reservoirs).<sup>13</sup>

PWSA's sewer system consists of 1,200 miles of sewer pipes and more than 25,000 catch basins. Catch basins are used to collect storm water from precipitation, like rain, snow and ice melt. The PWSA system is made up of sanitary, dedicated storm water, and combined sewers. The sewer collection system is primarily a combined collection system (sewage and storm water) that serves the entire City of Pittsburgh. Wastewater flows and sewage is sent to Allegheny County Sanitary Authority's (ALCOSAN) interceptor system for treatment.<sup>14</sup>

## **PWSA's Purpose, Values and Mission**

In November 2015, the Board issued a Statement of PWSA's "Purpose, Values and Mission: The Foundations of our Strategic Plan." The following encompasses this statement:

**Purpose:** We ensure the long-term vitality of our region by providing safe, reliable, and efficient drinking water delivery, sanitary sewage conveyance and storm water removal services.

**Values:**

- Safety – We prioritize safety to ensure the well-being of our customers and employees.
- Accountability – We are accountable to ourselves and to everyone we interact with, both internally and externally. We are empowered to make decisions in our areas of responsibility and are expected to do so on a routine basis.
- Community – We are a cooperative, trustworthy and respected member of the community. We are a reliable partner to groups and individuals throughout the Pittsburgh region.
- Transparency – We conduct business in a manner that is open to the public, while protecting individual privacy.
- Stewardship – We are stewards of the environment. We strive to implement solutions that have the most positive environmental impact.
- Merit – We hire, evaluate and promote based on what a person knows and does.

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<sup>13</sup> Pittsburgh Water and Sewer Authority 2017-2021 Capital Improvement Program.

<sup>14</sup> <http://www.pgh2o.com/sewer-conveyance> (accessed September 11, 2017).

- Integrity – We care about our work. We interact and communicate with honesty and candor, without fear of retribution.

**Mission:** PWSA will meet or exceed the standards of a high performing water and sewer utility by:

- Operating world-class drinking water, sewage conveyance and storm water removal systems at the lowest possible cost to residents and businesses.
- Providing our customers with prompt, responsive, and courteous service.
- Making prudent investments to maintain and modernize our infrastructure.
- Offering our employees the industry’s safest work environment.
- Lead the region in green infrastructure and other sustainability initiatives.<sup>15</sup>

## **PWSA’s Organization Structure**

### **Board of Directors**

The PWSA is governed by a Board of Directors. The Board of Directors’ composition is based on the Municipality Authorities Act, which establishes that the governing body of the municipality shall appoint the members of the board who must be citizens of, or maintain a business in, the municipality.<sup>16</sup> Additionally, according to the City of Pittsburgh’s Home Rule Charter, the Mayor of Pittsburgh appoints the members of all boards and commissions subject to approval by City Council.<sup>17</sup> The Charter also requires one city councilperson to also be placed on the Board. The Articles of Incorporation of the PWSA requires that two appointments to the Board must include the individuals who hold the positions of the City’s Director of Finance and the City’s Treasurer. PWSA’s Board is comprised of seven members appointed to staggered terms between one and five years as required by the Act.<sup>18</sup> See Appendix B for current listing of Board members. Therefore, the PWSA’s Board consists of the following:

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<sup>15</sup> PWSA Board of Director’s Resolution 95, adopted November 20, 2015.

<sup>16</sup> 53 Pa.C.S. § 5610(b)(1).

<sup>17</sup> City of Pittsburgh Home Rule Charter, Section 214.

<sup>18</sup> Under 53 Pa.C.S. § 5610(a)(1), the board of a municipality “shall consist of a number of members, not less than five, as enumerated in the articles of incorporation” and staggered terms.

PWSA Board Members	Method of Assignment
City Treasurer	Mandatory <sup>a\</sup>
City Director of Finance	Mandatory <sup>a\</sup>
City Councilperson	Mandatory <sup>b\</sup>
At Large	Appointed by the mayor
At Large	Appointed by the mayor
At Large	Appointed by the mayor
At Large	Appointed by the mayor

*a/- The City position listed is a required Board member under the Articles of Incorporation, however, the mayor still appoints this individual.*

*b/- The City position listed is a required Board member under the City of Pittsburgh's Home Rule Charter, however, the mayor still appoints this individual.*

*Source: Developed by the Department of the Auditor General.*

The PWSA Board has the power to make by-laws; appoint officers and employees, prescribe their duties, and set their compensation; and fix, alter, charge, and collect rates, among other responsibilities.<sup>19</sup>

### Executive Director

The Executive Director is appointed by the Board and is under contract with the Board. The Executive Director's responsibilities include:<sup>20</sup>

- Executing policy goals and objectives established by the Board.
- Preparing an annual business plan and budget.
- Developing, supervising and administering the PWSA's staff and programs.
- Directing the Authority's water system.
- Overseeing the operation of the sewer system.
- Developing and implementing a capital improvement and maintenance plan.
- Directing water marketing efforts.
- Interacting with elected officials, consumer groups, governmental entities and the media.

### Departments under the Executive Director

During our audit period, PWSA was operated through five departments under the Executive Director, including finance, engineering and construction, operations, human resources, and water quality departments.

<sup>19</sup> 53 Pa.C.S. § 5607(d)(7), (8), and (9).

<sup>20</sup> Job Description for Executive Director, from a PWSA job posting.



## A Performance Audit

### The Pittsburgh Water and Sewer Authority

I&E Exhibit No. 2  
Schedule 4  
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In September 2017, PWSA revised its organization to add Director of Water Production, Director of Administration and Senior Communications Manager as senior level managers that report to the Executive Director.

### PWSA Financial Highlights and Concerns

The following financial comparisons for the five years ended December 31, 2016, 2015, 2014, 2013, and 2012 were compiled from PWSA's audited financial statements.

For the years ended Dec. 31	(Amounts in Thousands)				
	2016	2015	2014	2013	2012
Total Current Assets	\$51,537	\$61,866	\$58,930	\$57,705	\$62,433
Total Current Liabilities	\$67,285	\$63,912	\$60,488	\$52,994	\$54,707
Current Net Position	(\$15,748)	(\$2,046)	(\$1,558)	\$4,711	\$7,726
Total Net Position <sup>a/</sup>	(\$37,523)	(\$35,745)	(\$59,130)	(\$55,134)	(\$65,758)
Bond and loans payable	\$755,775	\$763,286	\$771,742	\$774,376	\$680,421
Swap Liability <sup>b/</sup>	\$86,772	\$96,065	\$87,197	\$32,404	\$118,933
Total Bonds and Loans Payable and Swap Liability	\$842,547	\$859,351	\$858,939	\$806,780	\$799,354
Net operating income	\$32,134	\$42,470	\$38,489	\$33,403	\$37,866
Interest expense and amortization	\$36,966	\$36,865	\$37,641	\$33,563	\$39,544

<sup>a/</sup> Total net position is PWSA's total assets less its total liabilities.

<sup>b/</sup> In an interest rate swap, the parties exchange cash flows based on a notional principal amount in order to hedge against interest rate risk. PWSA's swap liability is the fair value which is an estimated net present value of the expected cash flows calculated using relevant mid-market data inputs and based on the assumption of no unusual market conditions or forced liquidations.

PWSA's current financial position (current assets minus current liabilities) has worsened over the five-year period 2012 to 2016, from a positive balance of \$7.7 million in 2012 **to an alarming negative balance of \$15.7 million in 2016**. While PWSA's total financial net position, considering both current and non-current assets and liabilities, has been improving over the last five years, its total net position has remained negative. PWSA's negative financial position is due to the large amount of debt it holds. As of December 31, 2016, the PWSA has a debt load of \$842.5 million, up \$43.2 million from December 31, 2012. According to PWSA's Management's Discussion and Analysis in its December 31, 2016 audited financial statements, it entered into a revolving line of credit financing in which it could draw a total amount of no more

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than \$80 million in order to finance capital projects. As of December 31, 2016, PWSA had drawn \$11.8 million using this line of credit.

Another concerning fact is that PWSA's interest expense and amortization has exceeded its operating income in three of the last five years. This financial situation hinders necessary capital improvements to its deteriorating infrastructure, which is further discussed in Finding 1.

### **City Controller's Performance Audit Report**

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The Office of the City Controller for the City of Pittsburgh released an audit report in June 2017.<sup>21</sup> According to the report, the scheduling of the audit ran concurrent with widespread problems with customer billing charges and usage readings resulting in the PWSA being sued by some of its water customers. City Council fielded complaints and requested intervention.<sup>22</sup> The performance audit covered the following 13 objectives:

1. To assess the billing, delinquency and exoneration process, procedures and problems.
2. To evaluate customer service effectiveness.
3. To investigate and assess the new wireless meter-interface unit installation and water usage tracking.
4. To examine the water treatment and delivery process.
5. To assess staffing changes especially in leadership and legal counsel.
6. To determine the cost and effectiveness of hiring Veolia, contract language and contract incentives.
7. To document and identify asset management problems and procedures and to gauge the status of the 40-Year Plan of 2011.
8. To identify the status of delinquent City owned property water bills and the payments made to PWSA.
9. To report the current and past procedures in place for examining lead levels in Pittsburgh's drinking water and prevention strategies.
10. To explain the current exoneration board status and process.
11. To explain water subsidy payments from PWSA to PA American Water (PAW) and the Authority's role in collecting PAW sewage charges.
12. To explain the Negley Run Watershed and Washington Boulevard Flooding and recommendation as per the consultant's report.
13. To make recommendations for improvement.

The Controller's report identified a myriad of organizational and operational issues that plagued the PWSA during the time period included in its review. These issues included:

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<sup>21</sup> [http://apps.pittsburghpa.gov/co/Pittsburgh\\_Water\\_and\\_Sewer\\_Authority\\_June\\_2017.pdf](http://apps.pittsburghpa.gov/co/Pittsburgh_Water_and_Sewer_Authority_June_2017.pdf) (accessed September 28, 2017).

<sup>22</sup> Ibid.

**The Pittsburgh Water and Sewer Authority**

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- Excessive executive turnover that has resulted in inconsistent leadership leading to inefficient planning and operations.
- Obsolete and failing infrastructure including the lack of a Computerized Maintenance Management System to improve asset management capabilities.
- Unacceptably high levels of lead in the water.
- Billing irregularities, or complete lack of billing for thousands of customers for a period of several months arising from changes in the billing system and installation of new meters.
- Problems with the Veolia contract, which are discussed below.
- Customer service issues that included an outdated telephone system, inefficient telephone answering system, and wait times that did not meet PWSA's goals.

The City Controller's Report<sup>23</sup> included 51 recommendations to address the deficiencies noted in the report.

### **Veolia Water North America Northeast (Veolia)**

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In July 2012, the PWSA Board contracted with Veolia Water North America Northeast (Veolia), an outside management company, to direct its operations. The Controller's Report stated that in the years prior to hiring Veolia, PWSA experienced problems relating to customer service, a conflict of interest that caused the Executive Director to resign, and a major flood in an East End neighborhood. The situation resulted in high employee turnover resulting in PWSA seeking the services of a water management company. According to the Board resolution authorizing the Request for Proposal in February 2012, PWSA was facing numerous challenges and opportunities including long term planning and investment, environmental compliance and stewardship, aging infrastructure and storm water management issues. The Board was looking for a qualified wastewater and water management company to provide interim management services and consulting services to evaluate the organization and make recommendations for improved effectiveness and efficiency. The term of the contract was for one year with an optional 6-month extension. The contract was extended two additional times through December 2015. According to the contract, Veolia received a base compensation for management services, compensation for key performance indicators (KPIs) completed, and a percentage of recognized cost savings from improvement initiatives. Veolia was paid a monthly base compensation, which ranged from \$60,000 to over \$180,000, for management services. The total compensation paid to Veolia is shown below.

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<sup>23</sup> [http://apps.pittsburghpa.gov/co/Draft\\_Pittsburgh\\_Water\\_and\\_Sewer\\_Authority\\_February\\_2017.pdf](http://apps.pittsburghpa.gov/co/Draft_Pittsburgh_Water_and_Sewer_Authority_February_2017.pdf) (accessed September 26, 2017).

Type of Payment	2012-2015 Payments
Management Fees	\$ 5,454,268
KPIs	\$ 720,000
Improvement Initiatives	\$ 4,832,257
<b>Total</b>	<b>\$11,006,525</b>

*Source: Payments were obtained from copies of Veolia invoices provided by PWSA from July 2012 through September 2015.*

In addition to the amounts in the above table, Veolia invoiced PWSA, but PWSA did not pay, approximately \$1.4 million from October 2015 through February 2016. PWSA also indicated that additional charges from Veolia for the period from January 2016 to June 2016 have not yet been invoiced. The unpaid and yet to be invoiced charges stem from contractual obligations of PWSA to pay Veolia a percentage of the savings for cost initiatives through June 2016 and could total \$3 million.

The Controller's Report addressed the management contract with Veolia questioning Veolia's oversight of the new meter installation and the contract language that gave Veolia a percentage of cost saving initiatives. Prior to the release of the Controller's report, in October 2016, PWSA filed an arbitration lawsuit against Veolia asserting that Veolia grossly mismanaged PWSA's operations, abused its positions of special trust and confidence, and misled and deceived PWSA as part of its efforts to maximize profits for itself to the unfair detriment of PWSA and its customers.<sup>24</sup>

### **Possible Oversight by the Pennsylvania Public Utility Commission**

On June 8, 2017, the Pennsylvania House of Representatives passed House Bill 1490 that would place PWSA under the state's Public Utility Commission (PUC).<sup>25</sup> According to Mike Turzai, Speaker of Pennsylvania's House of Representatives, "PUC oversight is crucial to correcting the authority's long-standing difficulties. The PUC has the power to demand sound financial practices, systemic upgrades to infrastructure and reliable service delivery to customers."<sup>26</sup> He further stated, "It's about changing the operation of the PWSA...The Public Utility Commission can do that. It has oversight over debt, it has oversight over metering and billing and it has some jurisdiction over some environmental concerns. The PUC basically ensures the stability of

<sup>24</sup> <http://www.pgh2o.com/release?id=6578> (accessed September 13, 2017).

<sup>25</sup> Pennsylvania House Bill 1490 (Latest Printer Number 2163), session of 2017.

<http://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?year=2017&sind=0&body=H&type=B&bn=1490> (accessed October 23, 2017).

<sup>26</sup> Pennsylvania House approves proposal to put PWSA under state commission, Theresa Clift, June 8, 2017, <http://triblive.com/local/allegheeny/12385295-74/pennsylvania-house-approves-proposal-to-put-pwsa-under-state-commission> (accessed September 11, 2017).

The Pittsburgh Water and Sewer Authority

utilities, both in terms of their fiscal responsibilities and consequentially their ability to provide services in a responsible and safe manner.”<sup>27</sup>

The House Bill is currently awaiting consideration by the Pennsylvania Senate.<sup>28</sup> The Mayor of Pittsburgh also believes there are some areas where PUC expertise could be helpful.<sup>29</sup>

## Possible Restructuring of the PWSA

The City of Pittsburgh Administration issued a request for proposal in February 2017 for a financial and legal advisory team to manage evaluations of a possible restructuring of the PWSA to enhance water and sewer service delivery.<sup>30</sup> The mayor selected a “blue ribbon” panel of government, nonprofit, academic and business executives to evaluate the submissions from the firms. The panel selected Infrastructure Management Group, Inc. (IMG) from a group of 18 teams that responded. Both the Pittsburgh City Council and the PWSA board approved the contract with IMG, with the City and PWSA splitting the costs of the contract. On August 28, 2017, IMG presented possible restructuring plans to the panel, which included:<sup>31</sup>

- Transfer to/creation of a private non-profit utility.
- Transfer to a local regulated investor-owned utility.
- Transfer to an existing regional government entity.
- Aggressive internal improvement.
- Outsourcing of selected services.
- Short-term internal improvement, eventual regionalization.
- Operations and maintenance contract.
- Concession lease, which is a long-term contract to a private firm to operate, maintain and invest in the water or sewer system under a lease structure.

The IMG final report is scheduled to be released in November 2017.<sup>32</sup>

<sup>27</sup> Turzai, Readshaw team up on proposal to put PWSA under state commission's control, Bob Bauder, May 25, 2017, <http://triblive.com/local/allegheeny/12338086-74/turzai-readshaw-team-up-on-proposal-to-put-pwsa-under-state-commissions>, (accessed September 11, 2017).

<sup>28</sup> The current status of the bill is that it had Second Consideration in the Pennsylvania Senate on June 29, 2017, was referred to the Senate Appropriations Committee on June 29, 2017, was reported as committed on June 30, 2017, was laid on the table on September 19, 2017, and then removed from the table on October 2, 2017. [http://www.legis.state.pa.us/cfdocs/billinfo/bill\\_history.cfm?year=2017&sind=0&body=H&type=B&bn=1490](http://www.legis.state.pa.us/cfdocs/billinfo/bill_history.cfm?year=2017&sind=0&body=H&type=B&bn=1490) (accessed October 23, 2017).

<sup>29</sup> Turzai, Readshaw team up on proposal to put PWSA under state commission's control, Bob Bauder, May 25, 2017, <http://triblive.com/local/allegheeny/12338086-74/turzai-readshaw-team-up-on-proposal-to-put-pwsa-under-state-commissions>, (accessed September 11, 2017).

<sup>30</sup> <http://pittsburghpa.gov/mayor/release.htm?id=6973> (accessed March 3, 2017).

<sup>31</sup> The Briefing Book on PWSA Restructuring Options, August 28, 2017.

<sup>32</sup> <http://www.post-gazette.com/local/city/2017/09/05/Pittsburgh-Water-and-Sewer-Authority-PWSA-consultant-IMG-Steve-Steckler-Bill-Peduto/stories/201709050125> (accessed September 13, 2017).

## The Pittsburgh Water and Sewer Authority

**Finding 1 – PWSA’s aging and deteriorating infrastructure issues and financial and operational long-term viability issues result from years of mismanagement and conflicted leadership causing a crisis in the authority’s governance.**

The citizens of Pittsburgh have been plagued for the past few years by the dysfunctional operations of the Pittsburgh Water and Sewer Authority (PWSA), including a heavy debt load, deteriorating infrastructure, constant operational problems, lack of leadership, and frequent senior-level turnover. These are evidence of a governance crisis within the authority that must be addressed as soon as possible. The issues have played out in various media reports on an almost daily occurrence. This ongoing situation at times has endangered the health of Pittsburgh’s families and must be stopped. The PWSA Board needs to immediately gain control of a situation that has gotten out of control by developing both a short-term and long-term executable plan to eliminate the potentially imminent risks of not providing safe, reliable drinking water to its customers. An effective and sustainable plan and PWSA’s related services are vital not only for the health and safety of its customers, but also for the long-term viability of the businesses and community that PWSA serves.

This plan will have to be coordinated with the potential restructuring of the PWSA. As noted in the Introduction and Background Section, in the spring of 2017, the City of Pittsburgh (City) and the PWSA jointly contracted with an advisory firm to develop options to possibly restructure the PWSA. Once those options have been presented, a “blue ribbon” panel (selected by the Mayor’s Office) will evaluate the options provided by the firm and make a recommendation to the City and the PWSA on what option(s) would be best. This appears to be a positive step toward alleviating the current dysfunction of the authority and replacing it with an enhanced structure and operations for the sake of the City’s citizens, its businesses and its community as a whole. We stress, however, that there is an urgent need to move swiftly to stabilize the deteriorating infrastructure in order to eliminate current health hazards, such as lead-tainted water, and to prevent the potential of large sections of, or the entire water system, from shutting down.

Apart from these efforts, based on our audit procedures, we have identified several issues related to governance that must be addressed. Some of these issues were created several decades ago, but continue to have negative implications today. Others are more recent issues, stemming from decisions that were made by the PWSA Board, its management consultant, or PWSA’s management and/or staff. We address these issues in this report.

Although our audit period encompassed January 1, 2014, through June 30, 2017, it was necessary to evaluate the documents that created the PWSA and agreements the PWSA made with the City that were executed as far back as 1984. We did not, however, conduct vast research on what occurred during that 30-year period. Instead, we have pieced together certain critical information collected through our interviews and media reports that appear to

speak to the current problems facing the PWSA. We have, however, for certain issues, attempted on a limited basis to evaluate decision making since 2012.

This finding is organized into two broad areas:

1. Mismanagement and lack of leadership has resulted in PWSA's aged and deteriorating infrastructure condition in 2017.
2. City influence impairs PWSA's decision making and causes a financial burden.

The remainder of this finding will describe these areas.

### **Mismanagement and lack of leadership has resulted in PWSA's aged and deteriorating infrastructure condition in 2017.**

The Introduction and Background Section provides details about the creation of the PWSA, including some facts about the 1984 lease and management agreement. Additionally, it provides details about the 1995 lease agreement, which terminated the 1984 agreement and required the PWSA to issue approximately \$103 million in revenue bonds in order to pay the City approximately \$101 million up front to lease the water and sewer system for 30 years. However, we did not address the physical condition of the water system infrastructure.

Based on media reports and interviews with various PWSA officials, the water system is currently in very poor condition. In fact, the current Interim Executive Director described the 100 plus year old system as "deplorable." PWSA provided a schedule showing that there have been more than 3,500 pipe breaks just since January 2014 alone. Additionally, according to PWSA officials, PWSA is not able to bill about 50 percent of the clean water its system produces because, in part, due to leaky pipes that cannot be located. Further, PWSA officials indicated that water storage facilities and other equipment need to be replaced. Based on these ongoing conditions it is apparent that PWSA's system has deteriorated over decades. Fixing the system will be monumental task, and the Mayor estimated that it could take two decades and cost \$4 to \$5 billion.<sup>33</sup> Refer to Appendix C for examples of recently reported problems within the system.

### **What was the condition of the water and sewer system in the early years?**

The water and sewer system was over 70 years old when the PWSA was created, but PWSA could not provide any documentation to support what the condition of the system was at that time other than an assessment from a consultant regarding the water treatment and pumping

<sup>33</sup> <http://triblive.com/local/alleggheny/12138882-74/peduto-says-it-would-cost-pittsburgh-411m-to-replace-lead-water-lines> (accessed September 26, 2017).

facilities. This assessment was referenced in the 1984 lease and management agreement that required PWSA to oversee a seven year capital improvement program “to be financed by the issuance of Authority revenue bonds.” As a result, prior to 1995, according to PWSA’s website, PWSA issued approximately \$200 million in revenue bond debt to refurbish the water treatment plant and distribution system in order to comply with rapidly expanding federal water quality requirements.<sup>34</sup>

As noted above, with the execution of the new lease agreement in 1995, by January 1997, PWSA was required to pay the City \$101 million for the opportunity to manage and operate the water and sewer system until 2025 and to issue \$103 million in Revenue Bonds to finance the payment. According to a recent newspaper article, this \$101 million was used to help “ease stark woes then facing Pittsburgh.” Further, this article quoted the former Mayor who was in office in 1995. The Mayor indicated that one of the reasons the City transferred the water department to the PWSA “was to try to focus [PWSA] on rebuilding the system and not using it as a financial tool of the city.”<sup>35</sup> This statement implies that the City was using the proceeds of the water and sewer system from 1984 through 1995 for non-system purposes, which potentially prevented PWSA from investing in additional needed capital improvements. According to the former Mayor, “the city had siphoned surpluses from the water system to balance budgets.”<sup>36</sup>

Based on these comments and the way the 1995 lease agreement was written, the City, since 1984, had been financing other City activities with the water and sewer system revenues but, at that same time, was requiring the PWSA to finance capital improvements through revenue bond issues. Then in 1995, when the City’s financial situation worsened, the City renegotiated the lease agreement with PWSA to obtain a large influx of cash to improve the City’s financial condition by requiring PWSA to issue debt. All the while, the City retained ownership of the system, yet pawned the financial and operational responsibilities of the neglected system off on the PWSA. This was a bad deal for PWSA and set the stage for PWSA to continue to issue debt to deal with an old and deteriorating system.

### **Why was the system in such poor condition by 2012?**

We did not research and assess how PWSA was operated between 1995 and 2012. However, in 2011 and 2012, PWSA appeared to be struggling with finding an Executive Director to manage operations. From December 2010 until July 2012, when PWSA contracted with Veolia Water North America Northeast (Veolia), PWSA leadership was operated by two PWSA employees as Co-Interim Executive Directors after the former Executive Director resigned due to a conflict-of-interest scandal.

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<sup>34</sup> <http://pgh2o.com/history> (accessed September 11, 2017).

<sup>35</sup> <http://www.post-gazette.com/local/city/2017/06/11/City-sees-long-haul-rate-hikes-for-PWSA-water-sewer-authority-lead/stories/201706110062> (accessed September 26, 2017).

<sup>36</sup> Ibid.



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### **The Pittsburgh Water and Sewer Authority**

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As part of its management services and consulting contract, Veolia in 2012 conducted a diagnostic evaluation of 10 functional areas of PWSA that evaluated its administrative functions, engineering and construction, and operations. The results of the study identified seven key performance indicators (KPI) by which it grouped its more than 100 improvement ideas. These seven indicators for driving operational improvements were as follows:

KPI	ACTIONS	VALUE TO RATEPAYERS
1. Customer Service	Enhance functionality of phone system; optimize Customer Service staff performance; and implement metrics	Better customer service experience
2. Communications	Enhance PWSA website and implement Community Outreach Program	More responsive to customer needs, greater transparency
3. Safety	Generate current statistics; establish safety program baseline; initiate training; and conduct facility inspections	Improved PWSA productivity with fewer recordable incidents
4. Compliance	Develop Process Control Management Plan; update Lab QA/QC Program; evaluate telemetry/automation; and initiate use of compliance metrics	Improved PWSA operations and process control
5. Capital Projects	Identify critical assets; evaluate condition of assets; improve tracking of Major Projects; and establish roles and responsibilities	More stable rates by optimizing capital spending through asset management
6. Finance	Develop a department-level budget process and a monthly financial report and feedback process	More stable rates through greater organization-wide financial discipline
7. Leadership & Training	Perform organizational assessment and develop Training Program	Improved PWSA productivity with training and succession planning

Source: Veolia's Pittsburgh Water and Sewer Authority 2012 Study Report, page 40.

In particular, the capital projects indicator information is disturbing. Veolia indicated that PWSA had been operating in crisis-mode asset management, instead of having a formal maintenance management system to reduce downtime costs and to systematically extend the useful life of PWSA's assets. In other words, instead of performing appropriate routine maintenance on its assets, no maintenance was performed on the assets, and nothing was done unless the asset failed. Additionally, Veolia recommended that PWSA needed to identify and conduct a condition assessment on its critical assets in order to properly plan for capital investments, as well as track and document all water main breaks for accountability.

Overarching these deficiencies is a lack of accountability. PWSA's leadership did not establish a framework for ensuring operating activities were properly tracked in order to monitor, assess, and evaluate performance. In addition to the lack of tracking of preventative maintenance, one example that Veolia found was that call center statistics, such as call abandonment and wait times, were not being generated to assess whether improvements could be made to customer service. PWSA also lacked a department-level budget in order to make each department accountable for its spending. These issues indicate a lack of proper management and leadership that likely existed for several years prior to the 2012 diagnostic evaluation.

#### **Why is the system in "deplorable" condition in 2017?**

In addition to what Veolia highlighted during its 2012 study regarding the mismanagement of PWSA operations, we identified three key factors that contributed to the system's negative condition:

- PWSA was operated and managed by Veolia.
- PWSA had frequent leadership turnover since 2014.
- PWSA had a severely insufficient capital investment program.

We discuss these factors below.

#### **PWSA Was Operated and Managed by Veolia**

From July 2012 through December 2015, Veolia took the helm of PWSA operations. In addition to Veolia bringing its consultants to assess PWSA operations, the contract required Veolia to supply an Interim Executive Director and other senior-level staff. The following table shows what key management positions were filled by Veolia during the contract:

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### The Pittsburgh Water and Sewer Authority

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Position	Time period served
Interim Executive Director	July 2012 to May 2015
Interim Chief Operating Officer	July 2012 to September 2015
Interim Finance Director	September 2012 to August 2015

*Source: Developed by the Department of the Auditor General.*

In regard to the PWSA Board hiring an Interim Executive Director, in May 2015, the PWSA Board hired the same Veolia executive as its Permanent Executive Director, who served in that capacity until he resigned in March 2016 due to the ongoing billing problems noted above.

With these key operational positions filled by Veolia, Veolia managed the day-to day operations of the PWSA for approximately three years with some oversight by the PWSA Board. For example, the Board approved the implementation of the seven KPIs (and certain other KPIs) developed during Veolia's tenure. However, it was Veolia management who, as part of running PWSA operations, was charged with implementing these KPIs instead of PWSA employees leading the efforts to improve operations. And with the PWSA employees understanding that Veolia leadership was only there on a temporary basis, PWSA employees did not necessarily embrace all these changes positively. Consequently, there was tension between Veolia trying to quickly make changes before the contract ended and PWSA employees trying to stall or delay the changes. This was made evident in the Steering Committee meeting minutes that were provided for a portion of 2014 and 2015.

In addition to managing the day-to-day operations of the PWSA, its contract also required Veolia to make recommendations to improve efficiencies and operational effectiveness. Veolia was to be paid based on the amount of cost savings realized by PWSA from Veolia-initiated improvements or a pre-established amount for implementing KPIs. This cost driven focus was very important to Veolia. In fact, as part of the Veolia contract, and according to one of Veolia's representatives, a Steering Committee was established for the purpose of evaluating and approving the proposed KPIs and improvement initiatives and not for overseeing the day-to-day operations of the PWSA.

The contract also required the Interim Executive Director (and the then permanent Executive Director—who is the same person) to report to the Steering Committee in addition to his duties to report on day-to-day operating activities to the PWSA Board. Therefore, it appears that the Interim Executive Director could have been conflicted about which was more important—making decisions that would benefit Veolia's profitability or serving as PWSA's Interim (or permanent) Executive Director with loyalty to its Board, employees, and customers. Based on media reports and interviews with PWSA officials, PWSA ultimately believed that the Executive Director made decisions in the best interest of Veolia.

Frequent Leadership Turnover

Since the end of Veolia's contract, PWSA has had difficulty in filling the Executive Director position. Within the 18-month period of January 2016 through June 2017, there have been four different individuals who have filled the Executive Director position and three of them, including the current Executive Director, have filled the position on an interim basis.

Executive Director Turnover	
Dates served	Details
May 2015 to March 2016	Permanent Executive Director – ex-Veolia employee
March 2016 to August 2016	Interim Executive Director – PWSA employee
September 2016 to March 2017	Interim Executive Director – contract employee
April 2017 – current	Interim Executive Director – contract employee <sup>a/</sup>
<sup>a/</sup> Individual has a one year contract beginning July 3, 2017.	

Source: Developed by the Department of the Auditor General.

Based on our interviews, it appears that not offering a competitive salary and the requirement to be domiciled in the City has been a factor in PWSA being unable to maintain continuity in this position (we address the reasoning behind this in the second section of this finding). Additionally, it would be reasonable to believe that the continued negative publicity from the recent operational problems would keep potential candidates from applying for positions at the PWSA.

In addition, we found that between January 2014 and June 2017, all five senior-level management positions turned over at least once. In fact, four of the five positions have experienced turnover since the start of our audit in February 2017. We interviewed both the Director of Human Resources and the Director of Field Operations prior to their departure from PWSA employment for other jobs. Both indicated that they were leaving, in large part, due to the uncertainty and instability at the PWSA with the potential restructuring, as well as changes in executive directors.

Lack of continuity in leadership brings excessive changes and a loss of confidence by its employees. Additionally, since an Interim Executive Director is only temporarily in that position, that individual may not attempt to correct deficiencies or improve processes, particularly those that would require a longer time to implement and provide benefits that will pay off more in the long-term than the short-term, such as preventative maintenance and asset upgrades. Instead, the individual may just continue on the previous individual's course. However, the lack of strong leadership and the lack of effort or the delay in making changes could and seemingly has resulted in the diminishing of the health and effectiveness of the PWSA.

Severely Insufficient Capital Investment

Overall, in the past 30 years, PWSA has not adequately funded its capital improvement program due, at least in part, to its heavy debt load. From the \$300 million in bond debt that PWSA had issued by 1995, PWSA's bond and loan debt has increased to \$680 million in 2012 and to more than \$750 million in 2016. See the Financial Highlights section in the Introduction and Background Section for more detailed information.

With this increase in debt, the overall financial condition of PWSA has been deteriorating over the past five years. PWSA's working capital (current assets less current liabilities) has decreased from a positive \$7.7 million in calendar year 2012 to a negative \$15.7 million in calendar year 2016. Working capital is a common measure of a company's liquidity, efficiency, and overall health. In other words, positive working capital generally indicates that a company is able to pay off its short-term liabilities immediately and negative working capital indicates a company is unable to do so.<sup>37</sup> In PWSA's situation, working capital went negative in 2013.

In addition, according to its audited financial statements, PWSA's debt service coverage ratio has been decreasing substantially, and is on the brink of violating the bond indenture covenant.<sup>38</sup> In fact, for the year ended December 31, 2016, the debt service coverage ratio covenant was to meet or exceed 1.2, while the actual debt service coverage ratio was 1.21. As a result, PWSA is 0.01 away from violating the bond indenture requirement.

With this negative financial position, the PWSA has lacked the opportunity to invest in capital improvements. Based on our review of PWSA's audited financial statements and concurrence by PWSA's Director of Finance, the following table shows the amount of PWSA's capital improvement investment over the most recent five-year period:

PWSA's Annual Capital Improvement Investment (in millions)					
Calendar Year					
2012	2013	2014	2015	2016	Total
\$30.5	\$21.4	\$22.9	\$47.2	\$35.0	\$157.0

Source: Developed by Department of the Auditor General.

On average, PWSA invested \$31.4 million annually in capital improvements during those years. However, based on information provided by the Director of Finance, based on its size and value, on average the PWSA should be investing \$200 million annually. Therefore, PWSA has only been investing in capital improvements over the past five years at about 15

<sup>37</sup> <http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/working-capital-869> (accessed September 27, 2017).

<sup>38</sup> According to PWSA, the debt service coverage ratio (revenue plus beginning of year cash balance less operating expense) be at least equal to annual debt service times 1.2.

percent of what it should have been. This lack of capital improvement investment contributes to the deteriorating infrastructure which continues to fail routinely.

On a positive note, PWSA in January 2017 created a written five-year capital improvement plan (CIP). According to the CIP, PWSA intends to invest the following in its capital improvements:

PWSA's Proposed 2017 Annual Capital Improvement Investment (in millions)					
Calendar Year					
2017	2018	2019	2020	2021	Total
\$48	\$98	\$131	\$191	\$188	\$656

Source: Developed by Department of the Auditor General.

Although this CIP does not match what should be invested (\$200 million annually), this plan, if fully implemented by PWSA, would collectively be more than four times what had been invested in the previous five years (previous table). This shows that management understands the need to invest in additional capital improvement and has laid out a plan to do so.

### City influence impairs PWSA's decision making and causes a financial burden.

As previously stated, some of the issues we found during the audit were created several decades ago, but continue to have negative implications today. This certainly is the case with respect to how the City has over-extended its authority regarding the PWSA. According to a City representative, because the City owns the PWSA water and sewer system infrastructure, the City through the Mayor's Office is ethically, morally, and legally responsible for what occurs at PWSA and the City is committed to making sure that PWSA produces safe drinking water. Based on these comments, we would expect that the City and PWSA would work collaboratively when emergencies (e.g., a water main break) arise and City assistance is needed. However, when the City negotiated the contract for a PWSA Executive Director in 2016,<sup>39</sup> a responsibility that belongs to the PWSA Board, the City overstepped its authority and went beyond working collaboratively with the PWSA. The City exceeding its authority may have potentially been the impetus for three PWSA Board members resigning in March 2017.<sup>40</sup>

<sup>39</sup> <http://www.post-gazette.com/local/city/2017/03/22/Three-PWSA-members-resign-mayor-Peduto-lindstrom-welch-mayoral-candidate/stories/201703220176> (accessed September 28, 2017).

<sup>40</sup> <http://triblive.com/local/allegheeny/12106529-74/3-pwsa-board-members-resign-in-the-same-week> (accessed September 28, 2017).

With regard to the City's commitment to providing safe drinking water, the City passed on its responsibility of maintaining the condition of the City-owned infrastructure to the PWSA according to the 1995 lease agreement.

12. **Maintenance and Repair.** The [PWSA] shall at all times maintain the Leased Property in as good condition as it is in on the date hereof, ordinary wear and tear excepted. The [PWSA] shall take every other action necessary or appropriate for the preservation and safety of the Leased Property. The Lessee shall promptly make all alterations of every kind and nature, whether foreseen or unforeseen, which may be required to comply with the foregoing requirements of this Paragraph 12 or any authority having jurisdiction over the Lessee or the Leased Property.<sup>41</sup>

As of today, this lease agreement has not been amended. If the City was truly willing to financially invest in the system that it owns, with the dire situation that the infrastructure is presently in, the City (and PWSA) should be considering amending this agreement for the City to financially assist in rectifying this extremely serious situation that continues to plague Pittsburgh.

Instead, based on our audit, we found that the City continues to take financial advantage of the PWSA beyond PWSA's issuance of at least \$750 million in debt to repair and replace the City-owned infrastructure.

**PWSA's original governing documents demonstrate that the City never intended the PWSA to ever be truly independent from the City.**

Municipal authorities are intended to be and are typically independent from the granting authority. However, based on the original governing documents of PWSA, it appears that the City never intended the PWSA to be truly independent from the City.

The composition of the Board is prescribed in the PWSA's Articles of Incorporation, the Municipalities Authority Act,<sup>42</sup> and the Pittsburgh City Charter. The Board is to be comprised of seven members.<sup>43</sup> The Articles of Incorporation mandate that the City of Pittsburgh's Treasurer and the City's Director of Finance are permanent board members.<sup>44</sup> Additionally, Pittsburgh's Home Rule Charter requires the Mayor to appoint, and the City Council to approve, a City Councilperson to the PWSA Board as well as four additional members, which could also include other City employees.<sup>45</sup> Thus, all seven members have direct or indirect ties to the City Mayor. However, most concerning are the City employees and the City Councilperson, who receive compensation from the City.

<sup>41</sup> Capital Lease Agreement, effective July 27, 1995, page 7.

<sup>42</sup> 53 Pa.C.S. § 5601 *et seq.*

<sup>43</sup> PWSA Articles of Incorporation.

<sup>44</sup> *Ibid.*

<sup>45</sup> Pittsburgh Home Rule Charter, Section 219 and 220.



All PWSA Board members who receive compensation from the City (currently there are four) may, at times, find themselves in a quandary. The City-compensated members may be influenced by the wishes of their employer, the City Mayor's Office, despite the Board members owing a specific fiduciary duty to the entity (PWSA) they serve and its customers. Generally, each corporate or municipal authority board member is bound by the fiduciary duties of loyalty (putting the interest of the entity above himself/herself) and care (properly and efficiently overseeing the affairs of the entity).<sup>46</sup> According to the Governor's Center for Local Government Services within the Department of Community and Economic Development, "The board has the ultimate fiduciary responsibility for the authority."<sup>47</sup> However, the Board's bylaws do not address the fiduciary responsibility of each Board member. Additionally, according to a Board member, the Board members are not required to sign an acknowledgement of their understanding and willingness to fulfill their fiduciary duties. Without the bylaws addressing Board members' fiduciary responsibilities and the requirement to sign such an acknowledgement, in many ways, PWSA Board members' decisions may be tipped to the pressures of the City Mayor's Office and not the PWSA.

Once the Mayor appoints the PWSA Board members, the Mayor (and City) should step away and allow the Board to oversee the Authority without influence. The Governor's Center for Local Government Services perhaps, said it most concisely: "Once an authority is created and its members appointed, a municipality has little direct control over the operations of the authority."<sup>48</sup> However, as discussed later, the City has influenced decisions and policy approved by the PWSA Board during the audit period. Additionally, the City takes financial advantage of the PWSA through its 1995 cooperation (co-op) agreement.

**The 1995 co-op agreement between the PWSA and the City is outdated and is a financial burden to the PWSA.**

One of the intents of the 1995 co-op agreement was to establish what services the City would provide to the PWSA and how the PWSA would pay the City for these services. Some of the services included telephone and data services, vehicle fuel and repair, legal aid, computer services, payroll services, and administering benefit programs. In exchange, and under the terms of this co-op agreement, PWSA is providing the City the following through 2035:<sup>49</sup>

<sup>46</sup> See 15 Pa.C.S. § 512 and 15 Pa.C.S. § 5712 which outline fiduciary duties of a "Corporation for profit" and Corporation not-for-profit", respectively. See 15 Pa.C.S. § 102 for definition. The duties include the requirement for both types of corporate entities to act in "good faith, in a manner he reasonably believes to be in the best interests of the corporation." [Emphasis added.] See 15 Pa.C.S. § 512(a) and 15 Pa.C.S. § 5712(a).

<sup>47</sup> Governor's Center for Local Government Services, Municipal Authorities in Pennsylvania, Tenth Edition, January 2015, page 18, [https://dced.pa.gov/download/municipal-authorities-in-pennsylvania/?wpdmdl=57758&ind=0oxWeybF709sdMRTVy4z7ML0ThTXUY5gA53YmtdeoE\\_oaWnEkSMdFd4eVpBLipByBrOSqv667NjlnkkTxPoNEg](https://dced.pa.gov/download/municipal-authorities-in-pennsylvania/?wpdmdl=57758&ind=0oxWeybF709sdMRTVy4z7ML0ThTXUY5gA53YmtdeoE_oaWnEkSMdFd4eVpBLipByBrOSqv667NjlnkkTxPoNEg) (accessed September 28, 2017).

<sup>48</sup> Ibid., page 12.

<sup>49</sup> Cooperative Agreement between the City of Pittsburgh and PWSA effective January 1, 1995, page 7.

- Up to 600 million gallons of water each year. This includes its departments, agencies, and instrumentalities (i.e., Pittsburgh Zoo,<sup>50</sup> Phipps Conservatory,<sup>51</sup> National Aviary,<sup>52</sup> and Schenley Golf Course<sup>53</sup>). To the extent in excess of 600 million gallons is used, the PWSA may offset that cost against moneys owed the City.
- Equalization payments for citizens in certain portions of the City not serviced by PWSA.
- Actual direct expenses and overhead expenses for services provided by the City to the PWSA (which, during the audit period, totaled \$7.15 million annually).

The co-op agreement also establishes that “the City shall not be liable for any [PWSA] debt payments.”<sup>54</sup>

Based on interviews with PWSA officials, the PWSA Board is aware that the co-op agreement is outdated and needs to be amended. This is evidenced by language in the “First Amendment to Cooperation Agreement” (amendment), entered into by the City and PWSA on March 21, 2011. The amendment states, in part:

WHEREAS, over time, some of the services and activities articulated by the Cooperation Agreement have been assumed by the Authority, and are no longer performed for the Authority by the City.

WHEREAS, over time, the City has assumed and has performed on behalf of the Authority other services and activities not articulated by the Cooperation Agreement.

<sup>50</sup> The Pittsburgh Zoo is one of only six major zoo and aquarium combinations in the United States. Located in Pittsburgh, Pennsylvania's Highland Park, the zoo sits on 77 acres of park land where it exhibits more than 4,000 animals representing 475 species, including 20 threatened or endangered species, [https://en.wikipedia.org/wiki/Pittsburgh\\_Zoo\\_%26\\_PPG\\_Aquarium](https://en.wikipedia.org/wiki/Pittsburgh_Zoo_%26_PPG_Aquarium) (accessed October 2, 2017). According to PWSA, the zoo is not metered nor billed for its water use.

<sup>51</sup> Phipps Conservatory, <https://www.phippsconservatory.org/>. Phipps Conservatory and Botanical Gardens is a botanical garden set in Schenley Park, Pittsburgh, Pennsylvania. It is a City of Pittsburgh historic landmark and is listed on the National Register of Historic Places, [https://en.wikipedia.org/wiki/Phipps\\_Conservatory\\_and\\_Botanical\\_Gardens](https://en.wikipedia.org/wiki/Phipps_Conservatory_and_Botanical_Gardens) (accessed October 2, 2017). According to PWSA, the conservatory is metered, but is not billed for its water use.

<sup>52</sup> National Aviary, <https://www.aviary.org/>. The National Aviary, located in Pittsburgh, Pennsylvania, is the only independent indoor nonprofit aviary in the United States. It is also the country's largest aviary, and the only accorded honorary "National" status by the United States Congress, [https://en.wikipedia.org/wiki/National\\_Aviary](https://en.wikipedia.org/wiki/National_Aviary) (accessed October 2, 2017). According to PWSA, the aviary has been metered and billed for its water use since at least 2012.

<sup>53</sup> Schenley Golf Course, renamed Bob O'Connor Golf Course at Schenley Park in 2007, is located in the rolling hills of Schenley Park between Oakland and Squirrel Hill in Pittsburgh, PA. It is the only golf course within the city limits. <http://www.thebobgc.com/>. The course had originally been publicly owned by the City of Pittsburgh, but it was privatized during the administration of Mayor Sophie Masloff. [https://en.wikipedia.org/wiki/Bob\\_O%27Connor\\_Golf\\_Course\\_at\\_Schenley\\_Park](https://en.wikipedia.org/wiki/Bob_O%27Connor_Golf_Course_at_Schenley_Park) (accessed October 2, 2017). According to PWSA, the golf course has been metered and billed for its water use since at least 2012.

<sup>54</sup> Cooperative Agreement between the City of Pittsburgh and PWSA effective January 1, 1995, page 7.

Additionally, the amendment acknowledges that both the City and the PWSA would like to renegotiate and enter into an amended Cooperation Agreement to be concluded and executed by August 2011; however, according to the City's Finance Director, who is also a PWSA Board member, an amended Cooperation Agreement was never executed for several reasons, two of which are:

- The co-op agreement is the key document that holds the PWSA responsible for the City's water related assets and no one would like to change that.
- The co-op agreement guarantees substantial revenue and free water to the City and the City administrators would not want to change that agreement without substantial restructuring of the City's revenue and expenses.

The Finance Director's response indicates that the City realizes it is getting a financial advantage by not renegotiating and amending the co-op agreement.

We attempted to evaluate what services the PWSA is receiving and paying for as part of the co-op agreement. Also, as part of our audit procedures, we identified services that the City benefits from (not described in the co-op agreement) that the PWSA either pays on behalf of the City or for which the PWSA does not bill the City. The following briefly describes our concerns regarding the items PWSA is to provide to the City.

Up to 600 million gallons of free water each year

Based on 2016 and 2017 rates, the value of the City receiving 600 million gallons of water during 2016 and 2017 is approximately \$6 million and \$6.84 million, respectively. However, PWSA does not know how much water the City actually uses each year because of the following:

1. PWSA does not have a complete list of all City-owned properties that receive free water.
2. Many City-owned properties are not metered.

PWSA's Director of Finance provided us a list of City-owned properties, but admitted that the list was incomplete. This list also showed that many properties are not metered. His response as to why the PWSA did not have a complete list of City-owned properties and why all the properties were not metered was that the PWSA and the city have held discussions on this matter, but there has never been a plan to address identifying and metering all City facilities. Considering the PWSA's dire financial condition, the failure to address this issue is unacceptable. Without all the City-owned properties being identified and meters placed at the properties to track water usage, the PWSA has no way of measuring exactly how much water the City is using free of charge. Therefore, if the City does use more than 600 million gallons of free water in any given year, the PWSA does not know it and cannot offset the value of the excess water against moneys owed the City in accordance with the agreement.

A senior manager of the PWSA indicated to us that the actual city water usage may be close to one billion gallons annually. However, this is just one senior manager's estimate of the City's water usage. If the PWSA could determine total water used by the City, it would be able to charge the City, or offset costs against its annual payment to the City, of approximately \$1.14 million dollars for every 100 million gallons in excess of the 600 million gallons the City uses based on 2017 rates.<sup>55</sup> As the chart below shows, if the City exceeds its free water allotment, the revenue lost to the PWSA is substantial.

Hypothetical Water Use	PWSA lost revenue (2016 rates)	PWSA lost revenue (2017 rates)
700 million gallons	\$1 million	\$1.14 million
800 million gallons	\$2 million	\$2.28 million
900 million gallons	\$3 million	\$3.42 million
1 billion gallons	\$4 million	\$4.56 million

Source: Developed by the Department of the Auditor General.

#### Equalization payments for citizens in certain portions of the City not serviced by PWSA

The co-op agreement also requires PWSA to subsidize water service for Pittsburgh City residents in certain parts of the City (south and west of the Monongahela River) that are serviced by Pennsylvania American Water (PAW). See the following example:

If a PAW customer is to be billed \$50 for a month of water usage based on PAW rates, but the PWSA rate for the same water use is \$40, the PAW will charge the customer \$40 and bill PWSA for the \$10 difference (subsidy).

Using the invoices sent to PWSA from PAW, we calculated that during the period January 1, 2014, through December 31, 2016, PWSA provided approximately \$4.8 million in subsidy payments to PAW for City residents serviced by PAW as shown below.<sup>56</sup>

Year	Subsidy Amount
2014	\$1,902,155
2015	\$1,339,395
2016	\$1,549,256
<b>Total</b>	<b>\$4,790,806</b>

Source: Developed by the  
Department of the Auditor General.

<sup>55</sup> The cost of providing water and sewer service to a commercial enterprise is \$7.47 and \$3.95, respectively per 1,000 gallons according to the 2017 PWSA rate schedule. The cost of providing water and sewer service to a commercial enterprise is \$5.52 and \$3.89 respectively per 1,000 gallons plus a 7 percent distribution infrastructure system charge added to the total according to the 2016 PWSA rate schedule.

<sup>56</sup> The above subsidy amounts were calculated by taking PAW's water rates less PWSA's water rates and sewer conveyance fees to arrive at the subsidy. PAW's water rates were higher than PWSA water and sewer rates combined. PWSA owns and maintains the sewer system used by PAW customers in the city.

## The Pittsburgh Water and Sewer Authority

This subsidy amount is substantially understated, though, because the above subsidy amounts paid were lowered by the amount of PWSA's sewage conveyance charges that were used to off-set the amount of subsidy paid. In a typical customer's water bill, PWSA charges for water service, sewage and storm water conveyance service and ALCOSAN's sewage treatment charges. In order to reduce the PAW subsidy, PWSA waived its sewage treatment charges to customers receiving water service from PAW until January 2017. Since January 2017, PWSA has been including the sewage conveyance charge on customer bills and the 2017 subsidy amount increased to \$4.8 million **per year**, a level more representative of the true size of the subsidy.

Because the PWSA is responsible for the difference between its rate (lower) and PAW's rate (higher); anytime that the PAW is granted a rate increase from the Public Utility Commission (PUC),<sup>57</sup> the PWSA will be paying out more money to PAW because the subsidy will be greater. On the other hand, if the PWSA increases rates and PAW does not, then the subsidy payment would decrease.

The PWSA Board and the City, as part of renegotiating the co-op agreement, need to reconsider whether this subsidy is necessary, especially in light of the poor financial condition of the PWSA and the need for additional revenue to improve its infrastructure.

Actual direct expenses and overhead expenses  
for services provided by the City to the PWSA

During the audit period, the City billed the PWSA a total of \$7.15 million annually for direct expenses plus overhead in four quarterly invoices each totaling \$1,787,500. We reviewed the 12 quarterly invoices covering the 2014, 2015 and 2016 calendar years and found that none of the invoices contained detailed information as to what services were being billed. Instead, each quarterly bill simply includes two line items as noted below:

PWSA Indirects	\$ 462,500
PWSA Authority Payment	<u>\$1,325,000</u>
Total	\$1,787,500

There was no further detailed explanation of the charges on the invoices. When asked why PWSA was paying for these quarterly City bills that had no detailed explanation, PWSA indicated that the practice was to just pay the bill. This is not a good accounting practice. PWSA needs to ensure that each bill is accurate and correctly calculated prior to paying. As previously indicated, over time the services provided by the City have changed and PWSA needs to ensure that it is not being charged for services it is no longer using. The City may be taking financial advantage (intentionally or unintentionally) of this practice of what

<sup>57</sup> The PUC regulates private water companies.

appears to be arbitrarily invoicing the PWSA the same amount each quarter. This demonstrates the need to have the co-op agreement renegotiated.

In addition to reviewing the items noted in the co-op agreement, we also identified two additional items that should be included in the renegotiated co-op agreement with the City. Both items relate to fire hydrant service changes:

1. PWSA paying for fire hydrant service charges invoiced by the various water companies.  
In accordance with PUC regulations, private water companies charge the PWSA, on behalf of the City, a monthly fee to service public fire hydrants that are located within the City. According to PWSA's Director of Finance and our review of some of the invoices, PWSA paid these water companies more than \$960,000 for these service charges during the three-year period from January 2014 through December 2016. PWSA indicated that these bills have always been paid by the PWSA even though this service is not included in the language of the co-op agreement. Again, it is necessary to renegotiate the contract and include all services.
2. PWSA does not charge the City to service the 7,400 hydrants<sup>58</sup> in its service area.  
According to PWSA officials, the PWSA does not bill to service these fire hydrants because the PWSA does not charge the City for water. PWSA did not have an estimate of the cost of fire hydrant servicing and would have to undertake a study to determine the cost. PAW currently charges the City \$20 per hydrant each month for most of the 1,267 hydrants<sup>59</sup> it services in the city. Therefore, at that same rate, PWSA could be receiving approximately \$148,000 per month or \$1.8 million annually to service hydrants in the City.

If the City is unwilling to come to the table to renegotiate the co-op agreement, the PWSA should not, in good faith, continue to give the City any extra benefits. The PWSA Board must do what is best for the PWSA and giving away water and services or paying for charges that are not required to be paid by the co-op agreement is not good business, especially in its current situation. This would include not paying the \$7.15 million annual charge by the City for unknown expenses.

**City influence has impacted decisions and policies approved by the PWSA Board.**

Based on our audit procedures, we identified two PWSA Board decisions that created policies that were directly affected by City influence: (1) Domicile policy; and (2) Conflict of Interest policy. We will discuss each of these below.

<sup>58</sup> PWSA 2017-2021 Capital Improvement Program, page 2.

<sup>59</sup> May 19, 2017, invoice from PAW.

**The Pittsburgh Water and Sewer Authority**

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1. Domicile policy

- a. Based on interviews with PWSA Board members, Interim Executive Directors, and senior-level management, the biggest impediment to hiring and/or maintaining a qualified and experienced workforce at PWSA is a requirement for employees to live in the City of Pittsburgh, known as domiciliary. However, in contrast to these opinions, we found that in February of 2016, the PWSA Board passed a resolution to develop a written policy requiring employees to be domiciled in Pittsburgh. According to the PWSA solicitor, this resolution was approved to clarify an unwritten residency policy that had been previously in place.<sup>60</sup>
- b. One would think, however, that if the domiciliary requirement was such a detriment to hiring and retaining employees, the PWSA Board would not have taken the action noted above.<sup>61</sup> PWSA officials and former and current board members indicated that the domiciliary requirement was influenced by the Mayor's Office because this policy applies at the City government offices. Additionally, according to the current Interim Executive Director, the City believes that the PWSA is still a department within the City and therefore, the Mayor's Office can dictate decisions and the direction of the Board. A City representative indicated that the City is willing to have a discussion about the domiciliary requirement, but is waiting to see the recommendations from the restructuring team. These statements indicates that the City does influence this decision though it acknowledges that the PWSA Board ultimately has the authority to change the requirement.
- c. To get around the domiciliary requirement, PWSA for years has been hiring contracted personnel including the Interim Executive Director and Interim Director of Engineering as well as many of the engineers.
- d. Rather than PWSA inconsistently applying a domiciliary requirement that deters employees and potentially costs PWSA more to hire contractors, the PWSA Board needs to stand up to the City and make the decision to rescind or amend the policy to allow for a larger pool of qualified applicants.

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<sup>60</sup> An individual may have more than one residence, but only one domicile. The term "residency" is defined on a factual place of abode evidenced by a person's physical presence in a particular place. In contrast, "domicile" is the place where people have their true, fixed, and permanent home and principal establishment, coupled with an intention of returning whenever they are absent.

<sup>61</sup> Based on our review of the Board meeting minutes, the actual written domiciliary policy was never approved by the Board. However, the PWSA provided us its Domicile Policy dated May 1, 2016.

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## 2. “Conflict of Interest” policy

- a. In September of 2014, the Board was asked by the City to adopt a “Conflict of Interest” Policy. The City proposed that all City authorities adopt this policy. During the September 12, 2014 Board meeting, the proposed policy was discussed, amended and a recommendation to approve the policy was made. The Board made two substantive changes to the City-provided policy: (1) the policy would only be applicable to Board members, officers, directors, and managers but not the entire staff of the PWSA, and (2) the threshold for material financial interest was to match the existing PWSA’s *Ethics Handbook*. Prior to the request from the City to adopt the policy, the PWSA’s *Ethics Handbook* addressed conflict of interest and was applied to all employees, but did not require the submission of an annual report, as the City’s policy requires.
- b. This is another example of City influence on the Board. The intention of the City was perhaps a good one, but the Board acted on the request when it may not have been needed, since the existing *Ethics Handbook* addressed the issue. In this example, approving a Conflict-of-Interest Policy may not have had a positive or negative affect on the operations of the PWSA, but it is an example of how the City influences the Board.

In addition to these two examples, PWSA officials stated that the City influences the salary of not only the Executive Director position but other positions within the PWSA. We did not validate these statements, but based on the acknowledgement of the City in media reports that the City was directly negotiating the salary of a potential Executive Director, this appears to be possible. This, if true, indicates that the City is trying to have PWSA stay in line with City departments even though the PWSA is an independent authority.

**Overall conclusion:** The PWSA Board, current Interim Executive Director, and senior-level management inherited an aging and deteriorating water system infrastructure, a culture of mismanagement, a heavy debt load, and ongoing City influence. The City, through the years, has enjoyed financial benefits from its agreements with the PWSA, which has resulted in a financial burden on the PWSA, but has not meaningfully participated in investing in its own infrastructure. PWSA’s mismanagement of the system, based on the 2012 Veolia study, demonstrates an ongoing leadership dilemma. We hope that the conclusions reached by the “blue ribbon” panel and the recommendations offered in this report will provide the PWSA with guidance for positive and lasting improvements.



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## **Recommendations for Finding 1**

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We recommend that the PWSA Board and/or management:

1. Develop a short-term and long-term executable action plan to address necessary improvements to operations and to preclude further potential imminent risks of not providing safe, reliable drinking water to its customers.
2. Stabilize the deteriorating infrastructure and eliminate current health hazards and request support from the City where necessary to make improvements.
3. Regain the confidence of its customers by promoting accountability and responsibility to its customers through communication and optimizing customer service.
4. Hire and establish a qualified and experienced management team, including a permanent full-time, Executive Director, committed to working through the tough problems and to lead and operate the PWSA. This would include establishing policy and a framework for monitoring the efficiency and effectiveness of all aspects of the operation to ensure regulatory compliance, routine asset management, and safety of its workforce and Pittsburgh citizens.
5. Offer market competitive wages and adapt the domiciliary requirement, to include the surrounding region to help in the hiring and retention of a dedicated and qualified workforce.
6. Comply with its 2017 Capital Improvement Plan and adequately invest in the necessary infrastructure replacements and improvements.
7. Develop a strategy to reduce and ultimately close the subsidy gap between the Pennsylvania American Water (PAW) company charges and the PWSA rates.
8. Make Board, management, and operational decisions, including domiciliary, salaries, etc., independent of City influence.
9. Work with the City to amend the PWSA's Articles of Incorporation to require PWSA Board seats be filled by individuals not compensated by the City. This could be accomplished by eliminating the mandate for the City's Director of Finance and Treasurer to be permanent Board members and or any City employees from being appointed to the PWSA Board.
10. Amend its Bylaws to include the necessary fiduciary responsibility of the Board as a whole, and the individual members.

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11. Require Board members to sign an acknowledgement that they understand and accept their fiduciary responsibility when serving on the Board.
  12. Request the City to negotiate an amendment to the co-op agreement to have it accurately reflect what services the City is to provide and be paid for by PWSA and vice versa. The negotiations should include whether the PWSA should continue to be subsidizing the water bills of PAW customers and should ensure that the City is paying its fair share and that PWSA is only paying for costs or services it uses.
  13. Obtain a complete list of all properties owned by the City on a routine basis, and regularly and routinely update PWSA's database.
  14. Meter all City properties that currently are not metered.
  15. Begin using the meter readings to track the amount of water used by the City annually and bill the City for all water usage over the allotted 600 million gallons in accordance with the co-op agreement.
  16. Immediately request the City to provide detailed invoices (or detailed support) for each quarterly bill to verify charges for both actual direct expenses and overhead expenses.
  17. Discontinue payment of City invoices for services unless those invoices have complete documentation to show valid details of those charges.

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**PWSA's Response and Auditors' Conclusions**

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We provided copies of our draft audit finding and related recommendations to The Pittsburgh Water and Sewer Authority (PWSA) for its review. On the pages that follow, we included PWSA's response in its entirety. Following PWSA's response is our auditors' conclusions.

## Audit Response from The Pittsburgh Water and Sewer Authority



October 17, 2017

Janet B. Ciccocioppo  
Director  
Bureau of Performance Audits  
302 Finance Building  
Harrisburg, PA 17120-0018

Dear Director Ciccocioppo:

The Pittsburgh Water and Sewer Authority (PWSA) received the Commonwealth of Pennsylvania Auditor General's draft performance audit. Our requested changes to the audit of PWSA have been incorporated and we respectfully submit the following responses:

**Recommendation # 1:** Develop a short-term and long-term executable action plan to address necessary improvements to operations and to preclude further potential eminent risks of not providing safe, reliable drinking water to its customers.

**Response:** In July 2017, PWSA staff, in conjunction with national experts **Raftelis** Financial Consultants, began the process of transitioning PWSA to a metrics-driven organization focused on providing the services, reliability and quality that the Pittsburgh ratepayers deserve. These metrics are being designed to be compliant with industry best practices as well as with Public Utility Commission (PUC) requirements. We are programming for a higher level of investment in the water, sewer and stormwater systems and to perform operational services appropriate for a utility PWSA's size.

**Recommendation # 2:** Stabilize the deteriorating infrastructure and eliminate current health hazards and request support from the City where necessary to make improvements.

**Response:** The plan described above addresses both immediate and long-term needs using a criticality-based approach. Our Capital Plan begins with immediate investment in our water filtration and treatment systems, water storage and pumping systems, water distribution lines, sewage conveyance lines, stormwater infrastructure, and technology systems to ensure efficiency and effectiveness for our ongoing operations.

**Recommendation # 3:** Regain the confidence of its customers by promoting accountability and responsibility to its customers through communication and optimizing customer service.

**Response:** The metric-based implementation plan outlined above will include performance measures for every aspect of our operations from water production to



distribution to sewer operations to customer service. These metrics will be monitored, tracked and reported publicly to ensure transparency to all PWSA stakeholders.

**Recommendation # 4:** Hire and establish a qualified and experienced management team, including a permanent full-time, Executive Director, committed to working through the tough problems and to lead and operate the PWSA. This would include establishing policy and a framework for monitoring the efficiency and effectiveness of all aspects of the operation to ensure regulation compliance, routine asset management, and safety of its workforce and Pittsburgh citizens.

**Response:** PWSA is currently seeking qualified candidates to fill the key Executive Director and Director roles on a permanent basis, but suitable candidates have not yet been identified. We actively recruit from a wide variety of professional organizations, and through our consultant's professional contacts.

**Recommendation # 5:** Offer market competitive wages and adapt the domiciliary requirement, to include the surrounding region to help in the hiring and retention of a dedicated and qualified workforce.

**Response:** The Board is evaluating options for compensation and other employment matters and will review the domiciliary policy for propriety.

**Recommendation # 6:** Comply with its 2017 proposed Capital Improvement Plan and adequately invest in the necessary infrastructure replacements and improvements.

**Response:** The proposed 2018 CIP, along with its corresponding 2018 budget and resulting water and sewer rate adjustments, will be presented to the Board of Directors at its next meeting. The proposed plan will result in a ten-fold increase in annual capital spending compared to the last two decades' average investment levels.

**Recommendation # 7:** Develop a strategy to reduce and ultimately close the subsidy gap between the Pennsylvania American Water (PAW) company charges and the PWSA rates.

**Response:** PWSA is committed to equality and fairness in its rate structure and will work with the City to address this issue. The PWSA Board has established a Customer Assistance subcommittee which is focused on the development and implementation of customer assistance programs.

**Recommendation # 8:** Make Board, management, and operational decisions, including domiciliary, salaries, etc., independent of City influence.

**Response:** PWSA is an important entity providing critically needed services to residents of the City of Pittsburgh and to many of the surrounding communities. It is PWSA's goal to work cooperatively with the City to provide the best services to our



customers. We understand our fiduciary and public service responsibilities will be memorialized in a new Cooperation Agreement between the parties to be finalized by December 31, 2017.

**Recommendation # 9:** Work with the City to amend the PWSA's Articles of Incorporation to require PWSA Board seats be filled by individuals not compensated by the City. This could be accomplished by eliminating the mandate for the City's Director of Finance and Treasurer to be permanent Board members and or any City employees from being appointed to the PWSA Board.

**Response:** PWSA was originally created as a financing authority and as in that regard having the City Finance Director and Treasurer as Board members was appropriate. Since 1995, PWSA has functioned as an operating authority. Therefore, it is reasonable to reconsider the mandatory board seats for the City Director of Finance and Treasurer. PWSA expects to address this issue as a component of the new Cooperation Agreement now under preparation.

**Recommendation # 10:** Amend its Bylaws to include the necessary fiduciary responsibility of the Board as a whole, and the individual members.

**Response:** Since the PWSA Board members are legally required to make decisions in the best interest of the Authority and its ratepayers, all foundational documents of the Authority will be reviewed to ensure that they clearly describe responsibilities of all Board members, managers and employees.

**Recommendation # 11:** Require Board members to sign an acknowledgement that they understand and accept their fiduciary responsibility when serving on the Board.

**Response:** See comment above.

**Recommendation # 12:** Request the City to negotiate an amendment to the co-op agreement to have it accurately reflect what services the City is to provide and be paid for by PWSA and vice versa. The negotiations should include whether the PWSA should continue to be subsidizing the water bills of PAW customers and should ensure that the City is paying its fair share and that PWSA is only paying for costs or services it uses.

**Response:** PWSA commits to working with the City to develop a modern Cooperation Agreement that is fair to the City, its taxpayers, the Authority and its ratepayers.

**Recommendation # 13:** Obtain a complete list of all properties owned by the City on a routine basis, and regularly and routinely update PWSA's database.

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**Response:** PWSA is committed to working with the City to catalog all water delivery locations and maintaining accurate ownership records as City real estate holdings change.

**Recommendation # 14:** Meter all City properties that currently are not metered.

**Response:** Because of the cost of metering all of the various properties, it will take a number of years to complete this item. Presently, the City is actively metering City pool facilities. PWSA also has funded a program to meter all City-owned fountains. Part of PWSA's above-mentioned plan includes a system-wide metering solution to better manage water loss, respond to breaks and outages, provide customer leak detection and provide more accurate billing.

**Recommendation #15:** Begin using the meter readings to track the amount of water used by the City annually and bill the City for all water usage over the allotted 600 million gallons in accordance with the co-op agreement.

**Response:** PWSA expects to address this issue as an element of the new Cooperation Agreement.

**Recommendation # 16:** Immediately request the City to provide detailed invoices (or detailed support) for each quarterly bill to verify charges for both actual direct expenses and overhead expenses.

**Response:** PWSA will discuss this issue with the City.

**Recommendation # 17:** Discontinue payment of City invoices for services unless those invoices have complete documentation to show valid details of those charges.

**Response:** PWSA will discuss this issue with the City.

Thank you for the opportunity to review and respond to your draft finding and recommendations. If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert A. Weimar', written over a horizontal line.

Robert A. Weimar  
Interim Executive Director

Cc: PWSA Board of Directors

Kent Lindsay, Director of Finance, PWSA

Chris Corbo, Audit Manager, Department of the Auditor General

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## **Auditors' Conclusions to The Pittsburgh Water and Sewer Authority's Response**

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Based on its response, PWSA generally agrees with our finding and recommendations and has already begun to implement changes. We commend the current PWSA Board/management for recently seeking professional guidance in transitioning the PWSA to be compliant with industry best practices. Additionally, we are encouraged by its plan to more heavily invest in the PWSA's infrastructure and in being committed to working with the City of Pittsburgh to develop a new Cooperation Agreement, including reconsidering the mandatory Board seats of the City Director of Finance and Treasurer. Finally, we applaud PWSA's willingness to review its foundational documents to ensure that they clearly describe the fiduciary responsibilities of its Board, managers, and employees.



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## Appendix A

## Objective, Scope, and Methodology

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The Department of the Auditor General conducted this performance audit in order to provide an independent assessment of governance within the Pittsburgh Water and Sewer Authority (PWSA).

We conducted this audit in accordance with *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objective.

### Objective

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Our audit objective was to determine whether PWSA's governance structure and delineation of decision-making responsibilities were adequate to provide effective oversight of PWSA operations.

### Scope

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This audit covered the period January 1, 2014, through June 30, 2017, unless otherwise indicated, with updates through the report date.

PWSA management is responsible for establishing and maintaining effective internal controls to provide reasonable assurances that the PWSA is in compliance with applicable laws, regulations, contracts, grant agreements, and administrative policies and procedures.

In conducting our audit, we obtained an understanding of PWSA's internal controls, including any system controls, if applicable, that we considered significant within the context of our audit objective.

For those internal controls that we determined to be significant within the context of our objective, we also assessed the effectiveness of the design and implementation of those controls as discussed in the *Methodology* section that follows. Any deficiencies in internal controls that were identified during the conduct of our audit and determined to be significant within the context of our audit objective are included in this report.

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## **Methodology**

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To address our audit objective, we performed the following:

- Obtained and reviewed the Pennsylvania law that governs the PWSA, and other authorities, the Municipality Authorities Act (see 53 Pa.C.S. § 5601 *et seq.*, as amended).
- Obtained and reviewed the PWSA's governing documents including the Articles of Incorporation, PWSA Board bylaws, and the Pittsburgh Home Rule Charter.
- Obtained and reviewed the Governor's Center for Local Government Services, Municipal Authorities in Pennsylvania, Tenth Edition, January 2015, which provides the reasons for an authority and the authority's power and duties based on the Municipality Authorities Act.
- Obtained the March 1984 Lease and Management Agreement between the PWSA and City of Pittsburgh as well as the July 1995 Memorandum of Lease that terminated the 1984 agreement. We reviewed the terms and conditions of each agreement.
- Obtained and reviewed a portion of the Green International Report regarding the water treatment and pumping facilities that is referenced in the 1984 Lease and Management Agreement to attempt to evaluate the condition of the system.
- Obtained an understanding of the mission and purpose of the PWSA by reviewing the PWSA's purpose, value and mission statements, contained in PWSA Board's Resolution 95, adopted November 20, 2015.
- Conducted various interviews and/or corresponded via e-mail with the following PWSA management and members of the Board of Directors:
  - Current Interim Executive Director.
  - Most recent former Interim Executive Director.
  - Former Director of Human Resources (resigned subsequent to our interview).
  - Director of Finance.
  - Former Acting Director of Water Quality (resigned subsequent to our interview).
  - Current Interim Director of Engineering.
  - Former Director of Field Operations (resigned subsequent to our interview).
  - PWSA Solicitor.
  - Current Board Chairperson.
  - Most recent former Board Chairman.
  - City of Pittsburgh Treasurer / PWSA Board Member.
  - City of Pittsburgh Director of Finance / PWSA Board Member.

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- City of Pittsburgh Councilwoman / PWSA Board Member.
- Conducted various interviews and/or corresponded via e-mail with the following individuals who have a business relationship with PWSA:
  - Current Managing Partner of the auditing firm for the PWSA Single Audit and/or the Financial Statements for the years ended December 31, 2012, 2013, 2014, 2015 and 2016.
  - Chief Financial Officer, City of Pittsburgh.
  - Chief of Staff, Office of the Mayor, City of Pittsburgh.
  - City of Pittsburgh's Controller's Office Audit Team.
  - Pennsylvania Department of Environmental Protection (DEP) Southwest Regional Manager, Bureau of Clean Drinking Water.
  - Director of Rates and Regulations Pennsylvania American Water.
  - Senior Research Associate / Writer Allegheny Institute for Public Policy.
  - Senior Vice President of Operations, Veolia Water North America Northeast (Veolia), who was a representative on the Steering Committee.
  - Representatives from the Allegheny County Health Department, Bureau of Environmental Health.
- Reviewed PWSA's website to obtain background information: <http://pgh2o.com/>.
- Obtained various PWSA organization charts and listings of PWSA Board members.
- Reviewed proposed legislation (House Bill 1490) related to the PWSA.
- Reviewed the request for proposal and contract with the financial and legal advisory team related to possible options for restructuring the PWSA.
- Reviewed the advisory team's Briefing Book on PWSA Restructuring Options, dated August 28, 2017.
- Obtained and reviewed newspaper articles and other media articles regarding the PWSA's state of affairs during the audit period. These articles dealt with varying issues including changes in management personnel, infrastructure problems including water main breaks, contamination of the water with particular emphasis on lead, billing and customer service problems, issues with regulatory agencies and long term system improvement initiatives.
- Reviewed the Pittsburgh Office of City Controller's draft performance audit report of PWSA, released in February 2017, and the final performance audit report of PWSA, released in June 2017, to assess the Controller's objectives and the audit results.

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- Reviewed the Single Audit reports for PWSA for the years ended December 31, 2012, 2013, 2014, and 2015, as well as the PWSA Financial Statements and Required Supplementary and Supplementary Information for the year ended December 31, 2016, to assess the financial condition of the PWSA during that period.
  - Reviewed DEP inspections and reports related to the PWSA from January 1, 2014, through April 5, 2017.
  - Obtained and reviewed the PWSA's board meeting minutes which included financial updates and reports from the finance director, reports from the consulting engineers, executive director's reports, and board resolutions from January 2014 to August 2017.
  - Attended PWSA board meetings from March 2017 to September 2017 to observe and document the proceedings.
  - Obtained and reviewed the Agreement for Interim Management Services between PWSA and Veolia from July 2012 through June 2013, July 2013 through December 2014, and January 2015 through December 2015.
  - Reviewed Veolia invoices to PWSA and the corresponding payments to Veolia by PWSA. Per the invoices and contract, these payments were for management services, key performance indicators, and improvement initiatives. Review of invoices and payments were to determine the amount paid to Veolia from the contract's inception in July 2012 until the final invoice sent in February 2016.
  - Obtained and reviewed a portion of Veolia Steering Committee meeting minutes from 2014 and 2015 (others could not be located). Steering committee members included three PWSA board members and two Veolia representatives to evaluate and approve KPI's and improvement initiatives.
  - Reviewed Veolia's Pittsburgh Water and Sewer Authority 2012 Study Report to determine areas of operational improvements that Veolia identified.
  - Identified the management employees Veolia provided to PWSA from July 2012, through September 2015.
  - Obtained from PWSA the number of water and sewer main breaks for the period January 2014 through May 31, 2017.
  - Obtained information on the amount of clean/treated water produced compared to the amount of water that PWSA actually bills for 2014, 2015, and 2016.

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- Reviewed and assessed senior-level management turnover from January 2014 through August 2017.
  - Reviewed PWSA's 2017 to 2021 Capital Improvement Program to compare amounts that PWSA is proposing to spend with the actual capital expenditures from 2012 to 2016.
  - Obtained and reviewed the Cooperation Agreement (effective January 1, 1995) between the PWSA and the City to determine if the City and PWSA were abiding by the terms of the agreement.
  - Obtained and reviewed the First Amendment to Cooperation Agreement, effective March 21, 2011, to assess any changes to the original agreement.
  - Attempted, but was unable to assess, the annual amount of City water usage during the audit period.
  - Researched websites for information regarding the Pittsburgh Zoo, Phipps Conservatory, National Aviary, and Schenley Golf Course.
  - Reviewed quarterly invoices from the City for services provided to PWSA for the calendar years 2014, 2015 and 2016 to determine the amount that PWSA pays the City each year and what services are being invoiced by the City.
  - Obtained and reviewed invoices from Pennsylvania American Water (PAW) for the years 2014, 2015 and 2016 to determine the amount PWSA paid annually to subsidize PAW customers.
  - Obtained information from PWSA regarding the waiving of sewer conveyance fees for PAW customers.
  - Obtained and reviewed some invoices paid by PWSA for fire hydrant servicing in areas that are not serviced by PWSA for the years of January 2014 through December 2016. We also determined whether PWSA was charging the City for hydrants located within its service area.
  - Obtained the water rates of PWSA and PAW customers for July 2016 and January 2017, to calculate the difference between the water rates.
  - Obtained and reviewed the PWSA *Ethics Handbook*, domicile and the conflict of interest policies.

Data Reliability

For data that we obtain from PWSA, and which materially affect the findings, conclusions, or recommendations that we present, *Government Auditing Standards* requires us to assess the completeness and accuracy of computer-processed data.<sup>62</sup>

No computer-processed data from PWSA was used in presenting the results of this audit. As such, we did not perform data reliability assessments.

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<sup>62</sup> See United States Government Accountability Office, *Government Auditing Standards*, December 2011.

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#### Appendix B

#### PWSA Board Members as of September 29, 2017

The following chart shows the name, title and term for the Board Members as of September 29, 2017:

Name	Occupation	Board Title	Term
Debbie Lestitian	City Chief Administration Officer	Chairperson	May 2, 2017 – April 30, 2020
Margaret Lanier	City Treasurer	Vice Chairperson	March 1, 2017 – February 26, 2021
Paul Leger	City Director of Finance	Treasurer	March 1, 2017 – June 30, 2018
Jim Turner	Retired City worker	Secretary	May 2, 2017 – April 30, 2020
Deb Gross	City Councilperson	Assistant Secretary	March 31, 2015 – March 6, 2018
Chaton Turner	Private citizen	Board Member	May 2, 2017 – April 30, 2020
Mike Weber	Union Representative	Board Member	November 9, 2015 – December 31, 2020

## The Pittsburgh Water and Sewer Authority

## Appendix C

## Reported PWSA Problems During The Audit Period

**1. Billing/Customer Service Issues: September 2014 to current**

In September of 2014, PWSA terminated its contract with a company that produced and serviced its water meters and meter reading interface equipment. The Pittsburgh City Controller's report stated that PWSA decided to change billing systems due to the new system being cheaper and more tailored to the utility business, however there were problems with compatibility issues during the transition. Additionally, electronic meter readers were not programmed correctly to the appropriate multiplier on the meters causing bills to be 10 to 1,000 times higher than they should have been in some cases.

A June 16, 2015, PWSA press release indicated customers expressed concerns regarding what they feel are inaccurate bills and service terminations. The release indicated that PWSA was working to resolve issues.<sup>63</sup>

The billing problems continued throughout 2015 into 2016. In March 2016, according to a city councilwoman who was also a PWSA board member there were nearly 50,000 inaccurate bills. Pittsburgh City Council members fielded complaints from constituents of rude treatment by PWSA employees, inconsistent answers to the same question, dismissive attitudes and excessive phone call hold time.<sup>64</sup>

In September 2017, PWSA announced it is looking to outsource billing and the related customer service for billing. The Interim Executive Director indicated he wants the billing system to be less costly, more efficient and have bills that are 100% accurate. Additionally, the current customer service system and billing systems are not compatible leading to long call times.<sup>65</sup>

**2. Corrosion Control and Elevated Lead Levels: 2014 to current**

PWSA made changes to its corrosion control chemicals in its water distribution system in 2014 and 2015. PWSA switched from using soda ash to using caustic soda in water treatment process and failed to receive approval from the Pennsylvania Department of Environmental Protection (PA DEP).

In February 2016, the PA DEP issued a Notice of Violation, because PWSA did not provide corrosion control chemicals in accordance with its permit by eliminating soda ash in 2014 and 2015. In April 2016, the PA DEP also issued an Administrative Order to PWSA, regarding the changes in corrosion control which required among other things PWSA to test a sample of homes by June 30, 2016, to determine lead and copper levels were not above the EPA's minimum established levels. The results of the June 2016 testing showed a higher than acceptable level of lead content in PWSA's drinking water. As a result of exceeding the lead threshold, PWSA was required to complete testing every six months and replace seven percent of its lead service lines each year. By July of 2017, PWSA failed to replace seven percent of its lead service lines by the June 30, 2017 deadline. Water samples collected and tested for compliance with U.S. Environmental Protection Agency (EPA) water quality standards, showed the lead content in the water exceeded the EPA's threshold in December 2016 but was in compliance with EPA lead content thresholds in June 2017.

In September 2017, the Interim Executive Director indicated during interviews that the PA DEP and EPA are preparing a consent order involving all lead related issues that may include a large fine. As of October 16, 2017, there has been no consent decree and the resolution of these matters remain pending.

<sup>63</sup> <http://www.pgh2o.com/release?id=4640> (accessed October 12, 2017).

<sup>64</sup> <http://triblive.com/news/allegheeny/10142854-74/pwsa-billing-donahoe> (accessed May 11, 2017).

<sup>65</sup> <http://www.post-gazette.com/local/city/2017/09/18/PWSA-billing-questions-outsourcing-Robert-Weimar-pittsburgh-water-authority/stories/201709170223> (accessed September 18, 2017).



## A Performance Audit

### The Pittsburgh Water and Sewer Authority

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#### 3. Flush and Boil Advisories: February 2017 and August 2017

In February 2017, PWSA issued a flush and boil water advisory that affected 100,000 customers in the central and eastern sections of the city, due to testing that showed low levels of chlorine in treated drinking water.

In August 2017, another advisory was issued affecting 18,000 homes in the northern section of the city, Millvale, and Reserve Township due to deficiencies in the cover of the Lanpher reservoir.<sup>66</sup> The torn reservoir cover could lead to contamination of the treated water being maintained in the reservoir.

#### 4. Water Line Breaks: 2014 to current

According to a PWSA official, the PWSA experienced 3,581 water and sewer line breaks<sup>67</sup> from January 2014 through May 31, 2017. Breakage rates increased by 79 percent from 2014 to 2016. Also, by projecting the number of breaks for the first five months of 2017, 2017 is on target to equal the number of breaks in 2016. See details in the below table.

Calendar Year	Water Mains	Service Lines	Lead Service Lines	Sewer Mains	Sewer Laterals	Totals
2014	439	281	—	33	—	753
2015	492	339	—	98	—	929
2016	533	472	267	31	44	1,347
2017 <sup>a/</sup>	205	217	116	4	10	552
<b>Totals</b>	<b>1,669</b>	<b>1,309</b>	<b>383</b>	<b>166</b>	<b>54</b>	<b>3,581</b>

*a/ - From January 1, 2017 through May 31, 2017.*

<sup>66</sup> <http://www.pgh2o.com/release?id=6953> and <http://pgh2o.com/release?id=7598> (both accessed September 13, 2017).

<sup>67</sup> PWSA definitions: **Water and Sewer Mains:** PWSA main water distribution main and main sewer conveyance, **Service Lines:** water lines servicing commercial or residential properties, **Lead Service Lines:** material type for water lines servicing commercial or residential properties, **Sewer Laterals:** sewer lines that service commercial or residential properties from the PWSA main sewer to the building.

**Appendix D**

**Distribution List**

This report was distributed to the following officials:

**The Honorable Tom Wolf**  
Governor

**Ms. Debbie Lestitian**

Chairperson

The Pittsburgh Water and Sewer Authority

**Mr. Kent Lindsay**

Director of Finance

The Pittsburgh Water and Sewer Authority

**Ms. Margaret Lanier**

Vice Chairperson

The Pittsburgh Water and Sewer Authority

**The Honorable William Peduto**

Mayor

City of Pittsburgh

**Mr. Paul Leger**

Treasurer

The Pittsburgh Water and Sewer Authority

**Mr. Michael E. Lamb**

Controller

City of Pittsburgh

**Mr. Jim Turner**

Secretary

The Pittsburgh Water and Sewer Authority

**The Honorable Randy Albright**

Secretary of the Budget

Office of the Budget

**Ms. Deb Gross**

Assistant Secretary

The Pittsburgh Water and Sewer Authority

**The Honorable Joseph M. Torsella**

State Treasurer

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**Ms. Chaton Turner**

Board Member

The Pittsburgh Water and Sewer Authority

**The Honorable Josh Shapiro**

Attorney General

Office of the Attorney General

**Mr. Mike Weber**

Board Member

The Pittsburgh Water and Sewer Authority

**The Honorable Sharon P. Minnich**

Secretary of Administration

Office of Administration

**Mr. Robert Weimar**

Executive Director

The Pittsburgh Water and Sewer Authority

**Mr. Brian Lyman, CPA**

Director

Bureau of Audits

Office of Comptroller Operations

## A Performance Audit

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### The Pittsburgh Water and Sewer Authority

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**Ms. Mary Spila**  
Collections/Cataloging  
State Library of Pennsylvania

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**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

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**Request: I&E-RE-19:** Reference PWSA's Compliance Plan concerning the discussion of its compliance status and plan about the Capital Lease Agreement with the City of Pittsburgh as presented on p. 107. Regarding PWSA's assertion that "[t]he Capital Lease Agreement stipulates minimum lease payments, all of which were satisfied during the initial three years of the lease," provide the following:

- A. A copy of the Capital Lease Agreement;
- B. Identify the date and amount of each lease payment that PWSA made to the City of Pittsburgh; and
- C. Indicate whether the City has provided PWSA with any documentation acknowledging the payments that PWSA made. If so, provide copies of any such documentation.

**Response:**

- A. See I&E-RE-19 Attach A and Attach B.
- B. The Capital Lease Agreement stipulates minimum lease payments of approximately \$101 million, all of which were satisfied during the initial three years of the capital lease.
- C. At this time, PWSA has not been able to locate this documentation from the City from 1995 but PWSA's payment has been well documented in various bond related documents and audited reports. See, for example, PWSA's 2017 Audited Financial Statements, p. 11 available at:  
<http://www.pgh2o.com/finance>

Response Provided by: Debbie M. Lestitian, Chief Corporate Counsel and Chief of Administration  
The Pittsburgh Water and Sewer Authority

Dated: January 25, 2019

CAPITAL LEASE AGREEMENT

THIS AGREEMENT, is made and entered into as of July 15, 1995, effective July 27, 1995 (the "Effective Date"), by and between the CITY OF PITTSBURGH (the "Lessor") having an office at City County Building, Pittsburgh, Pennsylvania 15219;

A  
N  
D

THE PITTSBURGH WATER AND SEWER AUTHORITY, having its principal office at 441 Smithfield Street, Pittsburgh, Pennsylvania 15222 (the "Lessee").

W I T N E S S E T H:

WHEREAS, the Lessor desires to lease to Lessee and the Lessee desires to lease from Lessor, certain assets located in and around the City of Pittsburgh and used in connection with the operation of a water and sewer system by the Lessee under a Lease and Management Agreement dated March 29, 1984 (the "Lease and Management Agreement"), as more fully described herein.

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter set forth, the parties hereto, intending to be legally bound hereby, do hereby agree as follows:

1. Termination of Existing Lease. Lessor and the Lessee hereby agree that on the Effective Date of this Lease, the Lease and Management Agreement shall terminate by mutual agreement of the Lessor and the Lessee and all obligations of either party thereunder shall cease.

2. Demise of Premises and Assignment of Contracts.

a. The Lessor hereby demises and lets to the Lessee, and the Lessee hereby takes and leases from the Lessor, for the term and upon the provisions hereinafter specified, the following described property (collectively the "Leased Property"): (i) the entire network of water and sewage transmission pipelines as detailed on the Lessee's engineering maps, all water storage facilities (collectively the "System") and certain land and buildings (the "Real Property"), both the System and the Real Property are more fully described on Exhibit A hereto, (ii) all fixtures relating to the Real Property, (iii) all equipment used in connection with or related to the operation of the System (the "Equipment"), (iv) all water and sewage transmission pipelines dedicated by builders or developers subsequent to the Effective Date and all assets associated with or used in connection with such pipelines, (v) all spare parts wherever

located and used in connection with the operation of the Equipment, and (vi) all inventory used in connection with the operation of the Equipment; provided, however, that the Leased Property shall not include the assets set forth on Exhibit B hereto.

b. Lessor hereby assigns to Lessee and Lessee hereby assumes all contracts, leases, permits, licenses and other instruments (collectively, the "Contracts") used in connection with the operation of the System, including but not limited to those listed on Exhibit A hereto. Anything in this Agreement to the contrary notwithstanding, this Agreement shall not constitute an agreement to assign any contract or any right or benefit arising thereunder or resulting therefrom if an attempted transfer or assignment thereof, without the consent of a third party thereto, would constitute a breach thereof or in any way affect the rights of Lessor or Lessee thereunder. If such consent is not obtained, or if an attempted transfer or assignment thereof would be ineffective or would affect the rights of Lessor thereunder so that Lessee would not in fact receive all such rights, Lessor shall cooperate with Lessee in any arrangement designed to provide for Lessee the benefits under any such contracts, or any claim or right or any benefit arising thereunder or resulting therefrom, including, without limitation, enforcement for the benefit of Lessee of any and all rights of Lessor against a third party thereto arising out of the breach or cancellation by such third party or otherwise.

c. Other than liabilities arising out of operation of the Leased Premises or the Contracts subsequent to the Effective Date, Lessee does not, pursuant to this Lease, assume any liabilities or obligations of Lessor.

### 3. Term.

(a) Subject to the provisions hereof, the Lessee shall have and hold the Leased Property for a term commencing as of July 15, 1995 and ending on September 1, 2025 at 12:00 midnight (the "Term").

(b) At the expiration of the Term the Lessee shall have the option to acquire all of the Leased Property from the Lessor in consideration of the payment of one dollar (\$1.00) in immediately available funds by the Lessee to the Lessor.

4. Rent. The Lessee shall pay to the Lessor as rent for the Term the total sum of One Hundred One Million Four Hundred Sixteen Thousand Nine Hundred Seventy-Four Dollars and Sixty Cents (\$101,416,974.60) as follows:

(a) The Lessee on the scheduled payment dates shall pay to the Lessor in immediately-available funds the following amounts (the "Capital Lease Payments"):

<u>Payment Date</u>	<u>Payment Amount</u>
July 27, 1995	\$35,000,000
January 2, 1996	\$20,000,000

August 1, 1996  
January 2, 1997

\$20,000,000  
\$21,017,249.60

(b) The Lessee shall receive a credit of Five Million Three Hundred Ninety-Nine Thousand Seven Hundred Twenty-Five Dollars (\$5,399,725) based on prepayments calculated under generally accepted accounting principles at December 31, 1994 and made under the Lease and Management Agreement prior to the Effective Date (the "Credit").

The Capital Lease Payments and the Credit are collectively referred to herein as the "Rent."

5. Bond Contingency. It is expressly agreed by the Lessor that the obligations of the Lessee hereunder are contingent on the Lessee's successful issuance of the Lessee's \$103,020,000 aggregate principal amount Water and Sewer System Subordinate Revenue Bonds, Series B of 1995 (the "Bonds") to finance this Lease. If for any reason the Lessee is unable to issue the Bonds, the Lease and Management Agreement shall remain in full force and effect unmodified by this Lease.

From and after the issuance of the Bonds, the Lessor shall not take any actions that will adversely affect the tax exempt status of the Bonds.

6. Use of Leased Premises; Quiet Enjoyment.

(a) The Lessee may occupy and use the Leased Property in order to provide water and sewer services and services incidental thereto to customers in and around the City of Pittsburgh and other purposes consistent with the public purposes of the Lessee. Lessee shall not use or occupy or permit any Leased Property to be used or occupied, nor do or permit anything to be done in or on any of the Leased Property, in a manner which would materially violate any law or legal requirement.

(b) Subject to the provisions hereof, so long as no Event of Default has occurred and is continuing, Lessor covenants to do no act to disturb the peaceful and quiet occupation and enjoyment of the Leased Property by Lessee, provided that Lessor may enter upon and examine any of the Property at such reasonable times as Lessor and Lessee based upon their mutual convenience may select for the purpose of inspecting the Leased Property, verifying compliance or non-compliance by Lessee with its obligations hereunder and the existence or non-existence of any Event of Default or event which with the passage of time and/or notice would constitute an Event of Default.

(c) During the term of this Lease, Lessor covenants not to assign, sell, convey or transfer any right, title or interest in or to the Leased Property or create, incur, assume or suffer to exist, directly or indirectly, any lien, encumbrance or security interest of any kind on the Leased Property, other than the encumbrances set forth on Exhibit D hereto or other encumbrances existing as of the Effective Date that do not materially detract from the value or

interfere with the present use of any of the Leased Property or otherwise materially impair its intended use.

7. Representations and Warranties of the Lessor. The Lessor hereby represents and warrants to the Lessee the following:

(a) Organization; Power; Good Standing. The Lessor has all requisite power and authority to own, operate and lease its properties, to carry on its business as now being conducted and to enter into this Lease and perform its obligations hereunder.

(b) Authority Relative to Lease. The execution, delivery and performance of this Lease by the Lessor will have been duly and effectively authorized by all necessary action by the Lessor. This Lease has been duly executed by the Lessor and is a valid, legally binding and enforceable obligation of the Lessor.

(c) Effect of Lease. The execution, delivery and performance of this Lease by the Lessor and the consummation of the transactions contemplated hereby will not (i) require the consent, approval or authorization of any person, corporation, partnership, joint venture or other business association or public authority (other than the City Council of the Lessor); (ii) violate, with or without the giving of notice or the passage of time, or both, any provisions of law or statute or any rule, regulation, order, award, judgment or decree of any court or governmental authority applicable to the Lessor; or (iii) conflict with or result in a breach or termination of any provision of, or constitute a default under, or result in the creation of any lien, charge or encumbrance upon any of the Leased Property pursuant to any charter, bylaw, indenture, mortgage, lease, contract, agreement or other instrument, or any order, judgment, award, decree, statute, ordinance, regulation or any other restriction of any kind or character, to which the Lessor is a party, or by which the Lessor or any of the Leased Property may be bound.

(d) Absence of Certain Changes or Events. Except as otherwise disclosed in Exhibit C hereto, with regard to the Leased Property and the Contracts, the Lessor has not:

(i) mortgaged, pledged or subjected to any lien, charge, security interest or to any other encumbrance any of the Leased Property or the Contracts (whether tangible or intangible); and

(ii) suffered any material casualty loss or damage to the Leased Property, whether or not such loss or damage shall have been covered by insurance.

(e) Title to Properties; Absence of Liens and Encumbrances; Leases.

(i) The Lessor has good and marketable title to all of the Real Property and good title to all of the Leased Property, tangible and intangible, free and clear of



all claims and encumbrances (including all property reflected in Exhibit A hereto), other than (i) as specifically disclosed in Exhibit D hereto, and (ii) such imperfections of title, easements, liens, pledges, charges and encumbrances, if any, as do not materially detract from the value or interfere with the present use of any of the Leased Property or otherwise materially impair its intended use;

(ii) All leases and easements pursuant to which the Lessor, leases or uses any real or personal property included in the Leased Property are valid and binding against the Lessor, in accordance with their terms and there is not under any of such leases or easements any existing default by the Lessor, event of default by the Lessor, or event which with notice or lapse of time, or both, would constitute a default by the Lessor (and in respect of which the Lessor has not taken adequate steps to prevent such a default or event of default from occurring). Except as set forth on Exhibit D hereto, none of the rights of the Lessor under any of such leases or easements is subject to termination or modification as the result of the transactions contemplated hereby.

(f) Contracts. To the knowledge of Lessor, all of the Contracts are valid and enforceable in accordance with their terms against Lessor and against the other parties to such Contracts in all material respects.

(g) List of Properties, Contracts and Other Data. Exhibit A hereto is a list setting forth the Leased Property and the Contracts.

(h) Litigation. Except as disclosed in Exhibit E hereto, there are no claims, actions, suits, proceedings or investigations pending or, to the Lessor's knowledge, threatened against or affecting the Leased Property or the Contracts at law or in equity or in admiralty, or before or by any federal, state, municipal or governmental or nongovernmental department, commission, board, bureau, agency or instrumentality, United States or foreign which would have a material adverse effect on the Leased Property or the Contracts.

(i) Licenses; Permits; Authorization. Exhibit F hereto is a description of all approvals, authorizations, consents, licenses, orders and permits of all governmental agencies, whether United States, state or local, issued to or in favor of the Lessor with respect to the operation of the Leased Property.

(j) Environmental Matters.

(i) In connection with the Leased Property, there are no unresolved notices of violation, orders, claims, citations, complaints, penalty assessments, suits or other proceedings, administrative, civil, criminal, at law or in equity, pending against the Lessor and, to the knowledge of the Lessor, no investigation or review is pending or threatened against the Lessor by any governmental entity or third party with respect to any alleged violation of any federal, state or local environmental law, regulation, ordinance, standard, permit or order in connection with the conduct of the System.

(ii) In connection with the operation of the Leased Property to the Lessor's knowledge, the Lessor is not in violation of any environmental law.

(iii) Since 1987, except as reported on The Superfund Amendments and Reauthorization Act of 1986, Title III, Section 313, Toxic Release Inventory Reporting Form Rs ("Toxic Substance Release Reports"), to the Lessor's knowledge, no hazardous, toxic or polluting substances have been released, discharged or disposed of at or from property now or formerly owned or operated by the Lessor and part of the Leased Property.

(iv) Except as listed on Exhibit G hereto, to the Lessor's knowledge, there are no outstanding public notices regarding noncompliance with applicable state and federal Safe Drinking Water Act rules and regulations, no temporary emergency actions, no public notices regarding lead, nor any variances or exemptions from MCL's or treatment techniques.

(v) Notwithstanding anything herein to the contrary, Lessor shall notify Lessee of any violation, orders, claims, citations, complaints, penalty assessments, suits or other proceedings, administrative, civil, criminal, at law or in equity, Lessor receives in connection with the Leased Property.

8. Representations and Warranties of the Lessee. The Lessee represents and warrants to the Lessor as follows:

(a) Organization; Good Standing; Power. On the Closing Date the Lessee will be a municipal authority duly organized, validly existing and in good standing under the laws of the Commonwealth of Pennsylvania and will have all requisite power and authority to own, lease and operate its properties and the Leased Property to carry on its business as now being conducted and the business conducted in connection with the Leased Property and to enter into this Lease and perform its obligations.

(b) Authority Relative to Lease. On the Closing Date, the execution, delivery and performance of this Lease and the transactions contemplated hereby and thereby by the Lessee will have been duly and effectively authorized and ratified by all necessary action by the Lessee. This Lease has been duly executed by Lessee and is a valid, legally binding and enforceable obligation of Lessee.

(c) Effect of Lease. The execution, delivery and performance of this Lease and the consummation of the transactions contemplated hereby will not (i) require the consent, approval or authorization of any person, corporation, partnership, joint venture or other business association or other public authority (other than the Board of the Lessee); (ii) violate, with or without the giving of notice or the passage of time, or both, any provisions of law or statute or any rule, regulation, order, award, judgment or decree of any court or governmental authority applicable to the Lessee; or (iii) conflict with or result in a breach or termination of any provision of, or constitute a default under, or result in the creation of any lien, charge or encumbrance upon any of the properties or assets of the Lessee pursuant to any indenture,

corporate charter, bylaw, mortgage, deed of trust, lease, contract, agreement or other instrument or any order, judgement, award, decree, statute, ordinance, regulation or any other restriction of any kind or character, to which the Lessee is a party, or by which the Lessee or any of its assets or properties may be bound.

(d) Litigation. Except as described on Exhibit H hereto, there are no claims, actions, suits, proceedings or investigations pending against the Lessee, or to the best of Lessee's knowledge, threatened, that would have a material adverse effect on the transaction contemplated hereby.

9. Transactions prior to the Effective Date.

(a) Permits. From and after the date hereof, the Lessor shall, upon the Lessee's reasonable request, provide reasonable assistance to the Lessee in obtaining transfer of any environmental or operating permits and licenses issued or held by the Lessor and necessary for the Lessee to conduct its operations with the Leased Property.

(b) Consents. The Lessor agrees that it shall obtain prior to the Effective Date all material consents, assignments, and approvals as may be required in order to enable it to perform its obligations hereunder, including, but not limited to, all material consents and approvals required to permit it to make the transfers to the Lessee contemplated herein so that the Lessee may enjoy after the Effective Date all rights and benefits presently enjoyed by the Lessor with respect to the Leased Property.

10. Additional Condition Precedent. The obligations of Lessee under this Lease are subject to the satisfaction at or prior to the Effective Date that all consents required to assign the Contracts to Lessee shall have been obtained.

11. Compliance with Laws. The Lessee shall, at its expense, materially comply with and conform to all legal requirements placed on the Leased Property during the Term, including all applicable environmental laws; unless the Lessee is contesting the requirement in good faith by appropriate legal proceedings promptly initiated and diligently prosecuted.

12. Maintenance and Repair. The Lessee shall at all times maintain the Leased Property in as good condition as it is in on the date hereof, ordinary wear and tear excepted. The Lessee shall take every other action necessary or appropriate for the preservation and safety of the Leased Property. The Lessee shall promptly make all alterations of every kind and nature, whether foreseen or unforeseen, which may be required to comply with the foregoing requirements of this Paragraph 12 or any authority having jurisdiction over the Lessee or the Leased Property.

13. Indemnification of the Lessor. Subject to the terms of the Cooperation Agreement dated June 15, 1995 between the Lessor and the Lessee, pursuant to which the Lessor has agreed to provide certain services to the Lessee in connection with the operation of the Leased Property (the "Cooperation Agreement"), the Lessee agrees to indemnify and hold the Lessor harmless against and in respect of:

(a) all obligations and liabilities of the Lessee relating to the Leased Premises, whether accrued, absolute, fixed, contingent or otherwise, occurring after the Effective Date of this Lease;

(b) any loss, liability or damage suffered or incurred by the Lessor because of a breach of any obligation of the Lessee incurred under this Lease, or because any representation or warranty by the Lessee contained herein shall be false as of the Effective Date;

(c) all reasonable costs and expenses (including attorney's fees) incurred by the Lessor in connection with any action, suit, proceeding, demand, assessment or judgment for which the Lessor is entitled to indemnification under this Paragraph 13.

14. Indemnification of the Lessee. Subject to the terms of the Cooperation Agreement, the Lessor agrees to indemnify and hold the Lessee harmless against and in respect of:

(a) all obligations and liabilities of the Lessor relating to the Leased Premises, whether accrued, absolute, fixed, contingent or otherwise, occurring before the Effective Date of this Lease;

(b) any loss, liability or damage suffered or incurred by the Lessee because of a breach of any obligation of the Lessor incurred under this Lease, or because any representation or warranty by the Lessor contained herein shall be false as of the Effective Date;

(c) all reasonable costs and expenses (including attorney's fees) incurred by the Lessee in connection with any action, suit, proceeding, demand, assessment or judgment for which the Lessee is entitled to indemnification under this Paragraph 14.

15. Insurance. (a) The Lessee shall maintain the following insurance on or in connection with the Leased Property:

(i) Insurance against loss or damage to the Real Property and the System by fire and other risks from time to time included under standard extended and additional extended coverage policies, including vandalism and malicious mischief, sprinkler, and, to the extent any of the Leased Property is in a flood zone, flood insurance in amounts not less than the actual replacement value of the Real Property and the System, excluding footings and foundations and other parts of the Real Property which are not insurable (or, in the case of plate

glass insurance, the replacement cost of all plate glass in the Leased Property). Such policies shall contain replacement cost endorsements.

(ii) General public liability insurance against claims for bodily injury, death or property damage occurring on, in or about any of the Leased Property, in an amount not less than \$1,000,000 for bodily injury or death to any one person, not less than \$1,000,000 for bodily injury or death in any one accident, and not less than \$2,000,000 for property damage.

(iii) Worker's compensation insurance covering all persons employed by the Lessee in connection with any work done on or about any of the Leased Property for which claims for death or bodily injury could be asserted against the Lessor, the Lessee or any of the Leased Property or, in lieu of such worker's compensation insurance, a program of self-insurance complying with the rules, regulations and requirements of the appropriate agency of the Commonwealth of Pennsylvania.

(iv) Such other insurance on or in connection with any of the Leased Property as the Lessor may reasonably require, which at the time is commonly obtained in connection with properties similar to the Leased Property.

16. Casualty. If any casualty occurs, the Lessee shall give the Lessor immediate notice thereof. The Lessee is hereby authorized to adjust, collect and compromise, in its discretion and upon notice to the Lessor, all claims under any of the insurance policies required by Paragraph 15 and to execute and deliver on behalf of the Lessor all necessary proofs of loss, receipts, vouchers and releases.

17. Events of Default and Remedies.

(a) If any one or more of the following events (an "Event of Default") shall happen:

(i) Failure by the Lessee to make due and punctual payments of all or any portion of the Rent as and when the same shall be due and payable as provided in other provisions of this Lease and such failure shall continue for ten (10) days after receipt of notice thereof from the Lessor to the Lessee; or

(ii) Failure by the Lessee to materially perform and comply with any of the other agreements, terms, covenants, or conditions of this Lease within a period of thirty (30) days after notice from the Lessor to the Lessee specifying that such items are in default; provided that, if such failure is not susceptible of being cured with due diligence within such thirty (30) day period, the time allowed the Lessee to cure such failure shall be extended for such period as may be reasonably necessary so long as the Lessee promptly makes all efforts to complete such cure with all due diligence; provided, further, that if such failure shall subject the Leased Property to any risk of seizure, foreclosure, forfeiture or shall subject the Lessor to

any risk of default under any other leases, mortgages or agreements of which the Lessee has been given notice or of criminal prosecution, the time allowed hereunder for curing such failure shall immediately and without further notice cease notwithstanding anything to the contrary contained in this Lease; or

(iii) The Lessee shall make a general assignment for the benefit of creditors; or

(iv) The Lessee shall file any voluntary petition in bankruptcy or an involuntary petition shall be filed by the creditors of the Lessee, which involuntary petition shall remain undischarged for a period of ninety (90) days; or

(v) A receiver shall be employed or appointed to take possession of substantially all of the assets of the Lessee, which receivership shall remain undissolved for a period of ninety (90) business days after creation thereof; or

(vi) The Lessee shall admit in writing its inability to pay its debts as they become due, or the Lessee shall file a petition seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any present or future statute, law or regulation, or the Lessee shall file an answer admitting or failing timely to contest a material allegation of a petition filed against the Lessee in any such proceeding or, within sixty (60) days after the commencement of any proceeding against the Lessee seeking any reorganization, or arrangement, composition, readjustment, liquidation, dissolution or similar relief under any present or future statutes, law or regulation, such proceeding shall not have been dismissed;

then in any such event, the Lessor shall have all rights or remedies available to the Lessor at law or in equity, including specific performance.

(b) No failure by the Lessor to insist upon the strict performance of any agreement, term, covenant or condition hereof or to exercise any right or remedy consequent upon a breach thereof, and no acceptance of full or partial rent during the continuance of any such breach, shall constitute a waiver of any such breach of such agreement, term, covenant or condition. No waiver of any breach shall affect or alter this Paragraph but each and every agreement, term, covenant and condition hereof shall continue in full force and effect with respect to any other then existing or subsequent breach hereof.

(c) Each right and remedy provided for in this Lease shall be cumulative and shall be in addition to every other right or remedy provided for in this Lease or now or hereafter existing at law or in equity or by statute or otherwise, and the exercise or beginning of the exercise by the Lessor of any one or more of the rights or remedies provided for in this Lease or now or hereafter existing at law or in equity or by statute or otherwise shall not preclude the simultaneous or later exercise by the Lessor of any or all other rights or

remedies provided for in this Lease or now or hereafter existing in law, in equity, under any statute or otherwise.

18. Miscellaneous.

(a) Survival of Representations. All representations, warranties and agreements made by the Lessor and the Lessee in this Lease or in any exhibit, certificate, document or instrument delivered pursuant to the provisions hereof or in connection with the transactions contemplated hereby, and the remedies of the Lessee and the Lessor with respect thereto, shall survive the termination of this Lease for a period of five (5) years.

(b) Waivers and Amendment.

(i) The Lessor or the Lessee may, by written notice to the other may, (i) extend the time for the performance of any of the obligations or other actions of the other; (ii) waive any inaccuracies in the representations or warranties of the other contained in this Lease; (iii) waive compliance with any of the covenants of the other contained in this Lease; and (iv) waive or modify performance of any of the obligations of the other.

(ii) This Lease may be amended, modified or supplemented only by a written instrument executed by all the parties hereto. Except as provided in the preceding sentence, no action taken pursuant to this Lease, including, without limitation, any investigation by or on behalf of any party, shall be deemed to constitute a waiver by the party taking such action of compliance with any representations, warranties, covenants or agreements contained herein. The waiver by any party hereto of a breach of any provision of this Lease shall not operate or be construed as a waiver of any subsequent breach.

(c) Expenses. Whether or not the transactions contemplated by this Lease are consummated, the Lessee shall be responsible for the fees and expenses of its counsel, accountants, other experts and all other expenses incurred by it incident to the negotiation, preparation and execution of this Lease, and the Lessor shall be responsible for any and all such fees and expenses incurred by it incident to the negotiation, preparation and execution of this Lease and the performance by it of its obligations hereunder.

(d) Occurrences of Conditions Precedent. Each of the parties hereto agrees to use its best efforts to cause all conditions precedent to its obligations under this Lease to be satisfied.

(e) Notices. All notices, requests, demands and other communications which are required or may be given under this Lease shall be in writing and shall be deemed to have been duly given if delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid:

- (a) If to the Lessor to:  
City of Pittsburgh  
City County Building

Pittsburgh, PA 15219  
Attention: City Solicitor

- (b) If to the Lessee to:  
The Pittsburgh Water and Sewer Authority  
441 Smithfield Street  
Pittsburgh, PA 15222  
Attention: Executive Director

or to such other address as any party shall have specified by notice in writing to the other.

(f) Entire Agreement. This Lease and the Exhibits hereto constitute the entire agreement between the Lessee and the Lessor with respect to the subject matter hereof.

(g) Binding Effect; Benefits. This Lease shall inure to the benefit of and be binding upon the parties hereto and their successors; nothing in this Lease, expressed or implied, is intended to confer on any other person other than the parties hereto, or their successors, any rights, remedies, obligations or liabilities under or by reason of this Lease.

(h) Non-assignability. This Lease and any rights pursuant hereto shall not be assignable by either party without the prior written consent of the other and any assignment in violation hereof shall be null and void and of no force and effect.

(i) Applicable Law. This Lease and the legal relations between the parties hereto shall be governed by and in accordance with the laws of the Commonwealth of Pennsylvania.

(j) Section and Other Headings. The section and other headings contained in this Lease are for reference purposes only and shall not affect the meaning or interpretation of this Lease.

(k) Counterparts. This Lease may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

(l) Recordation. Lessor and Lessee agree to execute contemporaneously herewith a Memorandum of Lease for recordation in the Office of the Recorder of Deeds of Allegheny County, Pennsylvania, in lieu of this Lease.

(m) Further Assurances. The parties hereto each agree to execute, make, acknowledge and deliver such instruments, agreements, assignments, other instruments of title and conveyances and other assurances and documents as may be required to effectuate the purposes of this Capital Lease Agreement and to consummate the transactions contemplated hereby.



IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, have duly executed and delivered this Lease as of the date first above written.

ATTEST:

*Ronan A. Nunne*  
 Secretary *Treasure*

THE PITTSBURGH WATER AND  
SEWER AUTHORITY

By: *Joseph P. Patton Jr.*

Chairman

ATTEST:

*M. Linda Langewere*  
 Secretary to the Mayor

CITY OF PITTSBURGH

By: *F. M. G.*

Mayor

Approved as to Form:

*Suzanne Morrow*  
 City Solicitor

Countersigned:

By: *John H. Roberts*

City Controller

Approved as to form:  
 Of Me, McComey & Chilcote, P.C.,  
 Solicitor to the Controller,  
 City of Pittsburgh

*Kimberly J. Roberts*

MEMORANDUM OF LEASE

This Memorandum of Lease made as of the 27th day of July, 1995 between the  
CITY OF PITTSBURGH, having an office at City County Building, Pittsburgh, Pennsylvania  
15219 (the "Lessor"),

A

N

D

THE PITTSBURGH WATER AND SEWER AUTHORITY, having its principal office at 941  
Smithfield Street, Pittsburgh, Pennsylvania 15222 (the "Lessee").

W I T N E S S E T H:

1. The Lessor is the City of Pittsburgh.
2. The Lessee is The Pittsburgh Water and Sewer Authority.
3. The address of the Lessor is City County Building, Pittsburgh, Pennsylvania 15219. The address of the Lessee is 941 Smithfield Street, Pittsburgh, Pennsylvania 15222.
4. The Lease is dated as of July 15, 1995 (the "Lease").
5. The Lease shall be effective July 27, 1995 and shall expire on September 1, 2025 at 12:00 midnight.
6. The demised premises (the "Leased Property") are: (i) the entire network of water and sewage transmission pipelines as detailed on the Lessee's engineering maps, all water storage facilities (collectively, the "System") and certain land and buildings (the "Real

Property"), both the System and the Real Property are more fully described on Exhibit A hereto; (ii) all fixtures related to the Real Property; (iii) all equipment used in connection with or related to the operation of the System (the "Equipment"); (iv) all water and sewer transmission pipelines dedicated by builders or developers subsequent to July 27, 1995 and all assets associated with or used in connection with such pipelines; (v) all spare parts used in connection with the operation of the Equipment; and (vi) all inventory used in connection with the operation of the Equipment, excluding certain personal property and certain capital improvements set forth in the Lease made by Lessee, owned by Lessee and not owned by Lessor.

7. The Lease is effective July 27, 1995 and terminates on September 1, 2025 at 12:00 midnight.

8. The Lessor shall have the option to acquire the Leased Property from the Lessor on September 1, 2025.

9. This instrument is intended to be a Memorandum of Lease for purposes of 21 P.S. § 405; 1959, June 2, P.L. 454 § 2. Reference is made to the Lease for all of its terms, agreements, covenants, conditions, rights, options and privileges therein set forth, and this instrument shall not in any circumstances be deemed to modify or change any of the provisions of the Lease, which provisions shall in all instances prevail.

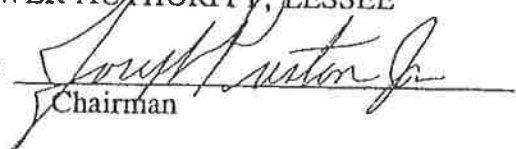
IN WITNESS WHEREOF, Lessor and Lessee have executed this Memorandum  
of Lease as of the date and year first above written.

ATTEST:


  
Secretary-Treasurer

THE PITTSBURGH WATER AND  
SEWER AUTHORITY, LESSEE

By:

  
Chairman

ATTEST:

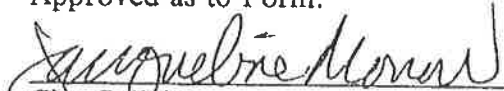
  
Secretary to the Mayor

CITY OF PITTSBURGH, LESSOR

By:

  
Mayor

Approved as to Form:

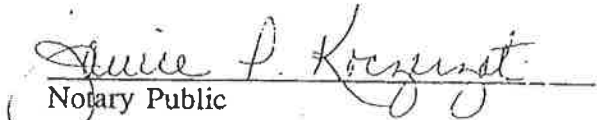
  
City Solicitor

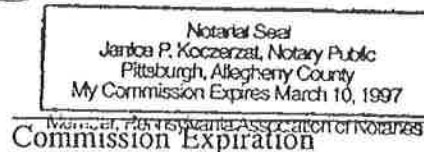
I&E Exhibit No. 2 Schedule 5 Page 18 of 19
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COMMONWEALTH OF PENNSYLVANIA     )  
   )     SS:  
COUNTY OF ALLEGHENY                     )

On this, the 26<sup>th</sup> day of July, 1995, before me, the undersigned officer, a Notary Public, personally appeared Thomas J. Murphy and Linda M. Gangewere, who acknowledged themselves to be the Mayor and the Secretary to the Mayor of the City of Pittsburgh, respectively and that they, as such Mayor and Secretary to the Mayor being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the City of Pittsburgh by themselves as Mayor and Secretary to the Mayor.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

  
Notary Public



I&E Exhibit No. 2  
Schedule 5  
Page 19 of 19

RECORDER OF DEEDS ALLEGHENY COUNTY, PA JUL 28 2 05 PM '95	FORM 1-RECORDER	TO BE MAILED
	RECEIPT FOR PAPERS RECORDER'S OFFICE OF ALLEGHENY COUNTY PITTSBURGH, PA.	
	RECEIVED FOR RECORD	MEMORANDUM OF LEASE
	FROM	CITY OF Pgh
	TO	Pgh WATER & SEWER Auth.
FEE \$	63 <sup>50</sup> / <sub>100</sub> cents PAID Pgh-727+200 CAS	MICHAEL A. DELLA VECCHIA RECORDER
		PER <u>dr</u> WEEKS <input type="checkbox"/>

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 6 Page 1 of 18
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**Request: I&E-RE-20:** State whether PWSA is aware of any action that the City of Pittsburgh is considering that may attempt to terminate PWSA's option to acquire utility assets of the City of Pittsburgh identified in the Capital Lease Agreement for a total consideration of one dollar in 2025. If so, provide the following information:

- A. The type of action that the City of Pittsburgh is considering; and
- B. Any written documents in PWSA's possession that reference any such action, including but not limited to written communications, meeting minutes, resolutions, press releases, and written statements.

**Response:** PWSA is not aware of any current actions on the part of the City of Pittsburgh to terminate PWSA's option to acquire utility assets as identified in the Capital Lease Agreement. However, PWSA is aware of discussions related to this from the spring of last year. According to public records available, City of Pittsburgh Resolution File # 2018-0287 was read and referred on March 20, 2018 by City Council to a Standing Committee (Committee on Intergovernmental Affairs).

Information and documentation is available from the City's Legislative Information Center (LIC):

<https://pittsburgh.legistar.com/Legislation.aspx> (search 2018-0287)

or

<https://pittsburgh.legistar.com/LegislationDetail.aspx?ID=3380557&GUID=65B636AA-182B-49E4-BCF6-72C0712AEC61&Options=ID|Text|&Search=2018-0287>

**Response  
Provided by:** Julie Quigley, Director of Administration  
The Pittsburgh Water and Sewer Authority

**Dated:** January 25, 2019

I&E Exhibit No. 2 Schedule 6 Page 2 of 18
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## Details

File #: 2018-0287 Version: 2

Type: Resolution

Title: Resolution authorizing a Cooperation Agreement between the City of Pittsburgh ("City") and the Pittsburgh Water and Sewer Authority ("PWSA") to implement a revised governance structure for the Pittsburgh Water and Sewer Authority and further authorizing an amendment to the 1995 Capital Lease Agreement to terminate PWSA's option to purchase the leased property in 2025. (Public Hearing set for 7/18/18)

Mover:

Secunder:

Result:

Agenda note:

Minutes note:

Action: Public Hearing Held

Action text: Public Hearing Held to the Committee on Intergovernmental Affairs

Votes (0/0)

0 records

Person Name	Vote
No records to display.	



I&E Exhibit No. 2  
Schedule 6  
Page 3 of 18

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[Live Video Streaming](#)
[Legislation](#)
[Calendar](#)



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[RSS](#)
[Details](#)
[Reports](#)

File #: 2018-0287 Version: 

Type: Resolution

Status: In Standing Committee

File created: 3/16/2018

In control: Committee on Intergovernmental Affairs

On agenda: 5/9/2018

Final action:

Enactment date:

Enactment #:

Effective date:

Title: Resolution authorizing a Cooperation Agreement between the City of Pittsburgh ("City") and the Pittsburgh Water and Sewer Authority ("PWSA") to implement a revised governance structure for the Pittsburgh Water and Sewer Authority and further authorizing an amendment to the 1995 Capital Lease Agreement to terminate PWSA's option to purchase the leased property in 2025. (Public Hearing held 7/18/18)

Indexes: COOPERATION AGREEMENT/S

Attachments: 1. [Summary 2018-0287.docx](#), 2. [2018-0287 Blue Ribbon Panel Governance Agreement VERSION 2](#), 3. [2018-0287 PWSA Governance Restructuring](#)

History (6)

Text

6 records		Group	Export				
Date	Ver.	Action By	Action	Result	Action Details	Meeting Details	Video
7/18/2018	2	Committee on Hearings	Public Hearing Held		<a href="#">Action details</a>	<a href="#">Meeting details</a>	Not available
5/9/2018	2	Standing Committee	Held for Public Hearing	Pass	<a href="#">Action details</a>	<a href="#">Meeting details</a>	Not available
5/9/2018	2	Standing Committee	Held for Post Agenda	Pass	<a href="#">Action details</a>	<a href="#">Meeting details</a>	Not available
5/9/2018	2	Standing Committee	AMENDED	Pass	<a href="#">Action details</a>	<a href="#">Meeting details</a>	Not available
3/28/2018	1	Standing Committee	Held in Committee	Pass	<a href="#">Action details</a>	<a href="#">Meeting details</a>	 <a href="#">Video</a>
3/20/2018	1	City Council	Read and referred		<a href="#">Action details</a>	<a href="#">Meeting details</a>	 <a href="#">Video</a>

### Fiscal Impact Statement

<b>Department</b>	Office of Management and Budget		
<b>Preparer</b>	Sam Ashbaugh		
<b>Contact</b>	Sam Ashbaugh		
<b>Type of Initiative</b>	<input checked="" type="checkbox"/> Legislation	<input type="checkbox"/> Executive Order	
<b>Type of Legislation</b>	Contract Authorization		

#### Description of Initiative

This legislation authorizes a Cooperation Agreement between the City of Pittsburgh and the Pittsburgh Water and Sewer Authority to implement a revised governance structure for the Pittsburgh Water and Sewer Authority by establishing a Board of Nominators and the selection of a Board of Directors.

<b>Total Cost</b>	\$ 0.00			
<b>Frequency of Expenditure</b>	<input type="checkbox"/> One-Time		<input type="checkbox"/> Multi-Year	
<b>Funding Source</b>	<input type="checkbox"/> Operating	<input type="checkbox"/> Capital	<input type="checkbox"/> Grant	<input type="checkbox"/> Trust Fund
<b>Is this item budgeted?</b>	<input type="checkbox"/> Yes		<input type="checkbox"/> No	

#### JDE Account Information

N/A

#### Additional Costs

N/A

#### Impact on City Revenue

N/A

#### Attachments

N/A

**COOPERATION AGREEMENT**

**THIS AGREEMENT** is made as of the \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between PITTSBURGH WATER AND SEWER AUTHORITY, a body corporate and politic, organized and existing under the Act of May 2, 1945 (P.L. 382 No. 164) (the "PWSA") and the CITY OF PITTSBURGH, a municipal corporation of the Commonwealth of Pennsylvania (the "City"). **WITNESSETH:**

**WHEREAS**, the PWSA was created by the City as a municipal authority under Pennsylvania law pursuant to the Pennsylvania Municipality Authorities Act, 53 P.C.S.A. § 5601 et seq., to manage and operate the City's waterworks, water supply works, water distribution systems, and sewer systems with the goal of providing clean, safe, reliable, and efficient drinking water delivery, sanitary sewage conveyance, and storm water removal services;

**WHEREAS**, issues have arisen in the operations of the PWSA that implicate the health, safety, and welfare of the citizens of the City, including non-compliance with limits on lead in drinking water, multiple boil water advisories, several water main breaks, and widespread errors in billing;

**WHEREAS**, the current governing documents of the PWSA provide that the PWSA is to be governed by a seven (7) member Board of Directors, with no fewer than six (6) members appointed by the Mayor of the City and approved by City Council;

**WHEREAS**, the Mayor of the City in March 2017 named a Blue Ribbon Panel to advise the City on a possible restructuring of the PWSA, and the Blue Ribbon Panel issued its report on December 28, 2017, which report provided that the governance of the PWSA should be restructured to make it accountable to and trusted by the public;

**WHEREAS**, it is the desire of the City, in furtherance of the health, safety and welfare of its residents, to restructure the PWSA to ensure accountable and effective public management;

**WHEREAS**, the PWSA and the City have determined to enter into this Agreement to implement changes recommended by the Infrastructure Management Group, the Auditor General of Pennsylvania and the Controller of the City of Pittsburgh; and

**WHEREAS**, the PWSA and the City recognize that entering into this Agreement is the most expeditious method of making the governance of the PWSA accountable to and trusted by the public, thereby furthering the health, safety, and welfare of the residents of the City.

**NOW, THEREFORE**, intending to be legally bound, the parties hereto agree as follows:

## 1. Definitions.

“Capital Lease Agreement” shall mean the Capital Lease Agreement between the City and the PWSA, effective July 27, 1995.

“Board of Directors” shall mean the Board of Directors of the Pittsburgh Water and Sewer Authority.

“Board of Nominators” shall mean the Board of Nominators of the Pittsburgh Water and Sewer Authority.

**2. Purpose of the Agreement.** Both parties recognize that, to protect the health, safety and welfare of the residents of the City, the PWSA must properly focus on strategic and operational plans that result in the delivery of clean, safe and affordable water to the residents of the City and that this is best accomplished through a governance structure that is accountable to the public, trustworthy, and transparent. The purpose of this Agreement is to set forth the terms of such a governance structure.

**3. Board of Nominators.** The City, by Ordinance, shall establish a Board of Nominators (the “BON”) for the PWSA subject to the following:

**a. Purpose of the BON.** The BON shall submit to the Mayor a list of potential members to the Board of Directors of the PWSA. The Mayor shall appoint those nominees to the Board of Directors, subject to the confirmation of City Council. The BON shall annually evaluate the performance of each of the Directors separately and, in the aggregate, of the Directors as a deliberative body.

**b. Appointment of the BON.** Initial members of the BON shall be appointed by the Mayor of the City from among nominees presented by the PWSA Blue Ribbon Panel, subject to confirmation by City Council. The BON shall adopt procedures to ensure an open nominating process with respect to members of the BON and to ensure that the composition of the BON, as described below, is broadly representative of the City.

**c. Number and Terms of Members of the BON.** There shall be five (5) members of the BON, with each member serving a term of five (5) years except for initial members of the BON. To ensure that there are staggered terms for the BON and that one member’s term shall expire each year, the initial members of the BON shall be assigned by lottery to terms of 1, 2, 3, 4 or 5 years, and initial members shall serve for such term as they are assigned. Members of the BON shall be limited to serving for ~~three~~ two (2) full terms, however, initial members serving less than a five year initial term shall be eligible for two (2) full terms following their initial term.

**d. Composition of the BON.** Members of the BON shall reflect the diversity of the City and be broadly representative of the City, including geographically. Members shall be well-respected for their competence, experience and demonstrated community engagement. No member of the BON may be a paid employee of the City or Allegheny County.

**e. Evaluation of the Board of Directors.** The BON shall adopt policies and procedures to annually evaluate the Directors of the PWSA, with such policies and procedures to include:

- (i) Defined performance metrics and a Board of Directors Survey to undertake the evaluation; and,
- (ii) An annual meeting with the Board of Directors to address the performance evaluations and the Directors' goals and priorities for the upcoming year.

**f. Removal of a BON Member.** A member of the BON may be removed by the City for any reason upon the affirmative vote of two-thirds of the elected members of City Council and the approval of the Mayor.

**g. Resources for the BON.** The PWSA shall provide resources for the operations of the BON, including reasonable operating expenses not to exceed \$50,000 per year and reasonable administrative support services

**h. Duties of the Initial Board of Nominators.** The initial BON shall meet to consider the selection of nominees of new directors of the BOD in conformance with this Agreement within sixty (60) days of appointment by the City.

**4. Board of Directors.** The City and the PWSA, in accordance with applicable law, shall cause to be filed with the Secretary of the Commonwealth amended Articles of Incorporation, changing the composition of said Board as follows:

**a. Purpose of the BOD.** The BOD shall have the powers and responsibilities of a board of directors as set forth in the Pennsylvania Municipality Authorities Act, including oversight of the public health and safety with respect to water treatment and delivery, sanitary sewage conveyance, and storm water removal services of the PWSA, fiscal management, efficiency, productivity, and the affordability of rates.

**b. Appointment of the BOD.** Members of the BOD shall be nominated by the BON, submitted to the Mayor for appointment, subject to confirmation by City Council. The BON shall create an open and transparent process with respect to the nomination of members of the BOD, including processes that are accessible to the general public and permit interested parties to apply. Prior to selecting prospective nominees to the BOD, the BON shall hold a public meeting for the purpose of presenting nominees for the BOD to the public and providing the public with the opportunity to make inquiries of the nominees.

**c. Number and Terms of Members of the BOD.** There shall be nine (9) members of the BOD, with each member eligible to serve terms of three (3) years, with eight members subject to re-nomination twice by the BON. No member of the Board of Director shall serve more than three (3) three (3) year terms. In addition to the eight (8) members nominated by the BON, the Mayor shall appoint a member of Pittsburgh City Council to serve as a full voting member of the BOD.

**d. Composition of the BOD.** The members of the BOD shall, as a group, reflect the diversity of the City. The BOD members shall be selected by the BON based on the competence and capacity of the member to carry out the purposes of the BOD, and in particular, the BOD should include members with areas of expertise relevant to the operations and management of the PWSA, such as financial, legal, engineering, public utility management, human resources/management, labor relations, public health, and green infrastructure. All members of the BOD must reside or work within the PWSA water service area. No member of the BOD may be a paid employee of the City or Allegheny County with the exception of one (1) member of Pittsburgh City Council.

**e. Reconstitution of the Board of Directors** As vacancies occur through the restructuring process and the need to appoint the new expanded BOD members, the BON and the City shall appoint those members as follows:

There shall be nine (9) members of the BOD, with each member eligible to serve three (3) terms of three (3) years, subject to re-nomination by the BON. To ensure that there are staggered terms for the BOD, the initial members of the BOD selected by the BON shall be assigned by lottery to a term of 1, 2, or 3 years, with three members in each category, and initial members shall serve for such term as their initial term. Initial directors pursuant to this Agreement and the Amended Articles of Incorporation serving less than a three (3) year initial term shall be eligible for three (3) full terms following their initial term.

**f. Eligibility.** All members of the BOD must reside or work within the PWSA water or sewage service area. No member of the BOD may be a paid employee of PWSA, the City or the County of Allegheny, except for the member of City Council.

**g. Officers.** ~~The BOD shall annually elect the following officers of the BOD: Chairperson, Vice Chairperson, Secretary, Assistant Secretary, and Treasurer. Officers shall serve for a one (1) year term but may be reelected for successive terms.~~

**h. Conduct of the BOD:**

~~The BOD within sixty (60) days of the confirmation of its new members, shall adopt the following policies:~~

**a. Financial management**

- ~~i. The annual adoption of a detailed five (5) year operating plan with a minimal fund balance and, at a minimum, a ten (10) year capital improvement plan that shall be publicly available and filed with the City;~~
- ~~ii. The financial plan shall clearly demonstrate the efficient delivery of safe and clean drinking water;~~
- ~~iii. Adoption of a debt service policy that promotes level debt service, accurately reflects the assets and purposes for which money is borrowed, and discourages use of risk latent debt practices;~~

- iv. — Abide by National Institute of Government Procurement best practices in purchasing;
- v. — Submission of quarterly financial reports sent to the BOD, the City of Pittsburgh, Pittsburgh City Council and the City Controller; and;

**b. — Transparency/Ethics**

- i. — PWSA, its officers and employees shall abide by the Pennsylvania Public Official and Employee Ethics Act;
- ii. — Pennsylvania Open Records Act and Right to Know Laws;
- iii. — Disclosure of conflicts of BON and BOD members; and;
- iv. — The PWSA, its entire Board of Directors, Pittsburgh City Council and the City of Pittsburgh shall be notified immediately of any changes in water quality or treatment, including changes in treatment chemicals.

**e. — Customer Service**

- i. — Adopt the Public Utility Commission's rules as contained in Title 66 applicable to water utilities
- ii. — Provide for a concise, plain language listing of rights and responsibilities of customers; and;
- iii. — Provide for a fund for qualified low income residents.

**d. — Rate Setting**

- i. — In order to assure that the appropriate revenue is generated to meet the short and long term goals of distributing clean, safe drinking water and meeting the requirements of sewage conveyance, rate submissions shall be approved by the BOD based on a(n) annual or biennial study that fully funds the five (5) year operating and ten (10) or twenty (20) year capital plans.

**5. Notices.** Notices provided pursuant to this Agreement shall be in writing and addressed as follows unless notice is provided in writing by either party to the other of a different address: To the City: City of Pittsburgh Department of Law 313 City-County Building 414 Grant Street Pittsburgh, PA 15219 To the PWSA:

**6. Amendments to the Pennsylvania Municipality Authorities Act.** The City and the PWSA agree to work in good faith with the goal of proposing and otherwise sponsoring amendments to the Pennsylvania Municipality Authorities Act with respect to the structure and governance of the PWSA.

**7. Term of Agreement.** *Section to be completed by Law, including their recommendations regarding termination of agreement by either party.*

**8. Changes to PWSA Governing Documents.** PWSA agrees to amend its By Laws, Rules, Code(s) of Ethics and all other policies and procedures in a manner consistent with the provisions of this Agreement.

**9. Amendment to 1995 Capital Lease Agreement.** The City and PWSA, pursuant to Section 18 (b)(ii) of the Capital Lease Agreement, effective July 27, 1995, titled, "Waivers and Amendment", do hereby agree that this Agreement shall modify said Capital Lease Agreement by removing Section 3(b), which states as follows:

"3. Term.

(b) At the expiration of the Term the Lessee shall have the option to acquire all of the Leased Property from the Lessor in consideration of the payment of one dollar (\$1.00) in immediately available funds by the Lessee to the Lessor."

Any changes to this provision of the Agreement shall require the approval of the PWSA Board of Directors, the affirmative votes of a majority of the elected members of City Council and the approval of the Mayor.

**10. Amendments.** Any and all changes to this agreement shall require the approval of the PWSA Board of Directors, the affirmative votes of a majority of the elected members of City Council and the approval of the Mayor.

**11. Authorizing Resolution.** This Agreement is entered into by the City pursuant to Resolution No. \_\_\_\_\_, approved \_\_\_\_\_ and effective \_\_\_\_\_.



IN WITNESS WHEREOF, the parties hereto execute this Agreement as of the day and  
year first written above.

PITTSBURGH WATER AND SEWER  
AUTHORITY

By: \_\_\_\_\_

THE CITY OF PITTSBURGH

WITNESS:

\_\_\_\_\_

By: \_\_\_\_\_  
Mayor

Approved for form and legality:

By: \_\_\_\_\_  
Solicitor

Countersigned:

By: \_\_\_\_\_  
Controller

# PWSA GOVERNANCE RESTRUCTURING

AMENDED COOPERATION AGREEMENT PROPOSAL  
MAY 9, 2018

## **PWSA – Blue Ribbon Panel Proposed Agreement**

CREATE A BOARD OF DIRECTORS “THAT IS INDEPENDENT OF ELECTED POLITICS”

- 9 MEMBER PANEL THAT IS ELECTED BY A 5 MEMBER BOARD OF NOMINATORS (BON) THAT IS INITIALLY APPOINTED BY THE MAYOR AND CONFIRMED
- THE 5 MEMBER BON IS SELF PERPETUATING.
- THE BOARD WILL HAVE NO CITY EMPLOYEES OR VOTING ELECTED REPRESENTATIVES
- ORGANIZED AS A NONPROFIT
- CHANGE STATE LAW LATER – LEGALLY AGREE NOT TO CHALLENGE THE AGREEMENT

# AMENDED GOVERNANCE PROPOSAL

- ALLOWS FOR 5 MEMBER BOARD OF NOMINATORS (BON)
- 9 MEMBER PWSA BOARD OF DIRECTORS WITH 1 CITY COUNCIL MEMBER AND 8 SUBMITTED BY THE MAYOR FROM THE BON
- ELIMINATES PURCHASE OPTION OF SYSTEM ASSETS FOR \$1 IN 2025— KEEPS PWSA SYSTEM A CITY ASSET
- COMPLIES WITH THE MUNICIPAL AUTHORITIES ACT, STAYS LEGAL
- THERE WILL NEED TO BE AN ORDINANCE THAT CODIFIES BOARD OF NOMINATORS IN ORDER TO ENABLE AGREEMENT
- OTHER AGREEMENTS AND CAPITAL LEASE WILL NEED TO BE DISCUSSED/AMENDED

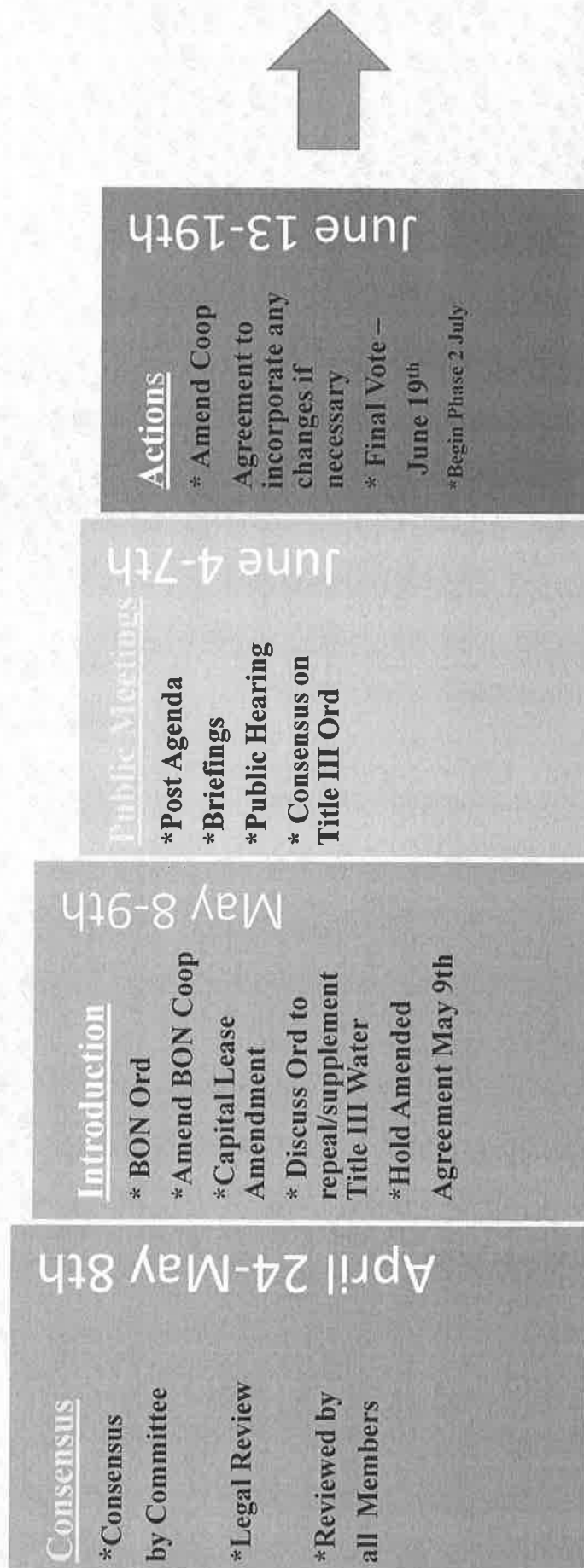
# Rebuild Confidence in the System

- Keeps Asset Public
- Keep the negotiation of the agreements open and transparent to the public
- Retains some elected accountability by having a council member on the board – 1 of 9 members
- Stays compliant with the Municipal Authorities Act, PUC and the City's Home Rule Charter

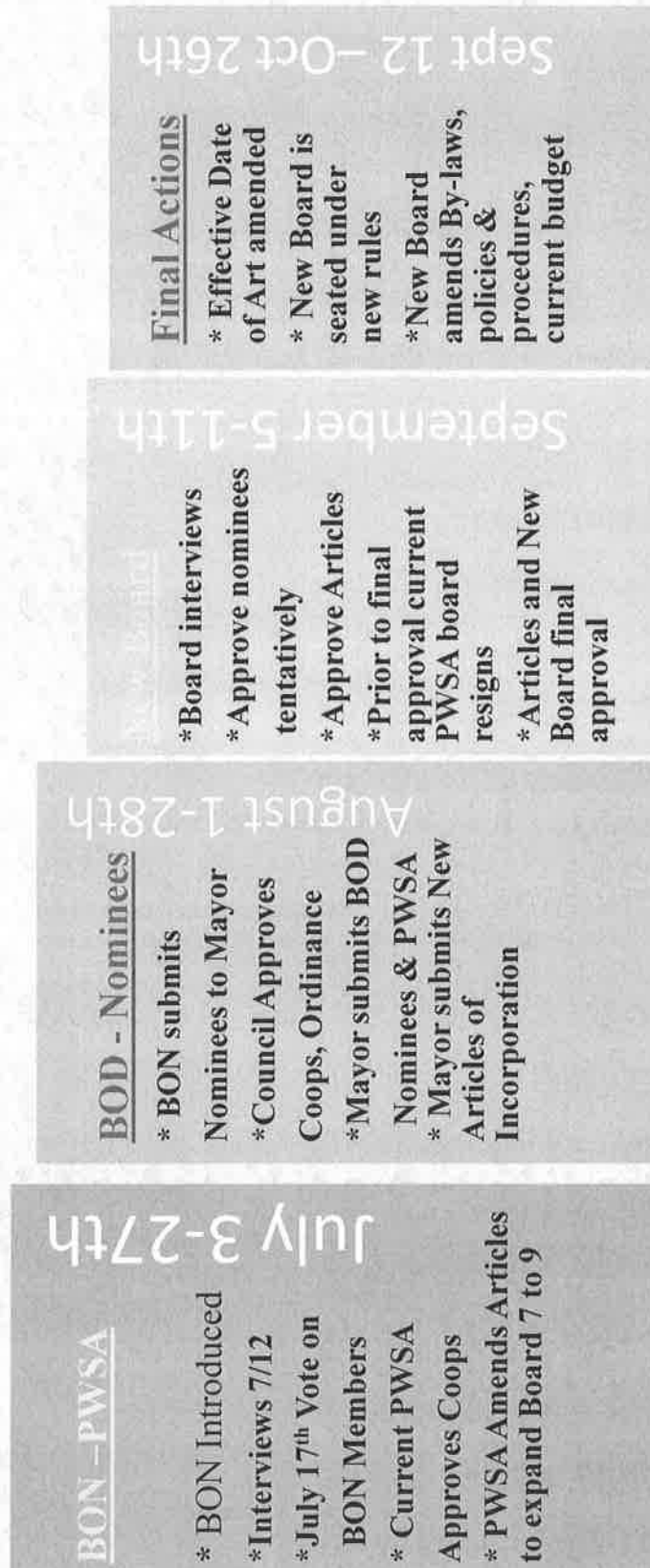
# Actions/Process

- Legal review, Council Briefings
- Council to amend BON agreement
- Pass Board of nominators (BON) Ordinance
- Amend current (1995) coop & capital lease agreements
- Discuss repeal or amendment to Title III Water in City Code (clean-up)
- Public Process (hearings, post agenda) – final approvals
- PWSA board approves – Council approves any changes
- Board nominated, interviewed, appointed
- New Articles of incorporation to expand for PWSA board approved by Council and sent to state for approval
- New board is seated under new rules, amends by-laws, policies and procedures

## Proposed PWSA Restructuring Legislative Timeline Phase 1



## PWSA Restructuring Timeline - Phase 2





**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 7 Page 1 of 5
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**Request: I&E-RE-11:** State whether PWSA has a domicile policy for employees (i.e., a policy that requires employees to be domiciled in the City of Pittsburgh), and if so, provide the following information:

- A. A copy of the domicile policy that is in place;
- B. Indicate whether the domicile policy applies to both existing employees and job applicants; and
- C. Indicate whether the domicile policy is enforced by the City of Pittsburgh or PWSA.

**Response:**

- A. A copy of PWSA's Domicile Policy is available at: [http://pgh2o.com/Domicile\\_Policy](http://pgh2o.com/Domicile_Policy). See also OCA-XI-32 Attach A which was provided during the PWSA rate case and is available at Eckert Share File No. L0775218.
- B. The domicile policy applies to all employees, except those specifically exempted by the Board's Executive Committee. These exemptions are not codified in the Policy, but are individually approved by the Board's Executive Committee.

To date, approximately 30 positions have been exempted from Domicile requirements. At this time, about 10 non-union and management employees have been hired as domicile exempt employees. Existing Unionized or other non-union positions are not exempt at this time from the Domicile policy requirement. However, an existing employee could be promoted to a position that would change their domicile status from required to exempt.

- C. The domicile policy is a general requirement for employed positions within the City of Pittsburgh, except for Police staff who were exempted by a decision of the PA Supreme Court. PWSA historically reviewed the domicile address of every staff person annually, based upon self-reporting by each employee. Individuals who are believed to be in violation of the Domicile Policy are investigated by the City's Office of Municipal Investigation (OMI) department. Demonstrated violators are given a 5 day suspension pending termination with a provision that if a city domicile address is provided the suspension or potential termination will be voided.

Response  
Provided by:  
Dated:

Robert A. Weimar, Executive Director  
The Pittsburgh Water and Sewer Authority  
January 25, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RE-12:** If PWSA has a domicile policy in place, indicate whether there are any positions exempt from the domicile policy. If so, identify the exempt positions and provide the basis for exemption.

**Response:** At this time, approximately 30 positions are exempt from the City Domicile policy. The current list of positions that are exempt and which includes only those that PWSA desires to fill are:

Executive Director	Director of Engineering	Director of Operations
Director of Production	Laboratory Manager	SCADA Manager
Scada Technician	Environmental Compliance Manager	Chief of Administration
Director of Administration	Project Manager	Process Engineer
Deputy Director of Operations	Network Systems Administrator	Performance Manager
Associate Project Managers Engineering	Deputy Director of Finance--Treasurer	AMI--Billing Manager
Senior Managers (Capital Projects/Lead)	Senior Managers (3) Field Operations	Senior Manager Projects--Operations
Senior Managers (4) Engineering	Environmental Compliance Coordinator	Business Intelligence Analyst
GSI Modeler-Engineering	Director of Information Technology	Operator of Record (Operations)
Senior Engineering Technician		

Each domicile exempt position was selected based upon the lack of applicants with the qualifications and experience needed. The primary positions which pose the least qualified City applicants are professional engineers, SCADA manager, Project Managers, Senior Managers in engineering, compliance professionals, Project Managers, and Field Operations and Water Production departments. The lack of qualified Water Treatment operators, Plumbers, Laboratory staff, Project Managers, welders, electricians and mechanics has required PWSA to engage embedded Consultants and Operating staff who work full time as contracted workers. In addition, PWSA engages specialty contractors to address everyday maintenance and operations needs. This work force comprises more than 10% of the Authority, and are engaged to work with PWSA staff at a 150 to 200% cost premium. The cost premium has added more than \$2 Million per year just to our annual Non-Unionized work force cost. PWSA is working to stabilize our workforce through hiring of permanent workers in every position.

Response  
Provided by: Robert A. Weimar, Executive Director  
Dated: The Pittsburgh Water and Sewer Authority  
January 25, 2019

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## Domicile Policy for PWSA Employees

[Tweet](#)

### Policy

Except as explicitly provided in this Policy, all employees of the Pittsburgh Water and Sewer Authority ("PWSA") must be domiciled in the City of Pittsburgh on the first day of their employment with the PWSA, and must remain continuously domiciled in the City of Pittsburgh throughout their employment with the PWSA.

This Policy reinforces the longstanding policy of the PWSA that requires that all PWSA employees be residents of the City of Pittsburgh.

### Place of Domicile

Under Pennsylvania law, and for purposes of this policy, "domicile" is the place where an employee has his or her true, fixed, and permanent home and principal establishment, coupled with an intention of returning to that location whenever they are absent.

Individuals can have only one domicile at any given time. Except as provided in Section 6 of this Policy, during employment with the PWSA, and as a condition of employment with the PWSA, an employee's domicile must be located within the City of Pittsburgh.

Prior to purchasing or renting a place of residence, applicants and employees may call the Human Resources Department at (412) 255-8800 x 2288 to verify that the property is located within the City of Pittsburgh.

### Employee Verification and Statement of Domicile

Prior to and during employment with the PWSA, employees are required to provide truthful and accurate information regarding the employee's domicile and legal residence.

Prospective employees must submit, no later than the first day of employment, a completed Employee Verification and Statement of Domicile form and acceptable supporting documentation (as described below) to establish that they are domiciled in the City of Pittsburgh.

Within 14 days of a change in address, employees must notify Human Resources using the Change of Address form. At the same time, employees must submit a completed Employee Verification and Statement of Domicile form and acceptable supporting documentation (as described below), to confirm that they remain domiciled in the City of Pittsburgh.

Between January 1 and January 31 of each year, each employee must submit a completed Employee Verification and Statement of Domicile form and acceptable supporting documentation (as described below) to establish that they are domiciled in the City of Pittsburgh.

The Employee Verification and Statement of Domicile form must be submitted to the Human Resources Department.

Failure to submit a completed Employee Verification and Statement of Domicile form in accordance with this Policy or inaccurate statements contained in or with the Employee Verification and Statement of Domicile form may result in disciplinary action, up to and including the termination of employment.

### Documentation of Domicile

To ensure compliance with this Policy, the PWSA requires that employees provide documentation that establishes that the employee is domiciled in the City of Pittsburgh.

Employees are required to submit copies of one of the following documents to establish domicile:

Current executed lease agreement, with the employee's name set forth on the lease, along with a cancelled check for one month's payment or the security deposit. If the lease is a month-to-month lease, the employee must confirm by providing a copy of the cancelled check every month throughout the course of the month to month lease with Human Resources each month that the lease has been maintained, or that a new domicile has been established.

Mortgage payment booklet, to include the employee's name and property address.  
Title to domicile property, to include the employee's name and property address.  
Letter signed by the property owner and notarized verifying you reside at that property.

Employees are required to submit copies of two (2) of the following documents to establish domicile:

Vehicle registration card  
Vehicle insurance card  
\* Monthly gas bill  
\* Monthly electric bill  
\* Monthly telephone bill  
\* Monthly cable bill  
\* Monthly cell phone bill

**\*NOTE:** A letter from the representative company confirming it is establishing service for the new resident is acceptable documentation.

In addition to the foregoing, the PWSA reserves the right to request additional or different documentation or proof of domicile at any time. The PWSA may, on occasion and in its discretion, request that a residency investigation be conducted.

An employee's failure to provide the PWSA with sufficient evidence of domicile, including an employee's failure to cooperate with the PWSA in its requests for additional information or authorizations, may result in termination of employment.

## Enforcement of Policy

The Human Resources Department is responsible for implementing and enforcing this Policy.

An employee who is found not in compliance with the Domicile Policy will be provided a five-day unpaid suspension period to demonstrate compliance or come into compliance with the Policy. If the employee is unable to demonstrate compliance or come into compliance during this period, the employee's employment will be terminated. Failure to comply with this Policy in all respects will result in disciplinary action, up to and including termination of employment.

## Limited Exceptions to Policy

Under unique circumstances, an exception to this policy may be made for a maximum of 60 days provided written approval is received by the Chairperson of the PWSA Board of Directors.

In addition, certain key, non-bargaining unit management level positions of the PWSA may be designated by a majority of the Executive or Steering Committee of the PWSA Board of Directors as exempt from the requirement that the employee be domiciled in the City of Pittsburgh (the "Exempt Positions"). The Exempt Positions will be posted on the PWSA website, and may be modified by a majority of the Executive or Steering Committee of the PWSA Board of Directors from time to time. Candidates for or employees in the Exempt Positions must be domiciled within one of the following Pennsylvania counties: Allegheny,

Armstrong, Beaver, Butler, Fayette, Greene, Lawrence, Indiana, Washington or Westmoreland. As a condition of employment, the employee for any Exempt Position must provide documentation in accordance with Sections 3 and 4 of this Policy, to show compliance with the requirement that the employee reside in one of the foregoing counties. Candidates or employees for Key Positions who are domiciled in the City of Pittsburgh will be given preference during the interview process over candidates or employees who are not domiciled in the City of Pittsburgh.

Except as explicitly provided in this Section 6, employees are subject to the remainder of the Domicile Policy, including Section 5 regarding enforcement.

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**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RE-22:** Reference PWSA’s Compliance Plan concerning the discussion of its compliance status and plan about the billing arrangement with Pennsylvania American Water for the water rate subsidy as presented on p. 113. Provide a detailed explanation of all efforts PWSA has made to date to eliminate or phase out this subsidy, all future plans to eliminate or phase out this subsidy, and the target date by which the water rate subsidy will be completely eliminated or phased out.

**Response:** PWSA anticipates filing a rate case and receiving PUC approval prior to 4/1/2020 which is the earliest date PAWC can file their next rate case. If successful, PWSA’s rate would exceed that of PAWC, and the subsidy would be unnecessary.

**Response  
Provided by:** Julie Quigley, Director of Administration  
The Pittsburgh Water and Sewer Authority

**Dated:** January 25, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RE-23:** Reference PWSA’s Compliance Plan concerning the discussion of its compliance status and plan about the Bulk Wastewater Conveyance Agreements as presented on p. 124.

- A. Provide a listing of current Bulk Wastewater Conveyance Agreements indicating names of utilities/authorities, effective dates of agreements, time periods of agreements, and wastewater conveyance tariff rates;
- B. Clarify whether the terms of any existing bulk wastewater conveyance agreements have the effect of causing PWSA to provide wastewater conveyance at a financial loss; and
- C. Explain the scope, potential rate effect, and status of any existing, proposed or contemplated agreement between PWSA and ALCOSAN for the transfer of operation and maintenance responsibilities for certain multi-municipal trunk line sewers currently operated and maintained by PWSA.

**Response:**

- A. Many of the Bulk Wastewater Conveyance Agreements still in effect were negotiated prior to the creation of ALCOSAN in 1955. These documents are only located in hard-copy at PWSA’s headquarters and would require additional time and a special study to locate the detailed information requested here. A listing of the specific agreements is set forth in I&E-RE-23 Attach A. A study titled CONNECT Multijurisdictional Sewer Management Study from 2011 describes many of the agreements at pages 9-18. The CONNECT Study is attached as I&E-RE-23 Attach B.
- B. While some include cost sharing percentages for the repair and replacement of sewer main lines; some do not include charges the municipalities are required to pay PWSA for conveyance and/or system repairs.
- C. There is no agreement between PWSA and ALCOSAN regarding the transfer of PWSA’s conveyance lines to ALCOSAN from various municipalities. While negotiations between PWSA and ALCOSAN are underway, PWSA is not in a position at this time to explain the scope, potential rate effect or status of any potential future agreement that may be finalized. To the extent those negotiations are successful, the existing agreements would likely become null and void. Exhibit B of the CONNECT Study is a draft model trunk sewer intergovernmental cooperation agreement that formed the starting basis for the current negotiations between ALCOSAN and PWSA.

Response  
Provided by: Robert A. Weimar, Executive Director  
Rick Obermeier, Director of Operations  
The Pittsburgh Water and Sewer Authority

Dated: January 25, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set RE-25 through RE-34 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 9 Page 2 of 6
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**Request: I&E-RE-34**                      Reference Statement No. 2, page 24. Provide a copy of the  
O'Hara Township 1991 Shut-off Agreement.

**Response:**                              A copy of this agreement was filed with the Commission at docket  
number R-2018-3002645 labeled as TUS-I-R7 Attach Q Eckert  
ShareFile No. L0768396.

**Response**                              Debbie M. Lestitian, Chief Corporate Counsel and Chief of Administration  
**Provided by:**                      The Pittsburgh Water and Sewer Authority

**Dated:**                                  March 11, 2019



A G R E E M E N T

MADE AND ENTERED INTO this 18<sup>th</sup> day of December, 1991,  
by and between the PITTSBURGH WATER AND SEWER AUTHORITY, a  
Municipal Corporation, having its domicile in the City of  
Pittsburgh, County of Allegheny, and Commonwealth of  
Pennsylvania, hereinafter designated as "Authority".

A N D

Township of O'Hara, a Home Rule Municipality, having its domicile  
in the Township of O'Hara, County of Allegheny, and Commonwealth  
of Pennsylvania, hereinafter designated "Township".

WHEREAS, the Authority is organized and existing under the  
Laws of the Commonwealth of Pennsylvania and is engaged in the  
business of distributing water throughout certain areas in O'Hara  
Township for domestic and commercial consumption; and

WHEREAS, the Township operates a sanitary sewage system  
throughout a part of the Township; and

WHEREAS, the Commonwealth of Pennsylvania, by appropriate  
legislative enactment, has authorized and requires the Authority  
the shut off the supply of water to premises served by water,  
where the owner or occupant has neglected or failed to pay a  
rental, fee, or charge for sewer, maintenance or sewage treatment  
service levied by the Township; and

WHEREAS, it is the desire of the parties hereto to reduce to  
writing their agreement and understanding concerning the  
procedure and policy to be followed in such cases.

**NOW WITNESSETH,**

**THAT** in consideration of the mutual covenants herein contained and intending to be legally bound, the parties hereto covenant and agree each with the other as follow, to wit:

1. Upon the written certification of the Township Manager or her designee, that appropriate notice of an intent to shut off water has been given to the person liable for the payment of the rentals, charges and fees for sewer maintenance or treatment and that in addition thereto, said property was posted with a written notice at a main entrance to the premises, in accordance with applicable law, in such cases, the Authority will cause its personnel to shut off the water service to that customer's premises, and report to the Township that it has been done.
2. The Township will pay to the Authority the cost of such shut off service and the estimated loss of water revenues resulting from such shut off, if such shut off remains in effect for two weeks or longer. The loss of revenues will be computed by the Authority on the basis of quarterly water bills prorated accordingly. The Authority's records of water usage will be the basis of said calculation. The liability of the Township under this paragraph shall cease if the premises in question become vacant.
3. The Township agrees to indemnify and save harmless the Authority from any and all property damage and liability to the persons or premises as a result of instituting the shut off for water at the request of the Township.

4. The Authority immediately, upon receiving said certification from the Township Manager, and/or any other authorized representative of the Township, will shut off the water to said premises, in accordance with the existing policy as contained in the Rules and Regulations of the Authority, which Township agrees to abide by. The Authority shall deliver a copy of said procedures to the Township upon execution hereof, and shall promptly provide the Township with any modifications or amendments thereto.
  
5. The Authority shall reinstate water service immediately upon receipt from the Township Manager and/or any other authorized representative of the Township of notice that the service should be restored.


IN WITNESS WHEREOF, the parties hereto have caused these presents to be duly executed by their respective officers the day and year first above written.

PITTSBURGH WATER AND SEWER AUTHORITY




Chairman, Pittsburgh Water and Sewer Authority

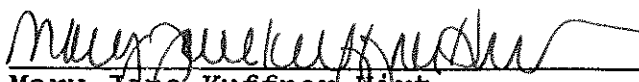
ATTEST:

  
 Secretary, Pittsburgh Water &  
 Sewer Authority

TOWNSHIP OF O'HARA

ATTEST:

  
 William H. Crooks, Jr.  
 President of Council

  
 Mary Jane Kuffner Hirt  
 Township Manager

BILL NO. B-71-91RESOLUTION NO. R-53-91TOWNSHIP OF O'HARA  
ALLEGHENY COUNTY, PENNSYLVANIA

A RESOLUTION OF THE TOWNSHIP OF O'HARA, ALLEGHENY COUNTY, PENNSYLVANIA, AUTHORIZING THE PRESIDENT OF COUNCIL AND TOWNSHIP MANAGER TO EXECUTE AN AGREEMENT WITH THE PITTSBURGH WATER AND SEWER AUTHORITY FOR THE TERMINATION OF WATER SERVICES FOR DELINQUENT SEWAGE FEES

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WHEREAS, the Township of O'Hara has undertaken a program to pursue delinquent sewage fee accounts which includes the termination of water services;

WHEREAS, the Pittsburgh Water and Sewer Authority currently provides public water service to customers within O'Hara Township;

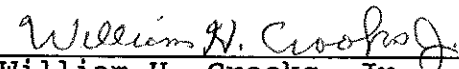
WHEREAS, the termination of water services for the non-payment of sewage fees requires that an agreement which outlines the procedures which will guide the termination process be in effect;


NOW, THEREFORE, BE IT RESOLVED, by the Council of the Township of O'Hara that the President of Council and Township Manager are hereby authorized to execute the attached agreement with the Pittsburgh Water and Sewer Authority.

RESOLVED by Council vote of 7 to 0 on December 10, 1991.

TOWNSHIP OF O'HARA

ATTEST:

  
William H. Crooks, Jr.  
President of Council

  
Mary Jane Kuffner Hirt  
Township Manager

Motion to Read & Pruett - McCloskey 7 - 0 12/10/91  
Adopt

Attachment

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2  
Schedule 10, Page 1 of 5

**SECOND SUPPLEMENTAL**

**Request: I&E-RE-13:** Provide the total number of uncollectible accounts and dollar amounts by customer class by year for the years ended December 31, 2016, December 31, 2017, and December 31, 2018 and identify the top fifty highest balance uncollectible accounts listing customer name and the amount owed as of December 31, 2016, December 31, 2017, and December 31, 2018.

**Response:** PWSA has rights to utilize collection agencies, service terminations, liens, and real property sales to protect its interests, limit further losses, and motivate payments from delinquent customers. Due to this leverage, PWSA's current policy is not to write off bad debts. Therefore, PWSA does not track "uncollectible" data. Rather, PWSA determines its annual reserve for uncollectible accounts based on an analytical review of outstanding accounts and historical collection data. That review process is scheduled to occur in February 2019. PWSA does, however, maintain an aging report which identifies all amounts that have been billed to customers. Importantly, this information includes amounts that have just been billed and are not yet overdue. PWSA's Aging Report through 1/24/19 is attached as **CONFIDENTIAL I&E-RE-13 Attach A.**

**Response** Julie Quigley, Director of Administration  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated:** January 25, 2019

**Supplemental  
Response:**

The amounts below identify dollars – by known customer class – that PWSA does not anticipate being able to collect because they are associated with properties that have been permanently vacated, razed, discharged bankruptcies, and/or shut-off at the curb and are unlikely to result in payment of the outstanding debt.

2016 – Unknown – \$10,615,732.23	2017 – Unknown – \$10,810,104.15	2018 – Unknown - \$10,776,557.59
2016 – Residential - \$8,935,874.98	2017 – Residential - \$8,964,670.43	2018 – Residential - \$9,247,134.11
2016 – Commercial - \$376,097.86	2017 – Commercial – \$2,260,610.39	2018 – Commercial - \$2,678,837.23
<b>Total 2016 – \$19,927,705.07</b>	<b>Total 2017 - \$22,035,384.97</b>	<b>Total 2018 – \$22,702,528.93</b>

**Dated:** February 15, 2019

**Supplemental**

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 10, Page 2 of 5
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**SECOND SUPPLEMENTAL**

**Second Supplemental**

**Response:** See I&E-RE-13 Attach C: Top 50 Uncollectible Accounts 2016-2018 by customer classification. This provides the same data as included on **CONFIDENTIAL** I&E-RE-13 Attach C but replaces the confidential customer information with the customer classification.

**Dated:** February 15, 2019

**Response** Julie Quigley, Director of Administration  
**Provided by:** The Pittsburgh Water and Sewer Authority

**2018 - Top 50 Uncollectible Accounts 2016-2018 by Customer Classification**

IE-RE-13 Attach C

I&E Exhibit No. 2 Schedule 10, Page 3 of 5
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Customer Class	Outstanding Amount	
COMMERCIAL	\$151,239.22	
COMMERCIAL	\$72,233.76	
COMMERCIAL	\$69,511.45	
COMMERCIAL	\$58,906.53	
COMMERCIAL	\$48,030.92	
COMMERCIAL	\$45,586.24	
COMMERCIAL	\$34,306.84	
COMMERCIAL	\$33,579.16	
COMMERCIAL	\$32,827.93	
COMMERCIAL	\$31,401.59	
COMMERCIAL	\$31,316.66	
COMMERCIAL	\$29,377.55	
COMMERCIAL	\$28,937.14	
COMMERCIAL	\$28,022.30	\$695,277.29
RESIDENTIAL	\$62,789.97	
RESIDENTIAL	\$62,789.04	
RESIDENTIAL	\$61,357.94	
RESIDENTIAL	\$55,052.46	
RESIDENTIAL	\$49,986.58	
RESIDENTIAL	\$49,880.06	
RESIDENTIAL	\$48,898.37	
RESIDENTIAL	\$44,878.78	
RESIDENTIAL	\$41,077.67	
RESIDENTIAL	\$40,622.77	
RESIDENTIAL	\$40,526.99	
RESIDENTIAL	\$38,408.02	
RESIDENTIAL	\$38,166.19	
RESIDENTIAL	\$38,138.13	
RESIDENTIAL	\$38,116.97	
RESIDENTIAL	\$37,987.92	
RESIDENTIAL	\$36,823.83	
RESIDENTIAL	\$36,023.56	
RESIDENTIAL	\$34,358.89	
RESIDENTIAL	\$34,199.91	
RESIDENTIAL	\$33,867.25	
RESIDENTIAL	\$32,342.06	
RESIDENTIAL	\$32,150.57	
RESIDENTIAL	\$30,340.12	
RESIDENTIAL	\$30,138.63	
RESIDENTIAL	\$30,003.26	
RESIDENTIAL	\$29,925.81	
RESIDENTIAL	\$29,730.72	
RESIDENTIAL	\$29,721.23	
RESIDENTIAL	\$28,801.65	
RESIDENTIAL	\$27,630.07	
RESIDENTIAL	\$27,584.33	

2018 - Top 50 Uncollectible Accounts 2016-2018 by Customer Classification

IE-RE-13 Attach C

RESIDENTIAL	\$27,402.35	
RESIDENTIAL	\$27,305.24	
RESIDENTIAL	\$27,051.80	
RESIDENTIAL	\$26,859.62	\$1,360,938.76
	<b>\$2,056,216.05</b>	

I&E Exhibit No. 2 Schedule 10, Page 4 of 5
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**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 2 Schedule 10, Page 5 of 5
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**Request: I&E-RE-16:** Identify the steps that PWSA has undertaken and the proposed plan to reduce PWSA’s significant uncollectible amounts (PWSA projected 2019 uncollectible ratio of 4.40% in the recent base rate case filing).

**Response:** Director of Administration, Julie Quigley instructed Collections Coordinator, Nicole Tarver on 1/4/19 to cross-train the Collections staff in the month of January 2019. This is a first step to achieving higher collection rates. The goal is to attempt collection beyond just the current month charges, specifically all outstanding charges due the Authority.

Once the Commission enters an order in PWSA’s rate case, PWSA can then move to cancel the existing contract with JTS and potentially pursue other collection agency relationships.

**Response  
Provided by:** Julie Quigley, Director of Administration  
The Pittsburgh Water and Sewer Authority

**Dated:** January 25, 2019

**I&E Statement No. 2-SR  
Witness: D. C. Patel**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 and M-2018-2640803**

**Surrebuttal Testimony**

**of**

**D. C. Patel**

**Bureau of Investigation and Enforcement**

**Concerning:  
COMPLIANCE PLAN -**

**PWSA Services Contract with the City of Pittsburgh,  
Capital Lease Agreement, Residency Requirement, Billing Arrangement with the  
Allegheny County Sanitary Authority, Billing Arrangement with Pennsylvania-  
American Water Company, Bulk Wastewater Conveyance Agreements, System of  
Accounts, Uncollectibles - Revenue Loss, and Customer Assistance Program.**

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1   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2   A.   My name is D. C. Patel, and my business address is Pennsylvania Public Utility  
3       Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg,  
4       PA 17120.

5  
6   **Q.   BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7   A.   I am employed by the Pennsylvania Public Utility Commission (Commission) in  
8       the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial  
9       Analyst.

10  
11   **Q.   ARE YOU THE SAME D. C. PATEL WHO SUBMITTED DIRECT**  
12       **TESTIMONY IN THIS PROCEEDING?**

13   A.   Yes. I submitted I&E Statement No. 2 and I&E Exhibit No. 2 in this proceeding  
14       on April 5, 2019.

15  
16   **Q.   DOES YOUR SURREBUTTAL INCLUDE AN ACCOMPANYING**  
17       **EXHIBIT?**

18   A.   No. However, I refer to my direct testimony and its accompanying exhibit in this  
19       surrebuttal testimony (I&E Statement No. 2 and I&E Exhibit No. 2).

1 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY IN**  
2 **THIS PROCEEDING?**

3 A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies  
4 of the following parties:

- 5 • Pittsburgh Water and Sewer Authority (PWSA or Authority) witnesses  
6 Debbie M. Lestitian (PWSA Statement No. C-2R), Jennifer Presutti (PWSA  
7 Statement No. C-3R), and Julie Quigley (PWSA Statement No. C-4R)  
8 concerning various compliance plan issues.
- 9 • The Pennsylvania Office of Consumer Advocate (OCA) witness Ashley E.  
10 Everette (OCA Statement No. 1R) concerning the billing arrangement with  
11 The Allegheny County Sanitary Authority (ALCOSAN).
- 12 • Pennsylvania American Water Company (PAWC) witness John R. Cox  
13 (PAWC Statement No. 1R) concerning the water rate subsidy/rate discount.

14  
15 **PWSA SERVICES CONTRACT WITH THE CITY OF PITTSBURGH**  
16 **(COOPERATION AGREEMENT)**

17 **Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
18 **FOR THE COOPERATION AGREEMENT.**

19 A. I recommended that all the relevant terms of the agreement should be renegotiated  
20 to comply with the following important criteria (I&E Statement No. 2, pp. 26-27):

- 1       • Define the City of Pittsburgh's (City) and PWSA's relationship on a "business-  
2       like" basis and negotiate all terms and conditions of the agreement at arm's  
3       length to ensure fair, equitable, and reasonable terms for both the parties.
- 4       • Identify and list all services by the City to PWSA and vice versa with a  
5       detailed breakdown and related cost of service based on current market  
6       conditions.
- 7       • Eliminate the subsidy payment to PAWC and other municipal authorities by  
8       PWSA.
- 9       • Eliminate the free water services to the City and its instrumentalities, agencies,  
10      and other bodies.
- 11      • The City should be charged for wastewater and stormwater services at tariff  
12      rates and for the ALCOSAN wastewater treatment charges.
- 13      • Implement the governance reforms identified by the PA Auditor General.

14           PWSA should strive to include the above terms in its pending renegotiated  
15      Cooperation Agreement. To the extent a renegotiated agreement does not address  
16      the above concerns, the renegotiated agreement should be reformed under 66 Pa.  
17      Code § 508 prior to filing of the next base rate case to ensure ratepayers are not  
18      charged for unjust and unreasonable costs.

1   **Q.   DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
2       **RESPONSE TO YOUR RECOMMENDATION?**

3   A.   Yes. PWSA's witness Ms. Lestitian responded to my recommendations for the  
4       Cooperation Agreement and governance structure issues (PWSA Statement No. C-  
5       2R, pp. 6-17).

6  
7   **Q.   SUMMARIZE MS. LESTITIAN'S RESPONSE IN REBUTTAL**  
8       **TESTIMONY.**

9   A.   Ms. Lestitian's responses are summarized below:

- 10       • PWSA's Board and the City have generally agreed to a new Cooperation  
11       Agreement, as to format and specific conditions. However, an outstanding  
12       issue exists concerning the "ownership" of sewer laterals and water service  
13       lines within the City-owned parks. This issue is the subject of an informal  
14       "arbitration-style" discussion to determine how these issues will be addressed  
15       (PWSA Statement No. C-2R, p. 9).
- 16       • PWSA's Board extended the termination date of the existing Cooperation  
17       Agreement by 60 days or until July 5, 2019. The renegotiated Cooperation  
18       Agreement is expected to be submitted to the City Council for review during  
19       May 2019. PWSA will also submit the draft of renegotiated agreement to the  
20       Commission for its review and the final approval would be subject to any  
21       changes demanded by the City, PWSA, and the Commission. PWSA expects

1 that the final Cooperation Agreement will be completed and signed by July 5,  
2 2019 (PWSA Statement No. C-2R, p. 9).

- 3 • Ms. Lestitian acknowledges that PWSA needs to provide details for payment to  
4 the City moving forward to justify its payments to the City (PWSA Statement  
5 No. C-2R, p. 10).
- 6 • Ms. Lestitian states that if a new agreement cannot be negotiated by July 5,  
7 2019, PWSA will interact with the City at arms-length on a transactional basis.  
8 PWSA's intent is to invoice the City for services on the basis of costs and to  
9 pay the invoices received from the City on the same basis. Regarding a  
10 specific commitment for renegotiation or execution of a new agreement, she  
11 also states that it seems premature since the better solution may be to continue  
12 on a transactional basis without an agreement (PWSA Statement No. C-2R, pp.  
13 11-12).
- 14 • Regarding implementation of my recommendations concerning PWSA's  
15 governance structure, Ms. Lestitian states that PWSA's Board establishes the  
16 policies that PWSA must implement, and PWSA does not have the power to  
17 unilaterally alter its relationship with the City. She further states that PWSA  
18 could discuss my recommendations with the City. However, Ms. Lestitian  
19 continues to believe that the most effective way to ensure compliance with  
20 governance structure (Board and management) recommendations is that the  
21 new Cooperation Agreement contains reasonable terms for PWSA to submit it  
22 to the Commission, when negotiations are completed and ask the Commission



1 to exercise its power under 66 Pa. Code §§507 and 508 to review and modify a  
2 new contract to the extent necessary (PWSA Statement No. C-2R, pp. 12-13).

- 3 • Regarding the annual lump sum payment of \$7,150,000 to the City for the  
4 City's services to PWSA without supporting breakdown and details, Ms.  
5 Lestitian agrees that payments under the new Cooperation Agreement should  
6 be just, reasonable and substantiated (PWSA Statement No. C-2R, p. 15).
- 7 • Regarding the provision of free water service, free storm water repairs in the  
8 combined system, free-of-cost wastewater treatment, and waiver of non-  
9 consumption customer charges to the City and its agencies, Ms. Lestitian states  
10 that PWSA has presented a plan to transition to fully billing the City, which is  
11 discussed by PWSA witness Mr. Weimar. Issues concerning whether PWSA's  
12 practices violate certain provisions of the Public Utility Code will be addressed  
13 in its briefs (PWSA Statement No. C-2R, p. 15).

14  
15 **Q. WHAT IS YOUR RESPONSE TO MS. LESTITIAN'S REBUTTAL**  
16 **REGARDING THE COOPERATION AGREEMENT?**

17 A. I agree with Ms. Lestitian that if PWSA renegotiates and executes a new  
18 Cooperation Agreement by July 5, 2019, it will be subject to the Commission's  
19 review and approval process. I also agree with Ms. Lestitian that any payments to  
20 the City must be just, reasonable and substantiated. PWSA clearly understands  
21 that a new Cooperation Agreement must comply with the Public Utility Code.  
22 Ms. Lestitian is also correct that the Commission will ultimately determine

1 whether the terms of any new Cooperation Agreement are just and reasonable.  
2 However, PWSA should only enter into a new Cooperation Agreement if it  
3 believes it is lawful. PWSA should not file a new Cooperation Agreement with  
4 the Commission unless it believes it complies with the Public Utility Code. To the  
5 extent the City's current or proposed relationship with PWSA conflicts with the  
6 Public Utility Code, the Code now prevails. To that end, I agree with PWSA's  
7 proposal that if a new agreement is not negotiated and executed by July 5, 2019,  
8 PWSA will interact with the City at arms-length on a transactional basis and  
9 PWSA's intent to invoice the City for services on the basis of costs and to pay the  
10 invoices received from the City on the same basis.  
11

12 **Q. WHAT IS YOUR RESPONSE TO MS. LESTITIAN'S TESTIMONY**  
13 **REGARDING PWSA'S GOVERNANCE STRUCTURE?**

14 A. First, to the extent Ms. Lestitian is distinguishing between the PWSA Board and  
15 PWSA acting through its officers, my recommendations regarding "PWSA" apply,  
16 however, appropriate to implement my recommendations. Second, to the extent  
17 PWSA cannot legally require the City to implement a change, I agree PWSA  
18 cannot "unilaterally" alter its relationship with the City. However, PWSA is not  
19 and cannot be under any obligations by the City to enter into or continue a  
20 relationship in violation of the Public Utility Code. Additionally, Ms. Lestitian  
21 does not explain how all my recommendations would involve the City. Certain  
22 recommendations, i.e., amendment of Bylaws, Board members acknowledging

1 fiduciary responsibility, appear to be matters of purely internal PWSA governance.  
2 Therefore, I continue to recommend that PWSA identify a plan to adopt my  
3 recommendations for an independent governance structure (I&E Statement No. 2,  
4 pp. 24- 25).

5  
6 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
7 **THE COOPERATION AGREEMENT?**

8 A. Yes, in part. I continue to recommend changes to the governance structure of  
9 PWSA. Additionally, I recommend that PWSA should execute and file the  
10 renegotiated Cooperation Agreement with the Commission no later than July 5,  
11 2019 and if the new agreement cannot be executed by July 5, 2019, PWSA will  
12 interact with the City at arms-length on a transactional cost basis.

13  
14 **CAPITAL LEASE AGREEMENT**

15 **Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
16 **FOR THE CAPITAL LEASE AGREEMENT.**

17 A. I recommended that PWSA should be entitled to complete the transaction in 2025  
18 by paying the one dollar (\$1) to purchase the City-owned water and wastewater  
19 system assets pursuant to the terms of 1995 Capital Lease Agreement (I&E  
20 Statement No. 2, p. 36).

1   **Q.   DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
2       **RESPONSE TO YOUR RECOMMENDATION?**

3   A.   Yes. PWSA's witness Ms. Lestitian responded to my recommendation for the  
4       Capital Lease Agreement (PWSA Statement No. C-2R, pp. 17-19).

6   **Q.   SUMMARIZE MS. LESTITIAN'S RESPONSE IN REBUTTAL**  
7       **TESTIMONY.**

8   A.   Ms. Lestitian agreed with my statement that PWSA is entitled to complete the  
9       transaction in 2025 by paying \$1 to purchase the water and wastewater system  
10      assets. Ms. Lestitian further declares that she is not aware of any recent City  
11      discussions or efforts that could result in the removal of this purchase option  
12      (PWSA Statement No. C-2R, pp. 17-18).

14   **Q.   WHAT IS YOUR RESPONSE TO MS. LESTITIAN'S REBUTTAL**  
15      **REGARDING THE CAPITAL LEASE AGREEMENT?**

16   A.   I agree with PWSA's intent and commitment to exercise its option to purchase the  
17      City-owned water and wastewater system by paying \$1 in 2025 pursuant to the  
18      clause 3(b) of the 1995 Capital Lease Agreement. However, based on recent past  
19      discussion and developments at the City Council for a proposal to terminate  
20      PWSA's option to purchase the water and wastewater system by paying \$1 in  
21      2025 under the Capital Lease Agreement as discussed in my direct testimony (I&E  
22      Statement No. 2, pp. 34-36), I would like to make the Commission aware that

1 PWSA has fulfilled its obligations under the 1995 Capital Lease Agreement and  
2 any efforts by the City to renege on its obligations should be highly scrutinized.  
3

4 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
5 **THE CAPITAL LEASE AGREEMENT?**

6 A. No. PWSA should exercise its option to purchase the City-owned water and  
7 wastewater system by paying \$1 in 2025. I also agree with PWSA's commitment  
8 to file any amendment or revised Capital Lease Agreement under 66 Pa. Code §  
9 507 with the Commission (PWSA Compliance Plan, p. 108).  
10

11 **RESIDENCY REQUIREMENT**

12 **Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
13 **FOR THE RESIDENCY REQUIREMENT.**

14 A. I recommended that PWSA eliminate its residency requirement for employment.  
15 Additionally, I recommended that PWSA should be required to file a revised  
16 Compliance Plan that summarizes and adopts a plan to eliminate its residency  
17 requirement (I&E Statement No. 2, p. 41).  
18

19 **Q. DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
20 **RESPONSE TO YOUR RECOMMENDATION?**

21 A. Yes. PWSA's witness Ms. Lestitian responded to my recommendation for the  
22 residency requirement (PWSA Statement No. C-2R, pp. 18-19).

1 **Q. SUMMARIZE MS. LESTITIAN'S RESPONSE IN REBUTTAL**  
2 **TESTIMONY.**

3 A. Ms. Lestitian states that PWSA's Board has adopted the City's residency  
4 requirement and makes the decisions as to when certain positions are exempt from  
5 the requirement. She asserts it is not within PWSA's power to implement my  
6 recommendation. However, she notes that PWSA has contracted with Peak  
7 Staffing Services to temporarily hire project managers who do not reside in the  
8 City. This initiative has allowed PWSA to bring staff on board who have technical  
9 skills at a cost that is less than relying on consultants, and, if they are fulfilling  
10 their job responsibilities, PWSA can convert them from temporary to permanent  
11 employees status (PWSA Statement No. C-2R, pp. 18-19).

12  
13 **Q. WHAT IS YOUR RESPONSE TO MS. LESTITIAN REGARDING THE**  
14 **RESIDENCY REQUIREMENT?**

15 A. As I stated above regarding the Cooperation Agreement, my recommendations  
16 regarding "PWSA" apply to both PWSA's Board and its officers. PWSA, through  
17 either its board or officers, must comply with all mandates from this compliance  
18 plan proceeding. Although, PWSA through its officers may not be able to change  
19 the residency requirement, the board can. I continue to assert PWSA's residency  
20 requirement is at odds with PWSA's ability to operate safely, effectively, and  
21 efficiently and the Board should remove it.

1 Ms. Lestitian cited one example of hiring lower-cost temporary project  
2 managers who do not reside within the City limits as an alternative solution to the  
3 residency requirement. However, it is unclear how large a portion of PWSA's  
4 workforce this represents and otherwise does not offer a permanent or full-scale  
5 solution. A plan to phase out the residency requirement will be in the overall  
6 interest of PWSA and its ratepayers.

7  
8 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION TO**  
9 **ELIMINATE THE RESIDENCY REQUIREMENT?**

10 A. No. I continue with my recommendation that PWSA should be required to file a  
11 revised Compliance Plan that summarizes and adopts a plan to eliminate the  
12 residency requirement.

13  
14 **BILLING ARRANGEMENT WITH ALCOSAN**

15 **Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
16 **FOR THE BILLING ARRANGEMENT WITH ALCOSAN.**

17 A. In direct testimony, I recommended that the Commission require PWSA to revise  
18 its Compliance Plan to adopt the following terms (I&E Statement No. 2, pp. 46-  
19 47).

20 First, ALCOSAN should establish and charge a market-based rate that is  
21 aligned with the volume of wastewater treated for PWSA's wastewater customers  
22 and a separate rate that is aligned with the additional volumes related to treatment

1 of stormwater. Separating these rates and volumes will be necessary to align with  
2 PWSA's intent to implement a stormwater tariff.

3 Second, PWSA should pay the established market-based rate to ALCOSAN  
4 via an annual or multi-year contract.

5 Third, PWSA should develop wastewater and stormwater tariff rates for  
6 current wastewater customers and future stormwater customers that accurately  
7 reflect the costs of paying for contracted treatment services and capturing the  
8 impact of uncollectibles in its own rates.

9 Additionally, PWSA and the City should amend the applicable current  
10 agreement and memorandum of understanding between the City, PWSA, and  
11 ALCOSAN before the next base rate case filing, or no later than December 31,  
12 2019, whichever occurs first, to end the passthrough billing arrangement and  
13 establish ALCOSAN as a service company for treatment services.

14  
15 **Q. DID PWSA AND ANY OTHER PARTY WITNESSES SUBMIT**  
16 **REBUTTAL TESTIMONY IN RESPONSE TO YOUR**  
17 **RECOMMENDATION?**

18 **A.** Yes. PWSA's witness Ms. Lestitian and OCA witness Ms. Everette responded to  
19 my recommendation for the ALCOSAN billing arrangement.



1 **Q. SUMMARIZE MS. LESTITIAN'S RESPONSE IN REBUTTAL**  
2 **TESTIMONY.**

3 A. Ms. Lestitian's responses are summarized below:

- 4 • Although, PWSA is under a contractual obligation to continue the billing  
5 relationship with ALCOSAN, it is in the process of determining a reasonable  
6 methodology to recover the full cost of wastewater treatment and this process  
7 is continuing. PWSA is not a party to the ALCOSAN contract, which is with  
8 the City. Therefore, in the interim, PWSA has proposed the use of a surcharge  
9 to address the collection issue (PWSA Statement No. C-2R, p. 20).
- 10 • The ALCOSAN contract at issue is between the City and ALCOSAN and  
11 neither of which is under purview of the Commission. Therefore, PWSA will  
12 address this legal issue during briefing (PWSA Statement No. C-2R, p. 20).
- 13 • PWSA is not proposing to implement an automatic surcharge mechanism  
14 for uncollectible expenses, which would be imposed outside of the base rate  
15 case process, of the type prohibited by 66 Pa. C.S. § 1408. Rather, PWSA is  
16 proposing to show on the bill the amount that is attributable to uncollectible  
17 revenues as a separate line item charge (service charge) and to adjust that  
18 amount only during a base rate proceeding (PWSA Statement No. C-2R, pp.  
19 21-22).
- 20 • Ms. Lestitian states that I do not appreciate the independence of ALCOSAN, or  
21 its role as a regional/county authority, or the fact that neither PWSA nor the  
22 Commission can impose any demands or requirements on ALCOSAN, which

1 provides wastewater treatment services to 83 communities including the City.

2 As a customer of ALCOSAN by virtue of its contract with the City, Ms.

3 Lestitian states that PWSA is not in a position to require ALCOSAN to charge  
4 market-based rates (PWSA Statement No. C-2R, pp. 23-24).

- 5 • PWSA is working to develop wastewater and stormwater tariff rates that  
6 accurately reflect the costs of paying for contracted treatment services and  
7 capturing the impact of uncollectibles in its own rates. In this regard, PWSA is  
8 on a path to comply with the Commission's Final Implementation Order to  
9 submit a separate tariff for stormwater service in its next wastewater base rate  
10 filing (PWSA Statement No. C-2R, p. 24).
- 11 • PWSA is not a party to the applicable current agreement and memorandum of  
12 understanding between the City and ALCOSAN. Therefore, PWSA is not able  
13 to renegotiate that agreement. Further, since ALCOSAN is not regulated by  
14 the Commission, and the fact that its contract is with the City, it does not  
15 appear that 66 Pa. C.S. §508 authorizes the Commission to reform this contract  
16 (PWSA Statement No. C-2R, p. 25).

1   **Q.   WHAT IS YOUR RESPONSE TO MS. LESTITIAN’S REBUTTAL**  
2       **TESTIMONY?**

3   A.   First, I disagree with Ms. Lestitian response that PWSA is not able to renegotiate  
4       the ALCOSAN agreement because PWSA is not a party to the original 1955  
5       ALCOSAN agreement (which is with the City). Ms. Lestitian ignores the fact that  
6       the first amendment to the 1955 ALCOSAN agreement was entered among  
7       ALCOSAN, the City, and PWSA on March 25, 2004 (I&E Exhibit No. 2,  
8       Schedule 9, p. 1 at Docket Nos. R-2018-3002645 and R-2018-3002647).  
9       Additionally, this 2004 agreement cites the existence of a memorandum of  
10      understanding (MOU) dated October 17, 1996 among ALCOSAN, the City, and  
11      PWSA. Therefore, it is incorrect to say that PWSA is not a party to any agreement  
12      or MOU with ALCOSAN. Like PWSA is renegotiating its Cooperation  
13      Agreement with the City, it should renegotiate its responsibilities under the various  
14      ALCOSAN agreements with the City and ALCOSAN. Therefore, in my view,  
15      PWSA and the City at the behest of PWSA can renegotiate the 1955 ALCOSAN  
16      agreement to protect the interest of all ratepayers including the City.

17           Secondly, PWSA expressly agreed to “amend its Compliance Plan to reflect  
18      its commitment to evaluate the potential ways to address PWSA’s contract with  
19      ALCOSAN including renegotiation of the contract” (Base Rate Case Settlement  
20      Agreement, p. 22 at Docket Nos. R-2018-3002645 and R-2018-3002647).

21      Similarly, in the Compliance Plan Supplement (p. 28), PWSA committed to

1 evaluate potential ways to address PWSA's contract with ALCOSAN, including  
2 renegotiation of the contract.

3 Third, PWSA is attempting to collect a revenue shortfall accounting for the  
4 difference between ALCOSAN treatment charges and collected wastewater  
5 customer revenue via a service charge; this is clearly a surcharge for uncollectible  
6 wastewater revenues. Attempting to categorize these as ALCOSAN uncollectibles  
7 is inaccurate and misleading; ALCOSAN merely charges PWSA for a volume of  
8 wastewater treated. If PWSA fails to recover the ALCOSAN charges in its  
9 wastewater rates due to its high volume of uncollectibles, that is a shortcoming of  
10 PWSA's wastewater rate design inadequately capturing costs and uncollectibles. I  
11 continue to recommend that PWSA design wastewater rates to adequately capture  
12 costs and uncollectibles and that it not be permitted to assess a separate surcharge  
13 to account for its high uncollectible rate (I&E Statement No. 2, p. 47, Ins. 1-4). I  
14 am advised by counsel that whether PWSA's proposal complies with 66 Pa. C.S. §  
15 1408 will be addressed in brief.

16  
17 **Q. SUMMARIZE MS. EVERETTE'S RESPONSE IN REBUTTAL**  
18 **TESTIMONY.**

19 A. Ms. Everett disagrees with my recommendation that ALCOSAN should establish  
20 and charge a market-based rate for PWSA's wastewater treatment and  
21 recommends that PWSA should pay ALCOSAN rates that are established on the  
22 basis of the cost of providing services. Ms. Everett states that since ALCOSAN

1 is a municipal authority, it is her understanding that the Municipal Authorities Act  
2 requires ALCOSAN's rate to be set on a cost basis (OCA Statement No. 1R, p. 2).

3  
4 **Q. WHAT IS YOUR RESPONSE TO MS. EVERETTE'S RECOMMENDATION**  
5 **FOR ALCOSAN'S COST-BASED RATES?**

6 A. I disagree with Ms. Everette's response for the following reasons.

7 First, Ms. Everette is correct that "conventional" wastewater utilities  
8 (providers) regulated by the commission tend to establish their rates based on costs  
9 incurred to provide service (OCA Statement No. 1R, p. 3). However, this is not a  
10 conventional wastewater utility, and PWSA has no authority to mandate rates  
11 based on ALCOSAN'S cost to serve.

12 Secondly, if PWSA has knowledge of market conditions (the cost-based  
13 rates established in other regulated utilities), it would improve its negotiating  
14 position in evaluating future proposed contract rates from ALCOSAN. My  
15 recommendation for market-based rates intended to capture typical cost-based  
16 wastewater rates for regulated utilities, which did not imply a marketed service,  
17 but sought to recommend negotiation of set rates based on known wastewater  
18 costs elsewhere, which would be tantamount to a market-based rate for lack of a  
19 better descriptor. Further, additional information about the low, high, and average  
20 cost to serve other regulated wastewater utilities would provide assurance to  
21 PWSA that ALCOSAN proposed rates were not be arbitrary and without support

1 and may represent the normal treatment cost per gallon unit of wastewater at  
2 ALCOSAN.

3 Third, PWSA negotiating a market-based rate with ALCOSAN would  
4 provide assurance that wastewater rates are just and reasonable. In summary, I  
5 reiterate my recommendation that PWSA should renegotiate its relationship with  
6 ALCOSAN to ensure it is only charged market-based rate, i.e., aligned with the  
7 volume of wastewater treated for PWSA's wastewater customers and a separate  
8 rate that is aligned with the additional volumes related to treatment of stormwater.

9 Lastly, I am not taking any position as to the applicability of the Municipal  
10 Authorities Act to ALCOSAN. However, in my view, PWSA as a party to the  
11 ALCOSAN amendment agreement and MOU, and as an affiliated authority of the  
12 City, can influence the City to negotiate market-based rates and other terms for  
13 wastewater treatment services with ALCOSAN in the interest of its ratepayers.

14  
15 **Q. WHAT IS YOUR RESPONSE TO MS. EVERETTE'S STATEMENT THAT**  
16 **A MARKET-BASED RATE IS NOT A NECESSARY FOUNDATION FOR**  
17 **PWSA TO DEVELOP A STORMWATER RATE?**

18 A. Ms. Everette's position is that it is not necessary to know the market-based rate to  
19 establish a stormwater rate. However, it is important to know the breakdown  
20 between steady-state wastewater and stormwater treatment costs to establish a  
21 stormwater rate because PWSA may not have detailed information about quantity  
22 and costs for either steady-state wastewater or stormwater flow. ALCOSAN

1 knows the difference between steady-state wastewater and stormwater volume  
2 flows at their facility and should be able to break the contract cost out to reflect a  
3 charge for normal wastewater treatment and the added stormwater treatment. So,  
4 when negotiating a market-based rate for wastewater with ALCOSAN, PWSA  
5 could seek a breakdown of treatment costs between wastewater and stormwater  
6 and consequently this would provide a basis for designing a separate stormwater  
7 tariff. Therefore, ignoring this information at this juncture because stormwater  
8 rates are in Phase 2 consideration is irrelevant; PWSA needs to have this  
9 information before the Phase 2 stormwater rates issue is raised for making logical  
10 proposals for the stormwater rates.

11  
12 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
13 **BILLING ARRANGEMENT WITH ALCOSAN?**

14 A. No, I have no changes to my recommendation for the billing arrangement with  
15 ALCOSAN as described in my direct testimony.

16  
17 **BILLING ARRANGEMENT WITH PENNSYLVANIA AMERICAN**  
18 **WATER COMPANY**

19 **Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
20 **FOR THE BILLING ARRANGEMENT WITH PAWC.**

21 A. In direct testimony, I discussed PWSA's billing arrangement with PAWC for its  
22 water rate subsidy. Pursuant to the Cooperation Agreement between PWSA and

1 the City, PWSA agreed to subsidize PAWC customer water rates for those  
2 customers served by PAWC within the City of Pittsburgh service area (southern  
3 part of the City) for the gap in water rates between PWSA and PAWC (I&E  
4 Statement No. 2, pp. 49-53). I recommended that the Commission order PWSA to  
5 revise its Compliance Plan to indicate that it will eliminate the “water rate  
6 subsidy” to PAWC completely by either the time of its next base rate case filing or  
7 by no later than December 31, 2019, whichever occurs first (I&E Statement No. 2,  
8 pp. 52-53).

9  
10 **Q. DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
11 **RESPONSE TO YOUR RECOMMENDATION?**

12 A. Yes. PWSA’s witness Ms. Lestitian responded to my recommendation for the  
13 billing arrangement with PAWC for the water rate subsidy (PWSA Statement No.  
14 C-2R, pp. 25-27).

15  
16 **Q. SUMMARIZE MS. LESTITIAN’S RESPONSE IN REBUTTAL**  
17 **TESTIMONY.**

18 A. Ms. Lestitian states that PWSA believes this subsidy should be eliminated.  
19 However, as the subsidy arrangement or contract is between the City and PAWC,  
20 PWSA cannot commit to eliminating the water rate subsidy in the next base rate  
21 case. She further states that depending on the level of the next rate increase, it is  
22 possible that the subsidy will be eliminated at that time. Even if it is fully



1 eliminated during the next rate case, it is not feasible for PWSA to establish a  
2 certain date by which the subsidy will be eliminated. This answer depends on the  
3 timing of the next base rate case, as well as the level of increase that is to be  
4 approved by the Commission (PWSA Statement No. C-2R, pp. 26-27).

5  
6 **Q. WHAT IS YOUR RESPONSE TO MS. LESTITIAN?**

7 A. PWSA's responsibility for the PAWC subsidy is a product of the Cooperation  
8 Agreement, which is under termination and is being renegotiated. As I state  
9 above, PWSA should not include any items in a new Cooperation Agreement not  
10 compliant with the Public Utility Code, including the PAWC subsidy.  
11 Additionally, it is insufficient to say that PWSA's future rate case filing will  
12 eliminate its need to fund the subsidy, which is contingent upon many unknowns,  
13 such as the level and timing of any rate increase that may or may not be awarded.  
14 Furthermore, it is unknown when PAWC will file a base rate case for a requested  
15 rate increase, which may have the effect of neutralizing PWSA's future rate  
16 increase.

17  
18 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
19 **THE BILLING ARRANGEMENT WITH PAWC?**

20 A. No. I continue with my recommendation for eliminating the rate subsidy to  
21 PAWC completely by either the time of its next base rate case filing or by no later  
22 than December 31, 2019, whichever occurs first.

1 **BILLING ARRANGEMENT WITH PAWC – PAWC RESPONSE**

2 **Q. DID ANY PARTY OTHER THAN PWSA SUBMIT REBUTTAL**  
3 **TESTIMONY IN RESPONSE TO YOUR RECOMMENDATION**  
4 **CONCERNING THE BILLING ARRANGEMENT BETWEEN PWSA AND**  
5 **PAWC?**

6 A. Yes. PAWC witness Mr. Cox responded to my recommendation for PWSA  
7 billing arrangement with PAWC (PAWC Statement No. 1R, pp. 1-3).

8  
9 **Q. SUMMARIZE MR COX'S RESPONSE IN REBUTTAL TESTIMONY.**

10 A. Mr. Cox states that I referred to the City of Pittsburgh Discount as a "PAWC  
11 Subsidy" and a "subsidy payment to PAWC" at several places in my discussion.  
12 The City of Pittsburgh Discount is not a subsidy to PAWC. Rather, it is a discount  
13 to certain PAWC water customers in the City of Pittsburgh, which is reflected as  
14 an adjustment on PAWC water bills. The discount has the effect of reducing the  
15 PAWC water charges on the customers' bills to the current PWSA water charge  
16 level. This discount is the difference between the water bill calculated under the  
17 current PAWC water rate schedule and a bill calculated on PWSA's current water  
18 rate schedule. PWSA then reimburses PAWC each month, based on the amount of  
19 the discounts provided to the affected customers (PAWC Statement No. 1R, pp. 1-  
20 2).

21 Mr. Cox further argues that PAWC does not receive a subsidy from anyone  
22 in connection with the City of Pittsburgh Discount. He claims it is not accurate to

1 refer to the City of Pittsburgh Discount as a "subsidy to PAWC." PAWC is only  
2 reimbursed by PWSA for the amounts of billing discounts provided to PAWC  
3 customers under this arrangement. PAWC receives lower payments from these  
4 customers than otherwise would be owed under PAWC's tariffed rates, but then  
5 PAWC receives the payment from PWSA in the exact amount of the total  
6 discounts provided (PAWC Statement No. 1R, p. 2).

7 PAWC does not object to my recommendation to phase out the City of  
8 Pittsburgh discount by the end of 2019. As stated in his direct testimony, PAWC's  
9 only concern with any modification or elimination of the City of Pittsburgh  
10 Discount is that all of the parties, including PAWC customers located in certain  
11 City Wards within the City of Pittsburgh, are given reasonable and adequate notice  
12 that the City of Pittsburgh discount is being phased out (PAWC Statement No. 1R,  
13 pp. 2-3).

14  
15 **Q. DO YOU ACCEPT MR. COX OBJECTION FOR USE OF THE TERM**  
16 **WATER SUBSIDY IN YOUR TESTIMONY?**

17 **A.** No. My response to Mr. Cox's objection is discussed below.

18  
19 **Q. WHAT IS THE BASIS OF PWSA SUBSIDY PAYMENT TO PAWC?**

20 **A.** Pursuant to the Clause VII (B) of the 1995 Cooperation Agreement between the  
21 City and PWSA, PWSA is required to make equalization payments directly to

1 PAWC (I&E Exhibit No. 2, Schedule 13, p. 7 at Docket Nos. R-2018-3002645 and  
2 R-2018-3002647).

3  
4 **Q. WHAT IS THE COMMON DEFINITION OF THE TERMS**  
5 **EQUALIZATION, SUBSIDY, AND DISCOUNT?**

6 A. In common parlance, I understand the term “equalization payments” are cash  
7 payments made in some federal systems of government from the federal  
8 government to sub-national governments with the objective of off-setting  
9 differences in available revenue or in the cost of providing services. Similarly, a  
10 “subsidy” or government incentive is a form of financial aid or support extended  
11 to an economic sector (or institution, business, or individual) generally with the  
12 aim of promoting economic and social policy. Consumer/consumption subsidies  
13 commonly reduce the price of goods and services to the consumer. While the term  
14 “discount” means selling goods or services for less than their regular or list price.

15  
16 **Q. IF A PORTION OF A TARIFFED RATEPAYER’S WATER BILL IS PAID**  
17 **BY A THIRD, UNRELATED PARTY OR GOVERNMENT ENTITY,**  
18 **EXPLAIN WHY THIS IS NOT A SUBSIDY.**

19 A. Considering the definition of the term subsidy as described above, in my view,  
20 PWSA is providing financial aid in the form of a subsidy to the water consumers  
21 of PAWC routing the aid amount via PAWC. The term discount, as emphasized by  
22 Mr. Cox for PWSA payments to PAWC, is not supported by the definition of the

1 term discount. Discount in tariff price means a reduction in the list price of a  
2 product or service and the seller or supplier of product or service is receiving less  
3 money than its list or intended sale price. Further, the seller accounts for the  
4 discounted cost as an expense or reduces the total sales value in its accounting.  
5 Applying this concept, Mr. Cox's interpretation of PWSA's payment as discount is  
6 not supported because PAWC is realizing the full amount of its tariff rate and  
7 registers the full value of sales on its books. Furthermore, Mr. Cox's assertion of  
8 City of Pittsburgh discount arrangement is not supported or included in the  
9 Commission's authorized water tariff of PAWC.

10  
11 **Q. DO YOU HAVE ANY ADDITIONAL RESPONSE OR COMMENT TO MR.**  
12 **COX REBUTTAL TESTIMONY?**

13 A. Yes. First, PAWC did not raise any objection to the term water rate subsidy in  
14 PWSA's base rate case proceeding (Docket Nos. R-2018-3002645 and R-2018-  
15 3002647), where it was one of the parties to the case. Second, in PWSA's  
16 Compliance Plan (pp. 112-113), PWSA describes that the City entered into an  
17 arrangement (City Ordinance No. 675; "*South Hills Water Subsidy*" Agreement  
18 December 28, 1973) with PAWC whereby the City pays a rate subsidy directly to  
19 PAWC. Third, PWSA records monthly payments to PAWC as subsidy cost in its  
20 statements and reports.

1        **BULK WASTEWATER CONVEYANCE AGREEMENTS**

2        **Q.    SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
3        **FOR BULK WASTEWATER CONVEYANCE AGREEMENTS FROM**  
4        **OTHER UTILITIES TO ALCOSAN.**

5        A.    In direct testimony, I recommended that, in general, PWSA be required to file all  
6        of its existing bulk wastewater contracts with the Commission in a separate docket  
7        within 120 days of the Final Order in this case so that the Commission can  
8        determine if those contracts are consistent with PWSA's obligations as a regulated  
9        public utility. Second, PWSA should negotiate the terms and conditions of all  
10       current bulk wastewater conveyance agreements to ensure that PWSA's  
11       wastewater conveyance charges/rates are just and reasonable reflecting the true  
12       and current cost of service, including the uncollectibles associated with the  
13       wastewater service, and that municipal authorities be made responsible to share  
14       the cost of repairs and replacement of conveyance trunk lines. Third, if PWSA  
15       enters into new or revised wastewater conveyance agreements with any municipal  
16       authorities before filing the next base rate case, but no later than December 31,  
17       2019, it should file those new or revised agreements with the Commission within  
18       15 days of execution under 66 Pa. Code § 507 (I&E Statement No. 2, pp. 56-57)

1 **Q. DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
2 **RESPONSE TO YOUR RECOMMENDATION?**

3 A. Yes. PWSA's witness Ms. Lestitian responded to my recommendation for the  
4 bulk wastewater conveyance agreements with the municipal authorities (PWSA  
5 Statement No. C-2R, pp. 29-31).

6  
7 **Q. SUMMARIZE MS. LESTITIAN'S RESPONSE IN REBUTTAL**  
8 **TESTIMONY.**

9 A. Ms. Lestitian reiterated PWSA's position that the agreements entered prior to  
10 April 1, 2018 are not required to be filed with the Commission. Even as to  
11 contracts entered into after that date, PWSA views them as being outside the  
12 purview of 66 Pa. Code § 507, since they are covered by PWSA's tariff provisions.  
13 Nonetheless, PWSA is willing to share these contracts with parties to this  
14 compliance proceeding (PWSA Statement No. C-2R, pp. 30).

15       Regarding PWSA's authority to shut off water services, if an O'Hara  
16 Township resident fails to pay for wastewater conveyance service supplied by the  
17 township, Ms. Lestitian states that this arrangement is specifically authorized by  
18 the Municipality Authorities Act (53 P.S. §§ 3102.502). PWSA will address this  
19 legal issue during briefing (PWSA Statement No. C-2R, pp. 30-31).

1   **Q.    WHAT IS YOUR RESPONSE TO MS. LESTITIAN?**

2   A.    I acknowledge PWSA's willingness to share all the current bulk wastewater  
3       conveyance contracts with all the parties to this proceeding. However, my  
4       recommendation to file these contracts as a separate docket is based on my view  
5       that it would be more efficient to file these documents in a separate docket for  
6       possible Commission investigation and litigation. Additionally, I believe we first  
7       need Commission guidance in this proceeding whether such agreements should  
8       even be filed with the Commission. As stated in direct testimony, I believe they  
9       should be, but PWSA disagrees. Regarding the O'Hara Township issue, I note that  
10      PWSA counsel will address this matter through briefing.

11  
12   **Q.    DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
13       **BULK WASTEWATER CONVEYANCE AGREEMENTS FROM OTHER**  
14       **UTILITIES TO ALCOSAN?**

15   A.    I continue with all my recommendations described in direct testimony with one  
16       modification that PWSA should file any new or revised agreements with the  
17       Commission in accordance with the provisions of 66 Pa. Code § 507.



1        **52 PA CODE § 65.16 - SYSTEM OF ACCOUNTS**

2        **Q.     SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
3        **FOR THE SYSTEM OF ACCOUNTS?**

4        A.     In direct testimony, I recommended that PWSA should revise its Compliance Plan  
5        to provide more information about the status of its selection of an Enterprise  
6        Resource Planning (ERP) contractor, projected ERP system cost, and a detailed  
7        implementation schedule. Second, PWSA should provide periodic updates on the  
8        ERP system development to the Commission on a quarterly basis. Third, PWSA  
9        should strive to complete the ERP project enabling full conversion of its system of  
10       account to the National Association of Regulatory Utility Commissioners  
11       (NARUC) Uniform System of Accounts (USOA) no later than December 31, 2020  
12       (I&E Statement No. 2, p. 7).

13  
14       **Q.     DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
15       **RESPONSE TO YOUR RECOMMENDATION?**

16       A.     Yes. PWSA's witness Ms. Presutti responded to my recommendation for the  
17       conversion of PWSA's system of accounts to NARUC USOA (PWSA Statement  
18       No. C-3R, pp. 3-4).

1   **Q.   SUMMARIZE MS. PRESUTTI'S RESPONSE IN REBUTTAL**  
2       **TESTIMONY.**

3   A.   Ms. Presutti's responses are summarized below:

- 4       •   PWSA has provided all the information it presently has about the status of  
5           this project, and will continue to update the Commission, if it wishes, on a  
6           periodic basis (PWSA Statement No. C-3R, p. 3).
- 7       •   Ms. Presutti states that she is advised by counsel that there is no requirement  
8           that PWSA provide "assurances." The purpose of this proceeding is to  
9           establish plans acceptable to the Commission for PWSA coming into full  
10          compliance with a variety of Commission rules and requirements of the Public  
11          Utility Code; that is what PWSA is proposing with respect to the conversion of  
12          its accounts to NARUC USOA. PWSA's Finance team has mapped the  
13          current chart of accounts to the NARUC USOA and will provide all  
14          Commission reports in the NARUC USOA format. Also, PWSA will develop  
15          the 2020 operating budget in the NARUC USOA format (PWSA Statement  
16          No. C-3R, p. 4).
- 17      •   PWSA does not oppose periodic reporting about the system of accounts  
18          conversion to NARUC USOA but is concerned about overburdening an  
19          already taxed staff. However, PWSA is happy to report on PWSA's  
20          conversion efforts and maintain an open dialogue with all parties (PWSA  
21          Statement No. C-3R, p. 4).

1 **Q. WHAT IS YOUR RESPONSE TO MS. PRESUTTI?**

2 A. First, I acknowledge PWSA's willingness to provide periodic reporting about the  
3 conversion to the NARUC USOA to the Commission. Second, what I mean by  
4 PWSA providing adequate "assurance" for the full conversion of its accounts to  
5 NARUC USOA in fiscal year (FY) 2020 is that PWSA commit to full conversion  
6 of the system of accounts by FY 2020 in order to avoid delay and to create  
7 compliance obligation and accountability.

8  
9 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
10 **FOR THE FULL CONVERSION OF PWSA'S SYSTEM OF ACCOUNTS**  
11 **TO NARUC USOA BY A SPECIFIC TIMEFRAME?**

12 A. No. I continue with all three recommendations described above.

13  
14 **UNCOLLECTIBLES - REVENUE LOSS**

15 **Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
16 **FOR UNCOLLECTIBLES - REVENUE LOSS.**

17 A. In direct testimony, I recommended that PWSA be ordered to revise its  
18 Compliance Plan to commit to the following actions: (1) PWSA will research the  
19 customers' billing collection practices and policies implemented by other utilities  
20 (regulated gas, electric, and water distribution companies) serving PWSA's service  
21 territory and implement the best suited policies and practices consistent with the  
22 provisions of 52 Pa. Code; (2) PWSA will exercise all available avenues and

options aggressively in an effort to reduce uncollectibles; (3) to ensure PWSA is accountable for its uncollectibles, it will provide a detailed annual report with data about implementation of collection measures and related results; and (4) PWSA will prioritize accounts with the highest uncollectible amounts, including commercial accounts, for collections (I&E Statement No. 2, p. 63).

**Q. DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN RESPONSE TO YOUR RECOMMENDATION?**

A. Yes. PWSA's witness Ms. Quigley responded to my recommendation for uncollectibles (PWSA Statement No. C-4R, pp. 24-28).

**Q. SUMMARIZE MS. QUIGLEY'S RESPONSE IN REBUTTAL TESTIMONY.**

A. Ms. Quigley's responses are summarized below:

- She recommended that PWSA be permitted to address collections issues related to residential customers during the Stage 2 process, which would enable PWSA to freely discuss these issues during the currently on-going Stage 2 staff collaborative sessions so that the Commission's and parties' views can be incorporated into an overall collections plan (PWSA Statement No. C-4R, p. 27).
- She recognized and noted improving the collection practice for non-residential customers. PWSA is willing to commit to further internal study regarding the

1 billing collection practices and policies implemented by other utilities,  
2 beginning with a review of the Management Efficiency Audit Reports issued  
3 by the Commission's Bureau of Audits. As part of this study, PWSA will  
4 identify the potential avenues and options available to assist it in aggressively  
5 reducing uncollectibles (PWSA Statement No. C-4R, pp. 27-28).

- 6 • PWSA will study how to best prioritize the outstanding debt to target the  
7 highest uncollectible amounts. PWSA is willing to present the results of this  
8 effort during a special meeting of the Stage 2 collaborative sessions (PWSA  
9 Statement No. C-4R, p. 28).
- 10 • PWSA also proposes that any future reporting requirement be developed at that  
11 time, so that the required reporting can better be targeted to the actual plan and  
12 to ensure that PWSA is able to staff any needs resulting from an additional  
13 reporting requirement (PWSA Statement No. C-4R, p. 28).

14  
15 **Q. WHAT IS YOUR RESPONSE TO MS. QUIGLEY?**

16 A. I acknowledge PWSA's willingness and commitment to research, analyze, and  
17 implement appropriate collection strategies and provide a periodic reporting about  
18 the collection practices and results. I support Ms. Quigley response to address  
19 uncollectibles issue in Stage 2 proceeding.

1   **Q.   DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
2       **UNCOLLECTIBLES?**

3   A.   Yes. As indicated above, I agree with PWSA's proposal to address the issue of  
4       uncollectibles in the Compliance Plan - Stage 2 proceeding.

5  
6       **52 PA CODE §§ 69.261-69.267 – CUSTOMER ASSISTANCE PROGRAM**  
7       **(CAP)**

8   **Q.   SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY**  
9       **FOR CAP.**

10  A.   In my direct testimony, I recommended that: (1) In the absence of a full year's  
11       worth of data, PWSA should continue collecting the types of data as mentioned in  
12       the Plan Supplement at page 19 and submit a detailed plan to outline program  
13       parameters for its low-income assistance programs; and (2) based on the data,  
14       analysis and evaluation of each low-income program, PWSA should formulate and  
15       present as soon as possible, a detailed CAP proposal and evaluation plan as  
16       described in 52 Pa. Code § 69.265(10) (relating to CAP design elements) to the  
17       Commission's Bureau of Consumer Services (BCS) for review and subsequently  
18       for the parties' and Commission's review as part of PWSA's next base rate  
19       proceeding per the rate case settlement (I&E Statement No. 2, pp. 12-13).

1 **Q. DID ANY PWSA WITNESS SUBMIT REBUTTAL TESTIMONY IN**  
2 **RESPONSE TO YOUR RECOMMENDATION?**

3 A. Yes. PWSA's witness Ms. Quigley responded to my recommendation for the  
4 CAP (PWSA Statement No. C-4R, pp. 28-35).

5  
6 **Q. SUMMARIZE MS. QUIGLEY'S RESPONSE IN REBUTTAL**  
7 **TESTIMONY.**

8 A. Ms. Quigley's responses are summarized below:

- 9 • PWSA is in the process of gathering the data related to the program as agreed  
10 to in the rate case settlement (PWSA Statement No. C-4R, p. 32).
- 11 • PWSA has already committed to a process to evaluate and consider revisions  
12 to its CAP, which includes discussion and consideration of the input of various  
13 stakeholders with revisions to be submitted as part of the next rate case. She  
14 opines that injecting another layer of BCS review and feedback prior to PWSA  
15 submitting it with the next rate case is unnecessary as there will be a significant  
16 delay in feedback from BCS and consequently a delay in filing the next base  
17 rate case (PWSA Statement No. C-4R, p. 31).

18  
19 **Q. WHAT IS YOUR RESPONSE TO MS. QUIGLEY?**

20 A. I acknowledge PWSA's willingness and commitment to gather the relevant data  
21 related to the low-income assistance programs as agreed in the rate case settlement  
22 and presenting a detailed plan regarding the low-income customer assistance

1 programs in its next base rate case. However, I do not agree with the concern  
2 raised by Ms. Quigley that BCS feedback upon review of low-income assistance  
3 programs/CAP will be delayed by dialogue or discussion with the BCS on this  
4 matter. To the extent PWSA has the opportunity to seek feedback regarding its  
5 CAP before the next rate case or any other litigated proceeding involving CAP, it  
6 should collaborate with BCS to the extent practical to receive constructive  
7 feedback to help define its CAP.

8  
9 **Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR**  
10 **THE CAP?**

11 A. No. I accept PWSA's proposal to gather relevant data and present a detailed CAP  
12 in its next base rate case filing. However, I continue with my recommendation for  
13 BCS to review PWSA's proposed detailed CAP as being the first plan for PWSA.

14  
15 **CONCLUSION**

16 **Q. SUMMARIZE YOUR RECOMMENDATIONS AS UPDATED IN THIS**  
17 **SURREBUTTAL TESTIMONY.**

18 A. After reviewing PWSA's Compliance Plan, and PWSA's responses to the  
19 recommendations that I made in my direct testimony, my updated  
20 recommendations for the Commission to consider are listed below. For the areas  
21 in which, I believe that PWSA and I&E have now reached a resolution of the  
22 issue, I highlighted those recommendations in bold for ease of reference.



1        **PWSA Services Contract with the City of Pittsburgh (Cooperation**  
2        **Agreement):**

- 3        • I agree with Ms. Lestitian that if PWSA renegotiates and executes a new  
4        Cooperation Agreement by July 5, 2019, it will be subject to the  
5        Commission's review and approval process. I also agree with Ms.  
6        Lestitian that any payments to the City must be just, reasonable and  
7        substantiated.
- 8        • PWSA should be required to consider implementation of an independent  
9        governance structure.
- 10       • PWSA should execute and file the renegotiated Cooperation Agreement with  
11       the Commission no later than July 5, 2019. **If the new agreement cannot be**  
12       **executed by July 5, 2019, PWSA will interact with the City at arms-length**  
13       **on a transactional cost basis.**

14       **Capital Lease Agreement:**

- 15       • PWSA should exercise its option to complete the transaction in 2025 by  
16       paying the one dollar (\$1) to purchase the water and wastewater system  
17       assets.
- 18       • PWSA will file any amendment or revised Capital Lease Agreement with  
19       the Commission.

1        **Residency Requirement:**

- 2        • PWSA should eliminate its residency requirement for employment.

3            Additionally, PWSA should be required to file a revised Compliance Plan that  
4            summarizes and adopts a plan to eliminate the residency requirement.

5        **Billing Arrangement with the ALCOSAN:**

- 6        • ALCOSAN should establish and charge a market-based rate that is aligned  
7            with the volume of wastewater treated for PWSA's wastewater customers and a  
8            separate rate that is aligned with the additional volumes related to treatment of  
9            stormwater.

- 10       • PWSA should pay the established market-based rate to ALCOSAN via an  
11       annual or multi-year contract.

- 12       • PWSA should develop wastewater and stormwater tariff rates for current  
13       wastewater customers and future stormwater customers that accurately reflect  
14       the costs of paying for contracted treatment services and capturing the impact  
15       of uncollectibles in its own rates.

- 16       • PWSA and the City should amend the applicable current agreement and  
17       memorandum of understanding between the City, PWSA, and ALCOSAN  
18       before the next base rate case filing, or no later than December 31, 2019,  
19       whichever occurs first.

- 20       • Alternatively, if PWSA proves that it is legally prohibited from implementing  
21       the above recommendations, the Commission should order PWSA to file a

1 revised Compliance Plan that requests the Commission reform its contract with  
2 ALCOSAN under Section 508 of the Public Utility Code.

- 3 • Implementation of a service charge to adjust for wastewater customer  
4 uncollectibles should be disallowed and all costs to serve, including,  
5 uncollectibles, should be captured in wastewater base rates.

6 **Billing Arrangement with PAWC:**

- 7 • PWSA should revise its Compliance Plan to indicate that it will eliminate the  
8 rate subsidy to PAWC completely by either the time of its next base rate case  
9 filing or by no later than December 31, 2019, whichever occurs first.

10 **Bulk Wastewater Conveyance Agreements:**

- 11 • PWSA should be required to file all of its existing bulk wastewater contracts  
12 with the Commission in a separate docket within 120 days of the  
13 Commission's final order in this case.
- 14 • PWSA should negotiate the terms and conditions of all current bulk wastewater  
15 conveyance agreements to ensure that PWSA's wastewater conveyance  
16 charges/rates are just and reasonable reflecting true and current cost of service  
17 and that municipal authorities be made responsible to share the cost of repairs  
18 and replacement of conveyance trunk lines.
- 19 • If PWSA enters into new or revised wastewater conveyance agreements with  
20 any municipal authorities, PWSA should file these agreements with the  
21 Commission in accordance with the provisions of 66 Pa. Code § 507.

1        **System of Accounts:**

- 2        •    **PWSA should provide periodic updates on the ERP system development to**  
3        **the Commission on a quarterly basis.**
- 4        •    PWSA should revise its Compliance Plan to provide more information about  
5        the status of its selection of an Enterprise Resource Planning (ERP) contractor,  
6        projected ERP system cost, and a detailed implementation schedule.
- 7        •    PWSA should strive to complete the ERP project enabling full conversion of  
8        its system of account to NARUC USOA no later than December 31, 2020.

9        **Uncollectibles - Revenue Loss:**

- 10       •    **I have acknowledged PWSA's commitment to implement appropriate**  
11       **collection strategies and providing periodic reporting about collection**  
12       **practices and results.**
- 13       •    **I agree with PWSA's proposal to address the issue of uncollectibles in the**  
14       **Compliance Plan - Stage 2 proceeding.**

15       **Customer Assistance Program:**

- 16       •    **I have acknowledged PWSA's commitment to gather relevant data and**  
17       **present a detailed CAP in its next base rate case filing.**
- 18       •    PWSA should collaborate with BCS for receiving constructive feedback in the  
19       proposed CAP as being the first plan for PWSA.

20    **Q.    DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

21    **A.    Yes.**

**I&E Statement No. 2-RS  
Witness: D. C. Patel**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 and M-2018-2640803**

**Supplemental Rebuttal Testimony**

**of**

**D. C. Patel**

**Bureau of Investigation and Enforcement**

**Concerning:**

**COMPLIANCE PLAN**

**PWSA Services Contract with the City of Pittsburgh,  
Collections and Customer Assistance Program**

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1           **INTRODUCTION**

2   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3   A.   My name is D. C. Patel, and my business address is Pennsylvania Public Utility  
4       Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg,  
5       PA 17120.

6  
7   **Q.   ARE YOU THE SAME D. C. PATEL WHO SUBMITTED DIRECT AND**  
8       **SURREBUTTAL TESTIMONY IN THIS PROCEEDING?**

9   A.   Yes. I submitted direct testimony and a corresponding exhibit, I&E Statement No.  
10       2 and I&E Exhibit No. 2 on April 5, 2019, and surrebuttal testimony, I&E  
11       Statement No. 2-SR, in this proceeding on May 17, 2019.

12  
13   **Q.   DOES YOUR SUPPLEMENTAL REBUTTAL TESTIMONY INCLUDE AN**  
14       **ACCOMPANYING EXHIBIT?**

15   A.   No. However, I will refer to my direct testimony and surrebuttal testimony (I&E  
16       Statement No. 2 and I&E Statement No. 2-SR) in this supplemental rebuttal  
17       testimony.

18  
19   **Q.   HAVE THERE BEEN ANY NOTABLE DEVELOPMENTS IN THIS CASE**  
20       **SINCE YOU SUBMITTED YOUR SURREBUTTAL TESTIMONY?**

21   A.   Yes. As Pittsburgh Water and Sewer Authority (PWSA) witness Robert Weimar  
22       explained, since May 22, 2019, PWSA and parties in this case, have been meeting

1 on a regular basis in an attempt to gain a better understanding of the issues and to  
2 try to resolve them where possible (PWSA St. No. C-1SD). As a result of these  
3 meetings and discussions, I&E was able to work with PWSA to reach a resolution  
4 on many of the compliance issues that I&E identified, including several issues that  
5 were the subject of my prior testimonies.  
6

7 **Q. DOES THIS TESTIMONY ADDRESS ALL OF YOUR PRIOR**  
8 **RECOMMENDATIONS FOR THE ISSUES THAT HAVE NOT BEEN**  
9 **RESOLVED?**

10 A. No. My testimony addresses my recommendations only for the issues that (1)  
11 remain unresolved; and (2) where the unresolved issue is the subject of an update  
12 that PWSA provided in its supplemental direct testimony. For purposes of clarity,  
13 I&E witness Anthony Spadaccio identifies all remaining unresolved I&E issues in  
14 I&E Statement No. 1-RS, so a full listing is available in that document.  
15

16 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL REBUTTAL**  
17 **TESTIMONY?**

18 A. The purpose of my supplemental rebuttal testimony is to respond to the updates to  
19 certain information provided in the supplemental direct testimonies of PWSA  
20 witnesses Debbie M. Lestitian (PWSA Statement No. C-2SD) and Julie Quigley  
21 (PWSA Statement No. C-4SD).



**PWSA SERVICE CONTRACT WITH THE CITY OF PITTSBURGH**  
**(COOPERATION AGREEMENT)**

**Q. WHAT UPDATES DID PWSA WITNESS LESTITIAN PROVIDE  
REGARDING THE COOPERATION AGREEMENT IN HER  
SUPPLEMENTAL DIRECT TESTIMONY?**

A. Ms. Lestitian provided updates (PWSA Statement No. C-2SD, pp. 3-4) to indicate that PWSA's Board extended the termination of its 1995 Cooperation Agreement by 90 days, or until October 3, 2019. Additionally, in the interim, PWSA's Board approved a new Cooperation Agreement on June 7, 2019 (2019 Cooperation Agreement), which was presented to the Pittsburgh City Council on June 11, 2019. However, although the City Council passed a resolution on July 24, 2019 authorizing the Mayor of Pittsburgh to execute the 2019 Cooperation Agreement, the Mayor was permitted ten days, or until August 6, 2019, to make changes to the 2019 Cooperation Agreement. If the Mayor makes no changes to the 2019 Cooperation Agreement, it will be considered final, subject to Commission approval. Upon final approval by the City and the Board, PWSA will file the 2019 Cooperation Agreement with the Commission under Section 507 of the Public Utility Code.

1 **Q. FOR PURPOSES OF CLARITY, AS OF THE DATE THAT YOU**  
2 **PREPARED YOUR TESTIMONY, WHAT IS THE STATUS OF PWSA'S**  
3 **COOPERATION AGREEMENT?**

4 A. Based on the update provided by Ms. Lestitian, it appears that the City's 1995  
5 Cooperation Agreement is currently operative, and that it will remain in place  
6 either until October 3, 2019 or until the Commission approves any other  
7 Cooperation Agreement, if and when one is finalized. Additionally, it is unclear  
8 whether the City Mayor made any changes to the pending 2019 Cooperation  
9 Agreement, or how any such changes were received by the Board.

10  
11 **Q. BECAUSE THE 1995 COOPERATION AGREEMENT REMAINS IN**  
12 **PLACE, DO YOU CONTINUE TO RECOMMEND THE REJECTION OF**  
13 **CERTAIN TERMS INCLUDED IN THAT AGREEMENT?**

14 A. Yes. As I indicated in my surrebuttal testimony (I&E Statement No. 2-SR, pp. 2-  
15 3)<sup>1</sup>, I continue to recommend that PWSA be required to do the following:

- 16 • Define the City of Pittsburgh's (City) and PWSA's relationship on a "business-  
17 like" basis and negotiate all terms and conditions of the agreement at arm's  
18 length to ensure fair, equitable, and reasonable terms for both the parties.
- 19 • Identify and list all services by the City to PWSA and vice versa with a  
20 detailed breakdown and related cost of service based on current market  
21 conditions.  
22

---

<sup>1</sup> I note that I have eliminated a few of the recommendations that previously appeared in this listing as the result of the omitted recommendations being resolved through the settlement process.

- Eliminate the free water services to the City and its instrumentalities, agencies, and other bodies.
- Implement the governance reforms identified by the PA Auditor General.

**Q. DID MS. LESTITIAN DISCUSS PWSA'S OPTIONS IF THE COMMISSION INSTITUTES A PROCEEDING UNDER SECTION 507 OF THE PUBLIC UTILITY CODE PRIOR TO THE EFFECTIVE DATE OF 2019 COOPERATION AGREEMENT?**

A. Yes. She states that PWSA intends to request permission from the Commission to begin using the new Cooperation Agreement effective October 4, 2019 subject to "subsequent retroactive revisions directed by the Commission," the Commission's determination in future rate proceedings, and implementation of any changes to practices resulting from this proceeding. (PWSA Statement No. C-2SD, p. 5).

**Q. HOW DO YOU RESPOND TO THE PLAN THAT MS. LESTITIAN OFFERED?**

A. Because it appears that Ms. Lestitian is simply explaining PWSA's future intentions, and not making any actual request in this case, I will defer to counsel to address PWSA's request when it is made to the Commission.

1 **Q. ASIDE FROM THE COURSE OF ACTION IDENTIFIED ABOVE, DID**  
2 **MS. LESTITIAN IDENTIFY ANY OTHER AVENUES FOR PWSA TO**  
3 **CONTINUE TRANSACTING WITH THE CITY AFTER OCTOBER 3,**  
4 **2019?**

5 A. Yes. Ms. Lestitian mentioned the following other options available to PWSA  
6 (PWSA Statement No. C-2SD, p. 5): (1) Another extension of the 1995  
7 Cooperation Agreement beyond October 3, 2019; and (2) PWSA could begin  
8 interacting with the City on an arms-length transactional basis effective October 4,  
9 2019. Under the latter approach, PWSA would invoice the City for services on a  
10 fair market value basis and pay invoices received from the City on the same basis.

11  
12 **Q. WHAT IS YOUR POSITION REGARDING THE TWO ALTERNATIVE**  
13 **PROPOSALS FOR PWSA'S TRANSACTIONS WITH THE CITY AFTER**  
14 **OCTOBER 3, 2019?**

15 A. First, I agree with Ms. Lestitian that the first alternative, a further extension of the  
16 1995 Cooperation agreement, is not an attractive option because its terms are not  
17 favorable to PWSA (PWSA St. No. C-2SD, p. 5). However, I do support the  
18 second alternative, which is that PWSA should start interacting with the City on an  
19 arms-length transactional cost basis on an interim basis until PWSA's Board  
20 submits a new Cooperation Agreement and it is approved by the Commission. I

1 note that this course of action is consistent with my recommendation submitted in  
2 surrebuttal testimony and I continue to assert that recommendation now (I&E  
3 Statement No. 2-SR, p. 8).

4  
5 **COLLECTIONS AND CUSTOMER ASSISTANCE PROGRAM (CAP)**

6 **Q. WHAT UPDATE DID PWSA WITNESS MS. QUIGLEY PROVIDE**  
7 **CONCERNING THE COLLECTION AND CAP ISSUES IN HER**  
8 **SUPPLEMENTAL DIRECT TESTIMONY?**

9 A. Ms. Quigley explains that on May 13, 2019, the parties filed a joint Expedited  
10 Motion for Extension of the Commission-Created Deadlines (Joint Motion) in this  
11 proceeding. In the Joint Motion, the parties requested, among other things, that  
12 the consumer related issues (Collections and CAP) be moved from Stage 1 to  
13 Stage 2 Compliance Plan proceedings so that the parties may discuss these issues  
14 in the Bureau of Consumer Services (BCS)-led workshops. In a Secretarial Letter  
15 dated May 15, 2019, the Commission granted the requested relief to address these  
16 issues in Stage 2 of the Compliance Plan process (PWSA Statement No. C-4SD,  
17 pp. 1-2).

1    **Q.    IS MS. QUIGLEY CORRECT THAT PARTIES, INCLUDING I&E, HAVE**  
2           **AGREED TO MOVE COLLECTION AND CAP ISSUES FROM THIS**  
3           **PROCEEDING TO STAGE 2 OF PWSA’S COMPLIANCE PLAN?**

4    A.    Yes. During the course of information sessions that were held as part of the  
5           settlement discussions in this case, it became clear that PWSA needs additional  
6           guidance and assistance in developing an efficient and effective collections  
7           program and in evaluating its CAP programming. Because this type of assistance  
8           would be accessible through the workshops that the BCS is currently holding, and  
9           as reflected in the summary included in witness Spadaccio’s testimony (I&E  
10          Statement No. 1-RS), I have agreed to defer and revisit my recommendations  
11          regarding PWSA’s uncollectibles/revenue loss and CAP programming to Stage 2  
12          of PWSA’s Compliance Plan.

13  
14   **Q.    DOES THIS CONCLUDE YOUR SUPPLEMENTAL REBUTTAL**  
15          **TESTIMONY?**

16   A.    Yes.

**I&E Statement No. 3**  
**Witness: Ethan H. Cline**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Direct Testimony**

**of**

**Ethan H. Cline**

**Bureau of Investigation and Enforcement**

**Concerning:**

**System and Operation Activities**  
**Metered Service**  
**Meter Testing**  
**Source of Supply Measurement**  
**Standards of Design**  
**Water Conservation Measures**  
**Conflicts involving the Municipality Authorities Act**  
**Standby Charge**  
**Annual Depreciation Report**  
**Unmetered/Unbilled Usage (Including City Usage)**  
**Plan to Address Non-Revenue Water**  
**Bulk Water: Sales for Resale**

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1   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2   A.   My name is Ethan H. Cline. My business address is Pennsylvania Public Utility  
3       Commission, 400 North Street, Harrisburg, PA 17120.

5   **Q.   BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6   A.   I am employed by the Pennsylvania Public Utility Commission in the Bureau of  
7       Investigation and Enforcement (“I&E”) as a Fixed Utility Valuation Engineer.

9   **Q.   WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT EXPERIENCE?**

10  A.   An outline of my education and employment experience is attached as Appendix A.

12  **Q.   PLEASE DESCRIBE THE ROLE OF I&E IN THIS COMPLIANCE PLAN**  
13  **PROCEEDING.**

14  A.   I&E is responsible for representing the public interest in proceedings before the  
15       Commission. In this case, I&E is responsible for review of PWSA’s plan to comply  
16       with the Code, Commission regulations, and Commission orders and to evaluate  
17       whether its plan will adequately ensure and maintain the provision of adequate,  
18       efficient, safe, reliable and reasonable service.

20  **Q.   WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

21  A.   The purpose of my direct testimony is to evaluate whether certain information  
22       provided by the Pittsburgh Water and Sewer Authority (“PWSA”) in its required

1 Compliance Plan is sufficient to bring PWSA into compliance with the Code and  
2 applicable rules, regulations, and orders of the Commission.

3  
4 **Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?**

5 A. Yes. I&E Exhibit No. 3 contains schedules related to my testimony.

6  
7 **Q. HOW IS YOUR TESTIMONY STRUCTURED?**

8 A. My testimony is structured in a manner that is intended to address certain questions that  
9 the Commission has raised through its Technical Staff Initial Report and Directed  
10 Questions, Stage 1, issued on November 28, 2018 (“Directed Questions”). For ease of  
11 reference, each of the topic headings contained herein contains a reference to both the  
12 relevant page of the directed questions that I am addressing in that section as well as a  
13 second reference to PWSA’s exhibit RAW/C-1, which corresponds to the numbering  
14 system of the directed questions that PWSA relied upon in its direct testimony.

1            **SYSTEM AND OPERATIONS ACTIVITIES – OCTOBER 25, 2017 DEP**  
2            **ORDER AND CAPITAL IMPROVEMENT PLAN**<sup>1</sup>

3    **Q.    WHAT ISSUES ARE BEING REFERENCED IN THESE COMMISSION**  
4            **DIRECTED QUESTIONS?**

5    **A.**    The System and Operations Activities section of the Directed Questions is referring to  
6            pages 20-29 of PWSA’s Compliance Plan.<sup>2</sup> Specifically, the Commission referred to  
7            the statement on page 22 of the Compliance Plan that states that PWSA is complying  
8            with an Administrative Order from the Pennsylvania Department of Environmental  
9            Protection (“DEP”), issued in 2017, to maintain an updated, safe, and reliable water  
10           system and ensure that the most urgent water supply projects are achieved. Regarding  
11           the October 25, 2017 DEP Administrative Order and PWSA’s Capital Improvement  
12           Plan (“CIP”), the Directed Questions requested that parties discuss “[t]he individual  
13           design engineer, company affiliation and the estimated cost, funding source, timeline,  
14           and milestone dates” for twelve specific projects. These twelve projects are listed in  
15           the exhibit to PWSA witness Weimar’s testimony, PWSA Exhibit RAW/C-1, as the  
16           following:

17                    6.1 Aspinwall Treatment Plant Pretreatment Chemical System and  
18                    Clarification Improvements;

---

<sup>1</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 2-3; Exhibit RAW/C-1, Directed Questions Nos. 6.1-6.12.

<sup>2</sup> The Systems and Operations Activities section of the Directed Questions refers to questions six through 14, as enumerated in Exhibit RAW/C-1. My testimony regarding this section reflects question six and its subparts only.

1 6.2 Aspinwall Treatment Plant Electrical and Backup Power Improvements;  
2 6.3 Large Diameter Water Main Improvements – Rising Mains 3 & 4 to  
3 Highland Reservoirs 1 & 2;  
4 6.4 Highland Reservoir Pump Station and Rising Main;  
5 6.5 Aspinwall Treatment Plant High Service Pumping;  
6 6.6 Aspinwall Clearwell Emergency Response Project;  
7 6.7 Aspinwall Clearwell Improvements;  
8 6.8 Aspinwall Pump Station to Lanpher Reservoir Rising Main Project;  
9 6.9 Lanpher Reservoir Improvements;  
10 6.10 Washout Disconnect Project;  
11 6.11 Highland Park Membrane Filtration Improvements Project; and  
12 6.12 Bruecken Pump Station Improvements Project.  
13

14 **Q. WHAT INFORMATION DID PWSA PROVIDE IN RESPONSE TO THE**  
15 **COMMISSION’S DIRECTED QUESTIONS REGARDING THE PROJECTS**  
16 **IDENTIFIED ABOVE?**

17 **A.** PWSA witness Weimar provided PWSA Exhibit RAW/C-12, which is a schedule  
18 with certain information regarding individual design engineer, company affiliation  
19 and the estimated cost, funding source, timeline, and milestone dates for the above  
20 listed projects. PWSA also provided additional information for certain projects in  
21 response to data requests I&E-RB-26, I&E-RB-39, I&E-RB-49, I&E-RB-41, I&E-  
22 RB-42, and I&E-RB-43 as discussed below and attached in I&E Exhibit No. 3.

1 **Q. DID THE PROJECT INFORMATION THAT PWSA SUBMITTED FULLY**  
2 **RESPOND TO THE DIRECTED QUESTIONS IN THIS AREA?**

3 A. No. It does not appear that PWSA fully and adequately address the Directed  
4 Questions. Specifically, as described below, PWSA failed to fully and adequately  
5 provide timeline information, design engineer/company affiliation information, and  
6 funding information for all of the projects.

7  
8 **Q. WHAT PROJECT TIMELINE INFORMATION DID PWSA FAIL TO**  
9 **PROVIDE?**

10 A. I identified the following deficiencies regarding project timeline:

- 11 • The Aspinwall Pump Station Improvements lists “TBD – Depends upon HSPS”  
12 under the design complete and construction start columns;
- 13 • The Bruecken Pump Station Improvements lists “TBD – Depends upon HSPS”  
14 under the design complete and construction start columns;
- 15 • Aspinwall Treatment Plant Pretreatment Chemical System and Clarification  
16 Improvements has no dates listed under the design complete and construction start  
17 columns;
- 18 • The Clearwell Emergency Response Project lists “TBD – Depends upon HSPS”  
19 under the construction start column;
- 20 • The Highland Park Membrane Filtration Module Replacement Program has no  
21 date listed under the construction start column; and

- The MFP Assessment and Critical Process Improvements projects have no dates under the design complete column and construction start columns (PWSA Ex. No. RAW/C-12).

**Q. IDENTIFY WHAT THE LABEL “TBD – DEPENDS UPON HSPS” IS REFERRING TO?**

A. The HSPS refers to the Aspinwall Water Treatment Plant High Service Pump Station. PWSA Exhibit RAW/C-12, column C, line 7 provides that project description “[i]n lieu of Aspinwall and Bruecken Pump Stations, a new high service pump station may be constructed to service Highland Reservoir 1, Highland Reservoir 2, Lanpher Reservoir, and Fox Chapel.” Therefore, the schedule of Aspinwall Pump Station Improvements, Bruecken Pump Station Improvements, and the Clearwell Emergency Response Project timelines rely on whether PWSA proceeds with the Aspinwall Treatment Plant High Service Pump Station. PWSA’s response to I&E-RB-26 (I&E Ex. No. 3, Sch. 1) indicates that the Aspinwall Treatment Plant High Service Pump Station is currently in the feasibility study phase, which is due Mid-March. At the time that I am submitting my testimony, the status of the feasibility study remains unclear.

If PWSA decides that the Aspinwall Treatment Plant High Service Pump Station project is not feasible, then to bypass the Clearwell, the water will need to go through the Bruecken Pump Station and the Aspinwall Pump Station to serve customers. Both of these pump stations require upgrade or renewal to be able to provide service to customers while the Aspinwall Clearwell is disconnected.

1 **Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING THE**  
2 **ASPINWALL TREATMENT PLANT HIGH SERVICE PUMP STATION?**

3 A. Yes. I recommend PWSA provide an update to I&E-RB-26 regarding the status of  
4 the Aspinwall Treatment Plant High Service Pump Station in its rebuttal testimony.  
5 PWSA should acknowledge whether it has or has not decided to move forward with  
6 the project at that time.

7  
8 **Q. DO YOU HAVE ANY OTHER RECOMMENDATIONS REGARDING**  
9 **MISSING TIMELINE INFORMATION?**

10 A. Yes. Regarding the above identified deficiencies, PWSA should either provide the  
11 missing timeline information through its rebuttal testimony or explain why such  
12 information is not available.

13  
14 **Q. WHAT DESIGN ENGINEER OR COMPANY AFFILIATION**  
15 **INFORMATION DID PWSA FAIL TO PROVIDE?**

16 A. PWSA has failed to identify the design engineer or company affiliation for the  
17 following projects:

- 18 • 2019 Large Diameter Water Main Improvements listed as “TBD”;
- 19 • Aspinwall Water Treatment Plant High Service Pump Station listed as “TBD”;
- 20 • Clearwell Emergency Response Project listed as “TBD”;
- 21 • Clearwell Improvements listed as “TBD”; and

- The MFP Assessment and Critical Process Improvements project did not have a design engineer listed at all.

**Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING MISSING DESIGN ENGINEER/COMPANY AFFILIATION INFORMATION?**

A. Yes. In rebuttal, PWSA should provide both design engineer and company affiliation for each project, as asked by the Directed Questions, or explain why such information is unavailable.

**Q. DID PWSA FAIL TO PROVIDE SPECIFIC INFORMATION REGARDING THE SOURCE OF FUNDING FOR CERTAIN PROJECTS?**

A. Yes. Instead of listing a specific funding source for each of the twelve capital improvement projects listed above, PWSA simply indicates that the funding will be “borrowed” (PWSA Exhibit RAW/C-12, column F).

**Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING PWSA’S FAILURE TO PROVIDE THE FUNDING SOURCES OF ITS CAPITAL IMPROVEMENT PROJECTS?**

A. Yes. Through its rebuttal testimony, PWSA should provide more specific details about the funding sources that it plans to use for each project. As an alternative, if more specific information cannot be provided, PWSA should explain why and indicate when it anticipates being able to identify a specific funding source for each project.



1 **Q. DID PWSA PROVIDE MILESTONE DATES FOR THE PROJECTS LISTED**  
2 **ABOVE?**

3 A. Yes. PWSA provided an anticipated start date and date of completion and in-service  
4 milestone dates for all twelve of the projects listed in the Directed Questions.  
5

6 **Q. DOES THE FACT THAT THE MILESTONE DATES FOR EACH PROJECT**  
7 **ARE PROVIDED NECESSARILY MEAN THAT THESE PROJECTS WILL**  
8 **BE COMPLETED IN A TIMELY MANNER?**

9 A. No. First, as noted by PWSA witness Weimar on page 13 of PWSA Statement No.  
10 C-1, although the information provided by the Authority in this case is the most  
11 current information available, it is subject to change in the future. Additionally, many  
12 of the completion and in-service dates of the projects do not occur until 2023 or 2024.  
13 Further as discussed more specifically below, for several projects, the lengthy time to  
14 completion should be of a significant concern for the Commission.  
15

16 **ASPINWALL CLEARWELL IMPROVEMENT PROJECT**

17 **Q. CONSIDERING THE INFORMATION PROVIDED BY PWSA, WHICH**  
18 **PROJECT PRESENTS THE MOST CONCERN?**

19 A. The project that presents the most concern is the Aspinwall Clearwell improvement  
20 project.

1   **Q.     WHAT IS THE ASPINWALL CLEARWELL AND WHAT IS ITS PURPOSE?**

2   A.     The Aspinwall Clearwell (“Clearwell”), as described in the FY 2017 to 2021 CIP  
3           (PWSA Ex. RAW/C-8), is a facility through which all of PWSA’s water flows. It is a  
4           structure, built in 1908, that has the functions of providing equalization storage that  
5           allows the filters to operate independently of potential fluctuations in system demands  
6           as well as providing sufficient retention contact time for disinfection agents. The CIP  
7           also indicates that the Clearwell has not undergone any major modification or  
8           upgrades since its installation in 1908. Finally, the CIP states that “the clearwell is  
9           the water system’s weakest link as there are no practical means to deliver water by  
10          bypassing the clearwell, while maintain the required volume, quality, and contact  
11          time” and that “Clearwell failure will cease all water delivery to all the Authority’s  
12          customers (residential, commercial, industrial, institutional, bulk rate customers,  
13          public health and safety providers, fire protection, governmental facilities, other water  
14          distributors, etc.), creating a public health emergency.” That such a vital part of the  
15          Authority’s system, the failure of which would cease water delivery to PWSA’s  
16          customers, has not been modified or upgraded since 1908 is a massive cause for  
17          concern and it should be addressed with the highest priority.

18  
19   **Q.     WHAT OTHER PROJECTS ARE RELATED TO THE CLEARWELL**  
20   **IMPROVEMENT PROJECT?**

21   A.     The projects that are related to the Clearwell improvement project, as indicated in  
22           PWSA Exhibit No. RAW/C-12, include the 2019 Large Diameter Water Main  
23           Improvement, Aspinwall Pump Station to Lanpher Reservoir Rising Main, Bruecken

1 Pump Station Improvements, Aspinwall Water Treatment Plant High Service Pump  
2 Station, and the Clearwell Emergency Response Project.

3  
4 **Q. HOW DO THE ABOVE-MENTIONED PROJECTS RELATE TO THE**  
5 **CLEARWELL IMPROVEMENT PROJECT?**

6 A. According to PWSA's response to I&E-RB-39 (I&E Ex. No. 3, Sch. 2), the  
7 replacement of the Clearwell would require the completion of the other five projects  
8 described above. The reason these projects are related is because the Clearwell  
9 improvement project would require the Clearwell to be taken out of service while it is  
10 being rehabbed or replaced. As described above, this would cause service to all  
11 customers to be interrupted, which is not a viable outcome. The 2019 Large Diameter  
12 Water Main Improvements, Aspinwall Pump Station to Lanpher Reservoir Rising  
13 Main, Bruecken Pump Station Improvements, Aspinwall Water Treatment Plant High  
14 Service Pump Station, and the Clearwell Emergency Response Project are all the  
15 means in which PWSA can bypass the Aspinwall Clearwell and continue providing  
16 water to customers when it is taken out of service while repairs are being completed.  
17 The Clearwell Emergency Response project is the means in which the Aspinwall  
18 Clearwell will be bypassed and allow water to be delivered to the rising mains and  
19 pump stations that would then distribute it throughout the system.

1   **Q.    IS THE INFORMATION PROVIDED REGARDING THE ABOVE-**  
2       **MENTIONED PROJECTS SUFFICIENT TO BRING PWSA INTO**  
3       **COMPLIANCE?**

4    A.    No. In its response to I&E-RB-49, PWSA provided a status update of each project  
5       necessary to replace and/or rehabilitate the Clearwell (I&E Ex. No. 3, Sch. 3). The  
6       following is a list of the projects, current status according to the Authority's response  
7       to I&E-RB-49, and the deficiencies as identified above per PWSA Exhibit No.  
8       RAW/C-12.

- 9       • The 2019 Large Diameter Water Main Improvements
  - 10          ○ Preliminary Assessment;
  - 11          ○ No Design Engineer;
- 12       • Aspinwall Water Treatment Plant High Service Pump Station
  - 13          ○ Preliminary Assessment;
  - 14          ○ No final design firm;
- 15       • Bruecken Pump Station Improvements
  - 16          ○ Project has been replaced pending the feasibility of the Aspinwall High
  - 17             Service Pump Station;
  - 18          ○ No Design Complete date;
  - 19          ○ No Construction Start date;

- 1       • Aspinwall Pump Station
  - 2           ○ Project has been replaced pending the feasibility of the Aspinwall High
  - 3           Service Pump Station;
  - 4           ○ No Design Complete date;
  - 5           ○ No Construction Start date;
- 6       • Aspinwall Pump Station to Lanpher Reservoir Rising Main
  - 7           ○ Preliminary Design;
  - 8           ○ No deficiencies;
  - 9           ○ Initiated February 2019 (I&E RB-25, attached as I&E Exhibit No. 3, Schedule
  - 10          RB-25);
  - 11          ○ Approximately \$14,000 expended to date (I&E Ex. No. 3. Sch. 15);
- 12      • Aspinwall Water Treatment Plant Electrical and Backup Power Improvements
  - 13          ○ Preliminary Design;
  - 14          ○ No deficiencies;
- 15      • Clearwell Emergency Response Project
  - 16          ○ On hold pending outcome of Aspinwall Water Treatment Plant High Service
  - 17          Pumping assessment;
  - 18          ○ No final Design Firm;
  - 19          ○ No Construction Start date;

- 1       • Clearwell Improvements
- 2           ○ Preliminary Assessment as part of Aspinwall Water Treatment Plant High
- 3           Service Pumping;
- 4           ○ No Design Engineer
- 5       • Lanpher Reservoir Improvements
- 6           ○ Design
- 7           ○ No deficiencies.

8

9   **Q.   DID THE AUTHORITY PROVIDE SUFFICIENT INFORMATION**  
10       **REGARDING THE CLEARWELL EMERGENCY RESPONSE PROJECT OR**  
11       **THE CLEARWELL IMPROVEMENT PROJECT ITSELF?**

12   A.   No. The Clearwell Emergency Response Project, according to PWSA Exhibit  
13       RAW/C-12, p. 2, col. D, will provide a means to bypass the existing Clearwell and  
14       will be required to maintain water supply to PWSA's customers for the rehabilitation  
15       or replacement of the existing Clearwell. However, this project does not have a final  
16       design engineer/company affiliation, despite the indication in PWSA Exhibit  
17       RAW/C-12 that the design phase started in March of 2017, and despite the projection  
18       for it to be completed in May of 2019. Additionally, the construction phase of the  
19       project does not have a start date and is not projected to be completed and in-service  
20       until April of 2022.

21           Regarding improvement of the Clearwell itself, the Authority has shown that it  
22       still does not have a design engineer/company affiliation associated with the project,

1 despite the start date being April of 2019. That the completion date of the project  
2 (2024) is not projected to occur until seven years after the CIP (2017) was approved is  
3 indicative of the Authority not placing a high enough priority on completing the  
4 Clearwell improvement project, despite the possibility of the entire system being shut  
5 down if there is a failure in the Clearwell.

6  
7 **Q. WHAT CONCLUSIONS CAN YOU MAKE BASED ON THE INFORMATION**  
8 **DESCRIBED ABOVE?**

9 A. Based upon my assessment of the above information, it appears that PWSA will not  
10 complete the Clearwell improvement project and associated bypass projects until  
11 2024. Given the dire consequences of a failure of the Clearwell, specifically a  
12 complete shutdown of the system which would result in a public health crisis, I  
13 recommend that the Commission find that PWSA will not be providing safe and  
14 reliable service until PWSA provides expedited plans to bypass the Clearwell and  
15 continue to provide service in the event of a failure. Expedited plans should evaluate  
16 all means of accelerating construction. Without expedited plans, projects associated  
17 with the bypass of the Clearwell are not projected to be completed until 2023. To  
18 comply with its obligation to ensure safe and reliable service, I recommend that the  
19 Commission order the Authority to submit a new Compliance Plan that expedites the  
20 completion of the Clearwell projects.

**HIGHLAND PARK MEMBRANE FILTRATION PLANT AND HIGHLAND  
PARK NO. 1 RESERVOIR**

**Q. ARE THERE ANY OTHER PROJECTS YOU WISH TO DISCUSS?**

A. Yes. I would like to discuss the Highland Park Membrane Filtration Plant ("HMFP") and Highland Park No. 1 Reservoir.

**Q. PLEASE DESCRIBE THE HMFP AND HIGHLAND PARK NO. 1  
RESERVOIR.**

A. The Highland Park No. 1 Reservoir is an uncovered distribution system reservoir that is attached to the Highland Membrane Filtration Plant ("HMFP"). The DEP Administrative Order, included as PWSA Exhibit No. RAW/C-11, ordered that the HMFP be taken out of service in response to a January 31, 2017 Field Order requiring PWSA to issue a Boil Water Advisory. This Field Order was a result of the DEP discovering that the HMFP disinfection processes failed to achieve at least 90% inactivation of Giardia cysts and 99.9% inactivation of viruses. The DEP ordered that the HMFP remain offline until certain improvement projects were completed, or the Highland Park No. 1 Reservoir was covered and a physical barrier was put in place.

**Q. WHAT IS AFFECTING PWSA'S ABILITY TO BRING THE HMFP AND  
HIGHLAND PARK NO. 1 RESERVOIR INTO COMPLIANCE?**

A. Page 10 of the Compliance Plan Supplement indicated that the "Highland No. 1 Reservoir's utility is hampered by the City [of Pittsburgh]'s and public's demand that the existing Highland No. 1 Reservoir remain uncovered, as a park amenity."



1 **Q. AS PART OF THE SETTLEMENT OF THE BASE RATE CASE, DID PWSA**  
2 **COMMIT TO PROVIDING INFORMATION REGARDING THE HMFP?**

3 A. Yes. PWSA agreed to provide in its next base rate case a cost/benefit analysis  
4 comparing the cost of continuing to operate the HMFP, including the 24-hour  
5 security, and covering and placing a physical barrier around the Highland Park No. 1  
6 Reservoir (PWSA Compliance Plan Supplement, p. 10).

7  
8 **Q. WHAT PROJECTS ARE ASSOCIATED WITH BRINGING THE HMFP**  
9 **INTO COMPLIANCE WITH THE DEP ADMINISTRATIVE ORDER?**

10 A. The projects listed on PWSA Exhibit RAW/C-12 associated with the HMFP are the  
11 Highland Park Membrane Filtration Module Program, the Highland Park Membrane  
12 Filtration Plant UV System, and the MFP Assessment and Critical Process  
13 Improvements. PWSA provided updates to these projects in its responses to I&E-RB-  
14 41 (attached as I&E Exhibit No. 3, Schedule 4), I&E-RB-42 (attached as I&E Exhibit  
15 No. 3, Schedule 5), and I&E-RB-43 (attached as I&E Exhibit No. 3, Schedule 6),  
16 respectively.

17  
18 **Q. IDENTIFY THE HIGHLAND PARK MEMBRANE FILTRATION MODULE**  
19 **PROGRAM.**

20 A. The Highland Park Membrane Filtration Module Program is the project in which  
21 PWSA intends to replace all of the filtration modules in the HMFP. According to the  
22 CIP, the HMFP contains ten racks, which include 80 filtration modules each, which  
23 have reached the end of their useful life and are beginning to fail. PWSA's response

1 to I&E-RB-41 indicates that the addition of the UV System will reduce the total  
2 number of racks from ten to eight and that four of the racks were replaced in 2018 and  
3 that the remaining four racks will be replaced by June 2019 (I&E Ex. No. 3, Sch. 4).  
4 PWSA also indicated that the Budgeted Cost of \$21,717,711 for the Highland Park  
5 Membrane Filtration Module Program is incorrect and that the actual cost is \$1.7  
6 million (I&E Ex. No. 3, Sch. 4).

7  
8 **Q. IDENTIFY THE HIGHLAND PARK MEMBRANE FILTRATION PLANT UV**  
9 **SYSTEM.**

10 A. The DEP Administrative Order indicated that PWSA install an ultraviolet ("UV")  
11 disinfection unit capable of inactivation of both Giardia and viruses (PWSA Ex. No.  
12 RAW/C-11, p. 5). PWSA's response to I&E-RB-42 stated that construction is to be  
13 complete June 2019 and that the project remains on schedule (I&E Ex. No. 3, Sch. 5).

14  
15 **Q. IDENTIFY THE MFP ASSESSMENT AND CRITICAL PROCESS**  
16 **IMPROVEMENTS PROJECT.**

17 A. According to the CIP, the MFP Assessment and Critical Process Improvements  
18 Project is intended to maintain water treatment and allow full warranty of replacement  
19 modules. PWSA's response to I&E-RB-43 stated that construction is almost  
20 complete and that the project remains on schedule (I&E Ex. No. 3, Sch. 6).

1 **Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING THE HMFP OR**  
2 **HIGHLAND PARK NO. 1 RESERVOIR?**

3 A. No. Further discussion of the HMFP and Highland Park No. 1 Reservoir will  
4 continue when PWSA provides the cost/benefit analysis in its next base rate case.

5  
6 **52 Pa. Code § 65.7-METERED SERVICE<sup>3</sup>**

7 **Q. WHAT IS THE ISSUE REGARDING METERED SERVICE THAT PWSA**  
8 **ADDRESSED IN ITS COMPLIANCE PLAN?**

9 A. On page 56 of the Compliance Plan, PWSA indicated that 200-400 municipal  
10 buildings within the City of Pittsburgh (“City”), as well as 500 flat rate customers, are  
11 not currently metered. Commission regulations at 52 Pa. Code §65.7(d) indicates that  
12 public utilities “shall provide a meter to each of its water customers except fire  
13 protection customers and shall furnish water service, except fire protection service,  
14 exclusively on a metered basis; except that flat rate service may continue to be  
15 provided pending implementation of a reasonable metering program or under special  
16 circumstances as may be permitted by the Commission for good cause.” The  
17 Compliance Plan, on page 56, states that PWSA does not expect to be fully in  
18 compliance with the metering requirement for approximately five years.

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<sup>3</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 6; Exhibit RAW/C-1, Directed Questions Nos. 17-20.

1 **Q. DID YOU TESTIFY REGARDING THIS TOPIC IN PWSA'S BASE RATE**  
2 **PROCEEDING?**

3 A. Yes. As I established in my direct testimony (R-2018-3002645 and R-2018-3002647  
4 I&E Statement No. 3, pp. 11-12), under the 1995 City-PWSA Cooperation  
5 Agreement the Authority is required to provide 600 million gallons of water per year  
6 to the City for free. However, because municipal buildings are not metered, PWSA  
7 cannot accurately determine how much free water the City is using. Additionally, the  
8 Pennsylvania Department of the Auditor General performance audit of PWSA  
9 covering the period of January 1, 2014 through June 20, 2017 (included as I&E  
10 Exhibit No. 2, Schedule 4 attached to I&E Statement No. 2, the direct testimony of  
11 I&E witness Patel) cites a PWSA senior manager's belief that the City's usage may  
12 be close to one billion gallons of water annually. This unmetered, unbilled water  
13 results in PWSA not collecting approximately \$6.84 million to \$11.4 million per year  
14 (R-2018-3002645 and R-2018-3002647 I&E Statement No. 3, pp. 11-12).

15  
16 **Q. DID PWSA DISCUSS ITS ABILITY TO ACCELERATE ITS PROPOSED**  
17 **FIVE-YEAR TIMELINE FOR THE METERING OF MUNICIPAL**  
18 **BUILDINGS?**

19 A. Yes. PWSA witness Weimar stated on page 20 of PWSA Statement No. C-1 that, "if  
20 City resources are mobilized to provide all interior building plumbing upgrades prior  
21 to scheduling meter installation" that the metering of municipal buildings could be  
22 completed within two to three years. Further, PWSA indicated in response to I&E-  
23 RE-27 (I&E Ex. No. 3, Sch. 13) that the interior building plumbing upgrades are

1 dependent on the City allocating funding through their capital and operating budgets  
2 and that PWSA will request that these upgrades be made as part of the cooperation  
3 agreement negotiation. Witness Weimar also stated that PWSA intends to assign a  
4 project manager to an un-metered city account on a case-by-case basis who will assist  
5 with the organization and implementation for each project. It is the staffing of each  
6 unmetered city account that witness Weimar states will allow PWSA to meter the  
7 municipal properties within two to three years.

8  
9 **Q. SHOULD THE METERING OF MUNICIPAL BUILDING TIMELINE BE**  
10 **SET FOR FIVE YEARS DESPITE THE PROJECTED ABILITY TO**  
11 **COMPLETE THE PROJECT IN TWO TO THREE YEARS?**

12 A. No. PWSA should complete metering municipal buildings as soon as possible.

13  
14 **Q. WHY IS IT IMPORTANT TO BILL THE CITY FOR WATER USAGE AS**  
15 **SOON AS POSSIBLE?**

16 A. Once the City properties are metered, then the Authority can begin accurately billing  
17 the City for its water usage and use that additional revenue to fund critical  
18 infrastructure projects, such as the Clearwell improvement project discussed above.  
19 Additionally, I am advised by counsel that providing free water service violates  
20 multiple provisions of the Public Utility Code, including failure to charge tariffed  
21 rates and unreasonable discrimination in rates and services.

1   **Q.     DID WITNESS WEIMAR INDICATE HOW PWSA INTENDS TO PROVIDE**  
2       **THE STAFF NECESSARY TO COMPLETE THE METERING PROJECTS?**

3   A.    Yes. On page 22 of PWSA Statement No. C-1 indicates that coming into compliance  
4       with the metering requirement would require the assistance of contractors to perform  
5       the work. The necessity of the contractors is due to the variation and size of meter  
6       needs, as well as the number of currently unmetered customers. Witness Weimar also  
7       notes that PWSA's current residency requirement has also hindered its ability to hire  
8       trade staff (PWSA St. No. C-1, p. 23). Though it is reasonable to expect a certain  
9       level of work to be completed by contractors, it is unclear whether PWSA's reliance  
10      on contractors contributing in any way to the completion times of its various projects.  
11      However, in its response to I&E-RE-12, PWSA indicates that the reliance on  
12      contractors are engaged to work with PWSA staff at a 150% to 200% premium,  
13      which has added more than \$2 million per year just to the annual Non-Unionized  
14      work force cost (I&E Ex. No. 3, Sch. 14). I&E witness Patel will further discuss  
15      PWSA's residency requirement in I&E Statement No. 2.

16  
17   **Q.     ACCORDING TO PWSA, WHICH ENTITY IS RESPONSIBLE FOR THE**  
18       **FINANCING OF METER INSTALLATION?**

19   A.    PWSA's current practice is that new customers will pay for the meter, meter  
20       installation, and other related appurtenances in all instances (PWSA St. No. C-1, p.  
21       23). Witness Weimar's support is based on advice from counsel. I have likewise  
22       been advised by counsel that according to the Commission's regulations at 52 Pa.

Code §65.7, the utility should provide these facilities and services at PWSA's expense, but that the issue of responsibility for financing will be discussed in brief.

**52 Pa. Code § 65.8-METERS<sup>4</sup>**

**Q. WHAT DOES THE COMPLIANCE PLAN INDICATE REGARDING METER TESTING REQUIREMENTS?**

A. Pages 56-58 of PWSA's Compliance plan indicates that as many as 50,000 meters are out of compliance with the Commission's meter testing requirements and that PWSA plans to achieve compliance by 2022. However, on page 31 of PWSA Statement No. C-1, witness Weimar adjusts the 2022 compliance goal to June 30, 2024, though he requests that this goal be accepted as a moving target.

**Q. WHY DOES WITNESS WEIMAR REQUEST THAT THE GOAL FOR COMPLIANCE WITH THE METER TESTING REQUIREMENTS BE MOVED TO A SOFT 2024 GOAL?**

A. Mr. Weimar estimates that, with the hire of four new plumbers in addition to the two existing PWSA plumbers assigned to this job and the purchase of four additional vans, tools, and I-pads, the total service meter testing/installations for residential customers is estimated to reach 10,000 per year (PWSA St. No. C-1, pp. 31-32). However, Mr. Weimar once again points to the hiring limitation currently affecting

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<sup>4</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 6-7; Exhibit RAW/C-1, Directed Questions Nos. 21-27.

1 PWSA by its residency requirement as an impedance to hiring the plumbers required  
2 to meet even the adjusted 2024 date and that contract plumbers may be hired if staff  
3 plumbers are not available (PWSA St. No. C-1, p. 32). Mr. Weimar did not discuss  
4 the potential increase in the cost of the project if PWSA is required to hire contract  
5 plumbers instead of staff plumbers.

6  
7 **Q. PURSUANT TO DIRECTED QUESTION 21, DID PWSA PROVIDE**  
8 **DETAILED YEAR-OVER-YEAR COMPLIANCE SCHEDULES AND**  
9 **SUPPORTING DOCUMENTATION?**

10 A. No. Witness Weimar stated that “PWSA intends to continue an annual meter  
11 replacement program to remain in compliance with the PUC requirements” and that  
12 PWSA “will retain the necessary staff to achieve a changeout of up to 5,000 meters  
13 per year.” (PWSA St. No. C-1, p. 33) and provided no other information. However,  
14 PWSA did not provide an explanation for how the changeout rate of up to 5,000  
15 meters per year that has been sustained with existing staff in 2018 (PWSA St. No. C-  
16 1, p. 33) relates to the projected rate of 10,000 meters per year discussed above.

17  
18 **Q. PURSUANT TO DIRECTED QUESTION 22, IS PWSA’S GOAL TO TEST**  
19 **AND REPLACE COMMERCIAL METERS ADEQUATE TO ACHIEVE**  
20 **COMPLIANCE BY 2022?**

21 A. Yes, provided that PWSA meets certain annual commercial meter testing goals.  
22 PWSA states on page 58 of the Compliance Plan that it is in the process of developing  
23 a program for commercial meter testing, which would ensure that approximately 10-



1 25% of the total commercial meters would be tested on an annual basis. Witness  
2 Weimar further explains on page 33 of PWSA Statement No. C-1, p. 33 that there are  
3 approximately 3,300 commercial accounts with meters of 1” or greater that are out of  
4 compliance. He further states that it is PWSA’s intention to dedicate four plumbers  
5 from its current staff to test and replace these accounts at a rate of 4.58 commercial  
6 accounts per day or 1,100 commercial accounts per year, amounting to a three-year  
7 turnaround.  
8

9 **Q. IF PWSA IS UNABLE TO TEST 25% OF ITS COMMERCIAL METER**  
10 **ACCOUNTS EACH YEAR, WILL THE 2022 GOAL BE ACHIEVABLE?**

11 A. No. In its response to I&E-RB-9 (I&E Ex. No. 3, Sch. 7), PWSA indicated that the  
12 2022 goal would need to be extended if it is unable to test 25% of its commercial  
13 meters annually. It is unclear if PWSA is seeking to extend the 2022 goal for  
14 commercial meters to 2024 as it is with the residential meters.  
15

16 **Q. HAS PWSA ESTABLISHED ANY FORMULAS TO ESTABLISH RATES FOR**  
17 **TESTING METERS LARGER THAN TWO INCHES?**

18 A. No. On page 34 of PWSA Statement No. C-1, witness Weimar merely stated that  
19 “PWSA will monitor the usage of water meters larger than two inches, along with  
20 age, and will then test or replace as required by Commission regulations.” However,  
21 in its response to I&E-RB-8 (I&E Ex. No. 3, Sch. 8), PWSA admitted that it has not  
22 yet set up these parameters.

1   **Q.    ARE PWSA’S EXISTING FACILITIES SUFFICIENT TO PERFORM ALL**  
2       **OF THE TESTING REQUIRED TO PERFORM THE WORK NECESSARY**  
3       **TO BRING IT INTO COMPLIANCE WITH THE METER TESTING**  
4       **REQUIREMENTS?**

5   **A.**   No, PWSA does not currently have an adequate workforce or facilities to complete  
6       this work. In its response to I&E-RB-2, attached as I&E Exhibit No. 3, Schedule 9,  
7       PWSA stated that it decided to contract out the testing of meters greater than three  
8       inches because it does not have the meter testing equipment needed and it needs to  
9       rehabilitate PWSA’s existing test building facility to accommodate the testing  
10      equipment. Quotes for contractors were solicited and bids were due on January 17,  
11      2019. Furthermore, in its response to I&E-RB-5, attached as I&E Exhibit No. 3,  
12      Schedule 10, PWSA stated that the estimate to start testing commercial meters greater  
13      than three inches is April 1, 2019. Additionally, witness Weimar stated on page 34 of  
14      PWSA Statement No. C-1 that its current facilities are “full with staff and equipment”  
15      and that “PWSA is in the process of realigning its current warehouse facility to house  
16      a new meter test bench for meters two inches and smaller.”

17  
18   **Q.    WHAT DO YOU RECOMMEND REGARDING THE AUTHORITY’S**  
19       **TESTING OF COMMERCIAL METERS?**

20   **A.**   I recommend that PWSA update in its rebuttal testimony the following areas:  
21       

- Whether the Authority has awarded the contract and remains on track to begin

  
22       testing meters greater than three inches on April 1, 2019;

- The identification and status of PWSA's parameters for testing meters two inches and larger as referenced in its response to I&E-RB-8 (I&E Ex. No. 3, Sch. 8),
- The status of the realignment of the current warehouse to house a new meter test bench has been completed and the new test bench is in use, and
- Whether PWSA is revising its original 2022 goal for commercial meter testing to extend that goal to 2024 (as with the residential meters).

**Q. HOW MANY METERS DOES PWSA ESTIMATE EXIST IN ITS SYSTEM WITHOUT TEST RECORDS?**

A. Witness Weimar stated on page 34 of PWSA Statement No. C-1 that it has meter test records for less than 1% of its approximately 81,000 water meters and that it lacks data regarding meter age by type and size for meters installed prior to 2017 due to recording errors.

**Q. IS PWSA CURRENTLY RECORDING TEST RECORDS FOR METERS THAT IT IS INSTALLING?**

A. Yes. Witness Weimar indicated on page 34 of PWSA Statement No. C-1 that all new meters purchased since 2017 have the testing results from the manufacturer and that, since 2016, 10,705 meters have been replaced with new meters with appropriate performance test records from the manufacturer.

1   **Q.    DOES PWSA INDICATE A PLAN TO FULLY UPDATE THE TEST**  
2       **RECORDS OF THE METERS THAT DON'T HAVE RECORDS?**

3    A.    No. Witness Weimar merely stated that PWSA is testing ten percent of new meters as  
4       they are delivered and that PWSA is in the process of updating its systems and  
5       installing a new meter testing bench which will increase the efficiency of tracking  
6       meter test results (PWSA St. No. C-1, p. 34). Witness Weimar gives no indication of  
7       the time required to fully update the meter test records.

8  
9   **Q.    PURSUANT TO DIRECTED QUESTION 27, DID PWSA DISCUSS THE**  
10       **FEASIBILITY OF IMMEDIATELY IMPLEMENTING A METER TESTING**  
11       **TRIAGE PLAN FOR HIGH VOLUME, MID-VOLUME, OR LOW VOLUME**  
12       **SERVICE METERS?**

13   A.    No. PWSA provided no discussion of a meter testing triage plan in response to the  
14       Directed Questions.

15  
16   **Q.    WHAT DO YOU RECOMMEND REGARDING THE METER TESTING**  
17       **TRIAGE PLAN REFERENCED IN THE DIRECTED QUESTIONS?**

18   A.    I recommend PWSA provide in rebuttal testimony a discussion of the feasibility of  
19       the meter testing triage plan referenced in the Directed Questions.

1 **Q. IS THE AUTHORITY’S PROPOSED ADJUSTED GOAL OF 2024 TO BRING**  
2 **PWSA INTO COMPLIANCE WITH THE COMMISSION’S METER**  
3 **TESTING REQUIREMENTS REASONABLE?**

4 A. Yes. The Authority’s non-compliance with the Commission’s meter testing  
5 requirements do not present a significant safety risk to customers or employees,  
6 unlike other projects discussed in the Compliance Plan. To the extent there is a need  
7 to apportion limited resources, I believe that those projects that affect the health and  
8 safety of PWSA’s customers and employees, such as the Aspinwall Clearwell projects  
9 and the lead line replacement project, or projects that create funding for such critical  
10 infrastructure spending, such as charging the City for water and wastewater, should  
11 take priority over meter testing. Therefore, I recommend that the Commission find  
12 the 2024 projected date of compliance to be acceptable pending PWSA providing the  
13 missing information as discussed above.

14  
15 **52 Pa. Code § 65.14 SOURCE OF SUPPLY MEASUREMENT<sup>5</sup>**

16 **Q. WHAT IS THE COMMISSION’S REQUIREMENT FOR SOURCE OF**  
17 **SUPPLY MEASUREMENT?**

18 A. 52 Pa. Code § 65.14(a) states that utilities “shall install a suitable measuring device at  
19 each source of supply in order that a record may be maintained of the quantity of  
20 water produced by each source.” Section (b) indicates that monthly records of the

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<sup>5</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 8; Exhibit RAW/C-1, Directed Questions Nos. 34-36.

1 quantity of each source of supply will be determined and the twelve-month total will  
2 be transmitted to the Commission as part of the utility's annual report.  
3

4 **Q. WHAT IS PWSA'S SOURCE OF WATER SUPPLY?**

5 A. PWSA receives all of its water through the Ross Pump Station which has an east and  
6 west intake on the Allegheny River (PWSA St. No. C-1, p. 43). Water is then served  
7 into the City via two main pump stations: Aspinwall and Bruecken. Page 61 of the  
8 Compliance Plan indicated that each of these pump stations have a meter, but that  
9 those meters are not currently operational and that PWSA would have these meters  
10 operational by the end of 2018. The Compliance Plan also indicated that PWSA  
11 would install an additional meter at the Fox Chapel Pump Station, which will measure  
12 billed water sold and exported under the bulk water sales agreement to the Fox  
13 Chapel Authority (PWSA St. No. C-1, p. 44).  
14

15 **Q. DID PWSA HAVE ITS SOURCE OF SUPPLY METERS OPERATIONAL BY**  
16 **THE END OF 2018?**

17 A. No. PWSA was not successful in making the meters at the Ross, Aspinwall, Fox  
18 Chapel and Bruecken Pump Stations operational by the end of 2018 (PWSA St. No.  
19 C-1, p. 43).

1   **Q.    DID PWSA INDICATE WHEN THE METERS AT THESE FOUR PUMP**  
2       **STATIONS WILL BE OPERATIONAL?**

3    A.    No. PWSA did not update its timeline or plans for making these meters operational.  
4        Witness Weimar merely stated that “[t]he Consultants and PWSA Operations staff  
5        have an ongoing project to get the respective venturi devices operational at Ross,  
6        Aspinwall and Bruecken Pump Stations.” (PWSA St. No. C-1, p. 43)

7  
8   **Q.    DOES PWSA BELIEVE THAT PART (a) OF 52 PA. CODE § 65.14 IS**  
9       **SATISFIED BY THE COMPLIANCE PLAN?**

10   A.    Yes. Witness Weimar indicates on page 43 of PWSA Statement No. C-1 that the plan  
11       to ensure that there is measurement from the Ross Pump Station, which is the only  
12       means of water withdrawal from the Allegheny River, satisfies 52 Pa. Code § 65.14  
13       (a).

14  
15   **Q.    ARE THE REQUIREMENTS OF 52 PA. CODE § 65.14(a) SATISFIED BY**  
16       **THE COMPLIANCE PLAN?**

17   A.    No. As discussed above, the Compliance Plan stated that the meters on the Ross  
18       Pump Station would be operational by the end of 2018, but that goal was not met.  
19       PWSA has provided no further notice of a plan or timeline for when the intake meter  
20       will be installed. Therefore, I recommend that the Commission order PWSA to file a  
21       revised Compliance Plan including an adequate plan to come into compliance with 52  
22       Pa. Code § 65.14(a).

1   **Q.     WHAT IS THE RAW WATER METER ANALYSIS PRESENTED IN THE**  
2       **PWSA 40 YEAR PLAN OF 2012?**

3   A.    An analysis of the accuracy of PWSA's raw and finished water meters was presented  
4        as part of the PWSA 40-year plan of 2012, which was included as PWSA Exhibit  
5        RAW/C-7. Table 4-3 on page 4-40 of the PWSA 40-year plan of 2012 shows the  
6        results of that analysis. As described by witness Weimar on pages 44-45 of PWSA  
7        Statement No. C-1, line 1 of Table 4-3 shows that PWSA's meters on the raw water  
8        intakes were not tested because they are not operational. Lines 2 through 20 of Table  
9        4-3 show the results of the test on meters that deliver treated water to the various parts  
10       of the PWSA system. Of those final eighteen meters, only two were determined to  
11       have passed the audit: Herron Hill Pump 5 and Mission Pumps 4 and 5.

13   **Q.     DOES PWSA BELIEVE THAT PART (b) OF 52 PA. CODE § 65.14 IS**  
14       **SATISFIED BY THE COMPLIANCE PLAN?**

15   A.    Yes. Witness Weimar indicates that the data to be collected from the meter at Ross  
16        Pump Station at the Allegheny River in addition to metering the Filter Effluent and  
17        backwash rates, other parts of PWSA's metering plans included in the Long Term  
18        Infrastructure Improvement Plan ("LTIIIP"), the additional meter at the Fox Chapel  
19        Pump Station, and additional existing meters that document the flows delivered to key  
20        bulk customers of Aspinwall and Reserve Township satisfy the requirements of 52  
21        Pa. Code § 65.14(b) (PWSA St. No. C-1, pp. 43-44).



1   **Q.    PURSUANT TO DIRECTED QUESTION 36, DOES PWSA BELIEVE THE**  
2       **COMPLIANCE PLAN ADEQUATELY ADDRESSES PWSA’S RAW WATER**  
3       **METER ANALYSIS?**

4    A.    Yes. Mr. Weimar proffers that the Compliance Plan adequately addresses the raw  
5       water meter analysis in Table 4-3 because the raw water intake at the Ross Pump  
6       Station will be addressed when that meter is operational and the meters shown on  
7       lines 2 through 20 of Table 4-3 deal with treated water and are not part of any raw  
8       water analysis (PWSA St. No. C-1, pp. 44-45).

10   **Q.    ARE THE REQUIREMENTS OF 52 PA. CODE § 65.14(b) SATISFIED BY**  
11       **THE COMPLIANCE PLAN?**

12   A.    No. Similar to part (a) discussed above, the Compliance Plan stated that the meters  
13       on the Ross Pump Station would be operational by the end of 2018, but that goal was  
14       not met. PWSA is currently not recording any information regarding raw water  
15       intake and, therefore, cannot provide the necessary information to the Commission.  
16       Furthermore, PWSA will be unable to provide the required information until its  
17       meters are installed and confirmed to be operating accurately. As I discussed above,  
18       because PWSA has not updated its plan or projected an in-service date for the  
19       necessary meters, it is not possible for the Compliance Plan to satisfy the  
20       requirements of 52 Pa. Code § 65.14(b) at this time.

1   **Q.    PURSUANT TO DIRECTED QUESTION 35, DOES PWSA WITNESS**  
2       **WEIMAR DISCUSS WHETHER ISSUES RELATED TO 52 PA. CODE § 65.14**  
3       **ARE DETAILED IN PWSA’S CAPITAL IMPROVEMENT/INVESTMENT**  
4       **PLAN?**

5    A.   No. This issue was not discussed by witness Weimar.

7   **Q.    SHOULD THE WORK REQUIRED TO MAKE THE METERS AT ANY OF**  
8       **THE PUMP STATIONS OPERATIONAL AND ACCURATE BE DETAILED**  
9       **AND INCLUDED IN PWSA’S CAPITAL IMPROVEMENT/INVESTMENT**  
10      **PLAN?**

11   A.   Yes. This work will take man hours and resources to complete, and the related details  
12       and costs should be included in PWSA’s capital improvement/investment plan just  
13       like any other capital project.

15   **Q.    WHAT DO YOU RECOMMEND REGARDING THE COMPLIANCE PLAN**  
16      **AS IT RELATES TO 52 PA. CODE § 65.14?**

17   A.   I recommend that the Commission determine that PWSA plans for complying with 52  
18       Pa. Code § 65.14 are unsatisfactory and that, in its revised Compliance Plan filing,  
19       PWSA should provide details and a timeline regarding how and when each of the  
20       meters listed on Table 4-3 of PWSA 40-year plan of 2012 will be operational and  
21       accurate.

1           **52 Pa. Code § 65.17-STANDARDS OF DESIGN**<sup>6</sup>

2   **Q.   WHAT STANDARDS OF DESIGN ARE IDENTIFIED IN 52 PA. CODE §**  
3       **65.17?**

4   A.   The standards of design for water utilities mandate that the design of water plant  
5       should conform to standard acceptable engineering practices to provide safe and  
6       adequate service and be in compliance with DEP requirements. These Commission  
7       regulations further specify standards for various aspects of a water utility's systems.

8  
9   **Q.   HAS PWSA INDICATED THAT IT HAS OR WILL INCORPORATE THESE**  
10       **STANDARDS OF DESIGN INTO ITS PLANNING?**

11 A.   Yes. PWSA indicated on page 64 of the Compliance Plan that it “currently complies  
12       with most of Section 65.17, in that the Authority maintains standard specifications  
13       and construction details for the construction of all water mains and sewers as well as  
14       site preparation, excavation, and restoration.” On page 65 of the Compliance Plan,  
15       PWSA stated its intention to incorporate the design requirements, specifications, and  
16       standard details described in Section 65.17 into a formalized Design Manual, to be  
17       completed in 2019 and 2020.

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<sup>6</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 9; Exhibit RAW/C-1, Directed Questions Nos. 39-40.

1   **Q.   HAS PWSA PROVIDED AN UPDATE TO THE STATUS OF ITS PROPOSED**  
2       **DESIGN MANUAL?**

3   A.   No. PWSA should include an update on the progress of the proposed Design Manual  
4       in its rebuttal testimony so that the parties and the Commission can consider the status  
5       in evaluating PWSA's compliance.

6  
7   **Q.   WHAT DOES 52 PA. CODE § 65.17 REQUIRE REGARDING STANDARDS**  
8       **FOR WATER UTILITY DISTRIBUTION SYSTEMS?**

9   A.   52 Pa. Code § 65.17(b) states distribution systems must be adequate to maintain  
10       minimum pressures required by 52 Pa. Code § 65.6 and distribution main less than 6  
11       inches shall not be used except in cul-de-sacs where the mains will not be extended  
12       and are less than 250 feet in length.

13  
14   **Q.   DOES PWSA HAVE WATER MAINS LESS THAN 6-INCHES IN DIAMETER**  
15       **IN ITS DISTRIBUTION SYSTEM?**

16   A.   Yes. While PWSA indicated on page 64 of the Compliance Plan that it has been  
17       actively working to replace all 4-inch diameter mains in its system, there are still 27  
18       miles of 4-inch diameter mains in its system. PWSA Exhibit RAW/C-20 includes a  
19       map that shows the locations of the existing 4-inch diameter mains and indicates  
20       which mains are to be upgraded to at least 6-inch diameter mains in 2019 and 2020.

1   **Q.    DOES THE MAP SHOWN ON PWSA EXHIBIT RAW/C-20 IDENTIFY**  
2       **WHEN THE REPLACEMENT OF ALL 4-INCH DIAMETER MAINS WILL**  
3       **BE COMPLETED?**

4    A.   No. The map shows that only a portion of PWSA's 4-inch diameter mains will be  
5       replaced in 2019 and 2020, and there is no quantification of the number that will be  
6       replaced during that timeframe. Beyond this, PWSA has not provided any further  
7       schedule or plans for when the remainder of the 4-inch diameter mains will be  
8       replaced. Instead witness Weimar's only vaguely indicates for that 2019 and 2020,  
9       PWSA's Small Diameter Water Main Replacement Program prioritized 4-inch  
10      diameter mains for replacement and that future prioritization matrices will also  
11      include scoring for 4-inch mains (PWSA St. No. C-1, p. 17). Therefore, PWSA has  
12      not provided a timeline or projected completion date for the replacement of all 27  
13      miles of 4-inch diameter mains.

15   **Q.    WHAT DO YOU RECOMMEND REGARDING THE STANDARDS OF**  
16       **DESIGN SECTION OF THE COMPLIANCE PLAN?**

17   A.   I recommend that the Commission determine that PWSA is not in compliance with  
18       Section 65.17 unless and until PWSA provides a revised Compliance Plan that  
19       includes a timeline and projected completion date for the replacement of all 4-inch  
20       diameter water mains.

1           **52 PA. CODE § 65.20-WATER CONSERVATION MEASURES**<sup>7</sup>

2   **Q.     WHAT IS REQUIRED BY 52 PA. CODE § 65.20 REGARDING THE WATER**  
3           **CONSERVATION MEASURES – STATEMENT OF POLICY?**

4   A.     52 Pa. Code § 65.20 introduces the intention of the Commission to examine specific  
5           factors regarding the action or failure to act of water utilities to encourage cost-  
6           effective water conservation by their customers. The factors detailed in Section 65.20  
7           are as follows:

- 8           • Education – providing customers with informational brochures or similar type of  
9           material on an annual basis that discuss efficient water use practices, waste caused  
10          by leaking plumbing fixtures, and the availability of retrofitting plumbing devices  
11          to curtail unnecessary water use;
- 12          • Water audit for large users – providing large-usage customers, by way of  
13          information included with their bills on an annual basis, of the availability of the  
14          large water user audit procedure developed by the Department of Environmental  
15          Resources;
- 16          • Efficiency plumbing fixtures – annual notification to customers that water-saving  
17          plumbing fixtures should be installed in new construction or when remodeling;
- 18          • Unaccounted-for water – Levels of unaccounted-for water should be kept within  
19          reasonable amounts (noting that levels above 20% have been considered by the  
20          Commission to be excessive);

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<sup>7</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 9; Exhibit RAW/C-1, Directed Questions Nos. 41-43.

- Leak detection – a system of leak detection should be utilized on a regular basis, with leaks being repaired as expeditiously and economically as possible;
- Metering – a comprehensive metering program should be in place including metering sources of supply, service to customers (aside from formally granted interim exceptions), and regular testing and maintenance of meters in service;
- Conservation plan – The mandatory conservation contingency plan should be properly filed within each utility’s tariff.

**Q. IS PWSA IN COMPLIANCE WITH SECTION 65.20?**

A. No. The Compliance Plan at page 67 admits that PWSA does not currently meet the standards laid out in Section 65.20.

**Q. ARE ANY FACTORS OF SECTION 65.20, IDENTIFIED ABOVE, DISCUSSED IN OTHER PARTS OF YOUR DIRECT TESTIMONY?**

A. Yes. The metering and Unaccounted-for Water sections are included in the Meters and Non-Revenue Water discussions in other parts of my direct testimony.

**Q. DOES PWSA INTEND TO TAKE STEPS TO BEGIN EDUCATING ITS CUSTOMERS REGARDING WATER CONSERVATION MEASURES AVAILABLE TO THEM?**

A. Yes. Witness Weimar stated on page 35 of PWSA Statement No. C-1 that PWSA plans to educate customers regarding conservation that may assist in reducing the

1 variable portion of their bills through providing an educational brochure at least once  
2 a year, providing information regarding annual water audits for large users, and  
3 providing customer notification regarding water-saving plumbing fixtures.  
4

5 **Q. HAS PWSA INDICATED WHEN ITS PROPOSED EDUCATIONAL**  
6 **MEASURES WILL BEGIN TO BE DISTRIBUTED TO CUSTOMERS?**

7 A. No. PWSA has provided no indication of when it intends to begin distributing its  
8 proposed educational materials to customers.  
9

10 **Q. WHAT DO YOU RECOMMEND REGARDING PWSA'S EDUCATIONAL**  
11 **MEASURES?**

12 A. I recommend that the Commission order PWSA to file a revised Compliance Plan,  
13 including a detailed timeline and start date for which PWSA can commit to begin  
14 providing the required educational information to customers.  
15

16 **Q. DOES PWSA CURRENTLY HAVE LEAK DETECTION PROCEDURES IN**  
17 **PLACE?**

18 A. No. In its response to I&E-PS-19 (I&E Ex. No. 3, Sch. 11) PWSA stated that its Leak  
19 Survey Procedures are currently being drafted and are anticipated to be completed by  
20 April 1, 2019. Additionally, witness Weimar further stated on pages 39-40 of PWSA  
21 Statement No. C-1 that PWSA has developed a comprehensive plan for leak  
22 surveying and will be implemented throughout 2019 and that its comprehensive leak



1 surveying program will be consistent with American Water Works Association  
2 (“AWWA”) standards and procedures by 2020.

3  
4 **Q. WHAT TIMELINE AND PROCEDURE HAS PWSA PROPOSED FOR LEAK**  
5 **DETECTION?**

6 A. PWSA estimates that its leak detection program can be completed in three to four  
7 years (PWSA St. No. C-1, p. 40). The program includes procedures such as  
8 installation of Fixed Base Permaloggers, which use sound waves to monitor leaks and  
9 evaluation of advanced equipment such as tricorr correlator, ground mics, and valve  
10 sounding survey tools to use in areas that are not accessible to permaloggers. Mr.  
11 Weimar estimates that three perma logger set ups, collecting data for eight months  
12 each, may be required to complete leak detection throughout the entire distribution  
13 system. The overall estimate is that the leak detection program can be completed in  
14 three to four years (PWSA St. No. C-1, p. 40).

15  
16 **Q. HOW DOES PWSA INTEND TO INCLUDE THE LEAK DETECTION**  
17 **EFFORTS INTO ITS CAPITAL IMPROVEMENT/INVESTMENT PLAN?**

18 A. Mr. Weimar states that leak detection teams are considered an operations expense  
19 (PWSA St. No. C-1, p. 42).

1   **Q.    WHAT DO YOU RECOMMEND REGARDING PWSA’S PROPOSED LEAK**  
2       **DETECTION?**

3    A.    Since PWSA indicates that its leak detection efforts will not be completed for 3 to 4  
4       years, I recommend PWSA provide the Commission with annual reports summarizing  
5       the progress of the efforts. Annual reporting is necessary to ensure that PWSA’s leak  
6       detection efforts are efficient, cost-effective, and yield results. An annual breakdown  
7       of costs and timelines should be included with the leak survey data.

8  
9       **MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 –**  
10      **65.23<sup>8</sup>**

11   **Q.    WHAT ARE THE RULES OUTLINED IN THE CODE REGARDING THE**  
12       **DUTY OF A PUBLIC UTILITY TO MAKE LINE EXTENSIONS 52 PA.**  
13       **CODE § 65.21?**

14   A.    The duty of public utility to make line extensions is outlined in 52 Pa. Code § 65.21  
15       which states that “[e]ach public utility shall file with the Commission, as part of its  
16       tariff, a rule setting forth the conditions under which facilities will be extended to  
17       supply service to an applicant within its service area.” The Code then provides three  
18       directives under which line extensions shall be constructed at the request of a bona  
19       fide service applicant:

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<sup>8</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 9-10; Exhibit RAW/C-1, Directed Questions Nos. 44-50

- 1       • Line extensions to bona fide service applicants shall be funded without customer  
2       advance if the annual revenue from the line extension will equal or exceed the  
3       utility's annual line extension cost;
- 4       • If the annual revenue from the line extension will not equal or exceed the utility's  
5       annual line extension costs, a bona fide service applicant may be required to  
6       provide a customer advance to the utility's cost of construction for the line  
7       extension. The utility's investment for the line extension shall be the portion of the  
8       total construction costs which generate annual line extension costs equal to annual  
9       revenue from the line extension. The customer advance amount shall be  
10      determined by subtracting the utility's investment for the line extension from the  
11      total construction costs;
- 12     • A formula for which the utility's investment for the line extension shall be based.

13  
14   **Q.   DOES PWSA PLAN TO ADHERE TO THE REQUIREMENTS IN 52 PA.**  
15   **CODE § 65.21?**

16   **A.**   No. Instead, PWSA indicates on page 68 of the Compliance Plan that, subject to PUC  
17   approval, it will follow the PWSA Policies and Procedures related to line extensions,  
18   as provided in its 2018 Tariff Filing Rules and Regulations and required by the  
19   Municipality Authorities Act.

1   **Q.   WHAT ARE THE RULES OUTLINED IN THE REGULATIONS**  
2       **REGARDING CUSTOMER ADVANCE FINANCING, REFUNDS, AND**  
3       **FACILITIES ON PRIVATE PROPERTY, 52 PA. CODE § 65.22?**

4   A.   Commission regulations at 52 Pa. Code § 65.22 outlines the rules regarding customer  
5       advances for bona fide customers requesting a service line from a company with gross  
6       annual receipts of \$10 million or more and the customer is unable to advance the  
7       entire amount due; allow the applicant to pay the advance over period of not less than  
8       three years or provide information to the customer on financial institutions. Section  
9       65.22 also details that a refund of a portion of the advance will be made to customers  
10      if additional service lines are attached to the main extension within ten years. Finally,  
11      Section 65.22 indicates that a utility shall require a customer to pay, in advance, a  
12      reasonable charge for service lines and equipment installed on private property for the  
13      exclusive use of the customer.

14  
15   **Q.   DOES PWSA PLAN TO ADHERE TO THE REQUIREMENTS IN 52 PA.**  
16       **CODE § 65.22?**

17   A.   No. PWSA stated that it is required to follow the Municipality Authorities Act  
18       notwithstanding the apparently conflicting requirements of the Commission's  
19       regulations and is not proposing any changes to its current structure (PWSA St. No.  
20       C-4, p. 34).

1   **Q.    WHAT ARE THE RULES OUTLINED IN THE REGULATIONS**  
2       **REGARDING SPECIAL UTILITY SERVICES?**

3   A.    52 Pa. Code § 65.23 states that Sections 65.21 and 65.22 (a) and (c) (relating to duty  
4       of public utility to make line extensions; and customer advance financing, refunds,  
5       and facilities on private property) do not apply to special utility service.

6  
7   **Q.    DOES PWSA PLAN TO ADHERE TO THE REQUIREMENTS IN 52 PA.**  
8       **CODE § 65.22?**

9   A.    No. PWSA stated that it is required to follow the Municipality Authorities Act  
10       notwithstanding the apparently conflicting requirements of the Commission's  
11       regulations and is not proposing any changes to its current structure (PWSA St. No.  
12       C-4, p. 34).

13  
14   **Q.    WHAT DO YOU RECOMMEND REGARDING PWSA'S INTENTION TO**  
15       **ADHERE TO MUNICIPALITY AUTHORITIES ACT PROVISIONS FOR**  
16       **ISSUES ARISING UNDER 52 PA. CODE §§ 65.21-65.23?**

17   A.    I recommend that PWSA be required to comply with 52 Pa. Code §§ 65.21-65.23  
18       because I am advised by counsel that the Public Utility Code now supersedes the  
19       Municipality Authorities Act regarding these matters. Counsel advises me that the  
20       General Assembly's intent for PWSA to conform to applicable rules, regulations and  
21       orders of the Commission is expressly clear in Section 3204(b) of the Code and that  
22       the rules of statutory construction also support the Commission's regulations being

operative here. However, as I am not an attorney and I am not offering a legal opinion in this matter, I will defer to counsel to discuss this matter in brief.

**52 Pa. Code § 69.169- POLICY STATEMENT INTERPRETING TERMS  
INCLUDED IN 66 PA. C.S. §1326, STANDBY CHARGE<sup>9</sup>**

**Q. WHAT IS A STANDBY CHARGE?**

A. A standby charge, based on the definition in 52 Pa. Code § 69.169, is a charge for the availability of water supply during fire emergencies. The Public Utility Code, at 66 Pa. C.S. § 1326, prohibits the imposition of a standby charge, in addition to the regular rate, on owners of residential structures equipped with automatic fire protection systems.

**Q. WHAT IS PWSA'S POSITION ON WHETHER OR NOT IT ASSESSES A STANDBY CHARGE?**

A. PWSA witness Quigley states on page 38 of PWSA Statement No. C-4 that PWSA does not have a standby charge in addition to the regular rate "as customers are not being charged any additional amount because a structure is equipped with a fire protection system." Ms. Quigley also indicated on page 37 of PWSA Statement No. C-4 that the private fire protection service is an option that can be selected by

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<sup>9</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 11; Exhibit RAW/C-1, Directed Questions Nos. 55-56.

1 customers and rates are defined on Part I, Section B of PWSA's water tariff (I&E Ex.  
2 No. 3, Sch. 12).

3 **Q. DOES PWSA'S TARIFF INCLUDE IMPERMISSIBLE STANDBY**  
4 **CHARGES?**

5 A. Without further information or clarification from PWSA, I am advised by counsel that  
6 PWSA's tariff includes impermissible standby charges. PWSA's tariff appears to  
7 include private fire service customer charges for owners of residential buildings  
8 indefinitely. I am advised by counsel that the Commission previously found a similar  
9 charge to be permissible only where it was to recoup over a period of time a utility's  
10 one-time costs of its investment in customers' residential private fire protection  
11 systems.<sup>10</sup> Accordingly, I am advised by Counsel that PWSA's tariff appears to  
12 include impermissible standby charges extending beyond recoupment of PWSA's  
13 costs to accommodate a residential private fire protection system.

14  
15 **Q. HAS PWSA PROVIDED ENOUGH INFORMATION TO ENABLE A**  
16 **DETERMINATION OF WHETHER IT IS IMPOSING IMPERMISSIBLE**  
17 **STANDBY CHARGES?**

18 A. No, PWSA did not include important information to fully understand the applicability  
19 of its tariff. First, PWSA did not squarely address whether its residential customers  
20 are served by separate domestic and fire service lines, i.e., Commission Directed  
21 Question 56 (see PWSA St. No. C-4, p. 38). If residential customers are not served

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<sup>10</sup> Pa. PUC v. Philadelphia Suburban Water Co., Docket No. R-911892, pp. 67-68 (Order entered October 18, 1991).

1 by separate lines, it is unclear whether customers are charged a customer charge for  
2 both non-fire protection and fire protection use. If customers with a common line are  
3 only charged a non-fire protection customer charge, PWSA may not be charging  
4 impermissible standby charges. Additionally, if residential customers are served by  
5 separate lines, PWSA should clarify whether it charges customer charge for fire  
6 protection service beyond PWSA's recoupment of costs.

7  
8 **Q. WHAT DO YOU CONCLUDE REGARDING PWSA'S PRIVATE FIRE**  
9 **SERVICE RATES CHARGED TO RESIDENTIAL CUSTOMERS?**

10 A. I am advised by counsel that, until PWSA provides clarifying information to the  
11 contrary, PWSA's private fire service rates appear to include impermissible standby  
12 charges. To the extent PWSA does not provide clarification in its rebuttal testimony,  
13 I recommend that the Commission find that PWSA's tariff is not in compliance with  
14 the Code and Commission regulations and order PWSA to provide a revised  
15 Compliance Plan detailing its proposal to remove this standby charge. If PWSA does  
16 provide clarifying information that its tariff does not include impermissible standby  
17 charges, it will likely be appropriate for PWSA's tariff regarding fire protection rates  
18 to be reformed in the next rate proceeding to include such clarifying information.



1           **52 Pa. Code § 73.3-ANNUAL DEPRECIATION REPORTS<sup>11</sup>**

2   **Q.   DOES PWSA INTEND TO PROVIDE ANNUAL DEPRECIATION**  
3   **REPORTS?**

4   A.   No. On page 87 of its Compliance Plan, PWSA indicates that it does not currently  
5       have the capability to produce a depreciation report that includes the detail the  
6       Commission requires, though intends to comply with the requirements listed in 52 Pa.  
7       Code § 73.3 and file its first annual depreciation report with the Bureau of Fixed  
8       Utility Services within five years. PWSA witness Presutti proposes that the Authority  
9       come into compliance by committing to file its first annual depreciation report in  
10      April 2024 for FY 2023 and commissioning a fixed asset study in 2019 to be  
11      completed no later than 2021 (PWSA Statement No. C-3, pp. 8-9).

12  
13   **Q.   IS PWSA’S PLAN TO COME INTO COMPLIANCE WITH 52 Pa. CODE §**  
14   **73.3 OVER A FIVE-YEAR PERIOD REASONABLE?**

15   A.   Yes. PWSA is currently a cash flow company, which means that its rates do not have  
16       a rate of return component, and, therefore, the annual depreciation report is not as  
17       vital. Therefore, allowing PWSA to transition to filing the full annual depreciation  
18       reports over a five-year period is reasonable.

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<sup>11</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 12; Exhibit RAW/C-1, Directed Questions Nos. 62-66.

1    **Q.    IN THE INTERIM, SHOULD THE COMMISSION REQUIRE PWSA TO**  
2       **FILE A PARTIAL ANNUAL DEPRECIATION REPORT DETAILING ONLY**  
3       **KNOWN AND NEWLY CONSTRUCTED ASSETS?**

4    A.    Yes. While depreciated original cost and rate of return are not currently used in the  
5       determination of PWSA's rates, the Authority is proposing to vastly increase its  
6       spending on capital improvement projects over the coming years, which will increase  
7       rates significantly. Therefore, I recommend the Commission require PWSA to file a  
8       partial annual depreciation report, on the same schedule as a full annual depreciation  
9       report starting in 2020, detailing only known and newly constructed plant additions  
10      and retirements, as witness Presutti indicated the Authority is willing to consider  
11      (PWSA St. No. C-3, p. 10). The partial annual depreciation reports will allow the  
12      Commission to remain apprised of the progress PWSA is making on its various  
13      capital projects each year.

15   **Q.    IS AN ANNUAL DEPRECIATION REPORT NECESSARY FOR PWSA TO**  
16       **IMPLEMENT A DISTRIBUTION SYSTEM IMPROVEMENT CHARGE**  
17       **("DSIC")?**

18   A.    No. As I described above, PWSA is a cash flow company, and, as such, its rates do  
19       not include depreciated original cost or rate of return; instead, the cost of plant is  
20       recovered from customers directly. Therefore, as discussed by witness Presutti on  
21       page 10 of PWSA Statement C-3, PWSA's DSIC would be based on the actual  
22       expenditures for DSIC eligible plant and facilities and not a return on depreciated  
23       investment.

**UNMETERED / UNBILLED USAGE (INCLUDING CITY USAGE)<sup>12</sup>**

**Q. WHAT IS THE ESTIMATE OF PWSA CUSTOMERS THAT ARE UNMETERED OR UNBILLED?**

A. PWSA witness Weimar indicated that there are 200-400 municipal buildings within the City, as well as 500 flat rate customers, that are not metered (PWSA Statement No. C-1, p. 17). Page 108 of PWSA's Compliance plan states that PWSA allocates 600 million gallons of water per year to the City with no way of determining whether the City exceeds its allocation of free water.

**Q. DID PWSA PROVIDE AN ESTIMATE OF THE REVENUE THAT IS LOST DUE TO UNMETERED OR UNBILLED CUSTOMERS?**

A. Partially. Witness Weimar revealed that half of the City's major facilities have meters and are measured and that those measurements would equate to approximately \$3.6 million in billed usage in 2018 (PWSA St. No. C-1, p. 28). He further stated that there is no good method of estimating the use at City and City-affiliated facilities that do not have meters such as the Zoo, swimming pools, and spray parks (PWSA St. No. C-1, p. 28). Finally, Mr. Weimar points to buildings owned by the City by default for which PWSA lacks information, a certain percentage of which are derelict and will be torn down by the City. Because information on these buildings is not available, it is difficult for PWSA to estimate usage (PWSA St. No. C-1, p. 28).

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<sup>12</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 15-16; Exhibit RAW/C-1, Directed Questions Nos. 82-90.

1   **Q.   HAS THE COMMONWEALTH OF PENNSYLVANIA’S DEPARTMENT OF**  
2       **AUDITOR GENERAL CONDUCTED AN AUDIT THAT YIELDED AN**  
3       **ESTIMATION OF THE CITY’S UNBILLED USAGE THAT EXCEEDS**  
4       **PWSA’S ESTIMATE?**

5   A.   Yes. As part of my direct testimony in the base rate case, I referenced a Pennsylvania  
6       Department of the Auditor General performance audit of PWSA covering the period  
7       of January 1, 2014 through June 20, 2017 (I&E Ex. No. 2, Sch. 4 (Exhibit of I&E  
8       witness Patel)). Pages 10-11 of my direct testimony, R-2018-3002645 and R-2018-  
9       3002647, I&E Statement No. 3, summarized the estimate determined in the Auditor  
10      General’s performance audit:

11               [a]lthough the City’s exact usage is unknown, the Auditor General’s  
12               Report cites a PWSA senior manager’s belief that the City’s usage may  
13               be close to one billion gallons of water annually. If the City uses closer  
14               to 1 billion gallons in free water, the audit calculated PWSA is losing a  
15               further \$4.56 million in revenue per year (I&E Ex. No. 3, Sch. 4, p. 32).<sup>13</sup>  
16               In this scenario, PWSA would collect an additional \$11.4 million if the  
17               City paid for the entire 1 billion gallons of water use.  
18

19   **Q.   DOES PWSA INTEND TO METER ALL OF ITS CUSTOMERS?**

20   A.   PWSA’s plan to meter all of its customers is discussed in 52 Pa. Code § 65.7-Metered  
21       Service above.

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<sup>13</sup> Docket Nos. R-2018-3002645 and R-2018-3002647.

**Q. WHAT IS PWSA’S PROPOSED METHOD TO BILL ITS UNBILLED CUSTOMERS?**

A. PWSA indicated it will meter all unbilled and unmetered City facilities within five years and proposed to “implement rates for City-owned facilities by a ‘phased-in’ and ‘stepped’ approach, with the City not fully billed until the fifth year of the plan.” (PWSA St. No. C-1, pp. 26-27). Specifically, rates are “phased” in as more buildings are metered and billed. They are “stepped” in by the City paying an increasing percentage of the bill for each property until the fifth year, where the City will pay the full bill (PWSA St. No. C-1, pp. 26-27). PWSA provided Table 13 on page 110 of the Compliance Plan which summarizes the proposed timeline to address unmetered locations. I have recreated Table 13 below:

<b>TASK</b>	<b>END DATE FOR COMPLETION</b>
Release RFP for design contractor	December 31, 2018
Identify all locations where service is either: a) unmetered entirely; or b) metered but not billed.	December 31, 2019
Have one (or more) plumbing contractors under contract	April 1, 2020
Install meter sets in accordance with PUC tariff	December 31, 2024
Begin to bill all unbilled and/or unmetered locations	December 31, 2024
Begin to collect fees billed	20% of the total bill will be due in first year, 40% in second year, and son on, until amounts due fully reflect billed amounts.

1   **Q.     WHY IS PWSA PROPOSING TO STEP OR PHASE IN THE RATES FOR**  
2       **THE CITY AND CITY AFFILIATED PROPERTIES?**

3   A.   Mr. Weimar suggests that PWSA's approach is appropriate because "the City has  
4       never been billed for water at these locations and is neither aware of the amount of  
5       water it uses nor the dollar amount it will have to pay once billing for the water  
6       begins. According to Mr. Weimar, the City needs a reasonable amount of time in  
7       which to understand what these obligations will be and to consider taking steps to try  
8       to mitigate its current water use. Mr. Weimar also claims that the City also needs lead  
9       time to incorporate these payment obligations in future budgets." (PWSA St. No. C-  
10      1, p. 27).

11  
12   **Q.     IS PWSA PROPOSING TO STEP OR PHASE IN THE USAGE RATES OF**  
13       **PREVIOUSLY UNMETERED FLAT RATE CUSTOMERS?**

14   A.   Mr. Weimar's testimony does not indicate whether the other unmetered flat rate  
15       customers are being offered the same approach as the City to bring their rates to full,  
16       metered rates.

17  
18   **Q.     DID PWSA DISCUSS THE POSSIBILITY OF INSTITUTING A FLAT RATE**  
19       **TO THE UNMETERED AND UNBILLED MUNICIPAL CUSTOMERS?**

20   A.   Yes. Mr. Weimar indicated on page 30 of PWSA Statement No. C-1 that it is not  
21       feasible to institute a flat rate to the unmetered and unbilled City and City-affiliated  
22       locations because the "City needs lead time." The basis for Mr. Weimar's conclusion  
23       is not only unclear, but his position on this matter is concerning because it appears to

1       elevate the City's interests above those of PWSA's and its customers. I am advised  
2       by counsel that Mr. Weimar's position is certainly not consistent with PWSA's  
3       obligations as a regulated public utility.

4  
5   **Q.   IS IT LEGAL TO SELECTIVELY ALLOW A CUSTOMER TO RECEIVE**  
6   **FREE SERVICE?**

7   A.   I am advised by counsel that the legality of selectively allowing a certain customer to  
8       receive free service will be discussed in brief.

9  
10  **Q.   DO YOU AGREE THAT THE CITY DID NOT HAVE NOTICE THAT IT**  
11  **WOULD BE BILLED FOR ITS WATER USAGE?**

12  A.   No. The City has had knowledge that the need to meter and bill for its water usage  
13       was an issue of public concern at least since the Auditor General's Report was issued  
14       on October 30, 2017 (I&E Ex. No. 2, Sch. 4 (Exhibit of I&E witness Patel)). As I  
15       stated above, the 2017 Auditor General's report indicated that the City was not paying  
16       upwards of \$11.4 million per year for all of its unbilled usage.

17  
18  **Q.   DID THE CITY RECEIVE NOTICE THAT ITS UNBILLED USAGE WOULD**  
19  **BE INVESTIGATED IN THIS PROCEEDING?**

20  A.   Yes. As part of the base rate case settlement, PWSA was obligated to provide various  
21       materials from the rate case to the City, including the Commission's Order approving  
22       the settlement. Among other settlement terms, PWSA agreed it would consider  
23       during the Compliance Plan proceeding "the proposal for a flat rate for both water and

1 wastewater for all unmetered and unbilled municipal and government properties or  
2 buildings served by PWSA, for inclusion in the next base rate case.”<sup>14</sup>  
3

4 **Q. WHAT DO YOU RECOMMEND REGARDING UNBILLED CUSTOMERS?**

5 A. I recommend that the Commission determine that PWSA’s plans regarding unbilled  
6 and unmetered customers are not in compliance with the Code. Further, I recommend  
7 that PWSA introduce a flat rate, at minimum the customer charge for that customer’s  
8 class, for all unbilled customers in its next base rate case. Additionally, as customers  
9 are metered, their usage should be billed immediately. The City has had ample notice  
10 and opportunity to participate in this proceeding to demonstrate why they believe  
11 being billed a flat rate currently and then immediately upon metering is unreasonable.  
12

13 **Q. DOES PWSA’S CONCERN FOR TIME TO INTEGRATE WATER BILLINGS**  
14 **INTO THE CITY’S BUDGET CHANGE YOUR RECOMMENDATION?**

15 A. No. First, other than its bare assertion, PWSA has provided no factual basis that the  
16 City would be unable to pay water bills if it was billed immediately. Second,  
17 PWSA’s desire to provide “lead time” to the City is an unreasonable preference not  
18 offered to other customers. Third, even if PWSA was to provide a factual basis for  
19 this assertion, I am advised by counsel that it would be inappropriate for PWSA to  
20 raise a claim on behalf of the City because the City elected not to participate in this

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<sup>14</sup> *Joint Petition for Settlement*, Docket Nos. R-2018-3002645 and R-2018-3002647, p. 26, Section H(6)



1 proceeding despite the fact that it was on notice of this case and that its interests  
2 would be implicated in this case.

3 Moreover, PWSA's concern for the City's budget is unfounded. All of the  
4 properties would not be metered and billed immediately. As explained above, PWSA  
5 does not believe it would finish metering for five years, although I&E recommends  
6 that metering should be completed on an expedited basis. Additionally, the City  
7 would not be billed until after PWSA's next base rate case, which gives the City  
8 additional "lead time" to prepare its budget. The proper treatment of rates is better  
9 considered as part of PWSA's next base rate case.

10  
11 **Q. ARE ANY OF THE CITY OWNED OR AFFILIATED UNMETERED AND/OR**  
12 **UNBILLED FOR WATER BUILDINGS BILLED FOR WASTEWATER?**

13 A. Mr. Weimar stated that "[c]ustomers who are not billed for water are not billed for  
14 wastewater." (PWSA St. No. C-1, p. 31). He further states that PWSA pays the  
15 wastewater treatment costs for those customers. PWSA is proposing the same  
16 20/40/50/80 plan for wastewater chargers as well.

17  
18 **Q. DO YOU AGREE WITH THE 20/40/60/80 PLAN FOR WASTEWATER**  
19 **CUSTOMERS?**

20 A. No. For the reasons described above, unmetered wastewater customers should also be  
21 billed a flat rate and immediately billed for usage when the building is metered,  
22 similar to water customers.

1 **Q. DOES PWSA INTEND TO ADDRESS CHARGES FOR PUBLIC FIRE**  
2 **HYDRANTS IN THIS CASE?**

3 A. No. Charges for Public Fire Hydrants will be addressed by PWSA in its next base  
4 rate proceeding (PWSA St. No. C-1, p. 31).

5  
6 **Q. ALTHOUGH PWSA IS NOT PROPOSING TO ADDRESS PUBLIC FIRE**  
7 **CHARGES IN THIS CASE, HAS IT ACKNOWLEDGED THE MERITS OF**  
8 **RECOVERING THE COSTS?**

9 A. Yes. PWSA admits that public fire protection service “is a community service and is  
10 justifiably recovered from the municipality for which service is provided” (PWSA  
11 Supplemental Compliance Plan, p. 27).

12  
13 **Q. IS IT REASONABLE TO WAIT TO ADDRESS CHARGES FOR PUBLIC**  
14 **FIRE HYDRANTS IN THE NEXT BASE RATE CASE?**

15 A. No. In the base rate case settlement, PWSA agreed it would “consider the proposal to  
16 assess the City a separate rate for public fire hydrant service and the timeframe for  
17 doing so”<sup>15</sup> during the Compliance Plan proceeding. Although it may be reasonable  
18 to provide a new rate design for public fire hydrants in the Authority’s next base rate  
19 case, it is appropriate for the Commission to determine in this compliance proceeding

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<sup>15</sup> *Joint Petition for Settlement*, Docket Nos. R-2018-3002645 and R-2018-3002647, p. 26, Section H(5).

1 whether PWSA's current practice of recovering public fire hydrant costs from all rate  
2 classes complies with the Code.

3  
4 **Q. DO YOU AGREE WITH PWSA'S CURRENT PUBLIC FIRE HYDRANT**  
5 **RATE DESIGN?**

6 A. No. As I stated in my base rate case testimony,<sup>16</sup> public fire hydrants are a service  
7 provided to the City and therefore costs related to this service should be recovered  
8 from the City. As referenced above, PWSA agrees that public fire hydrant costs are  
9 appropriately recovered from the City; therefore, it is unclear why it proposes to delay  
10 taking action to recover the costs.

11  
12 **Q. WHAT DO YOU RECOMMEND?**

13 A. I recommend the Commission direct PWSA to file a revised Compliance Plan stating  
14 that PWSA will provide a new rate design reflecting allocation of all public fire  
15 hydrant costs to the City with its next rate case proposal.

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<sup>16</sup> R-218-3002645 and R-2018-3002647 I&E Statement No. 3, p.19.

1           **PLAN TO ADDRESS NON-REVENUE WATER**<sup>17</sup>

2   **Q.   WHAT IS PWSA’S DEFINITION OF NON-REVENUE WATER?**

3   A.   PWSA’s definition of non-revenue water is water that has been treated at a water  
4       treatment facility but is not billed to customers (PWSA Compliance Plan, p. 121).

5  
6   **Q.   WHAT IS THE DEFINITION OF UNACCOUNTED-FOR WATER,  
7       ACCORDING TO PWSA?**

8   A.   Unaccounted-for water, according to PWSA, is water treated at a treatment facility,  
9       but is not billed, measured or estimated through accepted AWWA practices (PWSA  
10      Compliance Plan, p. 121).

11  
12   **Q.   WHAT HAS THE COMMISSION DETERMINED IS THE DEFINITION OF  
13      UNACCOUNTED-FOR WATER?**

14   A.   Mr. Weimar correctly provides the Commission’s definition of unaccounted-for water  
15      in footnote 22 on page 37 of PWSA Statement No. C-1 as follows:

16           *PUC v. Total Environmental Solutions, Inc.*, Docket No. R-  
17           00072493, et al., Opinion and Order entered July 30, 2008; 2008  
18           Pa. PUC LEXIS 1227: Unaccounted-for-water is the difference  
19           between the total system output and the amount of metered water  
20           that is billed, plus an estimate used for fire service, testing, main  
21           flushing and company use. Unaccounted-for-water is commonly  
22           caused by under registration of meters, system leaks, theft, and  
23           natural losses. Although the Commission permits a reasonable  
24           amount of unaccounted-for-water, its policy statement on water  
25           conservation cautions that it has found levels above 20% to be

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<sup>17</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 18; Exhibit RAW/C-1, Directed Questions Nos. 102-106.

1 excessive. 52 Pa Code §65.20(4). *See also Pennsylvania Public*  
2 *Utility Commission v. Dauphin Consolidated Water Supply*  
3 *Company*, 55 Pa.P.U.C. 202 (1981) (Unaccounted-for water is  
4 water that is acquired, goes into the distribution plant and never  
5 reaches a customer meter).  
6

7 **Q. HOW DOES PWSA'S DEFINITION OF NON-REVENUE WATER AND**  
8 **UNACCOUNTED-FOR WATER DIFFER FROM THE COMMISSION'S**  
9 **DEFINITION OF UNACCOUNTED-FOR WATER?**

10 A. The difference between the Commission's definition of unaccounted-for water and  
11 PWSA's definition of non-revenue water is that the Commission includes a certain  
12 amount of water loss allowances (an estimate used for fire service, testing, main  
13 flushing and company use) in its calculation for unaccounted-for water. PWSA's  
14 definition is simply the calculation of treated water less water billed to customers.  
15

16 **Q. DOES THE COMMISSION REQUIRE ANNUAL REPORTING OF**  
17 **UNACCOUNTED FOR WATER FOR LARGE WATER PROVIDERS?**

18 A. Yes. Section 500 of the Annual Report that PWSA will file with the Commission is  
19 the calculation of unaccounted-for water. This report includes a section for  
20 authorized unmetered usage. Should the Authority not include any estimates for fire  
21 service, testing, main flushing and company use as allowed by the Commission, then  
22 PWSA's unaccounted-for water percentage will be higher, which may lead to expense  
23 adjustments in future base rate cases.

1 **Q. HOW DOES PWSA INTEND TO ADDRESS NON-REVENUE WATER?**

2 A. PWSA provided a table on pages 38-39 of PWSA Statement No. C-1 that points to its  
3 plans to address the categories of Non-Revenue Water. These issues are addressed in  
4 the City Metering, Meter Replacements, and Leak Surveying sections of the  
5 Compliance Plan and LTIP.

6  
7 **Q. ARE THE AUTHORITY'S PLANS REGARDING METER INSTALLATIONS,**  
8 **METER TESTING REQUIREMENTS, AND LEAK DETECTION**  
9 **ADDRESSED IN OTHER SECTIONS OF YOUR DIRECT TESTIMONY?**

10 A. Yes. I address the adequacy of PWSA's plans regarding meter installations and the  
11 meter installation timeline, meter testing requirements, leak surveying, and leak  
12 surveying timeline in other sections of my direct testimony.

13  
14 **BULK WATER: SALES FOR RESALE**<sup>18</sup>

15 **Q. DOES PWSA HAVE BULK WATER SALES AGREEMENTS WITH OTHER**  
16 **WATER UTILITIES OR PUBLIC AUTHORITIES?**

17 A. Yes. PWSA currently sales contracts with other water utilities and/or public  
18 authorities to deliver water in bulk. (PWSA St. No. C-2, p. 19).

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<sup>18</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 18-19; Exhibit RAW/C-1, Directed Questions Nos. 107-113.

1   **Q.    ARE PWSA’S BULK WATER SALES CONTRACTS REQUIRED TO**  
2       **COMPLY WITH 66 Pa. CODE § 507?**

3   A.    Yes. I am advised by counsel that, starting when PWSA came under jurisdiction of  
4       the Commission on April 1, 2018, any bulk water sales contracts must comply with  
5       66 Pa. Code § 507 in order to be compliant with the Code.

6  
7   **Q.    IS IT POSSIBLE TO DETERMINE WHETHER PWSA’S BULK WATER**  
8       **SALES CONTRACTS AND AGREEMENTS COMPORT WITH THE CODE?**

9   A.    No. PWSA has not provided sufficient information to determine whether the terms of  
10       bulk water sales contracts entered into between PWSA and municipalities and other  
11       public utilities comport with the Code. I am advised by counsel that, although bulk  
12       water sales contracts entered into before April 1, 2018 may not need to be filed  
13       pursuant to § 507 of the Code, they still may contain provisions in violation of the  
14       Code and therefore may need to be reformed under § 508 of the Code.

15  
16   **Q.    HAS PWSA PROVIDED ANY INFORMATION REGARDING ITS EXISTING**  
17       **INTERCONNECTIONS?**

18   A.    Yes. PWSA Ex. DML/C-3 includes a map of all interconnection points between its  
19       distribution system and other public water service providers. PWSA also indicated  
20       that the Fox Chapel and Aspinwall interconnections are used for emergency use and  
21       bulk water sales while the Hampden, Shaler, and Westview interconnections are  
22       emergency use only and that each interconnection is metered (PWSA St. No. C-2, p.  
23       21).

1    **Q.    WHAT DO YOU RECOMMEND?**

2    A.    In order to determine whether the terms of any bulk water sales contracts PWSA has  
3           entered into comport with the Code, I recommend the Commission Order PWSA to  
4           file all contracts and contract details PWSA has entered into with municipalities and  
5           other public utilities for bulk water sales (both before and since April 1, 2018) in a  
6           separate docket within 120 days of the final Commission Order in this proceeding so  
7           the Commission can investigate their compliance with the Code.

8  
9    **Q.    PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

10   A.    My recommendations are summarized as follows:

- 11       •    SYSTEM AND OPERATIONS ACTIVITIES – OCTOBER 25, 2017 DEP  
12           ORDER AND CAPITAL IMPROVEMENT PLAN:
  - 13           ○ I recommend PWSA provide an update to I&E-RB-26 regarding the status of  
14           the Aspinwall Treatment Plant High Service Pump station in its rebuttal  
15           testimony, PWSA should acknowledge whether it has or has not decided to  
16           move forward with the project at that time.
  - 17           ○ PWSA should either provide the missing project timeline information through  
18           its rebuttal testimony or explain why such information is not available.
  - 19           ○ In rebuttal, PWSA should provide both design engineer and company  
20           affiliation for each project, as asked by the Commission's Directed Questions,  
21           or explain why such information is unavailable.
  - 22           ○ PWSA should provide more specific details about the funding sources that it  
23           plans to use for each project. As an alternative, if more specific information



1 cannot be provided, PWSA should explain why and indicate when it  
2 anticipates being able to identify a specific funding source for each project.

3 • ASPINWALL CLEARWELL IMPROVEMENT PROJECT

- 4 ○ I recommend that the Commission find that PWSA will not be providing safe  
5 and reliable service until PWSA provides expedited plans to bypass the  
6 Clearwell and continue to provide service in the event of a failure.  
7 ○ To comply with its obligation to ensure safe and reliable service, I recommend  
8 that the Commission order the Authority to submit a new Compliance Plan  
9 that expedites the completion of the Clearwell projects.

10 • 52 Pa. Code § 65.7-METERED SERVICE

- 11 ○ PWSA should completed metering municipal buildings as soon as possible.

12 • 52 Pa. Code § 65.8-METERS

- 13 ○ I recommend that PWSA update in its rebuttal testimony the following areas:
- 14 ■ Whether the Authority has awarded the contract and remains on track to  
15 begin testing meters greater than three inches on April 1, 2019;  
16 ■ The identification and status of PWSA's parameters for testing meters two  
17 inches and larger as referenced in its response to I&E-RB-8 (I&E Ex. No.  
18 3, Sch. 8),  
19 ■ The status of the realignment of the current warehouse to house a new  
20 meter test bench has been completed and the new test bench is in use, and  
21 ■ Whether PWSA is revising its original 2022 goal for commercial meter  
22 testing to extend that goal to 2024 (as with the residential meters).

1           ○ I recommend PWSA provide in rebuttal testimony a discussion of the  
2           feasibility of the meter testing triage plan referenced in the Commission's  
3           Directed Questions.

4           ○ I recommend that the Commission find the 2024 projected date of compliance  
5           to be acceptable pending PWSA providing the missing information as  
6           discussed above.

7           • 52 Pa. Code § 65.14 SOURCE OF SUPPLY MEASUREMENT

8           ○ I recommend that the Commission order PWSA to file a revised Compliance  
9           Plan including an adequate plan to come into compliance with 52 Pa. Code §  
10          65.14(a).

11          ○ I recommend that the Commission determine that PWSA plans for complying  
12          with 52 Pa. Code § 65.14 are unsatisfactory and that, in its revised Compliance  
13          Plan filing, PWSA should provide details and a timeline regarding how and  
14          when each of the meters listed on Table 4-3 of PWSA 40-year plan of 2012  
15          will be operational and accurate.

16          • 52 Pa. Code § 65.17-STANDARDS OF DESIGN

17          ○ I recommend that the Commission determine that PWSA is not in compliance  
18          with Section 65.17 unless and until PWSA provides a revised Compliance  
19          Plan that includes a timeline and projected completion date for the  
20          replacement of all 4-inch diameter water mains.

- 1       • 52 PA. CODE § 65.20-WATER CONSERVATION MEASURES
  - 2           ○ I recommend that the Commission order PWSA to file a revised Compliance
  - 3           Plan, including a detailed timeline and start date for which PWSA can commit
  - 4           to begin providing the required educational information to customers.
  - 5           ○ I recommend PWSA provide the Commission with annual reports
  - 6           summarizing the progress of its efforts as necessary to ensure that they are
  - 7           efficient, cost-effective, and yield results. An annual breakdown of costs and
  - 8           timelines should be included with the leak survey data.
- 9       • MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 – 65.23
  - 10           ○ I recommend that PWSA be required to comply with 52 Pa. Code §§ 65.21-
  - 11           65.23 because I am advised by counsel that the Public Utility Code now
  - 12           supersedes the Municipality Authorities Act regarding these matters.
- 13       • 52 Pa. Code § 69.169- POLICY STATEMENT INTERPRETING TERMS
- 14       INCLUDED IN 66 PA. C.S. §1326, STANDBY CHARGE
  - 15           ○ To the extent PWSA does not provide clarification in its rebuttal testimony, I
  - 16           recommend that the Commission find that PWSA's tariff is not in compliance
  - 17           with the Code and Commission regulations and order PWSA to provide a
  - 18           revised Compliance Plan detailing its proposal to remove this standby charge.
- 19       • 52 Pa. Code § 73.3-ANNUAL DEPRECIATION REPORTS
  - 20           ○ I recommend the Commission require PWSA to file a partial annual
  - 21           depreciation report, on the same schedule as a full annual depreciation report
  - 22           starting in 2020, detailing only known and newly constructed plant additions

1 and retirements, as witness Presutti indicated the Authority is willing to  
2 consider (PWSA St. No. C-3, p. 10), so that the Commission can remain  
3 apprised of the progress PWSA is making on its various capital projects each  
4 year.

5 • UNMETERED / UNBILLED USAGE (INCLUDING CITY USAGE)

- 6 ○ I recommend that the Commission determine that PWSA's plans regarding  
7 unbilled and unmetered customers are not in compliance with the Code.
- 8 ○ Further, I recommend that PWSA introduce a flat rate, at minimum the  
9 customer charge for that customer's class, for all unbilled customers in its next  
10 base rate case.
- 11 ○ Additionally, as customers are metered, their usage should be billed  
12 immediately.
- 13 ○ Unmetered wastewater customers should also be billed a flat rate and  
14 immediately billed for usage when the building is metered, similar to water  
15 customers.
- 16 ○ It is appropriate for the Commission to determine in this compliance  
17 proceeding whether PWSA's current practice of recovering public fire hydrant  
18 costs from all rate classes complies with the Code.
- 19 ○ I recommend the Commission direct PWSA to file a revised Compliance Plan  
20 stating that PWSA will provide a new rate design reflecting allocation of all  
21 public fire hydrant costs to the City with its next rate case proposal.

1           • BULK WATER: SALES FOR RESALE

- 2           ○ In order to determine whether the terms of any bulk water sales contracts
- 3           PWSA has entered into comport with the Code, I recommend the Commission
- 4           Order PWSA to file all contracts and contract details PWSA has entered into
- 5           with municipalities and other public utilities for bulk water sales (both before
- 6           and since April 1, 2018) in a separate docket within 120 days of the final
- 7           Commission Order in this proceeding so the Commission can investigate their
- 8           compliance with the Code.
- 9

10    **Q.    DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

11    **A.    Yes.**

ETHAN H. CLINE

PROFESSIONAL EXPERIENCE AND EDUCATION

---

**EXPERIENCE:**

03/2009 - Present

**Bureau of Investigation and Enforcement, Pennsylvania Public Utility Commission -  
Harrisburg, Pennsylvania**

Fixed Utility Valuation Engineer – Assists in the performance of studies and analyses of the engineering-related areas including valuation, depreciation, cost of service, quality and reliability of service as they apply to fixed utilities. Assists in reviewing, comparing and performing analyses in specific areas of valuation engineering and rate structure including valuation concepts, original cost, rate base, fixed capital costs, inventory processing, excess capacity, cost of service, and rate design.

06/2008 – 09/2008

**Akens Engineering, Inc. - Shiremanstown, Pennsylvania**

Civil Engineer – Responsible, primarily, for assisting engineers and surveyors in the planning and design of residential development projects

10/2007 – 05/2008

**J. Michael Brill and Associates - Mechanicsburg, Pennsylvania**

Design Technician – Responsible, primarily, for assisting engineers in the permit application process for commercial development projects.

01/2006 – 10/2007

**CABE Associates, Inc. - Dover, Delaware**

Civil Engineer – Responsible, primarily, for assisting engineers in performing technical reviews of the sewer and sanitary sewer systems of Sussex County, Delaware residential development projects.

**EDUCATION:**

Pennsylvania State University, State College, Pennsylvania  
Bachelor of Science; Major in Civil Engineering, 2005

- Attended NARUC Rate School, Clearwater, FL

**TESTIMONY SUBMITTED:**

I have testified and/or submitted testimony in the following proceedings:

1. Clean Treatment Sewage Company, Docket No. R-2009-2121928
2. Pennsylvania Utility Company – Water Division, Docket No. R-2009-2103937
3. Pennsylvania Utility Company – Sewer Division, Docket No. R-2009-2103980
4. UGI Central Penn Gas, Inc., 1307(f) proceeding, Docket No. R-2010-2172922
5. PAWC Clarion Wastewater Operations, Docket No. R-2010-2166208
6. PAWC Claysville Wastewater Operations, Docket No. R-2010-2166210
7. Citizens' Electric Company of Lewisburg, Pa, Docket No. R-2010-2172665
8. City of Lancaster – Bureau of Water, Docket No. R-2010-2179103
9. Peoples Natural Gas Company LLC, Docket No. R-2010-2201702
10. UGI Central Penn Gas, Inc., Docket No. R-2010-2214415
11. Pennsylvania-American Water Company, Docket No. R-2011-2232243
12. Pentex Pipeline Company, Docket No. A-2011-2230314
13. Peregrine Keystone Gas Pipeline, LLC, Docket No. A-2010-2200201
14. Philadelphia Gas Works 1307(f), Docket No. R-2012-2286447
15. Peoples Natural Gas Company LLC, Docket No. R-2012-2285985
16. Equitable Gas Company, Docket Nos. R-2012-2312577, G-2012-2312597
17. City of Lancaster – Sewer Fund, Docket No. R-2012-2310366
18. Peoples TWP, LLC 1307(f), Docket No. R-2013-2341604
19. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2013-2361763
20. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2013-2361764
21. Joint Application, Docket Nos. A-2013-2353647, A-2013-2353649, A-2013-2353651
22. City of Dubois – Bureau of Water, Docket No. R-2013-2350509
23. The Columbia Water Company, Docket No. R-2013-2360798
24. Pennsylvania American Water Company, Docket No. R-2013-2355276
25. Generic Investigation Regarding Gas-on-Gas Competition, Docket Nos. P-2011-227868, I-2012-2320323
26. Philadelphia Gas Works 1307(f), Docket No. R-2014-2404355
27. Pike County Light and Power Company (Gas), Docket No. R-2013-2397353
28. Pike County Light and Power Company (Electric), Docket No. R-2013-2397237
29. Peoples Natural Gas Company LLC 1307(f), Docket No. R-2014-2403939
30. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2014-2420273
31. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2014-2420276
32. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2014-2420279
33. Emporium Water Company, Docket No. R-2014-2402324
34. Borough of Hanover – Hanover Municipal Water, Docket No. R-2014-2428304
35. Philadelphia Gas Works 1307(f), Docket No. R-2015-2465656
36. Peoples Natural Gas Company LLC 1307(f), Docket No. R-2015-2465172
37. Peoples Natural Gas Company – Equitable Division 1307(f), Docket No. R-2015-2465181

38. PPL Electric Utilities Corporation, Docket No. R-2015-2469275
39. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2015-2480934
40. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2015-2480937
41. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2015-2480950
42. UGI Utilities, Inc. – Gas Division, Docket No. R-2015-2518438
43. Joint Application of Pennsylvania American Water, et al., Docket No. A-2016-2537209
44. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2016-2543309
45. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2016-2543311
46. City of Dubois – Company, Docket No. R-2016-2554150
47. UGI Penn Natural Gas, Inc., Docket No. R-2016-2580030
48. UGI Central Penn Gas, Inc. 1307(f), Docket No. R-2017-2602627
49. UGI Penn Natural Gas, Inc. 1307(f), Docket No. R-2017-2602633
50. UGI Utilities, Inc. – Gas Division 1307(f), Docket No. R-2017-2602638
51. Application of Pennsylvania American Water Company Acquisition of the Municipal Authority of the City of McKeesport, Docket No. A-2017-2606103
52. Pennsylvania American Water Company, Docket No. R-2017-2595853
53. Pennsylvania American Water Company Lead Line Petition, Docket No. P-2017-2606100
54. UGI Utilities, Inc. – Electric Division, Docket No. R-2017-2640058
55. Peoples Natural Gas Company, LLC – Peoples and Equitable Division 1307(f), Docket Nos. R-2018-2645278 & R-2018-3000236
56. Peoples Gas Company, LLC 1307(f), Docket No. R-2018-2645296
57. Columbia Gas of Pennsylvania, Inc., Docket No. R-2018-2647577
58. Duquesne Light Company, Docket No. R-2018-3000124
59. Suez Water Pennsylvania, Inc., Docket No. R-2018-3000834
60. Application of Pennsylvania American Water Company Acquisition of the Municipal Authority of the Township of Sadsbury, Docket No. A-2018-3002437
61. The York Water Company, Docket No. R-2018-3000006
62. Application of SUEZ Water Pennsylvania, Inc. Acquisition of the Water and Wastewater Assets of Mahoning Township, Docket Nos. A-2018-3003517 and A-2018-3003519
63. Pittsburgh Water and Sewer Authority, Docket Nos. R-2018-3002645 and R-2018-3002647
64. Joint Application of Aqua America, Inc. et al., Acquisition of Peoples Natural Gas Company LLC, et al., Docket Nos. A-2018-3006061, A-2018-3006062, and A-2018-3006063



Implementation of Chapter 32 of the	:	Docket Nos.
Public Utility Code Re Pittsburgh	:	M-2018-2640802 (Water)
Water and Sewer Authority	:	M-2018-2640803 (Wastewater)

### VERIFICATION

I, Ethan H. Cline, hereby state that the facts set forth in the foregoing document 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. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities)

  
\_\_\_\_\_  
Ethan H. Cline

4/3/19  
\_\_\_\_\_  
Date

**I&E Exhibit No. 3**  
**Witness: Ethan H. Cline**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Exhibit to Accompany**

**the**

**Direct Testimony**

**of**

**Ethan H. Cline**

**Bureau of Investigation and Enforcement**

**Concerning:**

**System and Operation Activities**

**Metered Service**

**Meter Testing**

**Source of Supply Measurement**

**Standards of Design**

**Water Conservation Measures**

**Conflicts involving the Municipality Authorities Act**

**Standby Charge**

**Annual Depreciation Report**

**Unmetered/Unbilled Usage (Including City Usage)**

**Plan to Address Non-Revenue Water**

**Bulk Water: Sales for Resale**

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-26**

Reference I&E-RR-1 Attachment A, p. 17, Aspinwall Water Treatment Plant High Service Pump Station. Provide the following:

- A. Whether PWSA has decided to move the project forward;
- B. The status of this project;
- C. Indicate the amount spent to date;
- D. Whether PWSA anticipates any additional cost associated with this project;
- E. The priority of this project compared to other projects.

**Response:**

- A. Feasibility study is due Mid-March. At that time, PWSA will decide whether it will move forward with the High Service Pump Station (“HSPS”) project or to rehabilitate the existing Bruecken and Aspinwall Pump Stations
- B. Feasibility stage
- C. \$150,000 committed, \$50,000 spent
- D. If project moves forward, around \$53.62M
- E. Highest priority. Much of the work at the water treatment plant related to the clearwell bypass is on hold until the feasibility of this project is determined.

**Response  
Provided by:**

Robert A. Weimar, Executive Director  
Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:**

February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-39**      Reference I&E-RR-1 Attachment A, p. 20, Clearwell Improvements. Identify the following:

- A. The priority level PWSA has placed on this project in comparison to other projects;
- B. Whether PWSA is still on track to begin the project in April 2019.

**Response:**

- A. In order to replace the clearwell, a number of other projects have to be completed first in order to bypass the clearwell. These related projects as well as the Clearwell Improvements project are all of the utmost importance in the Capital Improvement Plan ("CIP").
- B. The WTP facilities plan and High Service Pump Station Feasibility Study will be complete in late-March 2019. These plans are both taking a preliminary look at the configuration of the clearwell, so this project is already in the preliminary stages. Scoping for the clearwell project will begin in April 2019 after the submittal of these reports.

**Response  
Provided by:**      Robert A. Weimar, Executive Director  
Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:**      February 28, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-49**

Regarding the Aspinwall Clearwell, provide the following information:

- A. Identify the function of the Aspinwall Clearwell;
- B. Identify any existing concerns that PWSA may have identified regarding the operational status of the Aspinwall Clearwell; and
- C. Identify the status of each project necessary to replace and/or rehabilitate the Aspinwall Clearwell.

**Response:**

- A. The purpose for the clearwell is to provide contact time to ensure disinfection of the water before it is pumped into the distribution system. The water is not considered potable until it exits the clearwell.
- B. The clearwell is a single structure with no bypass and represents a single point of failure in the treatment process.
- C.
  - 2019 Large Diameter Water Main Improvements (Rising Main 3 and 4): Preliminary Assessment
  - Aspinwall Pump Station to Lanpher Reservoir Rising Main: Preliminary Design
  - Aspinwall Water Treatment Plant Electrical and Backup Power Improvements: Preliminary Design
  - Aspinwall Water Treatment Plant High Service Pumping: Preliminary Assessment. Note: If this project is not feasible, the clearwell will be bypassed via upgrades to the Aspinwall Pump Station and Bruecken Pump Station. These projects have shown on up the previous tariff filing but were recently replaced with this project.
  - Clearwell Emergency Reponse Project: On hold pending outcome of Aspinwall Water Treatment Plan High Service Pumping assessment.
  - Clearwell Improvements: Preliminary Assessment as part of Aspinwall Water Treatment Plan High Service Pumping
  - Ft. Duquesne Bridge Water Air Release Valve Repair: Bid Phase 2/27/19
  - Highland 2 Reservoir Improvements: Scoping
  - Highland Park Membrane Filtration Plant UV System: Construction
  - Highland Reservoir Pump Station and Rising Main: Design

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

- Lanpher Reservoir Improvements - Chlorine Feed and Gate House Improvements: Design
- Lanpher Reservoir Liner and Cover Replacement: Design

**Response  
Provided by:**

Robert A. Weimar, Executive Director  
The Pittsburgh Water and Sewer Authority

**Dated:**

February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-41**

Reference I&E-RR-1 Attachment A, p. 20, Highland Park Membrane Filtration Module Replacement Program.

- A. Provide the status of this project and indicate the amount spent to date and whether the project remains on schedule;
- B. Identify the number of modules replaced in 2018;
- C. Provide a breakdown of the \$21.7 million spending per year;
- D. State how many racks the HMFP contains and the average life of a module.

**Response:**

- A. Construction is to be complete June 2019. The amount spent to date is \$585,377.83. This project remains on schedule.
- B. In 2018, all modules were replaced in 4 racks. The UV addition to the MFP will reduce the total number of racks from 10 to 8. Replacement of the modules in the remaining 4 racks is planned for later in 2019 or in 2020. Total cost for replacement of all modules in the 8 rack MFP will be approximately \$1.2 million.
- C. The \$21.7M is an administrative error. The correct budget is \$1.7M. We apologize for this oversight.
- D. There are 8 racks, each containing 80 modules. The life of the module varies based upon a number of factors, but the manufacturer states that membrane modules should last longer than 10 years on the average.

**Response  
Provided by:**

Robert A. Weimar, Executive Director  
Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:**

February 28, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-42**      Reference I&E-RR-1 Attachment A, p. 20, Highland Park Membrane Filtration Plant UV System. Provide the status of this project and indicate the amount spent to date and whether the project remains on schedule.

**Response:**      Construction is to be complete June 2019. Amount spent to date is \$726,681.57. This project remains on schedule.

**Response  
Provided by:**      Robert A. Weimar, Executive Director  
Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:**      February 28, 2019



**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-43**      Reference I&E-RR-1 Attachment A, p. 20, MFP Assessment and Critical Process Improvements. Provide the status of this project and indicate the amount spent to date and whether the project remains on schedule.

**Response:**      This project is almost complete and remains on schedule. The amount spent to date totals \$1,579,691.09.

**Response  
Provided by:**      Robert A. Weimar, Executive Director  
Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:**      February 28, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcement, Set RB-1 to RB-11 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-9:** Refer to p. 58 of PWSA’s Compliance Plan filed on September 28, 2018 that indicates PWSA’s intention to test 10-25% of its commercial meters on an annual basis. Provide the following information:

- A. Explain why PWSA determined that 10-25% would be the annual target range;
- B. Identify the factors that may impact whether PWSA’s testing is at the higher or lower rate of its 10-25% annual target range;
- C. In the event that PWSA is unable to test 25% of its commercial meters annually, will it need to extend its compliance estimate past 2022 or does PWSA anticipate increasing the annual target rate in subsequent years to allow for completion in 2022?; and
- D. Identify PWSA’s annual target ranges for testing non-commercial meters.

**Response:**

- A. PWSA currently lacks manpower available to perform the work.
- B. Manpower, scheduling with the customer to gain access, condition of interior plumbing.
- C. Yes the plan will need to be extended.
- D. See Response to I&E-RB-9.

**Response** Rick Obermeier, Director of Operations  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated:** February 1, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcement, Set RB-1 to RB-11 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-8:** Has PWSA established any formula that it proposes to use to establish rates for testing meters larger than 2 inches? If so, provide the formula and identify the basis for establishing the formula.

**Response:** PWSA will monitor the usage of 2”> water meters along with the age and will then test or replace. PWSA has not yet set up these parameters.

**Response  
Provided by:** Rick Obermeier, Director of Operations  
The Pittsburgh Water and Sewer Authority

**Dated:** February 1, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement, Set RB-1 to RB-11 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-2:** Refer to p. 58 of PWSA's Compliance Plan filed on September 28, 2018. Provide the following information:

- A. Identify the reason(s) why PWSA decided to contract out testing for all meters greater than three (3) inches;
- B. Confirm whether PWSA has solicited quotes from private meter testing companies;
- C. If the answer to (B) is yes, identify the process that PWSA has undertaken to solicit quotes from private meter testing companies and indicate whether a company has been selected;
- D. If the answer to (B) is no, identify why quotes have not been solicited;
- E. A copy of any documents that PWSA used to solicit quotes from private meter testing companies; and
- F. Explain how PWSA proposes to verify the accuracy of any meter testing undertaken by a private company.

**Response:**

- A. PWSA decided to contract out 3" > meter testing because it does not have the meter testing equipment needed and it needs to rehabilitate PWSA's existing test building facility to accommodate the testing equipment.
- B. Yes, PWSA has solicited quotes for the testing of 3" > meters.
- C. PWSA has advertised for these services, the bids were due 1/17/2019. A mandatory pre-bid meeting was held 1/8/2019 and two vendors attended.
- D. N/A
- E. See I&E-RB-2 Attach A.
- F. PWSA will have an employee on site during all onsite meter tests and will ask for the calibration records for the testing units the contractor will be using.

**Response** Rick Obermeier, Director of Operations  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated:** February 1, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement, Set RB-1 to RB-11 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-5:** If PWSA has not yet completed the development of the commercial meter testing program referenced on p. 58 of its Compliance Plan filed on September 28, 2018, but has begun the process of developing it, provide the following information:

- A. Identify the steps that PWSA has taken to develop the program, and provide the dates that each step was undertaken; and
- B. Provide an estimated timeline of when PWSA will have completed development of its commercial meter testing program.

**Response:**

- A. PWSA advertised for meter testing of 3"> meters December 2018, bids are due January 17, 2019. Once it is awarded and approved by the Board (which is expected to occur in February 2019), PWSA will start testing.
- B. The estimate to start testing 3"> meters is by April 1, 2019.

**Response** Rick Obermeier, Director of Operations  
**Provided by:** The Pittsburgh Water and Sewer Authority

**Dated: February 1, 2019**

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcement PS-1 to PS-20 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-19:** Does PWSA have Leak Survey Procedures? If so, please provide a copy of the Leak Survey Procedures. If not, what, if any, steps has PWSA taken to develop Leak Survey Procedures?

**Response:** PWSA’s Leak Survey Procedures are currently being drafted and are anticipated to be completed by April 1, 2019. PWSA is in the process of restructuring field personnel to further enhance this process.

**Response  
Provided by:** Robert A. Weimar, Executive Director, and Alex Sciulli, Chief of  
Program Management  
The Pittsburgh Water and Sewer Authority

**Dated:** February 7, 2019

The Pittsburgh Water  
and Sewer Authority

Tariff Water - Pa. P.U.C. No. 1  
Original Page No. 10

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Section B - Fire Protection Rates

1. Private Fire Protection: A customer charge for private fire protection service will be assessed as follows:

<u>Meter Size</u>	<u>Line Size</u> (if unmetered)	<u>Customer Charge</u> <u>Per Month</u>
1" or Less	2"	\$31.60
1 ½"-3"	3"	\$83.30
4"	4"	\$177.57
6" or Greater	6" or Greater	\$507.98

In the event of a confirmed fire, no charge shall be made for the use of water to fight the fire using private fire hydrants or fire abatement equipment. Customers whose fire equipment has been activated to fight a fire should notify the Authority to assure that the associated water use will not be billed.

For consumption of water related to testing, training on, and maintenance of private fire hydrants and fire abatement equipment, consumption charges shall be billed in accordance with the following rates for water consumption. Water used from private fire protection for these purposes should be based on meter readings where possible. If a meter cannot be used, the Authority will estimate the usage.

**Consumption Charge**  
Rate per 1,000 Gals.

Private Fire Protection                      \$13.49

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Issued: February 28, 2019

Effective:

March 1, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set RE-25 through RE-34 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RE-27**      Reference Statement No. 1, page 20, which indicates that "if City resources are mobilized to provide all interior building plumbing upgrades prior to installation" then PWSA may be able to complete the metering of municipal buildings within two to three years rather than in five years. Identify the City resources that must be mobilized and indicate what, if any, action PWSA has undertaken to request that those resources be mobilized.

**Response:**      The City of Pittsburgh must allocate funding through their capital and operating budgets to fund the plumbing upgrades to their facilities. PWSA will request that these upgrades be made as part of the cooperation agreement negotiation.

**Response**      Robert A. Weimar, Executive Director  
**Provided by:**      The Pittsburgh Water and Sewer Authority

**Dated:**      March 11, 2019



**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation & Enforcement, RE-1 to RE-24 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RE-12:** If PWSA has a domicile policy in place, indicate whether there are any positions exempt from the domicile policy. If so, identify the exempt positions and provide the basis for exemption.

**Response:** At this time, approximately 30 positions are exempt from the City Domicile policy. The current list of positions that are exempt and which includes only those that PWSA desires to fill are:

Executive Director	Director of Engineering	Director of Operations
Director of Production	Laboratory Manager	SCADA Manager
Scada Technician	Environmental Compliance Manager	Chief of Administration
Director of Administration	Project Manager	Process Engineer
Deputy Director of Operations	Network Systems Administrator	Performance Manager
Associate Project Managers Engineering	Deputy Director of Finance--Treasurer	AMI--Billing Manager
Senior Managers (Capital Projects/Lead)	Senior Managers (3) Field Operations	Senior Manager Projects--Operations
Senior Managers (4) Engineering	Environmental Compliance Coordinator	Business Intelligence Analyst
GSI Modeler-Engineering	Director of Information Technology	Operator of Record (Operations)
Senior Engineering Technician		

Each domicile exempt position was selected based upon the lack of applicants with the qualifications and experience needed. The primary positions which pose the least qualified City applicants are professional engineers, SCADA manager, Project Managers, Senior Managers in engineering, compliance professionals, Project Managers, and Field Operations and Water Production departments. The lack of qualified Water Treatment operators, Plumbers, Laboratory staff, Project Managers, welders, electricians and mechanics has required PWSA to engage embedded Consultants and Operating staff who work full time as contracted workers. In addition, PWSA engages specialty contractors to address everyday maintenance and operations needs. This work force comprises more than 10% of the Authority, and are engaged to work with PWSA staff at a 150 to 200% cost premium. The cost premium has added more than \$2 Million per year just to our annual Non-Unionized work force cost. PWSA is working to stabilize our workforce through hiring of permanent workers in every position.

Response  
Provided by: Robert A. Weimar, Executive Director  
Dated: The Pittsburgh Water and Sewer Authority  
January 25, 2019

**Response of Pittsburgh Water and Sewer Authority (“PWSA”)  
to the Interrogatories of the Bureau of Investigation and Enforcements,  
Set I&E-RB-12 through I&E-RB-56  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-RB-25**      Reference I&E-RR-1 Attachment A, p. 17, Aspinwall Pump Station to Lanpher Reservoir Rising Main. Provide the status of this project and indicate the amount spent to date and whether the project remains on schedule.

**Response:**                      This project was initiated in February 2019. Expenditures to date total approximately \$14k. This project remains on schedule.

**Response  
Provided by:**                  Robert A. Weimar, Executive Director  
Jennifer Presutti, Budget Director  
The Pittsburgh Water and Sewer Authority

**Dated:**                              February 28, 2019

**I&E Statement No. 3-SR  
Witness: Ethan H. Cline**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Surrebuttal Testimony**

**of**

**Ethan H. Cline**

**Bureau of Investigation and Enforcement**

**Concerning:**

**System and Operation Activities**

**Metered Service**

**Meter Testing**

**Source of Supply Measurement**

**Standards of Design**

**Water Conservation Measures**

**Conflicts involving the Municipality Authorities Act**

**Standby Charge**

**Annual Depreciation Report**

**Unmetered/Unbilled Usage (Including City Usage)**

**Plan to Address Non-Revenue Water**

**Bulk Water: Sales for Resale**

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1   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2   A.   My name is Ethan H. Cline. My business address is Pennsylvania Public Utility  
3       Commission, 400 North Street, Harrisburg, PA 17120.

4  
5   **Q.   ARE YOU THE SAME ETHAN H. CLINE THAT SUBMITTED DIRECT**  
6       **TESTIMONY IN THIS CASE ON APRIL 5, 2019?**

7   A.   Yes. I submitted Bureau of Investigation and Enforcement (“I&E”) Statement No.  
8       3 and I&E Exhibit No. 3 on April 5, 2019.

9  
10   **Q.   WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

11   A.   The purpose of my surrebuttal testimony is to address the rebuttal testimony  
12       submitted by witnesses on behalf of Pittsburgh Water and Sewer Authority  
13       (“PWSA” or “Authority): Robert A. Weimar (PWSA Statement No. C-1R);  
14       Debbie M. Lestitian (PWSA Statement No. C-2R); Jennifer Presutti (PWSA  
15       Statement No. C-3R); and Julie Quigley (PWSA Statement No. C-4R).

16  
17   **Q.   HOW IS YOUR TESTIMONY STRUCTURED?**

18   A.   As with my direct testimony, my surrebuttal testimony is structured in a manner that  
19       is intended to address the various parties’ responses to my recommendations within  
20       the context of the questions that the Commission raised through its Technical Staff  
21       Initial Report and Directed Questions, Stage 1, issued on November 28, 2018  
22       (“Directed Questions”). For ease of reference, each of the topic headings contained

1       herein contains a reference to both the relevant page of the directed questions that I  
2       am addressing in that section as well as a second reference to PWSA's exhibit  
3       RAW/C-1, which corresponds to the numbering system of the directed questions that  
4       PWSA relied upon in its direct testimony.

5  
6       **SYSTEM AND OPERATIONS ACTIVITIES – OCTOBER 25, 2017 DEP**  
7       **ORDER AND CAPITAL IMPROVEMENT PLAN**<sup>1</sup>

8       **Q.   WHAT DID YOU RECOMMEND REGARDING THE SYSTEM AND**  
9       **OPERATIONS ACTIVITIES – OCTOBER 25, 2017 DEP ORDER AND**  
10       **CAPITAL IMPROVEMENT PLAN?**

11      A.   I recommended that PWSA provide an update to I&E-RB-26 regarding the status  
12       of the Aspinwall Treatment Plant High Service Pump Station (“HSPS”) in its  
13       rebuttal testimony, as the feasibility study that PWSA was awaiting was supposed  
14       to be available in mid-March. I also recommended that in its rebuttal testimony,  
15       PWSA should acknowledge whether it has or has not decided to move forward  
16       with the HSPS project at that time (I&E St. No. 3, pp. 6-7).

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<sup>1</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 2-3; Exhibit RAW/C-1, Directed Questions Nos. 6.1-6.12.

1           Additionally, regarding the projects listed on pages 4-5 below, I made the  
2 following recommendations:

- 3           • I recommended that PWSA should either provide the missing project  
4           timeline information through its rebuttal testimony or explain why such  
5           information is not available (I&E St. No. 3, p. 7);
- 6           • I recommended that, through its rebuttal testimony, PWSA should also  
7           provide both design engineer and company affiliation for each project, as  
8           requested in the Commission's Directed Questions, or explain why such  
9           information is unavailable (I&E St. No. 3, p. 8);
- 10          • I recommended that PWSA should provide more specific details about the  
11          funding sources that it plans to use for each project. As an alternative, if  
12          more specific information cannot be provided, PWSA should explain why  
13          and indicate when it anticipates being able to identify a specific funding  
14          source for each project. (I&E St. No. 3, p. 8).

15  
16 **Q.   HOW DID PWSA RESPOND TO YOUR HSPS RECOMMENDATION?**

17 A.   PWSA witness Weimar stated on page 8 of PWSA Statement No. C-1R that the  
18       “High Service Pump Station concept planning activities are being completed, and  
19       a draft report with conclusions and recommendations is expected to be ready for  
20       submittal to PA DEP for review by the end of May.” He further noted that,  
21       typically, the DEP review process will take 90 to 120 days before final design is

1 authorized, at which point PWSA will submit its draft plant to the Commission for  
2 informational purposes.

3  
4 **Q. DOES PWSA'S RESPONSE SATISFY YOUR RECOMMENDATION?**

5 A. No. While Mr. Weimar did provide additional information regarding the timeline  
6 of the HSPS project, as discussed above, he left the question of whether PWSA  
7 has decided to proceed with the project unanswered; therefore, my  
8 recommendation stands.

9  
10 **Q. WHAT OTHER DEFICIENCIES DID YOU IDENTIFY IN THE PROJECT**  
11 **TIMELINE INFORMATION INITIALLY PROVIDED BY PWSA?**

12 A. As listed on pages 5-6 of I&E Statement No. 3, I identified the following  
13 deficiencies regarding the project timeline:

- 14 • The Aspinwall Pump Station Improvements lists "TBD – Depends upon  
15 HSPS" under the design complete and construction start columns;
- 16 • The Bruecken Pump Station Improvements lists "TBD – Depends upon HSPS"  
17 under the design complete and construction start columns;
- 18 • Aspinwall Treatment Plant Pretreatment Chemical System and Clarification  
19 Improvements has no dates listed under the design complete and construction  
20 start columns;
- 21 • The Aspinwall Clearwell ("Clearwell") Emergency Response Project lists  
22 "TBD – Depends upon HSPS" under the construction start column;



- The Highland Park Membrane Filtration Module Replacement Program has no date listed under the construction start column; and
- The MFP Assessment and Critical Process Improvements projects have no dates under the design complete column and construction start columns (PWSA Ex. No. RAW/C-12).

After identifying the deficiencies, I recommended that PWSA should either provide the missing project timeline information through its rebuttal testimony or explain why such information is not available (I&E St. No. 3, p. 7). Additionally, I recommended that, through its rebuttal testimony, PWSA should also provide both design engineer and company affiliation for each project, as requested in the Commission's Directed Questions, or explain why such information is unavailable (I&E St. No. 3, p. 8).

**Q. WHAT IS PWSA'S RESPONSE TO YOUR RECOMMENDATIONS REGARDING THE DEFICIENT TIMELINE DATA OF THE ABOVE LISTED PROJECTS?**

A. In response, Mr. Weimar attached, as PWSA Exhibit RAW/C-29, a schedule including a list of projects, their current status, assigned consultant, nominal completion schedule, and current risks. Mr. Weimar also indicated that PWSA is prepared to discuss the current status of the concept plans, costs, and inherent schedules at the Commission's convenience. (PWSA St. No. C-1R, p. 9).

1 **Q. DOES PWSA'S RESPONSE SATISFY YOUR CONCERNS REGARDING**  
2 **THE MISSING INFORMATION?**

3 A. Yes.  
4

5 **Q. DID YOU MAKE ANY OTHER RECOMMENDATIONS REGARDING**  
6 **THE INFORMATION THAT WAS PROVIDED BY THE COMPANY IN**  
7 **ITS COMPLIANCE PLAN?**

8 A. Yes. I recommended that PWSA should provide more specific details about the  
9 funding sources that it plans to use for each project. As an alternative, if more  
10 specific information cannot be provided, PWSA should explain why and indicate  
11 when it anticipates being able to identify a specific funding source for each  
12 project. (I&E St. No. 3, p. 8).  
13

14 **Q. DID PWSA RESPOND TO YOUR RECOMMENDATION REGARDING**  
15 **THE FUNDING SOURCES?**

16 A. No. Mr. Weimar included the request for information regarding funding sources  
17 in his reference to the schedule included as PWSA Exhibit RAW/C-29. However,  
18 that schedule does not provide any information regarding funding sources and  
19 simply lists "borrowed" under the funds column.

1 **Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?**

2 A. No. The Company did not provide an adequate response to my recommendation.  
3 Therefore, I recommend that PWSA provide more specific details about the  
4 funding sources that it plans to use for each project in a revised Compliance Plan  
5 filing. In the alternative, if more specific information cannot be provided, PWSA  
6 should explain why and indicate when it anticipates being able to identify a  
7 specific funding source for each project.

8  
9 **ASPINWALL CLEARWELL IMPROVEMENT PROJECT**

10 **Q. WHAT DID YOU RECOMMEND REGARDING THE ASPINWALL**  
11 **CLEARWELL IMPROVEMENT PROJECT?**

12 A. In acknowledgment of the public health crisis that would occur if the Clearwell  
13 failed, I recommended that the Commission find that PWSA will not be providing  
14 safe and reliable service until PWSA provides expedited plans to bypass the  
15 Clearwell and continue to provide service in the event of a failure. To comply  
16 with its obligation to ensure safe and reliable service, I also recommended that the  
17 Commission order the Authority to submit a new Compliance Plan that expedites  
18 the completion of the Clearwell projects. (I&E St. No. 3, p. 15).

1   **Q.    DID PWSA RESPOND TO YOUR RECOMMENDATION REGARDING**  
2       **THE ASPINWALL CLEARWELL IMPROVEMENT PROJECT?**

3   A.   Yes. PWSA agrees that the condition of the Aspinwall Clearwell presents a clear  
4       risk to the water system operation (PWSA St. C-1R, p. 10). PWSA is currently  
5       awaiting DEP's proposed Administrative Order which specifies the key projects  
6       that must be implemented on a specified schedule (PWSA St. No. C-1R, p. 10).

7  
8   **Q.    DOES PWSA'S RESPONSE SATISFY YOUR CONCERNS REGARDING**  
9       **THE ASPINWALL CLEARWELL IMPROVEMENT PROJECT?**

10  A.   No. I recognize that the condition of the Aspinwall Clearwell, and the overall  
11       PWSA system as a whole, introduces a series of significant and complex issues  
12       that do not have simple or quick solutions. I also acknowledge that due to the  
13       requirements of the DEP, PWSA does not have complete control over the  
14       schedule. However, the dire consequences of a failure of the Aspinwall Clearwell,  
15       as described on page 10 of I&E Statement No. 3, and the existing risk to  
16       customers require PWSA to apply as much urgency and resources as possible to  
17       solve the issue. Therefore, I continue to recommend that the Commission find that  
18       PWSA will not be providing safe and reliable service until PWSA provides  
19       expedited plans to bypass the Clearwell to continue to provide service in the event  
20       of a failure.

1           **52 Pa. Code § 65.7-METERED SERVICE<sup>2</sup>**

2   **Q.   WHAT DID YOU RECOMMEND REGARDING METERED SERVICE?**

3   A.   I recommended that PWSA should complete metering municipal buildings as soon  
4       as possible (I&E St. No. 3, p. 21). I also stated that I was advised by counsel that  
5       according to the Commission's regulations at 52 Pa. Code §65.7, the utility should  
6       provide these facilities and services at PWSA's expense, but that the issue of  
7       responsibility for financing will be discussed in brief (I&E St. No. 3, pp. 22-23).

8  
9   **Q.   HOW DID PWSA RESPOND TO YOUR RECOMMENDATIONS?**

10 A.   Mr. Weimar amplified my concerns by clarifying that in addition to the  
11       approximately 200-400 municipal buildings that are also not currently metered,  
12       there are between "300-400 municipally-owned fountains, pools, etc." that also  
13       have yet to be metered (PWSA St. C-1R, p. 16). Mr. Weimar opines that PWSA's  
14       proposed five-year timeframe for metering is reasonable under the circumstances.  
15       Additionally, he states that "PWSA has many other projects and capital investment  
16       priorities that have to be taken into consideration, such as core water supply  
17       infrastructure investments, its lead remediation project, and the installation of  
18       approximately 500 customer meters at currently unmetered locations." (PWSA St.  
19       C-1R, p. 17). He also states that PWSA does not have the funds readily available

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<sup>2</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 6; Exhibit RAW/C-1, Directed Questions Nos. 17-20.

1 to finance the installation of approximately 1,000 meters without charging  
2 residential customers for the installation of their meters.

3  
4 **Q. DESPITE PWSA’S INSISTENCE THAT IT CANNOT FINANCE**  
5 **INSTALLATION OF METERS FOR RESIDENTIAL CUSTOMERS, DOES**  
6 **IT PROPOSE TO FINANCE SOME OF THE COSTS OF METER**  
7 **INSTALLATION FOR CITY PROPERTIES?**

8 A. Yes. With regard to metering municipal properties, “PWSA has an agreement  
9 with the City to split these costs 50/50” (PWSA St. No. C-1R, p. 18). I address  
10 this issue further below.

11  
12 **Q. WHAT IS YOUR RESPONSE TO PWSA’S POSITION THAT FIVE**  
13 **YEARS IS A REASONABLE TIMEFRAME FOR METERING BECAUSE**  
14 **IT HAS OTHER PROJECTS THAT ARE HIGHER IN PRIORITY?**

15 A. I agree that the safety concerns of the Aspinwall Clearwell project and any other  
16 project that directly affects the health and safety of PWSA’s customers should  
17 receive the highest priority. However, as I discuss below, PWSA’s five-year  
18 timeline and refusal to bill the City before meters are installed is depriving the  
19 Authority of a source of revenue that can be used to fund the expedited completion  
20 of its high-priority projects.

1 **Q. PLEASE COMMENT ON THE CLAIM THAT PWSA DOES NOT HAVE**  
2 **THE FUNDS READILY AVAILABLE TO FINANCE THE**  
3 **INSTALLATION OF APPROXIMATELY 1,000 METERS.**

4 A. As I stated in my direct testimony, I am advised by counsel that the issue of  
5 responsibility of financing the installation of meters will be discussed in brief  
6 (I&E St. No. 3, pp. 22-23). However, I would like to note that the costs of meters  
7 have traditionally been socialized and recovered through the customer charge  
8 portion of customers' bills and the cost of preparing for meter installation has been  
9 borne by the customer, which should also not cause a delay. Additionally, as  
10 discussed in more depth below, PWSA's refusal to bill the City a minimum  
11 customer charge until meters are installed severely limits the funding available to  
12 PWSA for the installation of the meters.

13  
14 **Q. HOW DO YOU RESPOND TO PWSA'S AGREEMENT TO CHARGE THE**  
15 **CITY LESS FOR METER INSTALLATION THAN IT WILL CHARGE**  
16 **OTHER CUSTOMERS?**

17 A. Although I am learning this information for the first time in Mr. Weimar's rebuttal  
18 testimony, I am advised by counsel that PWSA's agreement appears to violate the  
19 Public Utility Code's prohibition against rate discrimination as set forth in 66 Pa.  
20 C.S. § 1304. However, as I am not offering a legal opinion in this matter, I will  
21 defer to counsel to address this matter in briefing.

1   **Q.   DO YOU WISH TO CHANGE YOUR RECOMMENDATION**  
2       **REGARDING METERED SERVICE?**

3   A.   No. I continue to recommend that PWSA should complete metering municipal  
4       buildings as soon as possible, and PWSA has not proven that its five-year timeline  
5       meets this standard. Additionally, I continue to recommend that PWSA finance  
6       the installation of the meters. However, if the Commission rejects my  
7       recommendation and permits PWSA to charge certain customers for meter  
8       installation, as an alternative, I recommend that the City's 50% discount be  
9       rejected and that it be assessed the full cost of meter installation.

10  
11       **52 Pa. Code § 65.8-METERS<sup>3</sup>**

12   **Q.   WHAT DID YOU RECOMMEND REGARDING METER TESTING AND**  
13       **REPLACEMENT?**

14   A.   I recommended that PWSA provide additional information related to the following  
15       areas in its rebuttal testimony:

- 16       •   Whether the Authority has awarded the contract and remains on track to begin  
17       testing meters greater than three inches on April 1, 2019;

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<sup>3</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 6-7; Exhibit RAW/C-I, Directed Questions Nos. 21-27.



- The identification and status of PWSA's parameters for testing meters two inches and larger as referenced in its response to I&E-RB-8 (I&E Ex. No. 3, Sch. 8),
- Whether the realignment of the current warehouse to house a new meter test bench has been completed and whether the new test bench is in use, and
- Whether PWSA is revising its original 2022 goal for commercial meter testing to extend that goal to 2024 (as with the residential meters).

I also recommended that PWSA include, as part of its rebuttal testimony, a discussion of the feasibility of the meter testing triage plan referenced in the Commission's Directed Questions. Finally, I recommended that the Commission find PWSA's 2024 projected date of compliance to be acceptable conditioned upon PWSA providing the missing information as discussed above (I&E St. No. 3, pp. 26-29).

**Q. HAS PWSA PROVIDED THE INFORMATION THAT YOU IDENTIFIED?**

A. Yes. In his rebuttal testimony, Mr. Weimar explained that "i) The Authority has entered into a contract with a company to test meters greater than 3", and has begun testing these meters; ii) PWSA has hired a firm to test meters greater than 2", the testing parameters are consistent with the American Water Works Association's ("AWWA") standards; iii) The realignment of the current warehouse to house a new 24 meter test bench has been completed and the new test bench has been in use as of April 15, 2019 for meters up to 2 inches...; and iv)

1 [a]s indicated in my Direct Testimony, commercial meters are on a different  
2 testing schedule, and PWSA hopes to complete testing of commercial meters  
3 within a 3-year time period.” (PWSA St. C-1R, p. 25).

4  
5 **Q. WHAT DID THE COMMISSION ASK IN ITS DIRECTED QUESTIONS**  
6 **REGARDING A METER TESTING TRIAGE PLAN?**

7 A. The Commission’s question regarding a meter testing triage plan, listed on page 7  
8 of its Technical Staff Initial Report and Directed Questions, Stage 1, issued on  
9 November 28, 2018 (“Directed Questions”), is as follows:

10 G. The feasibility of immediately implementing a meter testing triage plan  
11 with the following hierarchy:

- 12 1. Testing out-of-compliance meters used to provide high volume service.
- 13 2. Testing out-of-compliance meters used to provide mid-volume service.
- 14 3. Testing out-of-compliance meters used to provide residential and other
- 15 low-volume service.
- 16 4. Providing for customer-generated meter testing requests.
- 17

18 **Q. DID PWSA PROVIDE A DISCUSSION OF THE FEASIBILITY OF THE**  
19 **METER TESTING TRIAGE PLAN REFERENCED IN THE**  
20 **COMMISSION’S DIRECTED QUESTIONS?**

21 A. No. Mr. Weimar stated that his discussion of PWSA’s meter testing triage plan  
22 was included on pages 30-31 of his direct testimony, PWSA Statement No. C-1.  
23 However, after further review, it appears that the discussion on pages 30-31 of

1 PWSA Statement No. C-1 is in regard to a metering triage plan and makes no  
2 mention of meter testing.

3  
4 **Q. AFTER CONSIDERING MR. WEIMAR'S RESPONSE, DO YOU HAVE**  
5 **AN UPDATED RECOMMENDATION?**

6 A. No. I recommend PWSA provide a discussion of the feasibility of the meter  
7 testing triage plan referenced in the Commission's Directed Questions in a revised  
8 Compliance Plan filing.

9  
10 **52 Pa. Code § 65.14 SOURCE OF SUPPLY MEASUREMENT<sup>4</sup>**

11 **Q. WHAT DID YOU RECOMMEND REGARDING SOURCE OF SUPPLY**  
12 **MEASUREMENT?**

13 A. I recommended that the Commission order PWSA to file a revised Compliance  
14 Plan including an adequate plan to come into compliance with 52 Pa. Code §  
15 65.14(a), noting that PWSA's projection that meters on PWSA's Ross Pump  
16 Station would be operational by the end of 2018 had not materialized. I also  
17 recommended that the Commission determine that PWSA's plans for complying  
18 with 52 Pa. Code § 65.14 are unsatisfactory and that, in a revised Compliance Plan  
19 filing, PWSA should provide details and a timeline regarding how and when each

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<sup>4</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 8; Exhibit RAW/C-1, Directed Questions Nos. 34-36.

1 of the meters listed on Table 4-3 of PWSA 40-year plan of 2012 will be  
2 operational and accurate (I&E St. No. 3, p. 31).  
3

4 **Q. HOW DID PWSA RESPOND TO YOUR RECOMMENDATIONS?**

5 A. Mr. Weimar provided updated information to clarify that PWSA has now installed  
6 meters at each source of supply and the Fox Chapel Station and is currently testing  
7 these meters to ensure accuracy. He also states that further capital projects related  
8 to meter operability, including additional master meter facilities at the Aspinwall  
9 Water Treatment Facility, will be addressed in an upcoming Master Plan. (PWSA  
10 St. C-1R, pp. 34-35).  
11

12 **Q. DOES MR. WEIMAR'S RESPONSE SATISFY YOUR CONCERNS**  
13 **REGARDING THE SOURCE OF SUPPLY METERING?**

14 A. Yes. A timeline is not required now that the source of supply meters are  
15 operational.

1        **52 Pa. Code § 65.17-STANDARDS OF DESIGN**<sup>5</sup>

2        **Q.    WHAT DID YOU RECOMMEND REGARDING STANDARDS OF**  
3        **DESIGN FOR 4-INCH DIAMETER MAINS?**

4        A.    I recommended that the Commission determine that PWSA is not in compliance  
5        with Section 65.17 unless and until PWSA provides a revised Compliance Plan  
6        that includes a timeline and projected completion date for the replacement of all 4-  
7        inch diameter water mains (I&E St. No. 3, p. 37).

8  
9        **Q.    DID PWSA RESPOND TO YOUR RECOMMENDATION?**

10       A.    Yes. PWSA witness Weimar stated that “PWSA is focused on continuing to  
11       replace all 4” water mains, which will be addressed in the Master Plan, and  
12       incorporating the PUC’s design requirements, specifications, and standard details  
13       into a formalized design manual. PWSA is on target to address these issues within  
14       the specified timeline.”

15  
16       **Q.    DOES PWSA’ RESPONSE ADEQUATELY ADDRESS YOUR**  
17       **RECOMMENDATION?**

18       A.    No. PWSA did not provide a timeline and projected completion date for the  
19       replacement of all 4-inch diameter water mains. Therefore, I continue to

---

<sup>5</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 9; Exhibit RAW/C-1, Directed Questions Nos. 39-40.

1 recommend that PWSA provides a revised Compliance Plan that includes a  
2 timeline and projected completion date for the replacement of all 4-inch diameter  
3 water mains.

4  
5 **52 PA. CODE § 65.20-WATER CONSERVATION MEASURES<sup>6</sup>**

6 **Q. WHAT DID YOU RECOMMEND REGARDING WATER**  
7 **CONSERVATION MEASURES?**

8 A. Regarding PWSA's Water Conservation Measures, I recommended the following:

- 9 • That the Commission order PWSA to file a revised Compliance Plan to include  
10 a detailed timeline and start date for which PWSA can commit to begin  
11 providing the required educational information to customers (I&E St. No. 3, p.  
12 40).
- 13 • That PWSA provide the Commission with annual reports summarizing the  
14 progress of its efforts as necessary to ensure that they are efficient, cost-  
15 effective, and yield results. An annual breakdown of costs and timelines  
16 should be included with the leak survey data. (I&E St. No. 3, p. 42).

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<sup>6</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 9; Exhibit RAW/C-1, Directed Questions Nos. 41-43.

1 **Q. DID PWSA PROVIDE THE INFORMATION THAT YOU REQUESTED**  
2 **REGARDING THE TIMELINE AND START DATE FOR THE**  
3 **PROVISION OF THE EDUCATIONAL MATERIALS?**

4 A. No. Instead, Mr. Weimar provided a preference that compliance with the water  
5 conservation obligation be “staged” to phase in due to PWSA’s abundant water  
6 supply. He also provided a brief description of the types of large leaks that the  
7 Authority has experienced over the previous ten years and some of the steps  
8 PWSA has taken to mitigate these leaks (PWSA St. C-1R, p. 28). PWSA did not,  
9 however, provide any timelines or start dates for when PWSA will begin  
10 providing the required educational information to its customers.

11  
12 **Q. DID PWSA COMMIT TO PROVIDING THE COMMISSION WITH**  
13 **ANNUAL REPORTS SUMMARIZING THE PROGRESS OF ITS LEAK**  
14 **DETECTION EFFORTS?**

15 A. No. PWSA did not commit to providing the Commission with annual reports  
16 summarizing the progress of its leak detection efforts.

17  
18 **Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATIONS?**

19 A. No. I continue to recommend that the Commission order PWSA to file a revised  
20 Compliance Plan, including a detailed timeline and start date for which PWSA can  
21 commit to begin providing the required educational information to customers. I  
22 note that my recommendation does provide PWSA with some flexibility to design

1 a timeline that best meets its needs and use of resources, so I do not understand  
2 PWSA's objection. Additionally, I also continue to recommend that PWSA  
3 provide the Commission with annual reports summarizing the progress of its  
4 efforts as necessary to ensure that they are efficient, cost-effective, and yield  
5 results. An annual breakdown of costs and timelines should be included with the  
6 leak survey data. While I appreciate the general information that Mr. Weimar  
7 provided regarding potential sources of leakage, the information he provided only  
8 serves to further convince me that the Commission will need the reporting  
9 information I recommended in order to evaluate the effectiveness of PWSA's leak  
10 remediation efforts.

11  
12 **MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 –**  
13 **65.23**<sup>7</sup>

14 **Q. WHAT DID YOU RECOMMEND REGARDING THE MUNICIPALITY**  
15 **AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21-65.23?**

16 **A.** I recommended that PWSA be required to comply with 52 Pa. Code §§ 65.21-  
17 65.23 in lieu of its proposal to abide by the Municipality Authorities Act's  
18 provisions that conflict with the identified regulations because I am advised by

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<sup>7</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 9-10; Exhibit RAW/C-1, Directed Questions Nos. 44-50



1 counsel that the Public Utility Code now supersedes the Municipality Authorities  
2 Act regarding these matters (I&E St. No. 3, p. 45).

3  
4 **Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?**

5 A. Yes. PWSA witness Quigley stated on page 37 of PWSA Statement No. C-4R  
6 stated that PWSA will not change its approach to the line extension issues as  
7 implicated under 52 Pa. Code §§65.21-65.23, but that it will also defer these legal  
8 issues to counsel. Ms. Quigley, however, indicates that she has significant  
9 concerns about how a Commission directed change in existing processes will  
10 impact PWSA's current processes. She states that she does "not support going  
11 down this path at this time, even were the Commission to conclude that it could  
12 legally direct PWSA to do something different from the MAA (Municipal  
13 Authorities Act) with regard to its line extension processes." (PWSA St. No. C-  
14 4R, pp. 37-38).

15  
16 **Q. BASED ON THE TESTIMONY OF PWSA WITNESS QUIGLEY, DO YOU**  
17 **WISH TO CHANGE YOUR RECOMMENDATION?**

18 A. No. I am advised by counsel that this issue will be further addressed in brief.  
19 Additionally, although I recognize Ms. Quigley's point that PWSA's transition to  
20 compliance with 52 Pa. Code §§65.21-65.23 would require PWSA to readjust its  
21 policies, procedures, and other practices in order to conform, this is not a reason to  
22 determine that PWSA should not comply with Commission regulations.

1        **52 Pa. Code § 69.169- POLICY STATEMENT INTERPRETING TERMS**  
2        **INCLUDED IN 66 PA. C.S. §1326, STANDBY CHARGE<sup>8</sup>**

3        **Q.    WHAT DID YOU RECOMMEND REGARDING A STANDBY CHARGE?**

4        A.    In my direct testimony, I requested additional information regarding whether  
5        PWSA's residential customers are served by separate domestic and fire service  
6        lines. If residential customers are served by separate lines, I recommended that  
7        PWSA clarify, through its rebuttal testimony, whether these customers are charged  
8        for fire protection service beyond the recoupment of costs to provide the fire  
9        protection service (I&E St. No. 3, pp. 47-48). To the extent PWSA did not  
10       provide clarification regarding these items in its rebuttal testimony, I  
11       recommended that the Commission find that PWSA's tariff is not in compliance  
12       with the Code and Commission regulations and order PWSA to provide a revised  
13       Compliance Plan detailing its proposal to remove this standby charge (I&E St. No.  
14       3, p. 48).

15  
16       **Q.    DID PWSA RESPOND TO YOUR RECOMMENDATION?**

17       A.    Yes. PWSA witness Quigley indicated that PWSA has undertaken an analysis of  
18       the current customers being charged a separate fire protection service, discovering  
19       49 such accounts, and it has to further review each account to determine whether

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<sup>8</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 11; Exhibit RAW/C-1, Directed Questions Nos. 55-56.

1 they are single or multi-family property accounts or commercial properties. Ms.  
2 Quigley also stated that, for any residential accounts identified, PWSA will no  
3 longer assess the private fire protection customer charge, retroactively remove any  
4 such charges assessed since April 1, 2018 (the beginning date of the  
5 Commission's jurisdiction over PWSA). PWSA also agreed that it will update its  
6 tariff language as part of the compliance tariff or once the analysis process is  
7 complete (PWSA St. No. C-4R, pp. 40-41).

8  
9 **Q. DOES PWSA'S RESPONSE SATISFY YOUR INITIAL**  
10 **RECOMMENDATION?**

11 A. Yes. I accept PWSA's plan to change its tariff to remove the standby charge.  
12 However, in light of the additional information that PWSA provided, I now  
13 recommend that PWSA submit a report to the Commission, Office of Consumer  
14 Advocate, and any other interested parties as part of its next base rate case  
15 detailing its efforts to ensure that residential customers who have been assessed  
16 the private fire protection customer charges are recompensed for the total amount  
17 paid each month since April 1, 2018.

1        **52 Pa. Code § 73.3-ANNUAL DEPRECIATION REPORTS<sup>9</sup>**

2        **Q.    DOES PWSA INTEND TO PROVIDE ANNUAL DEPRECIATION**  
3        **REPORTS?**

4        A.    I recommended the Commission require PWSA to file a partial annual  
5        depreciation report, on the same schedule as a full annual depreciation report  
6        starting in 2020, detailing only known and newly constructed plant additions and  
7        retirements, as witness Presutti indicated the Authority is willing to consider  
8        (PWSA St. No. C-3, p. 10), so that the Commission can remain apprised of the  
9        progress PWSA is making on its various capital projects each year.

10  
11       **Q.    DID PWSA AGREE TO YOUR RECOMMENDATION?**

12       A.    Yes. PWSA witness Presutti indicated that PWSA will be prepared to file a partial  
13       depreciation report by 2020 (PWSA Statement C-3R, p. 5). Therefore, this issue  
14       appears to be resolved.

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<sup>9</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 12; Exhibit RAW/C-I, Directed Questions Nos. 62-66.

1        **UNMETERED / UNBILLED USAGE (INCLUDING CITY USAGE)<sup>10</sup>**

2        **Q.    WHAT DID YOU RECOMMEND REGARDING PWSA CUSTOMERS**  
3        **THAT ARE UNMETERED OR UNBILLED?**

4        A.    I recommended that the Commission determine that PWSA's plans regarding  
5        unbilled and unmetered customers are not in compliance with the Code.  
6        Specifically, PWSA's plans to "phase in" rates as more buildings are metered and  
7        billed and "step in" the rates by having the City pay an increasing percentage of  
8        the bill for each property until the fifth year after the meter was installed (i.e.  
9        20/40/60/80/100 percent) is not in compliance. Further, I recommended that, as a  
10       minimum, PWSA introduce a flat rate, at the applicable customer charge for that  
11       customer's class, for all unbilled customers in its next base rate case, and, as  
12       customers are metered, their usage should be billed immediately. (I&E St. No. 3,  
13       p. 56). I recommended that unmetered wastewater customers should also be billed  
14       a flat rate and immediately billed for usage when the building is metered, similar  
15       to water customers (I&E St. No. 3, p. 57). Also, as I previously explained, it is  
16       appropriate for the Commission to determine in this compliance proceeding  
17       whether PWSA's current practice of recovering public fire hydrant costs from all  
18       rate classes complies with the Code. Therefore, I recommended the Commission  
19       direct PWSA to file a revised Compliance Plan stating that PWSA will provide a

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<sup>10</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), pp. 15-16; Exhibit RAW/C-1, Directed Questions Nos. 82-90.

1 new rate design reflecting allocation of all public fire hydrant costs to the City  
2 with its next rate case proposal (I&E St. No. 3, pp. 58-59).

3  
4 **Q. HOW DID PWSA RESPOND TO YOUR RECOMMENDATIONS**  
5 **REGARDING UNMETERED/UNBILLED USAGE (INCLUDING CITY**  
6 **USAGE)?**

7 A. PWSA rejected my recommendation without really considering the merits. Mr.  
8 Weimar claimed that I fail to recognize that becoming fully compliant with  
9 Commission regulations may take some time and that PWSA's proposed plan will  
10 result in the (eventual) metering of all PWSA customers (PWSA St. No. C-1R, p.  
11 20). He reiterated the claim in his direct testimony that the City "needs a  
12 reasonable amount of time to understand what the obligations will be and to  
13 consider taking steps to try to mitigate its current water use" and that my proposed  
14 flat rate approach would be "rate shock" to the City (PWSA St. C-1R, p. 21).  
15 PWSA clarifies that it currently charges unmetered non-municipal properties a flat  
16 rate, and that it will continue to do so until those properties are metered (PWSA  
17 St. C-1R, p. 21).

1   **Q.   DO YOUR RECOMMENDATIONS FAIL TO RECOGNIZE THAT**  
2       **BECOMING FULLY COMPLIANT WITH COMMISSION**  
3       **REGULATIONS MAY TAKE SOME TIME?**

4   A.   No. I acknowledge the fact that it may take some time for PWSA to become fully  
5       compliant with Commission regulations by recognizing the fact that it will take  
6       time for customers to be billed the full amount for their respective usage.  
7       However, as I explained in my direct testimony, PWSA has not provided an  
8       adequate reason to not charge customers, at a minimum, the customer charge for  
9       their respective customer class starting in PWSA's next base rate case. As I stated  
10      above, this additional revenue is essential for PWSA's operations, and it could be  
11      devoted to many pressing and important purposes, including but not limited to  
12      infrastructure repair and replacement, lead remediation, and even to fund other  
13      operational needs like the meter installation costs that PWSA currently indicates it  
14      cannot finance.

15  
16   **Q.   DO YOU AGREE THAT YOUR RECOMMENDATION WOULD BE**  
17       **"RATE SHOCK" TO THE CITY?**

18   A.   No, and I also do not agree that it is appropriate for Mr. Weimar to continue to  
19       elevate the City's position above the interests of PWSA and its ratepayers. With  
20       respect to my proposal, charging the City a flat rate for its water and wastewater  
21       usage would provide the City with some certainty and rate accountability by  
22       providing the City a steady amount to budget for while it prepares itself to be

1 billed metered rates. The flat rate would also supply PWSA with a desperately  
2 needed source of revenue that it currently does not have access to at this time.

3 Lack of such revenue has been a factor in the continual rate increases that PWSA's  
4 ratepaying customers have faced, but PWSA has not considered the argument of  
5 "rate shock" from the perspective of those customers.

6  
7 **Q. IS PWSA ELEVATING THE CITY'S INTERESTS ABOVE ITS**  
8 **RATEPAYERS' INTERESTS BY PROPOSING TO APPLY THE**  
9 **20/40/60/80/100 PERCENT PHASED AND STEPPED BILLING**  
10 **APPROACH ONLY TO MUNICIPAL CUSTOMERS?**

11 A. Yes. In his rebuttal testimony. Mr. Weimar clarified that PWSA's proposed  
12 20/40/60/80/100 percent phased and stepped billing approach is limited to the  
13 metered municipal facilities (PWSA St. C-1R, p. 21).

14  
15 **Q. IS OFFERING THE BENEFIT OF A PHASED AND STEPPED BILLING**  
16 **APPROACH ONLY TO MUNICIPAL FACILITIES REASONABLE?**

17 A. No. I am advised by counsel that this may be discriminatory ratemaking and that  
18 this issue will be addressed in brief.



1 **Q. DO YOU HAVE ANY OTHER CONCERNS REGARDING PWSA'S**  
2 **PHASED AND STEPPED BILLING APPROACH?**

3 A. Yes. While PWSA did not directly respond to my recommendation to begin  
4 billing a customer for their usage immediately when meters are installed, Mr.  
5 Weimar's continued support of the phased and stepped billing program indicates  
6 that PWSA did not agree with my recommendation.

7  
8 **Q. DO YOU WISH TO CHANGE YOUR RECOMMENDATION?**

9 A. No. For the reasons stated in my direct testimony, I continue to recommend that,  
10 as water and wastewater customers are metered, their usage should be billed  
11 immediately.

12  
13 **Q. WITH RESPECT TO PUBLIC FIRE HYDRANT COSTS, HAS PWSA**  
14 **AGREED TO ALLOCATE ALL SUCH COSTS TO THE CITY IN ITS**  
15 **NEXT BASE RATE CASE?**

16 A. Yes. Mr. Weimar clarifies that "PWSA has agreed to provide a new rate design  
17 reflecting allocation of all public fire hydrant costs to the City with its next rate  
18 proposal." (PWSA St. C-1R, p. 22). Therefore, it appears that this issue has been  
19 resolved.

1        **BULK WATER: SALES FOR RESALE**<sup>11</sup>

2        **Q.    WHAT DID YOU RECOMMEND REGARDING BULK WATER SALES**  
3        **AGREEMENTS WITH OTHER WATER UTILITIES OR PUBLIC**  
4        **AUTHORITIES?**

5        A.    As I stated on page 64 of I&E Statement No. 3, in order to determine whether the  
6        terms of any bulk water sales contracts PWSA has entered into comport with the  
7        Code, I recommended the Commission order PWSA to file all contracts and  
8        contract details PWSA has entered into with municipalities and other public  
9        utilities for bulk water sales (both before and since April 1, 2018) in a separate  
10       docket within 120 days of the final Commission Order in this proceeding so the  
11       Commission can investigate their compliance with the Code.

12  
13       **Q.    HOW DID PWSA RESPOND TO YOUR RECOMMENDATION?**

14       A.    PWSA rejected my recommendation. As Ms. Lestitian explained, “PWSA does  
15       not believe it is legally required to file wholesale contracts with the Commission  
16       since its tariff contains provisions authorizing these negotiated rates” (PWSA  
17       Statement No. C-2R, p. 28). Further, Ms. Lestitian indicated that although PWSA  
18       does not agree that the Commission’s authority to reform contracts extends to

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<sup>11</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), pp. 18-19; Exhibit RAW/C-1, Directed Questions Nos. 107-113.

1 those entered into prior to April 1, 2018, PWSA would nonetheless, be willing to  
2 provide copies of all wholesale contracts to the parties in this proceeding.  
3

4 **Q. PLEASE RESPOND.**

5 A. First, I note that the first portion of Ms. Lestitian's response relied on PWSA  
6 contracts' compliance with tariff rates, but my recommendation was meant to  
7 ensure that the terms of those contracts comport with all aspects of the Code,  
8 which is not limited to terms that focus on rates. Additionally, I am advised by  
9 counsel that the question of what PWSA is required to submit to the Commission  
10 and whether the Commission has the authority adjust negotiated contracts will be  
11 addressed in brief. Additionally, although, I&E appreciates PWSA's offer to  
12 supply certain contracts to parties in this proceeding, I&E does not agree that such  
13 action is an appropriate alternative to its recommendation because it would  
14 deprive the Commission of a review process.  
15

16 **Q. HAS THE COMMISSION RECENTLY FILED A SECRETARIAL**  
17 **LETTER REGARDING THIS ISSUE?**

18 A. Yes. The Commission filed a Secretarial Letter on May 10, 2019 regarding Water  
19 Sales Agreement between Pittsburgh Water and Sewer Authority and Hampton  
20 Shaler Water Authority at Docket No. U-2019-3007634 which states that "[w]hile  
21 PWSA's approved Tariff Water – Pa. P.U.C. No. 1 permits PWSA to enter in to

1 contracts related to Sales for Resale at rates to be negotiated, its tariff does not  
2 waive Section 507.”<sup>12</sup>

3  
4 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

5 A. My updated recommendations are summarized below. For areas in which PWSA  
6 has adopted I&E’s position or vice versa, and a consensus on the issue has been  
7 reached by those parties, I have highlighted my original recommendation in  
8 boldface type for ease of reference:

9 • **SYSTEM AND OPERATIONS ACTIVITIES – OCTOBER 25, 2017**

10 **PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
11 **(“DEP”) ORDER AND CAPITAL IMPROVEMENT PLAN:**

- 12 ○ I recommend the Commission order PWSA to provide an update to I&E-  
13 RB-26 regarding the status of the Aspinwall Treatment Plant High Service  
14 Pump station in a revised Compliance Plan, PWSA should acknowledge  
15 whether it has or has not decided to move forward with the project at that  
16 time.
- 17 ○ PWSA should either provide the missing project timeline information  
18 through a revised Compliance Plan filing or explain why such information  
19 is not available.

---

12 *Secretarial Letter: Water Sales Agreement between Pittsburgh Water and Sewer Authority and Hampton Shaler Water Authority*, Docket No. U-2019-3007634, p. 2 (entered on May 10, 2019).

- In a revised Compliance Plan filing, PWSA should provide both design engineer and company affiliation for each project, as asked by the Commission's Directed Questions, or explain why such information is unavailable.
- PWSA should provide more specific details about the funding sources that it plans to use for each project. As an alternative, if more specific information cannot be provided, PWSA should explain why and indicate when it anticipates being able to identify a specific funding source for each project.

- ASPINWALL CLEARWELL IMPROVEMENT PROJECT

- I recommend that the Commission find that PWSA will not be providing safe and reliable service until PWSA provides expedited plans to bypass the Clearwell and continue to provide service in the event of a failure.
- To comply with its obligation to ensure safe and reliable service, I recommend that the Commission order the Authority to submit a new Compliance Plan that expedites the completion of the Clearwell projects.

- 52 Pa. Code § 65.7-METERED SERVICE

- PWSA should complete metering municipal buildings as soon as possible.
- I continue to recommend that PWSA finance the installation of the meters.
- However, if the Commission rejects my recommendation and permits PWSA to charge certain customers for meter installation, as an alternative, I

1 recommend that the City's 50% discount be rejected and that it be assessed  
2 the full cost of the meter installation.

3 • **52 Pa. Code § 65.8-METERS**

4 ○ **I recommend that PWSA update in its rebuttal testimony the following**  
5 **areas:**

6 ■ **Whether the Authority has awarded the contract and remains on**  
7 **track to begin testing meters greater than three inches on April 1,**  
8 **2019;**

9 ■ **The identification and status of PWSA's parameters for testing**  
10 **meters two inches and larger as referenced in its response to I&E-**  
11 **RB-8 (I&E Ex. No. 3, Sch. 8),**

12 ■ **The status of the realignment of the current warehouse to house a**  
13 **new meter test bench has been completed and the new test bench is**  
14 **in use, and**

15 ■ **Whether PWSA is revising its original 2022 goal for commercial**  
16 **meter testing to extend that goal to 2024 (as with the residential**  
17 **meters).**

18 ○ **I recommend PWSA provide in rebuttal testimony a discussion of the**  
19 **feasibility of the meter testing triage plan referenced in the Commission's**  
20 **Directed Questions.**

1           ○ I recommend that the Commission find the 2024 projected date of  
2           compliance to be acceptable pending PWSA providing the missing  
3           information as discussed above.

4           • **52 Pa. Code § 65.14 SOURCE OF SUPPLY MEASUREMENT**

5           ○ I recommend that the Commission order PWSA to file a revised  
6           Compliance Plan including an adequate plan to come into compliance  
7           with 52 Pa. Code § 65.14(a).

8           ○ I recommend that the Commission determine that PWSA plans for  
9           complying with 52 Pa. Code § 65.14 are unsatisfactory and that, in its  
10          revised Compliance Plan filing, PWSA should provide details and a  
11          timeline regarding how and when each of the meters listed on Table 4-3  
12          of PWSA 40-year plan of 2012 will be operational and accurate.

13          • **52 Pa. Code § 65.17-STANDARDS OF DESIGN**

14          ○ I recommend that the Commission determine that PWSA is not in  
15          compliance with Section 65.17 unless and until PWSA provides a revised  
16          Compliance Plan that includes a timeline and projected completion date for  
17          the replacement of all 4-inch diameter water mains.

18          • **52 PA. CODE § 65.20-WATER CONSERVATION MEASURES**

19          ○ I recommend that the Commission order PWSA to file a revised  
20          Compliance Plan, including a detailed timeline and start date for which  
21          PWSA can commit to begin providing the required educational information  
22          to customers.

1           ○ I recommend PWSA provide the Commission with annual reports  
2           summarizing the progress of its efforts as necessary to ensure that they are  
3           efficient, cost-effective, and yield results. An annual breakdown of costs  
4           and timelines should be included with the leak survey data.

5           • MUNICIPALITY AUTHORITIES ACT VERSUS 52 PA. CODE § 65.21 –  
6           65.23

7           ○ I recommend that PWSA be required to comply with 52 Pa. Code §§ 65.21-  
8           65.23 because I am advised by counsel that the Public Utility Code now  
9           supersedes the Municipality Authorities Act regarding these matters.

10          • 52 Pa. Code § 69.169- POLICY STATEMENT INTERPRETING TERMS  
11          INCLUDED IN 66 PA. C.S. §1326, STANDBY CHARGE

12          ○ **To the extent PWSA does not provide clarification in its rebuttal**  
13          **testimony, I recommend that the Commission find that PWSA's tariff**  
14          **is not in compliance with the Code and Commission regulations and**  
15          **order PWSA to provide a revised Compliance Plan detailing its**  
16          **proposal to remove this standby charge.**

17          ○ I now recommend that PWSA submit a report to the Commission, Office of  
18          Consumer Advocate, and any other interested parties as part of its next base  
19          rate case detailing its efforts to ensure that residential customers who have  
20          been assessed the private fire protection customer charges are recompensed  
21          for the total amount paid each month since April 1, 2018.



1       • **52 Pa. Code § 73.3-ANNUAL DEPRECIATION REPORTS**

- 2           ○ **I recommend the Commission require PWSA to file a partial annual**  
3           **depreciation report, on the same schedule as a full annual depreciation**  
4           **report starting in 2020, detailing only known and newly constructed**  
5           **plant additions and retirements, as witness Presutti indicated the**  
6           **Authority is willing to consider (PWSA St. No. C-3, p. 10), so that the**  
7           **Commission can remain apprised of the progress PWSA is making on**  
8           **its various capital projects each year.**

9       • **UNMETERED / UNBILLED USAGE (INCLUDING CITY OF**  
10       **PITTSBURGH (“CITY”) USAGE)**

- 11          ○ I recommend that the Commission determine that PWSA’s plans regarding  
12          unbilled and unmetered customers are not in compliance with the Code.  
13          ○ Further, I recommend that PWSA introduce a flat rate, at minimum the  
14          customer charge for that customer’s class, for all unbilled customers in its  
15          next base rate case.  
16          ○ Additionally, as customers are metered, their usage should be billed  
17          immediately.  
18          ○ Unmetered wastewater customers should also be billed a flat rate and  
19          immediately billed for usage when the building is metered, similar to water  
20          customers.

1           ○ It is appropriate for the Commission to determine in this compliance  
2           proceeding whether PWSA's current practice of recovering public fire  
3           hydrant costs from all rate classes complies with the Code.

4           ○ **I recommend the Commission direct PWSA to file a revised**  
5           **Compliance Plan stating that PWSA will provide a new rate design**  
6           **reflecting allocation of all public fire hydrant costs to the City with its**  
7           **next rate case proposal.**

8           • **BULK WATER: SALES FOR RESALE**

9           ○ In order to determine whether the terms of any bulk water sales contracts  
10          PWSA has entered into comport with the Code, I recommend the  
11          Commission Order PWSA to file all contracts and contract details PWSA  
12          has entered into with municipalities and other public utilities for bulk water  
13          sales (both before and since April 1, 2018) in a separate docket within 120  
14          days of the final Commission Order in this proceeding so the Commission  
15          can investigate their compliance with the Code.

16  
17   **Q.   DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

18   **A.   Yes.**

**I&E Statement No. 3-RS  
Witness: Ethan H. Cline**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Supplemental Rebuttal Testimony**

**of**

**Ethan H. Cline**

**Bureau of Investigation and Enforcement**

**Concerning:**

**Aspinwall Clearwell Improvement Project  
Metered Service  
Unmetered/Unbilled City Usage**

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1           **INTRODUCTION**

2   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3   A.   My name is Ethan H. Cline. My business address is Pennsylvania Public Utility  
4       Commission, 400 North Street, Harrisburg, PA 17120.

5  
6   **Q.   ARE YOU THE SAME ETHAN H. CLINE THAT SUBMITTED DIRECT**  
7       **TESTIMONY IN THIS CASE ON APRIL 5, 2019 AND SURREBUTTAL**  
8       **TESTIMONY ON MAY 17, 2019?**

9   A.   Yes. I submitted Bureau of Investigation and Enforcement ("I&E") Statement No.  
10       3 and I&E Exhibit No. 3 on April 5, 2019 and I&E Statement No. 3-SR on May  
11       17, 2019.

12  
13   **Q.   SINCE YOU SUBMITTED SURREBUTTAL TESTIMONY, HAVE ANY**  
14       **ISSUES YOU ADDRESSED BEEN RESOLVED?**

15   A.   Yes. I&E has participated in numerous settlement conferences over the past few  
16       months, and a number of issues on which I previously testified have been settled.

17  
18   **Q.   WILL YOUR TESTIMONY ADDRESS ALL OF YOUR PRIOR**  
19       **RECOMMENDATIONS FOR THE ISSUES THAT HAVE NOT BEEN**  
20       **RESOLVED?**

21   A.   No. My testimony does not address my recommendations for the issues that  
22       remain unresolved unless that particular issue was the subject of an update that

1 PWSA provided in its supplemental direct testimony. For purposes of clarity, I&E  
2 witness Spadaccio identifies the remaining unresolved I&E issues in I&E  
3 Statement No. 1-RS.

4  
5 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL REBUTTAL**  
6 **TESTIMONY?**

7 A. In accordance with the Fourth Interim Order Amending the Litigation Schedule,  
8 the purpose of my supplemental rebuttal testimony is only to address certain  
9 developments that have occurred since my surrebuttal testimony was submitted.  
10 Specifically, my testimony will address certain updated information provided in  
11 the supplemental direct testimony submitted on behalf of Pittsburgh Water and  
12 Sewer Authority ("PWSA" or "Authority") by Robert A. Weimar (PWSA  
13 Statement No. C-1SD).

14  
15 **ASPINWALL CLEARWELL IMPROVEMENT PROJECT**

16 **Q. WHAT UPDATES DID PWSA PROVIDE REGARDING THE**  
17 **ASPINWALL CLEARWELL IMPROVEMENT PROJECT?**

18 A. On pages 9-10 of PWSA Statement No. C-1SD witness Weimar provided an  
19 update to the Aspinwall Clearwell project. Specifically, Mr. Weimar indicated  
20 that the PWSA board has passed Board Resolution 91 which "identifies the repair  
21 and replacement of the Aspinwall Clearwell as one of PWSA's high priority  
22 projects." He further discussed the ongoing negotiations between PWSA and the

1 Pennsylvania Department of Environmental Protection ("DEP") regarding the  
2 terms of a Consent Order and Agreement that will address the key projects and  
3 timelines, and which will inform PWSA's planning related to its Capital  
4 Improvement Program and the Clearwell Improvement project.

5  
6 **Q. PLEASE RESPOND TO PWSA'S UPDATE REGARDING THE**  
7 **ASPINWALL CLEARWELL PROJECT.**

8 A. As I established in I&E Statement No. 1, pp. 9-15 and agreed upon by PWSA in  
9 PWSA St. No. C-1R, p. 10, the condition of the Aspinwall Clearwell presents a  
10 clear risk to the water system operation. As such, I&E appreciates the steps taken  
11 by PWSA and the Board to formally recognize the Aspinwall Clearwell as a high  
12 priority project so that it will be given the attention and resources that a problem  
13 of that significance deserves (Ex. RAW/C-35). I also note that during the  
14 settlement discussions that took place in this case, I had the opportunity to gain  
15 additional information about PWSA's plans to ensure that the integrity of PWSA's  
16 operations and water delivery would not be compromised by a failure at the  
17 Aspinwall Clearwell. To that end, I attended an informational session that largely  
18 focused on PWSA's engineering efforts to address the Aspinwall Clearwell, which  
19 presented a multi-faceted approach and contingency planning. While PWSA is  
20 awaiting the DEP's issuance of a Consent Order and Agreement that it must  
21 adhere to in order to finalize the projects and timelines for Clearwell Improvement  
22 Project, PWSA's commitment to expediting the project and its engineering efforts

1 and contingency planning honor my recommendation that PWSA act to expedite  
2 the completion of Clearwell projects to ensure continued and safe operation.  
3

4 **52 Pa. Code § 65.7-METERED SERVICE<sup>1</sup>**

5 **Q. WHAT UPDATE DID PWSA PROVIDE REGARDING THE BILLING OF**  
6 **AND PAYMENT FOR METER INSTALLATION FOR MUNICIPAL**  
7 **METERS/PROPERTIES WITHIN THE CITY OF PITTSBURGH?**

8 A. Mr. Weimar indicated that, as non-municipal properties are metered, those  
9 customers will be fully billed pursuant to PWSA's tariffs. However, regarding  
10 municipal properties, Mr. Weimar referred to a Cooperation Agreement between  
11 the City of Pittsburgh ("City") and PWSA that is currently being negotiated, and  
12 he indicated that part of the negotiations include a meter installation cost-sharing  
13 mechanism for municipal buildings. Mr. Weimar did acknowledge that the details  
14 of the Cooperation Agreement will be subject to Commission review. (PWSA St.  
15 No. C-1SD, pp. 14-15).

---

<sup>1</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 6; Exhibit RAW/C-1, Directed Questions Nos. 17-20.



1 **Q. WHAT WAS YOUR POSITION REGARDING THE BILLING OF AND**  
2 **PAYMENT FOR THE INSTALLATION OF METERS?**

3 A. I recommended the rejection of PWSA's proposal in this case, which is to split  
4 meter costs with the City on a 50/50 basis (I&E St. No. 3-SR, p. 33-34,  
5 referencing PWSA's proposal at PWSA St. No. C-1, p. 18). My position, under  
6 advice of counsel, was that in order to comply with the Commission's regulations  
7 at 52 Pa. Code §65.7, which requires regulated utilities to install, maintain, and  
8 operate meters at its own expense, PWSA should provide these facilities and  
9 services at its expense. I also acknowledge that because this issue is a legal issue  
10 and I am not offering a legal opinion, that the issue of responsibility for financing  
11 would be discussed in brief (I&E St. No. 3, pp. 22-23).

12  
13 **Q. DOES THE UPDATE PROVIDED BY PWSA CHANGE YOUR**  
14 **POSITION?**

15 A. No. I am advised by counsel that the status of a pending agreement does not  
16 change PWSA's obligations under the Public Utility Code. Therefore, my  
17 position on this issue has not changed, and I continue to recommend that PWSA  
18 comply with its metering obligations under 52 Pa. C.S. 65.7 as to all customers,  
19 including City customers.

1 **UNMETERED / UNBILLED USAGE (INCLUDING CITY USAGE)<sup>2</sup>**

2 **Q. WHAT UPDATE DID PWSA PROVIDE REGARDING UNMETERED /**  
3 **UNBILLED CITY USAGE?**

4 A. While PWSA did not provide a specific update regarding its plans for the  
5 unmetered / unbilled usage of the City it did indicate that its plan would be further  
6 memorialized in a pending Cooperation Agreement. Specifically, Mr. Weimar  
7 pointed to the negotiations of the Cooperation Agreement between the City and  
8 PWSA which involves the “phased-in” and “stepped” approach described in  
9 PWSA St. No. C-1, p. 18, the direct testimony of Mr. Weimar. (PWSA St. No. C-  
10 1SD, p. 15).

11  
12 **Q. WHAT WAS I&E’S POSITION REGARDING THE UNMETERED /**  
13 **UNBILLED CITY USAGE?**

14 A. I&E’s position was that the Commission should determine that PWSA’s proposal  
15 in this case, which is a plan to “phase in” rates as more buildings are metered and  
16 billed and “step in” the rates by having the City pay an increasing percentage of  
17 the bill for each property until the fifth year after the meter was installed (i.e.  
18 20/40/60/80/100 percent), is not in compliance with the Public Utility Code.  
19 Further, I recommended that, as a minimum, for unmetered City properties,

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<sup>2</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 15-16; Exhibit RAW/C-1, Directed Questions Nos. 82-90.

1 PWSA introduce a flat rate, at the applicable customer charge for that customer's  
2 class, for all unbilled City customers in its next base rate case. Additionally, I  
3 recommended that as City customers are metered, their usage should be billed  
4 immediately (I&E St. No. 3, p. 56). I recommended that unmetered City  
5 wastewater customers should also be billed a flat rate and immediately billed for  
6 usage when the building is metered, similar to water customers (I&E St. No. 3, p.  
7 57).

8  
9 **Q. DO YOU WISH TO CHANGE YOUR POSITION BASED ON THE**  
10 **UPDATES PROVIDED BY PWSA IN ITS SUPPLEMENTAL DIRECT**  
11 **TESTIMONY?**

12 A. No. PWSA did not update or change its plans regarding unmetered / unbilled  
13 usage (including City usage) in its supplemental direct testimony. Additionally,  
14 according to witness Weimar, negotiation of the new Cooperation Agreement still  
15 includes a "phase-in" and "step" approach for billing the City, so it appears that  
16 any tentative PWSA plan will continue to raise the same issues. Therefore, my  
17 position as established in my direct and surrebuttal testimony, as described above,  
18 remains unchanged.

19  
20 **Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL REBUTTAL**  
21 **TESTIMONY?**

22 A. Yes.

**I&E Statement No. 4  
Witness: Israel Gray**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Direct Testimony**

**of**

**Israel Gray**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Projects related to the November 2017 Consent Order and Agreement  
between  
PWSA and the Pennsylvania Department of Environmental Protection  
Water Supply, Production & Storage, and Wastewater Conveyance  
Projects**

**52 Pa. Code § 65.2 –Accidents**

**52 Pa. Code § 65.11 –Mandatory Conservation Measures**

**52 Pa. Code § 69.1601 –Unscheduled Service Interruptions and  
Associated Actions**

**52 Pa. Code § 101 – Public Utility Preparedness through Self  
Certification**

**PWSA's plan to address lead levels in water supply and replacement of  
lead service lines**

**LTIIP issues**

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**Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.**

A. My name is Israel E. Gray. I am a Fixed Utilities Valuation Engineer in the Safety Division of the Pennsylvania Public Utility Commission's (PA PUC or Commission) Bureau of Investigation and Enforcement (I&E). My business address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg, PA 17120.

**Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT EXPERIENCE?**

A. I attended the University of Pittsburgh and earned a Bachelor of Science Degree in Civil Engineering in 1995. I joined the Commission's Safety Division in September of 2014. Prior to 2014, I worked for the Pennsylvania Department of Environmental Protection (PA DEP) from 2011 to 2014, where I worked in Water Quality.

**Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

A. The purpose of my direct testimony is to address certain areas of Pittsburgh Water and Sewer Authority's (PWSA) Compliance Plan and Long-Term Infrastructure Improvement Plan (LTIIP) and to make recommendations regarding the adequacy of those plans. More specifically, I will be addressing the following issues: (1) Projects related to the November 2017 Consent Order and Agreement between PWSA and the PA DEP; (2) Water Supply, Production & Storage, and Wastewater

Conveyance Projects; (3) 52 Pa. Code § 65.2 – Accidents; (4) 52 Pa. Code § 65.11 – Mandatory Conservation Measures; (5) 52 Pa. Code § 69.1601 – Unscheduled Service Interruptions and Associated Actions; (6) 52 Pa. Code § 101 – Public Utility Preparedness through Self Certification; (7) PWSA’s plan to address lead levels in water supply and its replacement of lead service lines; and (8) LTIP issues.

**Q. DOES YOUR TESTIMONY INCLUDE AN EXHIBIT?**

A. Yes. I&E Exhibit No. 4 contains schedules relating to my direct testimony.

**Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN ANY OTHER PROCEEDING INVOLVING PWSA?**

A. Yes. I submitted testimony in PWSA’s 2018 base rate proceeding (2018 rate case) (at Docket Nos. R-2018-3002645 and R-2018-3002647), regarding PWSA’s lead line replacement plan as well as PWSA’s need to develop a leak survey plan, a risk assessment model, and established performance metrics. As part of the settlement of PWSA’s 2018 rate case, PWSA agreed to address those issues as part of this Compliance Plan case. As a result, my testimony here will reference my testimony from the 2018 rate case where necessary.

**Q. ARE YOU CURRENTLY PARTICIPATING AS A MEMBER OF PWSA'S COMMUNITY LEAD RESPONSE ADVISORY COMMITTEE (CLRAC)?**

A. Yes. As part of the 2018 rate case settlement,<sup>1</sup> PWSA was required to form the CLRAC. The CLRAC consists of interested parties from the rate case, local government, and community groups. The CLRAC was anticipated to meet quarterly, but it has met almost monthly to this point, and it consults with and provides feedback to PWSA on its Lead Service Line Replacement Project (LSLRP) and lead remediation efforts.

**Q. WHAT ISSUES FROM THE COMMISSION'S TECHNICAL STAFF DIRECTED QUESTIONS DATED NOVEMBER 28, 2018 WILL YOU ADDRESS?<sup>2</sup>**

A. I will only be addressing any concerns and deficiencies that I have identified in my review of the areas I listed above. I note that because my review was limited to the timeline and materials available in this case, my testimony should not be viewed as an exhaustive analysis of all issues that may be present in PWSA's filings and operations. Additionally, the fact that I may not have addressed certain issues should not be viewed as my endorsement of PWSA's position on those issues, as I&E reserves the right to revisit those issues and to expand upon

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<sup>1</sup> Joint Petition for Settlement, pp. 9-13 (November 29, 2018).

<sup>2</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected).



addressed issues as more information becomes available in this case and in future PWSA cases.

**COMPLIANCE WITH THE PENNSYLVANIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION (PA DEP) CONSENT ORDER AND  
AGREEMENT OF NOVEMBER 17, 2017<sup>3</sup>**

**Q. HAS PWSA IDENTIFIED A PLAN FOR A CORROSION CONTROL  
PROJECT USING ORTHOPHOSPHATE?**

- A. Yes. PWSA plans to utilize orthophosphate as corrosion control treatment to reduce lead levels in the water distribution system, including in homes with lead service lines. The introduction of orthophosphate into the water treatment process is expected to reduce the lead levels to below action levels in those homes.
- (PWSA St. No. C-1 pp. 48-49)

**Q. WHAT IS ORTHOPHOSPHATE?**

- A. Orthophosphate is a corrosion control method that is commonly used by drinking water suppliers to delay corrosion of metal pipelines. The orthophosphate reacts with the lead contained in pipelines and forms a protective coating inside the water pipes. The protective layer reduces corrosion and thus reduces the leaching of lead into the water system. Lead is usually introduced into the drinking water

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<sup>3</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), pp. 4-5; Exhibit RAW/C-1, Directed Questions No. 7.

supply by corrosion of metal pipelines. For its part, PWSA explains that orthophosphate is “a food-grade additive that forms a protective layer inside of lead service lines, creating a barrier between lead pipes and the water flowing through them.” PWSA points out orthophosphate is approved by the Environmental Protection Agency (EPA) and that it is used in water systems across the world (I&E Ex. No. 4, Sch. 1).

**Q. WHAT IS THE STATUS OF PWSA’S ORTHOPHOSPHATE PROGRAM?**

A. PA DEP approved PWSA’s plan to utilize orthophosphate as corrosion control treatment on April, 27, 2018. On May 10, 2018, PWSA submitted an application to PA DEP for approval to proceed with the construction of the additional equipment required to implement the orthophosphate. DEP approved the application for construction on September 24, 2018; unfortunately, the construction was delayed due to issues in obtaining municipal permits. Since acquiring these permits, PWSA planned to begin introducing orthophosphate into its system on March 15, 2019. (PWSA St. No. C-1 p. 49).

**Q. HOW LONG OF A DELAY DID PWSA EXPERIENCE DUE TO THE MUNICIPAL PERMIT ISSUE?**

A. It is unclear how much time PWSA spent navigating the municipal permit issue and it is also unclear why PWSA may have had difficulty in obtaining the necessary permits. In an effort to understand any challenges that may have

impeded PWSA's roll-out of the orthophosphate program, I&E asked PWSA to identify such challenges. In response, PWSA simply pointed back to PWSA witness Weimar's direct testimony, PWSA St, No. 1, p. 49, which only indicates that PWSA's initial plan to introduce orthophosphate into its system in Fall/Winter of 2018 did not materialize due to the permit issue (I&E Ex. No. 4, Sch. 2).

**Q. ARE YOU CONCERNED BY THE DELAY IN PWSA'S IMPLEMENTATION OF THE ORTHOPHOSPHATE PROGRAM?**

A. Yes. Obviously, all delays in PWSA's lead remediation program extend the health hazards that impact its customers. As PWSA indicates, it is expected that introducing orthophosphate into its water treatment process will result in lead levels to below action levels at homes with lead service lines. Clearly, action levels of lead are a health and safety issue for PWSA and its customers, so the delay in PWSA's implementation of orthophosphate treatment is concerning and significant.

**Q. HOW LONG WILL IT TAKE THE ORTHOPHOSPHATE PROGRAM TO START REDUCING LEAD LEVELS IN THE WATER DISTRIBUTION SYSTEM?**

A. PWSA anticipates that if the facilities are operational in March 2019, that the treatment will reduce lead levels beginning in June 2019 (PWSA St. No. C-1, p. 49).

**Q. HAS PWSA VERIFIED THAT IT INJECTED ORTHOPHOSPHATE AT DESIGNATED SERVICE AREAS ON MARCH 15, 2019 AS PLANNED?**

A. No. However, information available on PWSA's website indicated that orthophosphate would actually be added on March 25, 2019 (I&E Ex. No. 4, Sch. 1). It remains unclear as to whether PWSA has even met that new revised target date. As I explained above, PA DEP approved PWSA's plan to utilize orthophosphate as corrosion control treatment on April, 27, 2018, almost one year ago. While City permitting issues appear to have held up PWSA's progress, it is imperative that PWSA move forward with the treatment immediately, especially since PWSA projects that it will take several months to effectively reduce lead levels.

**Q. WHY IS IT IMPORTANT FOR PWSA TO IMPLEMENT ITS ORTHOPHOSPHATE PROGRAM AS SOON AS POSSIBLE?**

A. As I indicated above, any delays may only serve to prolong the actionable lead levels, and this is not a result that is consistent with PWSA's obligations under the Public Utility Code. Specifically, I am advised by counsel that PWSA has an obligation to "furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its

patrons, employees, and the public.”<sup>4</sup> In my opinion, while actionable lead levels persist, PWSA is not fulfilling its obligation to furnish adequate, efficient, safe, and reasonable service. PWSA should act as quickly as possible to remediate lead levels and proceed into compliance in providing safe and reasonable service and safe lead levels.

**Q. WHAT DO YOU RECOMMEND?**

- A. PWSA must keep the Commission updated on the progress of the Orthophosphate Program by providing quarterly reports to the Commission indicating the following: (1) Whether orthophosphate treatment has begun. If it has not, explain in detail why the orthophosphate treatment has not begun, including whether there have been any permitting issues or other actions that inhibit PWSA’s progress moving forward with orthophosphate treatment; (2) When PWSA started testing for lead levels; and (3) The results of the lead level testing.

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<sup>4</sup> 66 Pa. C.S. §1501.

**WATER SUPPLY, PRODUCTION & STORAGE AND WASTEWATER  
CONVEYANCE PROJECTS<sup>5</sup>**

**Q. HAS PWSA PROVIDED AN APPROXIMATE NUMBER OR THE PERCENTAGE OF PROJECTS THAT ARE TO BE COMPETITIVELY BID?**

A. No, and this information remains unavailable. Attempting to gain this information, I&E submitted a discovery request to PWSA that specifically asked PWSA to provide an approximate number or, if available, the percentage of PWSA's overall water supply, production and storage, and wastewater conveyance projects that will be competitively bid. In response to I&E's request, PWSA simply provided a reference to its direct testimony, PWSA St. No. C-1 at pages 14-17 (I&E Ex. No. 4, Sch. 3). However, while the referenced pages of PWSA's direct testimony do provide an overview of the competitive bidding processes that PWSA utilizes, they fail to provide any estimation of the number of projects that will be competitively bid.

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend that PWSA be required to provide this information immediately as part of this case so that this information is available for evaluation. If PWSA cannot provide this information in this case for any reason, then I recommend that

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<sup>5</sup>Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 5; Exhibit RAW/C-1, Directed Questions No. 8-14.

PWSA be required to track and provide this information as part of a revised Compliance Plan filing.

**52 PA. CODE § 65.2 – ACCIDENTS<sup>6</sup>**

**Q. REGARDING 52 PA. CODE § 65.2, HOW DOES PWSA INTEND TO NOTIFY COMMISSION STAFF OF REPORTABLE ACCIDENTS?**

A. PWSA will notify the Commission immediately after becoming aware of an accident involving a fatality. For reportable accidents not involving a fatality, a report by telephone shall be made within 24 hours after PWSA is made aware of the accident. Written reports using Form UCTA-8 will be made within 30 days of the occurrence of the reportable accident. In addition, PWSA has developed and documented its standard operating procedures through the designation of its Director of Operations as the person who is responsible for ensuring that telephone and written reports are completed as required. Although PWSA's Compliance Plan projected it would be in compliance by July 2019, its Incident Investigation Policies and Procedures have already been updated "to ensure compliance with 52 Pa. Code § 65.2" (PWSA St. No. C-1 p. 45; PWSA St. No. C-2, p. 4).

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<sup>6</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 7; Exhibit RAW/C-1, Directed Questions No. 16.

**Q. DOES PWSA'S PLAN COMPLY WITH COMMISSION REGULATIONS?**

A. I am advised by counsel that it does not. PWSA states it will make an immediate telephone report only after a fatality. However, 52 Pa. Code. § 65.2(d) states that telephone reports must be made immediately after the following circumstances (reflecting 52 Pa. Code § 65.2(b)):

- The death of a person;
- An occurrence of an unusual nature, whether or not death or injury of a person results, which apparently will result in a prolonged and serious interruption of normal service;
- An occurrence of an unusual nature that is a physical or cyber-attack, including attempts against cyber security measures as defined in Chapter 101 (relating to public utility preparedness through self-certification) which causes an interruption of service or over \$50,000 in damages, or both.

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend the Commission order PWSA to file a revised Compliance Plan stating PWSA's Incident Investigation Policies will be updated to comply with its obligation to make immediate telephone reports after the above cited occurrences.



**52 PA. CODE § 65.11 – MANDATORY CONSERVATION MEASURES<sup>7</sup>**

**Q. IN ACCORDANCE WITH 52 PA. CODE § 65.11, DOES PWSA HAVE STANDARD OPERATING PROCEDURES FOR SITUATIONS THAT REQUIRE MANDATORY WATER CONSERVATION MEASURES?**

A. No. Instead, on page 60 of PWSA's Compliance Plan, PWSA indicates that "PWSA has committed to developing standard operating procedures for situations that require mandatory conservation measures, to include communication and response protocols." PWSA anticipates that it will comply by 2020.

**Q. HAS PWSA RECENTLY EXPERIENCED ANY SITUATIONS THAT REQUIRED IT TO ENACT MANDATORY CONSERVATION MEASURES?**

A. No. PWSA indicates that no situations that require mandatory conservation measures have arisen in at least the past ten years (I&E Ex. No. 4, Sch. 4). Additionally, PWSA indicates that it is in a water-rich location (PWSA St. No. C-1, p. 35).

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<sup>7</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p. 7; Exhibit RAW/C-1, Directed Questions No. 28-30.

**Q. DESPITE PWSA’S LOCATION AND LACK OF HISTORIC NEED TO IMPOSE MANDATORY CONSERVATION MEASURES, IS IT IMPORTANT FOR PWSA TO DEVELOP WATER CONSERVATION MEASURES?**

A. Yes. While it is understood that PWSA is in a water-rich location, water restrictions can be imposed for numerous safety reasons beyond just a shortage of water. Contaminants getting into the water system, either accidental or intentional, is an example of when water restrictions could be necessary. In situations such as this, the consequences for not having water conservation measures could result in a public health and safety hazard. Water restriction procedures need to be developed and are a key component of an Emergency Response Plan. Additionally, I note that PWSA has not provided an explanation of why it is necessary for it to delay implementing these procedures until some unidentified date in 2020; instead, PWSA simply claims that “2020 is a reasonable timeframe” (PWSA St. No. C-1, p. 35).

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend that PWSA develop mandatory water restriction procedures by no later than the close of 2019, and that PWSA incorporate those procedures into its pending Emergency Response Plan, which I will discuss in more depth below. Additionally, I also recommend that PWSA pursue interconnections with other regional water suppliers to enhance system resiliency. PWSA should revise its

Compliance Plan to adopt these mandatory water restriction procedures and system resiliency measures.

**52 PA. CODE § 69.1601 – UNSCHEDULED SERVICE INTERRUPTIONS  
AND ASSOCIATED ACTIONS<sup>8</sup>**

**Q. EXPLAIN THE PURPOSE AND REQUIREMENT OF 52 PA. CODE §  
69.1601**

- A. This section is a Commission policy statement that is intended to provide guidance to the water industry regarding unscheduled water service interruptions, especially as they relate to the types of public notification that is acceptable for a water utility to meet its obligation to provide safe, reasonable and adequate service. This policy statement indicates as follows:

Affected ratepayers/occupants should be notified when 2,500 or 5%, whichever is less, of a utility's total ratepayers/occupants have an unscheduled service interruption involving any reduction in the quantity of water in a single incident of 6 or more consecutive hours. Timely notification of fewer customers, however, is recommended when practicable. When there is an unscheduled service interruption involving the quality of water, water utilities should follow the applicable Department of Environmental Protection regulations regarding the public notification requirements for events requiring Tier 1 notification under 25 Pa. Code § 109.408(b) (relating to Tier 1 public notice--form, manner and frequency of notice), or Tier 2 notification under 25 Pa. Code § 109.409(b). Timely notification of customers in other incidents affecting the quantity or quality of water, such as water in short supply, discolored or sediment-laden, however, is recommended when

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<sup>8</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), p. 12; Exhibit RAW/C-I, Directed Questions No. 61.

practicable. It is also recommended that utilities set as a goal the Tier 1 time frame of “as soon as possible” rather than “no later than 24 hours” and the Tier 2 time frame of “as soon as possible” rather than “but no later than 30 days.”

**Q. IS PWSA ALSO CURRENTLY REQUIRED TO PROVIDE NOTICE OF UNSCHEDULED SERVICE INTERRUPTIONS TO PA DEP UNDER CERTAIN CIRCUMSTANCES?**

- A. Yes. As Mr. Weimar acknowledges, PA DEP requires notification within one hour of two consecutive low pressure (below 20 psi) alarms at a single site. Therefore, Mr. Weimar notes that PWSA’s Compliance Team has a nominal requirement for one hour notification for all low pressure alarms. (PWSA St. No. C-1, p. 47).

**Q. WHAT PROCESS DOES PWSA USE TO NOTIFY THE COMMISSION OF SERVICE OUTAGES AND UNSCHEDULED SERVICE INTERRUPTIONS?**

- A. In its Compliance Plan, PWSA indicated that it has an informal process for notifying the Commission during unscheduled service interruptions that affect at least 2,500 customers or 5% of the utility’s total customer base (PWSA Compliance Plan, p 70). Upon I&E’s request for PWSA to provide more detailed information by identifying each step of the informal process that PWSA uses for

notifying the Commission, PWSA provided the following explanation:

PWSA will establish an open communication channel with the designated representatives of the Commission to notify of unscheduled service interruptions that affect at least 2500 customers. Once the service interruption has been identified and PWSA's Operations and Maintenance (OPS) crews have established the boundaries or customers affected by the unscheduled service interruption, then the Commission will be contacted either through the Customer Service and/or Communications departments, if the interruption is at least 2500 customers. PWSA is in the process of revising its current flow chart of Communication protocols to include the Commission and it expect to have this completed by the end of the first quarter 2019 (I&E Ex. No. 4, Sch. 5).

**Q. IS THE ADDITIONAL INFORMATION THAT PWSA PROVIDED SUFFICIENT?**

A. No. Although PWSA's response explains the process that it is undertaking to attempt to comply with the notifying the Commission of unscheduled service interruptions, it is unclear whether PWSA has met its target of revising its communication protocols to include the Commission by the first quarter of 2019. As noted in the policy statement, having an adequate notification process in place is necessary for a water utility to meet its obligation to provide safe, reasonable and adequate service; therefore, PWSA's timely compliance with this policy is an essential part of its duty as a public utility.

**Q. WHAT DO YOU RECOMMEND?**

- A. I recommend that PWSA provide additional information regarding whether it has met its target of revising its communication protocols to include notification to the Commission by the first quarter of 2019. Additionally, I recommend that PWSA revise its Compliance Plan to commit to notifying the Commission of any low pressure incident or other service interruption for which it notifies PA DEP. Finally, PWSA should incorporate these recommendations into its pending Emergency Response Plan, which I will discuss in more detail below.

**52 PA. CODE § 101 – PUBLIC UTILITY PREPAREDNESS THROUGH  
SELF-CERTIFICATION<sup>9</sup>**

**Q. WHAT DOES 52 PA. CODE § 101 REQUIRE?**

- A. 52 Pa. Code § 101 is a Commission regulation that requires jurisdictional utilities like PWSA to “develop and maintain appropriate written physical security, cyber security, emergency response and business continuity plans to protect this Commonwealth's infrastructure and ensure safe, continuous and reliable utility service.” In order to certify compliance with this regulation, utilities are required to submit a Self-Certification form to the Commission.

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<sup>9</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage I, November 28, 2018 (Corrected), pp. 13-14; Exhibit RAW/C-1, Directed Questions No. 70.

**Q. WHY IS A PHYSICAL SECURITY PLAN IMPORTANT?**

- A. A physical security plan is important because there is infrastructure in PWSA's water distribution system critical to safe and reliable operation. A physical security plan should keep unauthorized personnel away from areas of the water distribution system that are susceptible damage or areas susceptible to contaminants being introduced to the water system.

**Q. WHY IS A CYBER SECURITY PLAN IMPORTANT?**

- A. A cyber security plan is critical to assuring the company's operations can continue by protecting company computers, software, and its communications network. PWSA's ability to continue normal operation during and immediately following an emergency situation, is critical.

**Q. WHY IS A BUSINESS CONTINUITY PLAN IMPORTANT?**

- A. During and following an emergency or disaster, a business continuity plan provides a process for restoring system operations and for getting business operations back to normal operations. A good business continuity plan will restore safe, reliable service in a timely manner following an emergency or natural disaster.

**Q. WHY IS AN EMERGENCY RESPONSE PLAN IMPORTANT?**

A. An emergency management response plan is important because it outlines the steps that the utility must take when an abnormal operating condition exists. Having a defined course of action for such events is essential to ensuring that the utility acts quickly and uses best practices to ensure safety of its employees, customers, and the surrounding community.

**Q. AT THE TIME THAT PWSA FILED ITS COMPLIANCE PLAN ON SEPTEMBER 28, 2018, DID PWSA HAVE A PHYSICAL SECURITY PLAN, A CYBER SECURITY PLAN, AN EMERGENCY RESPONSE PLAN, AND A BUSINESS CONTINUITY PLAN IN PLACE?**

A. No. On page 93 of its Compliance Plan, PWSA admitted that it did not have any of those plans in place. However, PWSA also indicated that it was in the process of developing a physical security plan and that it had completed a cyber security assessment within the last year and hoped to hire a consultant to develop a cyber security plan by early 2019. At that time, PWSA also indicated that it was updating an emergency response plan to comply with the Commission's requirements, and to incorporate feedback from the Allegheny County Health Department, as well as from PA DEP. Finally, PWSA indicated that it planned to compile and further develop information necessary for its business continuity plan within the next six months (PWSA Compliance Plan, pp. 93-94).



**Q. HAS PWSA PROVIDED ANY UPDATES ON THE STATUS OF ITS EFFORTS TO DEVELOP A PHYSICAL SECURITY PLAN?**

A. Yes. Ms. Lestitian indicated that PWSA anticipates that its physical security plan will be complete by December of 2019 (PWSA St. No. C-2, p. 6).

**Q. HAS PWSA PROVIDED ANY UPDATES ON THE STATUS OF ITS EFFORTS TO DEVELOP A CYBER SECURITY PLAN?**

A. Yes. Ms. Lestitian indicated that PWSA is working with representatives of Homeland Security and planned to hire both a consultant to develop a cyber security plan and a new IT Director to help facilitate its plan (PWSA St. No. C-2, p. 6). Additionally, through the discovery process, I&E learned that PWSA has already interviewed qualified candidates for the IT Director position and that it anticipated filling the position by April 1, 2019 (I&E Ex. No. 4, Sch. 6). To date, it is not clear whether PWSA has hired an IT Director.

**Q. HAS PWSA PROVIDED ANY UPDATES ON THE STATUS OF ITS EFFORTS TO DEVELOP AN EMERGENCY RESPONSE PLAN?**

A. Yes. Ms. Lestitian indicated that PWSA's efforts to ensure that its pending plan to meet Commission requirements and to incorporate feedback from both the Allegheny County Health Department and PA DEP is underway (PWSA St. No. C-2, pp. 6-7). PWSA has also indicated that while it does have emergency procedures that were revised and updated in 2016, the information that it

contained was no longer accurate. PWSA has assembled a Planning Committee to revise those procedures; the committee is comprised of members from Communications, Engineering, Operations and Maintenance, and Customer Service. PWSA indicated that while it has a working draft of the table of contents for the updated plan, it is not finalized and it may be subject to further revision. However, PWSA has committed to providing its final emergency response plan by the fall of 2019 (I&E Ex. No. 4, Sch. 7).

**Q. HAS PWSA PROVIDED ANY UPDATES ON THE STATUS OF ITS EFFORTS TO DEVELOP A BUSINESS CONTINUITY PLAN?**

A. Yes. Ms. Lestitian indicates that PWSA's work in developing its business continuity plan has continued, and PWSA anticipates completing the plan by June 30, 2019. Although PWSA initially anticipated that its business continuity plan would be completed by March 30, 2019, the timeline was extended because the need for an IT Director impacted development of this plan, as well as the cyber security plan (PWSA St. No. C-2, p. 7).

**Q. IS PWSA IN COMPLIANCE WITH 52 PA. CODE § 101 – PUBLIC UTILITY PREPAREDNESS THROUGH SELF-CERTIFICATION?**

A. No. Although it explained its plans to come into compliance, the fact remains that PWSA still has no physical security, cyber security, emergency response or business continuity plan. While it is understandable that it may take time for

PWSA to come into compliance with all portions of the Public Utility Code, Commission regulations, orders, and rules, these plans are crucial to ensure the integrity of PWSA's operations and must be completed as soon as possible.

**Q. HAS PWSA CONSIDERED CONSULTING WITH THE COMMISSION'S STAFF REGARDING ITS PENDING PHYSICAL SECURITY, CYBER SECURITY, EMERGENCY RESPONSE, AND BUSINESS CONTINUITY PLANS?**

A. Yes. PWSA indicates that it is willing to meet with the Reliability and Emergency Preparedness Section of the Commission's Bureau of Technical Utility Services (TUS) so that TUS would have the opportunity to review its plans. Ms. Lestitian also indicates that PWSA welcomes TUS's input and expertise in the development of PWSA's emergency preparedness planning (PWSA St. No. C-2, pp. 7-8).

**Q. WHAT DO YOU RECOMMEND IN REGARD TO PWSA'S OBLIGATIONS UNDER 52 PA. CODE § 101?**

A. My recommendation is two-fold. First, I recommend that PWSA involve TUS in the development of its physical security, cyber security, emergency response, and business continuity plans. Additionally, I recommend that PWSA, either through additional information in this case or through a revised Compliance Plan, if necessary, provide the Commission with a more detailed timeline for its anticipated completion of its physical security, cyber security, emergency

response, and business continuity plans so that a date for certification of these obligations can be confirmed.

**PLAN TO ADDRESS LEAD LEVELS IN WATER SUPPLY AND THE  
REPLACEMENT OF LEAD SERVICE LINES<sup>10</sup>**

**Q. DO YOU BELIEVE PWSA HAS A GOOD PLAN IN PLACE TO ADDRESS THE NUMBER OF LEAD SERVICE LINES THAT STILL EXIST IN ITS WATER DISTRIBUTION SYSTEM?**

A. I believe PWSA has, through its Lead Service Line Replacement (LSLR) Program and its Small Diameter Water Main Replacement Program (SDWMP), developed a reasonable plan for eliminating the lead service lines in its distribution system. However, I believe PWSA should plan for the LSLR Program to extend beyond the 2019/2020 timeframe. Also, more and improved data is needed on PWSA's distribution system. PWSA is working from existing G.I.S. data and curb box inspections. Curb box inspections have proven to be too inconclusive and as stated before, the existing G.I.S. database is in the process of being improved and does not provide enough information. I believe PWSA may need to find another method of identifying the lead service lines in its distribution system.

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<sup>10</sup> Pennsylvania Public Utility Commission Technical Staff Initial Report and Directed Questions, Stage 1, November 28, 2018 (Corrected), p 17; Exhibit RAW/C-1, Directed Questions No. 97-101.

**Q. HAS PA DEP ISSUED A DEADLINE FOR PWSA TO IDENTIFY ITS LEAD SERVICE LINES?**

A. Yes. PWSA's Compliance Plan indicates that PA DEP has required that it inventory its 71,000 residential service line connections system-wide and identify all lead lines by December 31, 2020 (PWSA Compliance Plan, p. 120).

**Q. DOES PWSA PROJECT THAT IT WILL BE ABLE TO IDENTIFY ALL OF ITS LEAD RESIDENTIAL SERVICE LINES BY DECEMBER 31, 2020?**

A. Unfortunately, there is not a clear answer to this question. Through a discovery request, I&E asked PWSA to provide an update on the progress that it has made with the inventory process and to indicate whether it will be on track to meet the December 31, 2020 target date. In response, PWSA simply pointed back to page 53 of Mr. Weimar's testimony (I&E Ex. No. 4, Sch. 8). On that page, Mr. Weimar does indicate that PWSA expects to meet the DEP deadline for identifying residential lead lines; however, he indicated that PWSA has only inventoried 17,500 locations and is "still in the process of evaluating various methods to complete the inventory of its residential service line connections." (PWSA St. No. C-1, p. 53).

**Q. HAS PWSA ESTIMATED THE NUMBER OF LEAD SERVICE LINES THAT STILL REMAIN IN ITS SYSTEM?**

A. Yes. PWSA recently informed I&E that as of March 31, 2018, it estimated having approximately 12,218 public side lead service lines in its system. However, since that time and through February 1, 2019, it replaced 2,134 public side service lines, leaving about 10,100 remaining (I&E Ex. No. 4, Sch. 9).

**Q. DID PWSA'S COMPLIANCE PLAN PROJECT A DAILY TARGET FOR REPLACEMENT OF LEAD SERVICE LINES IN 2018?**

A. Yes. PWSA projected that it would replace roughly 15 to 20 lead service lines per day through the end of 2018 (PWSA Compliance Plan, p. 120).

**Q. DID PWSA MEET ITS DAILY LEAD LINE REPLACEMENT TARGET FOR 2018?**

A. Not based upon the information that PWSA provided to I&E. Through the discovery process, I&E asked PWSA whether it met its target of replacing 15-20 service lines per day in 2018 and PWSA responded by pointing to page 53 of Mr. Weimar's direct testimony (I&E Ex. No. 4, Sch. 10). A review of page 53 of Mr. Weimar's testimony shows that PWSA replaced 2,050 public service lines and 1,324 private side service lines, for a total of 3,374 line replacements. To get a daily average of replacements, I divided the 3,374 replacements by 365 days and arrived at an average daily replacement of 9.2 lead line replacements per day. The

9.2 average for daily replacements falls far short of even the low end of PWSA's anticipated target.

**Q. HAS PWSA ESTABLISHED A PROJECTION FOR DAILY REPLACEMENT OF LEAD LINES IN 2019?**

A. Yes. PWSA projects that each of its 14 work crews will replace one lead line per day but is optimistic that it can increase the replacement rate to one and a half lead service lines per day per crew (I&E Ex. No. 4, Sch. 11).

**Q. WHAT ARE PWSA'S PLANS FOR FUNDING OF THE LEAD SERVICE LINE REPLACEMENT PROGRAM BEYOND 2019?**

A. PWSA has not identified any definitive funding sources. Instead, PWSA indicates that it is in the process of discussing a potential multi-year grant/loan program to cover private side lead service replacements. PWSA also indicates that it is seeking other funding sources, including federal funds, for infrastructure projects and foundation funding. Finally, PWSA indicates that it is evaluating the use of a DSIC mechanism to fund lead service line replacements. (I&E Ex. No. 4, Sch. 12).

**Q. DO YOU RECOMMEND THAT PWSA PURSUE DSIC FUNDING TO FACILITATE ITS REPLACEMENT OF LEAD LINES?**

A. Yes. Like I&E witness Spadaccio, I support the position that PWSA should avail itself of DSIC funding as soon as it is eligible to do so. Using the DSIC would

provide PWSA with an avenue to timely recover costs associated with the accelerated infrastructure improvement.

**Q. HAVE YOU IDENTIFIED ANY CONCERNS WITH PWSA'S PLANS TO ELIMINATE LEAD SERVICE LINES?**

A. Yes. I am concerned with the following issues that I believe may compromise PWSA's ability to furnish and maintain adequate, efficient, safe, and reasonable service and facilities:<sup>11</sup> (1) PWSA's ability to meet its lead replacement targets, (2) PWSA's plan to begin addressing lead service line replacements through its SDWMP beginning in 2020; and (3) the PWSA Board's failure to issue a policy decision on partial lead service lines beyond 2019.

**Q. WHY ARE YOU CONCERNED THAT PWSA MAY NOT MEET ITS REPLACEMENT TARGETS?**

A. As I mentioned above, the historical information that PWSA has provided to I&E has not shown that PWSA is on target to identify all of its lead service lines by 2020, and it appears that PWSA is still trying to determine which methods it should use to inventory its 71,000 service lines to facilitate the identification process. Additionally, although PWSA set its own target for daily replacements, it

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<sup>11</sup> I am advised by counsel that PWSA has a duty to comply obligations under 66 Pa. C.S. §1501.



fell short of meeting those targets. Therefore, I am concerned that PWSA's efforts may fall short of future replacement targets.

**Q. WHAT ARE YOUR CONCERNS REGARDING PWSA'S SDWMRP?**

A. My concern is rooted in the fact that PWSA plans to eliminate its lead service lines through its SDWMRP. Under the SDWMRP, PWSA plans to replace each public line as each water main is replaced (PWSA St. No. C-1, p. 56). However, given all the unknowns regarding PWSA's distribution infrastructure, the SDWMRP may not adequately remove lead service lines from the distribution system. Because of this unknown, PWSA should continue to budget and plan for a separate, non-SDWMRP lead service line replacement program that will keep it on track to meet its goal of removing all lead service lines from its system by 2026 (PWSA LTIP Petition, Attachment A, p. 28).

**Q. WHY ARE YOU CONCERNED THAT PWSA'S BOARD HAS FAILED TO ISSUE A POLICY DECISION ON PARTIAL LEAD SERVICE LINES BEYOND 2019?**

A. I am concerned because partial replacements can exacerbate lead levels. As indicated in evidence that was presented in PWSA's 2018 base rate case, partial replacements are concerning from a health perspective because following a partial replacement, there may be a spike of lead levels that can last for several months. The spikes are a result of the partial replacement on the public-side disrupting the

protective scale inside pipes, meaning that if a private-side lead service line is still in use, lead could be released into the water (R-2018-3002645, Pittsburgh UNITED St. No. 5, pp. 21-22, non-proprietary).

**Q. DO YOU HAVE ANY OTHER SAFETY CONCERNS IN REGARD TO PARTIAL LEAD SERVICE LINES?**

A. Yes. Partial lead line replacements can result in an increase in galvanic corrosion. Galvanic corrosion is an electrochemical process in which a metal corrodes when it is in contact with a different metal and both are immersed in an electrolyte (water). When copper water line is connected to lead water line, standard electrochemistry indicates the lead pipe would be more susceptible to galvanic corrosion. This corrosion could significantly add to the release of lead into the tap water.

**Q. HAS PWSA DISPUTED THE POTENTIAL HARM OF PARTIAL LEAD SERVICE LINE REPLACEMENT?**

A. Not to my knowledge.

**Q. HAS PWSA INDICATED WHY ITS BOARD HAS NOT MADE A POLICY DECISION REGARDING THE REPLACEMENT OF PRIVATE SIDE SERVICE LINES BEYOND 2019?**

A. No. While I believe that some of the considerations may be related to cost and to difficulties in accessing some properties, PWSA has not identified its Board's rationale or identified the timing for which its Board will make a decision.

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend the following: (1) PWSA should provide an explanation, in this proceeding, of why it has not met its lead replacement targets and identify any factors that impacted its ability to meet those targets; (2) PWSA should take all necessary actions to ensure that if it transitions its LSLR program into its SDWMP in the future and that the transition does not prolong lead line replacement timeframes or compromise PWSA's replacement goal beyond 2026; and (3) PWSA's Board should issue a policy decision committing to continue to perform private-line replacements past 2019.

### **LTIP ISSUES**

**Q. WHY ARE YOU ADDRESSING LTIP ISSUES HERE?**

A. On September 28, 2018, PWSA filed an LTIP Petition. On the same day, PWSA also filed a Petition for Approval of Compliance Plan. Since then, PWSA's LTIP

has been consolidated with its Compliance Plan proceeding. Therefore, I will be addressing any LTIP issues here.

**Q. WHAT IS AN LTIP?**

A. An LTIP is a utility's plan for long-term infrastructure improvement that is subject to the Commission's periodic review, and which must include the following elements:

- (1) identification of the types and age of eligible property owned or operated by the utility for which the utility would seek DSIC recovery;
- (2) an initial schedule for the planned repair and replacement of eligible property;
- (3) a general description of the location of the eligible property;
- (4) a reasonable estimate of the quantity of eligible property to be improved;
- (5) projected annual expenditures to implement the plan and measures taken to ensure that the plan is cost effective, including means to finance the expenditures;
- (6) a description of the manner in which the replacement of aging infrastructure will be accelerated and how the repair, improvement or replacement will ensure and maintain adequate, efficient, safe, reliable and reasonable service;
- (7) a workforce management and training program designed to ensure that the utility will have access to a qualified workforce to perform work in a cost-effective, safe and reliable manner; and
- (8) a description of outreach and coordination activities with other utilities, Department of Transportation and local governments regarding the planned maintenance/construction projects and roadways that may be impacted by the LTIP.<sup>12</sup>

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<sup>12</sup> 66 Pa. C.S. §§ 1352(a)(1)-(6); 52 Pa. Code § 121.3(a)(1)-(8).

**Q. PURSUANT TO 52 PA. CODE § 121.3(a)(5) AND 66 PA. C.S. § 1352(a)(5), HAS PWSA PROJECTED ANNUAL EXPENDITURES TO IMPLEMENT THE PLAN AND DESCRIBED MEASURES TO ENSURE THE PLAN IS COST EFFECTIVE, INCLUDING MEANS TO FINANCE THE EXPENDITURES?**

A. Yes, PWSA has projected annual expenditures. However, while I note that these projections are subject to change once PWSA gains better knowledge of its system, I have significant concerns about PWSA's metering plan. Although I&E witness Cline addresses this issue in more depth in I&E Statement No. 3, it is worth noting here as PWSA incorporated that plan into its LTIIP. Additionally, as witness Cline testifies, PWSA's metering plan is related to its ability to collect additional revenue, which, in turn, affects PWSA's ability to implement its capital spending plans.

**Q. DESCRIBE THE METERING PLAN THAT PWSA INCLUDED IN ITS LTIIP.**

A. As part of its LTIIP, PWSA has included a 5-year plan to complete its Unmetered and Flat Rate Properties meter installation program.<sup>13</sup> The intent of the meter installation program is, in part, to address the fact that the City of Pittsburgh did not have water meters on municipal and government building in the past, and, as a

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<sup>13</sup> PWSA LTIIP Petition, Attachment A, p. 25, Section 2.3.7.

result, there are an estimated 200 to 400 sites that are currently unmetered.<sup>14</sup>

Additionally, PWSA currently estimates that it has 500 flat rate customers that also need to have meters installed.<sup>15</sup>

**Q. WHAT LTIIP-ELIGIBLE PROPERTY HAS PWSA IDENTIFIED FOR ITS METERING PROGRAM?**

A. PWSA indicates that the eligible property includes “[i]nstallation of meters serving customers who were previously unmetered. Meter installation includes a new meter pipe and ancillary piping improvements. Additionally, some replacements may require the service line replacement to separate party lines.”<sup>16</sup>

**Q. WHAT CONCERNS HAVE YOU IDENTIFIED REGARDING THE METERING PLAN PWSA ADOPTS THROUGH ITS LTIIP?**

A. My concern is that the timeline and funding for this project is too back-loaded to ensure adequate, efficient, safe, reliable, and reasonable service for its customers. PWSA estimates that it will spend \$18,697,143 to complete its Unmetered and Flat Rate Properties meter installation program.<sup>17</sup> However, PWSA’s investment for metering does not ramp-up until the mid to late part of the anticipated five-year term, as illustrated by PWSA’s intent to spend nothing in 2018 and to only spend

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<sup>14</sup> Id.

<sup>15</sup> Id.

<sup>16</sup> PWSA LTIIP Petition, Attachment A, Appendix B, Table 2-5.

<sup>17</sup> Id. at p. 3 of 5.

\$345,000 in 2019.<sup>18</sup> PWSA's proposed investments for years 2020 through 2023 are \$3,148,310, \$4,934,833, \$5,067,500, and \$5,021,500, respectively, revealing that the most targeted year for replacement is the last year of the program.<sup>19</sup>

**Q. WHAT DO YOU RECOMMEND REGARDING PWSA'S METERING PROGRAM?**

A. I recommend that the Commission order PWSA to provide a revised LTIP with a plan to expedite metering. The revised LTIP should explain why and how PWSA proposes and supports its expedited metering plan.

**Q. PURSUANT TO 52 PA. CODE § 121.3(a)(7), DOES PWSA HAVE A WORKFORCE MANAGEMENT AND TRAINING PROGRAM?**

A. Yes, PWSA does have a workforce management and training program outlined in its LTIP. However, I do not believe this program adequately addresses the size of the workforce needed. Specifically, PWSA has not sufficiently demonstrated how they will increase the size of its workforce, or hire qualified contractors, to meet the demands of increased capital spending. PWSA projects its workforce will increase from 301 to 524 by 2023 (PWSA LTIP Petition, Attachment A, p. 48). At the same time, PWSA's capital spending will increase from an average of

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<sup>18</sup> Id.

<sup>19</sup> Id.

approximately \$36 million per year from 2014 to 2018, to \$255 million per year from 2019 to 2023 (PWSA LTIP Petition, Attachment A, p. 42).

**Q. WHAT ARE YOUR CONCERNS WITH THE EXPANSION OF PWSA'S WORKFORCE?**

A. Although it is clear PWSA needs a larger workforce to complete its increased capital spending, PWSA has not addressed its workforce challenges in sufficient detail or demonstrated how its increased headcount will complete its projected capital spending projects. First, PWSA has acknowledged the following problems retaining staff: frequent leadership turnover in the last several years; operating in a union environment, which can limit workforce flexibility; compensation limitations at PWSA as compared to the private sector; financial constraints have curtailing some employee development and training opportunities; the City residency requirement for PWSA employees limits the available workforce; water-sector utilities' general struggle to recruit and retain staff with the necessary skills and competencies to manage utility operations; and aging workforces, which make knowledge retention and succession planning significant challenges. (PWSA Compliance Plan, Appendix A, pp. 5, 8).



**Q. WHAT DO YOU RECOMMEND REGARDING PWSA'S WORKFORCE CHALLENGES IN RELATION TO ITS LTIIP?**

A. PWSA addresses a few of these challenges in its LTIIP (PWSA LTIIP Petition, Attachment A, p. 49). However, the Commission should order PWSA to file a new LTIIP including a timeline along which they will address and propose solutions for each and every separate factor identified above as it relates to the LTIIP schedule and adequacy of staffing.

**Q. DO YOU HAVE OTHER CONCERNS WITH THE EXPANSION OF PWSA'S WORKFORCE?**

A. Yes. I do not believe PWSA provided sufficient detail for how its increased headcount projections will complete its projected capital spending plans. PWSA projects its workforce will less than double while, on average, its capital spending will increase more than six times historical amounts. PWSA needs to demonstrate in greater detail why this plan is reasonable and achievable, including how it formulated its workforce plan to match the capital spending increase.

**Q. WHAT DO YOU RECOMMEND REGARDING PWSA'S WORKFORCE PROJECTIONS?**

A. PWSA needs to provide further detail demonstrating to the Commission that they will be able to hire enough qualified contractors or hire enough PWSA employees to meet the demands and schedule of the increased capital spending (PWSA LTIIP

Petition, Attachment A, pp. 48-50). This detail should include further explanation for how PWSA's headcount projections were quantified (e.g., including reference to how specific increases by department and/or project were developed), and an estimate of number of contractors that will be required, also by department and/or project.

**Q. PURSUANT TO 52 PA. CODE § 121.3(a)(8), HAS PWSA PROVIDED AN ADEQUATE DESCRIPTION OF OUTREACH AND COORDINATION ACTIVITIES WITH OTHER UTILITIES, DEPARTMENT OF TRANSPORTATION, AND LOCAL GOVERNMENT REGARDING THE PLANNED MAINTENANCE AND CONSTRUCTION PROJECTS?**

A. No. PWSA only states that it will "continue the proactive means to identify opportunities to coordinate pipe replacement and road paving." PWSA provides no further detail how it will engage with local utilities and government to coordinate its expanded capital spending. (PWSA LTIIP, Attachment A, p. 53)

**Q. DO YOU FIND THESE OUTREACH AND COORDINATION ACTIVITIES TO BE ADEQUATE?**

A. No. PWSA needs to provide greater detail on how it will refine its coordination efforts with other utilities and local government. PWSA provides no detail on how it will manage the increased need for coordination with local utilities and

government. Without more detail, PWSA has not provided sufficient basis that its outreach and coordination activities are effective or reasonable.

### **CONCLUSION**

**Q. IN SUMMARY, REGARDING PWSA'S COMPLIANCE PLAN AND LTIIP  
WHAT WOULD YOU RECOMMEND?**

A. After reviewing PWSA's Compliance Plan and LTIIP, my recommendations would be for the Commission to order PWSA to:

#### **Compliance with the Pennsylvania Department of Environmental Protection**

##### **Consent Order and Agreement of November 17, 2017**

- PWSA must keep the Commission updated on the progress of the Orthophosphate Program by providing quarterly reports to the Commission indicating the following: (1) Whether orthophosphate treatment has begun. If it has not, explain in detail why the orthophosphate treatment has not begun, including whether there have been any permitting issues or other actions that inhibit PWSA's progress moving forward with orthophosphate treatment; (2) When PWSA started testing for lead levels; and (3) The results of the lead level testing.

#### **Water Supply, Production & Storage and Wastewater Conveyance Projects**

- Provide the percentage of projects that are to be competitively bid or, if this information is unavailable, require PWSA to track and provide this information as part of a revised Compliance Plan filing.

#### **52 Pa. Code § 65.2 – Accidents**

- File a revised Compliance Plan stating PWSA will update its Incident Investigation Policies to comply with its obligations under 52 Pa. Code. § 65.2(d) regarding telephone reports.

#### **52 Pa. Code § 65.11 – Mandatory Conservation Measures**

- File a revised Compliance Plan stating PWSA will (1) develop mandatory water restriction procedures by no later than the close of 2019, and incorporate those procedures into PWSA's pending Emergency Response Plan; and (2) pursue interconnections with other regional water suppliers to enhance system resiliency.

#### **52 Pa. Code § 69.1601 – Unscheduled Service Interruptions and Associated**

##### **Actions**

- Incorporate the following recommendations into its pending Emergency Response Plan: (1) provide additional information regarding whether PWSA has met its target of revising communication protocols to include notification to the Commission by the first quarter of 2019; and (2) notify the Commission of any low pressure incident or other service interruption for which it notifies PA DEP.

#### **52 Pa. Code § 101 – Public Utility Preparedness Through Self-Certification**

- Regarding its obligations under 52 Pa. Code § 101, (1) involve TUS in the development of its physical security, cyber security, emergency response and business continuity plans.

- Either through additional information in this case, or through a revised Compliance Plan, if necessary, provide the Commission with a more detailed timeline for its anticipated completion of its physical security, cyber security, emergency response, and business continuity plans so that a date for certification of these obligations can be confirmed.

### **Plan to Address Lead Levels in Water Supply and the Replacement of Lead**

#### **Service Lines**

- PWSA should provide an explanation, in this proceeding, of why PWSA has not met its lead replacement targets and identify any factors that impacted its ability to meet those targets.
- PWSA should take all necessary actions to ensure that if it transitions its LSLR program into its SDWMP in the future, that the transition does not prolong lead line replacement timeframes or compromise replacement goals beyond 2026.
- PWSA's Board should issue a policy decision committing to continue to perform private-line replacements past 2019.

#### **LTIP Issues**

- File a revised LTIP including: (1) a plan to expedite metering, demonstrating why and how PWSA chose its expedited metering plan; (2) a timeline along which PWSA will address and propose solutions for each and every PWSA-identified workforce challenge factor as it relates to the LTIP schedule; (3) further detail demonstrating how PWSA will build a workforce to meet the

needs of increased capital spending, including how headcount projections were quantified and estimate of number of required contractors; and (4) detail on how PWSA will meet the need for increased coordination with local utilities and government.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

**A. Yes**

Implementation of Chapter 32 of the  
Public Utility Code Re Pittsburgh  
Water and Sewer Authority

: Docket Nos.  
: M-2018-2640802 (Water)  
: M-2018-2640803 (Wastewater)

### VERIFICATION

I, Israel Gray, hereby state that the facts set forth in the foregoing document 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. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities)

  
Israel Gray

4/3/19  
Date

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Exhibit to Accompany**

**the**

**Direct Testimony**

**of**

**Israel Gray**

**Bureau of Investigation & Enforcement**

**Concerning:**

- **Projects related to the November 2017 Consent Order and Agreement between PWSA and the Pennsylvania Department of Environmental Protection**
- **Water Supply, Production & Storage, and Wastewater Conveyance Projects**
- **52 Pa. Code § 65.2 –Accidents**
- **52 Pa. Code § 65.11 –Mandatory Conservation Measures**
- **52 Pa. Code § 69.1601 –Unscheduled Service Interruptions and Associated Actions**
- **52 Pa. Code § 101 – Public Utility Preparedness through Self Certification**
- **PWSA's plan to address lead levels in water supply and replacement of lead service lines**
- **LTTIP Issues**





(<http://pgh2o.com>)

**Community Lead Response (<http://lead.pgh2o.com/>)**



## NEWS AND MEDIA

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[PWSA PREPARES WATER DISTRIBUTION SYSTEM FOR ORTHOPHOSPHATE \(HTTP://LEAD.PGH2O.COM/PWSA-  
PREPARES-WATER-DISTRIBUTION-SYSTEM-FOR-ORTHOPHOSPHATE/\)](http://lead.pgh2o.com/pwsa-prepares-water-distribution-system-for-orthophosphate/)

### PWSA Prepares Water Distribution System for Orthophosphate

March 18, 2019 / [Media Release \(http://lead.pgh2o.com/category/media-release/\)](http://lead.pgh2o.com/category/media-release/), [News \(http://lead.pgh2o.com/category/news/\)](http://lead.pgh2o.com/category/news/)

#### **Crews begin flushing water system to prepare for imminent water treatment upgrade**

Pittsburgh, PA – Today, the Pittsburgh Water and Sewer Authority (PWSA) will begin flushing portions of its water system as it prepares to add orthophosphate to the drinking water. PWSA expects that orthophosphate addition will begin on March 25th and will reduce corrosion in lead water service lines. The decision to use orthophosphate comes after an extensive, year-long study conducted by local and international water quality experts.

Orthophosphate is a food-grade additive that forms a protective layer inside of lead service lines, creating a barrier between the lead pipes and the water flowing through them. It is approved by the Environmental Protection Agency (EPA) and used in water system across the world, including sections of the City of Pittsburgh served by Pennsylvania American Water Company.

**Response of Pittsburgh Water and Sewer Authority ("PSWA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-25**      What, if any challenges have impeded PSWA's orthophosphate treatment process?

**Response:**      Refer to PSWA St. No. C-1 at 49.

**Response  
Provided by:**      Robert A. Weimar, Executive Director  
The Pittsburgh Water and Sewer Authority

**Dated:**      February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-38**      Reference the Pennsylvania Public Utility Commission's Technical Staff Initial Report and Directed Questions, Stage 1, M-2018-2640802 et al. (November 28, 2018-Corrected). Specifically, reference p. 5, Section C(4) and provide an approximate number of PWSA's water supply, production and storage, and wastewater conveyance projects that are to be competitively bid. If available, indicate what percentage of PWSA's overall projects will be competitively bid.

**Response:**      See PWSA St. No. C-1 at 14-17.

**Response  
Provided by:**      Robert A. Weimar, Executive Director  
The Pittsburgh Water and Sewer Authority

**Dated:**      February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement PS-1 to PS-20 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-12:** Refer to PWSA's discussion of mandatory conservation measures as presented on pp. 59-60 of its Compliance Plan filed on September 28, 2018. PWSA asserts that it "has rarely needed to impose water conservation measures on its customers." Has PWSA imposed any water conservation measures on its customers in the last ten years? If so, provide the following information:

- a. The dates for which conservation measures were imposed
- b. Identify the specific conservation measures imposed
- c. The number of customers impacted.
- d. Copies of any notices that were provided to impacted customers
- e. If no written notices were provided to impacted customers, identify the methods that PWSA used to inform customers of the mandatory conservation measures

**Response:**

- a. No, PWSA has not imposed any water conservation measures on its customers in the last 10 years.
- b. N/A
- c. N/A
- d. N/A
- e. N/A

**Response  
Provided by:** Robert A. Weimar, Executive Director, and Alex Sciulli, Chief of  
Program Management  
The Pittsburgh Water and Sewer Authority

**Dated:** February 7, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement PS-1 to PS-20 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 4 Schedule 5
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**Request: I&E-PS-3** Identify each step of the informal process that PWSA uses for notifying the Commission of unscheduled service interruptions that affect at least 2,500 customers or 5% of the utility's total customer base (whichever is smaller) as referenced on p. 70 of PWSA's Compliance Plan filed on September 28, 2018.

**Response:** PWSA will establish an open communication channel with the designated representatives of the Commission to notify of unscheduled service interruptions that affect at least 2500 customers. Once the service interruption has been identified and PWSA's Operations and Maintenance (OPS) crews have established the boundaries or customers affected by the unscheduled service interruption, then the Commission will be contacted either through the Customer Service and/or Communications departments, if the interruption is at least 2500 customers. PWSA is in the process of revising its current flow chart of Communication protocols to include the Commission and expects to have this completed by the end of the first quarter 2019.

**Response  
Provided by:** Robert A. Weimar, Executive Director, and Alex Sciulli, Chief of Program Management  
The Pittsburgh Water and Sewer Authority

**Dated:** February 7, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 4 Schedule 6
---------------------------------

**Request: I&E-PS-40**

Reference PWSA's response to I&E-PS-15, which contemplates PWSA hiring an IT Director. Provide the following information:

- A. describe the status of PWSA's attempt to hire an IT director;
- B. indicate whether the IT director position will be subject to PWSA's domicile policy; and
- C. identify any hurdles that PWSA has/is facing in recruiting qualified candidates for the IT Director position

**Response:**

- A. PWSA conducted seven interviews of qualified candidates for the position of IT Director. PWSA anticipates filling this position by April 1, 2019.
- B. PWSA Executive Management requested that the PWSA Board of Directors waive the domicile restriction for the IT Director position. The waiver was approved, and the position was advertised without the domicile restriction.
- C. See PWSA St. No. C-2 at 15-16 which describes the overall challenges of recruiting from a pool of 300,000 city residents when the metropolitan area has 2.36 million people leaving PWSA with access to less than 16% of the area's population.

Response                    Julie Quigley, Director of Administration  
Provided by:            Debbie M. Lestitian, Chief Corporate Counsel and Chief of Administration  
                                 The Pittsburgh Water and Sewer Authority

Dated:                    February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement PS-1 to PS-20 in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-2:** Refer to PWSA's discussion of its emergency response plan as presented on p. 70 of its Compliance Plan filed on September 28, 2018. Provide a copy of the emergency response plan that PWSA currently has in place. If a copy is not available, explain why it is not available.

**Response:** PWSA's current Emergency Response Plan ("ERP") was most recently revised and updated in 2016. However, this document contains inaccurate information and, in 2018, PWSA assembled a Planning Committee tasked with revising the current version of the ERP. The Planning Committee includes representatives from PWSA's Communications, Engineering, Operations and Maintenance, and Customer Service. CONFIDENTIAL I&E-PS-2 Attach A is the working draft table of contents for PWSA's updated ERP. As the process continues, the final revised ERP may be presented differently with different Appendices. PWSA is willing to provide the final revised ERP once it is completed and anticipates that its revised ERP will be completed in the fall of 2019. However, as errors and omissions with the current version of the ERP continue to be identified through the revision process, PWSA is not comfortable releasing the current ERP at this time.

**Response  
Provided by:** Robert A. Weimar, Executive Director, and Alex Sciulli, Chief of  
Program Management  
The Pittsburgh Water and Sewer Authority

**Dated:** February 7, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-22** Refer to page 120 of the Compliance plan filed on September 28, 2018, PWSA indicated that "PWSA counts about 71,000 total residential service line connections system-wide, and PADEP expects the Authority to inventory them all – and identify all the lead ones – by Dec. 31, 2020." Please provide an update on the progress that PWSA made with the inventory process and indicate whether PWSA believes that it will be on track to meet the December 31, 2020 target date.

**Response:** See PWSA St. No. C-1 at 53.

**Response  
Provided by:** Robert A Weimar, Executive Director  
Dan Duffy, P.E.\*, PMP  
Lead Service Line Replacement Project Manager  
Consultant for The Pittsburgh Water and Sewer Authority

**Dated:** February 28, 2019



**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-23** Does PWSA have an estimate of the number of lead service lines still remaining in its system? If yes, please provide the estimate. If not, please indicate what action(s) PWSA must undertake in order to produce an estimate.

**Response:** Based on the March 31, 2018 Updated Materials Evaluation Report, there were approximately 12,218 public side lead service lines in the system. Since the beginning of 2018 (and through February 1, 2019), 2,134 public side service lines have been replaced leaving around 10,100 remaining.

**Response  
Provided by:** Robert A Weimar, Executive Director  
Dan Duffy, P.E.\*, PMP  
Lead Service Line Replacement Project Manager  
Consultant for The Pittsburgh Water and Sewer Authority

**Dated:** Robert A Weimar, Executive Director

**Response of Pittsburgh Water and Sewer Authority ("PSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: I&E-PS-26** On page 120 of the Compliance plan filed on September 28, 2018, PSA indicates that its lead program is projected to replace roughly 15 to 20 service lines per day until year end (presumably the end of 2018). Did PSA meet this projection?

**Response:** See PSA St. No. C-1 at 53.

**Response  
Provided by:** Robert A Weimar, Executive Director  
Dan Duffy, P.E. \*, PMP  
Lead Service Line Replacement Project Manager  
Consultant for The Pittsburgh Water and Sewer Authority

**Dated:** February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 4 Schedule 11
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**Request: I&E-PS-27**                      Has PWSA established a projection for replacement of lead service lines per day for 2019? If so, provide the projection.

**Response:**                                In 2019, PWSA currently projects that each of its 14 work crews will replace one line per day. PWSA is optimistic that it can increase the replacement rate to one and a half lead service lines per day per crew.

**Response  
Provided by:**                            Robert A Weimar, Executive Director  
Dan Duffy, P.E. \*, PMP  
Lead Service Line Replacement Project Manager  
Consultant for The Pittsburgh Water and Sewer Authority

**Dated:**                                      February 28, 2019

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of the Bureau of Investigation and Enforcement,  
Set I&E-PS-22 through I&E-PS-42  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

I&E Exhibit No. 4 Schedule 12
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**Request: I&E-PS-28** Identify PWSA's specific plans for financing for lead service line replacements planned for 2020 through 2024, including possible use of a distribution system improvement charge and any grant/low interest loan opportunities.

**Response:** PWSA and PennVEST are in the process of discussing a potential multi-year grant/loan program to cover private side lead service line replacements. PWSA is also seeking other funding sources including federal funds for infrastructure projects and foundation funding.

PWSA is evaluating the use of a DSIC mechanism to finance lead service line replacements.

**Response  
Provided by:** Robert A. Weimar, Executive Director  
The Pittsburgh Water and Sewer Authority

**Dated:** February 28, 2019

**I&E Statement No. 4-SR  
Witness: Israel E. Gray**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Surrebuttal Testimony**

**of**

**Israel E. Gray**

**Bureau of Investigation & Enforcement**

**Concerning:**

**52 Pa. Code § 65.2 –Accidents**

**52 Pa. Code § 101 – Public Utility Preparedness through Self Certification  
Water Supply, Production & Storage, and Wastewater Conveyance Projects**

**52 Pa. Code § 65.11 –Mandatory Conservation Measures**

**52 Pa. Code § 69.1601 –Unscheduled Service Interruptions and Associated Actions**

**Projects related to the November 2017 Consent Order and Agreement between  
PWSA and the Pennsylvania Department of Environmental Protection**

**PWSA's plan to address lead levels in water supply and replacement of**

**lead service lines**

**LTIP issues**

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1           **INTRODUCTION OF THE WITNESS**

2   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3   A.   My name is Israel E. Gray. My business address is Pennsylvania Public Utility  
4       Commission, 400 North Street, Harrisburg, PA 17120.

5  
6   **Q.   ARE YOU THE SAME ISRAEL E. GRAY THAT SUBMITTED I&E**  
7       **STATEMENT NO. 4 AND I&E EXHIBIT NO. 4 ON APRIL 5, 2019?**

8   A.   Yes. The documents referenced included my direct testimony in this case and a  
9       supporting exhibit.

10  
11       **REVIEW OF RECOMMENDATIONS MADE IN DIRECT TESTIMONY**

12   **Q.   WHAT RECOMMENDATIONS DID YOU MAKE IN YOUR DIRECT**  
13       **TESTIMONY?**

14   A.   After reviewing PWSA's Compliance Plan and Long Term Infrastructure  
15       Improvement Plan (LTIIP), my recommendations were for the Commission to  
16       order PWSA to do the following:

17       **52 Pa. Code § 65.2 – Accidents**

- 18       • File a revised Compliance Plan stating PWSA will update its Incident  
19       Investigation Policies to comply with its obligations under 52 Pa. Code. §  
20       65.2(d) regarding telephone reports.

1        **52 Pa. Code § 101 – Public Utility Preparedness Through Self-Certification**

- 2        • Regarding its obligations under 52 Pa. Code § 101, (1) involve TUS in the
- 3                development of its physical security, cyber security, emergency response and
- 4                business continuity plans.
- 5        • Either through additional information in this case, or through a revised
- 6                Compliance Plan, if necessary, provide the Commission with a more detailed
- 7                timeline for its anticipated completion of its physical security, cyber security,
- 8                emergency response, and business continuity plans so that a date for
- 9                certification of these obligations can be confirmed.

10       **Water Supply, Production & Storage and Wastewater Conveyance Projects**

- 11       • Provide the percentage of projects that are to be competitively bid or, if this
- 12                information is unavailable, require PWSA to track and provide this information
- 13                as part of a revised Compliance Plan filing.

14       **52 Pa. Code § 65.11 – Mandatory Conservation Measures**

- 15       • File a revised Compliance Plan stating PWSA will (1) develop mandatory
- 16                water restriction procedures by no later than the close of 2019, and incorporate
- 17                those procedures into PWSA's pending Emergency Response Plan; and (2)
- 18                pursue interconnections with other regional water suppliers to enhance system
- 19                resiliency.



1        **52 Pa. Code § 69.1601 – Unscheduled Service Interruptions and Associated**

2        **Actions**

- 3        • Incorporate the following recommendations into its pending Emergency  
4        Response Plan: (1) provide additional information regarding whether PWSA  
5        has met its target of revising communication protocols to include notification  
6        to the Commission by the first quarter of 2019; and (2) notify the Commission  
7        of any low pressure incident or other service interruption for which it notifies  
8        PA DEP.

9        **Projects Related to the November 2017 Consent Order and Agreement**

10       **Between PWSA and the Pennsylvania Department of Environmental**

11       **Protection**

- 12       • PWSA must keep the Commission updated on the progress of the  
13       Orthophosphate Program by providing quarterly reports to the Commission  
14       indicating the following: (1) Whether orthophosphate treatment has begun. If  
15       it has not, explain in detail why the orthophosphate treatment has not begun,  
16       including whether there have been any permitting issues or other actions that  
17       inhibit PWSA's progress moving forward with orthophosphate treatment; (2)  
18       When PWSA started testing for lead levels; and (3) The results of the lead  
19       level testing.

1        **Plan to Address Lead Levels in Water Supply and the Replacement of Lead**  
2        **Service Lines**

- 3        • PWSA should provide an explanation, in this proceeding, of why PWSA has  
4           not met its lead replacement targets and identify any factors that impacted its  
5           ability to meet those targets.
- 6        • PWSA should take all necessary actions to ensure that if it transitions its LSLR  
7           program into its SDWMP in the future, that the transition does not prolong  
8           lead line replacement timeframes or compromise replacement goals beyond  
9           2026.
- 10       • PWSA's Board should issue a policy decision committing to continue to  
11           perform private-line replacements past 2019.

12       **LTIP Issues**

- 13       • File a revised LTIP including: (1) a plan to expedite metering, demonstrating  
14           why and how PWSA chose its expedited metering plan; (2) a timeline along  
15           which PWSA will address and propose solutions for each and every PWSA-  
16           identified workforce challenge factor as it relates to the LTIP schedule; (3)  
17           further detail demonstrating how PWSA will build a workforce to meet the  
18           needs of increased capital spending, including how headcount projections were  
19           quantified and estimate of number of required contractors; and (4) detail on  
20           how PWSA will meet the need for increased coordination with local utilities  
21           and government.

1           **PURPOSE OF SURREBUTTAL TESTIMONY**

2   **Q.     WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

3   A.     The purpose of my surrebuttal testimony is to address the rebuttal testimony of  
4           PWSA witnesses Robert A. Weimar and Debbie M. Lestitian in response to my  
5           recommendations.

6  
7           **RESPONSES TO MS. LESTITIAN**

8   **I.     52 Pa. Code § 65.2 –Accidents**

9   **Q.     HOW DOES MS. LESTITIAN RESPOND TO YOUR**  
10       **RECOMMENDATION THAT PWSA FILE A REVISED COMPLIANCE**  
11       **PLAN STATING INCIDENT INVESTIGATION POLICIES BE UPDATED**  
12       **TO COMPLY WITH ITS OBLIGATION TO MAKE IMMEDIATE**  
13       **TELEPHONE REPORTS IN ACCORDANCE WITH ACCIDENT**  
14       **REPORTING REQUIREMENTS AS OUTLINED IN 52 PA CODE § 65.2?**

15 A.     Ms. Lestitian agrees with my recommendation with one caveat. The caveat  
16       relates to language in the Commission’s regulations that indicate that the reporting  
17       obligations are triggered “after the utility becomes aware of the occurrence of the  
18       reportable accident” (PWSA St. No. C-2R, p. 3). In recognition of both my  
19       recommendation and the language of 52 Pa. Code § 65.2, PWSA has updated its  
20       Incident Investigation Policies to provide telephone notification to Commission  
21       staff immediately *upon becoming aware* of the reportable accidents enumerated in  
22       52 Pa. Code § 65.2.

1 **Q. DO THE CHANGES PWSA HAS MADE TO ITS INCIDENT**  
2 **INVESTIGATION POLICIES SATISFY THE RECOMMENDATIONS**  
3 **YOU MADE REGARDING ACCIDENT REPORTING REQUIREMENTS?**

4 A. Yes. The changes PWSA has made to its Incident Investigation Policy should  
5 satisfy the Commission's Accident Reporting Requirements; therefore, PWSA's  
6 incident notification plan satisfies my recommendation and I believe that this issue  
7 is now resolved.

8  
9 **II. 52 Pa. Code § 101 – Public Utility Preparedness through Self Certification**

10 **Q. WITH REGARD TO PUBLIC UTILITY PREPAREDNESS THROUGH**  
11 **SELF CERTIFICATION, WHAT RECOMMENDATIONS DID YOU**  
12 **MAKE TO PWSA?**

13 A. I recommended that PWSA, either through additional information in this case or  
14 through a revised Compliance Plan, if necessary, provide the Commission with a  
15 more detailed timeline for its anticipated completion of its physical security, cyber  
16 security, emergency response, and business continuity plans so that a date for  
17 certification of these obligations can be confirmed. I also recommended that  
18 PWSA involve the Commission's Bureau of Technical Utility Services (TUS) in  
19 its development of its physical, cyber security, emergency response, and business  
20 continuity plans (I&E St. No. 4, pp. 22-23).

1   **Q.   WHAT WAS MS. LESTITIAN’S RESPONSE TO YOUR**  
2       **RECOMMENDATION?**

3   A.   Ms. Lestitian states that PWSA does have a physical security, cyber security,  
4       emergency response, and business continuity plans, but these plans do not meet  
5       the requirements of the Commission’s regulations. Ms. Lestitian outlined some of  
6       the steps PWSA has taken to bring these plans into compliance and provided  
7       planned completion dates for the various plans. Ms. Lestitian also states the  
8       PWSA has determined that it would be appropriate to wait until February 28, 2020  
9       to file the Self-Certification Form. Finally, Ms. Lestitian indicated that PWSA has  
10      already offered to have TUS review its plans and offer feedback (PWSA St. No.  
11      C-2R, pp. 3-6).

12  
13   **Q.   DO YOU FEEL PWSA IS TAKING THE NECESSARY STEPS TO MEET**  
14       **ITS OBLIGATIONS UNDER 52 PA. CODE § 101?**

15   A.   Yes. The additional information Ms. Lestitian provided shows PWSA is taking  
16       steps toward meeting the requirements under 52 Pa. Code § 101, Public Utility  
17       Preparedness through Self-Certification. Additionally, I think that PWSA’s  
18       commitment to involve TUS in the review of its plans will benefit PWSA and help  
19       to ensure that its plans are adequate. However, I am concerned that PWSA is  
20       unable to commit to certifying its compliance until February 28, 2020, as I  
21       previously explained, these plans are essential to the safety and integrity of  
22       PWSA’s operations. Therefore, I am now also recommending that PWSA provide

1 I&E with a status report on the progress of its physical security, cyber security,  
2 emergency response, and business continuity plans by October 31, 2019.

3  
4 **RESPONSES TO MR. WEIMAR**

5 **III. Water Supply, Production & Storage, and Wastewater Conveyance Projects**

6 **Q. WHAT RECOMMENDATIONS DID YOU MAKE TO PWSA REGARDING**  
7 **ITS COMPETITIVE BIDDING PROCESS FOR WATER SUPPLY,**  
8 **PRODUCTION & STORAGE, AND WASTEWATER CONVEYANCE**  
9 **PROJECTS?**

10 **A.** I recommended that PWSA provide the percentage of projects that are to be  
11 competitively bid (I&E St. No. 4, pp. 9-10).

12  
13 **Q. DID MR. WEIMAR PROVIDE THIS INFORMATION?**

14 **A.** Yes. Mr. Weimar explained that the percentage of projects is virtually 100%  
15 because any capital construction project or purchase of equipment/materials with a  
16 cost in excess of \$20,600 must be bid in accordance with the Municipality  
17 Authorities Act. However, PWSA has begun to monitor metrics related to cost  
18 effectiveness and cost reporting relative to projected capital spending by using  
19 eBuilder project management software to track project costs, which allows  
20 advanced calculation of performance metrics (PWSA St. No. C-1R, pp. 13-14).

1 **Q. WHAT IS YOUR RESPONSE REGARDING THE INFORMATION**  
2 **PROVIDED BY MR. WEIMAR?**

3 A. I accept PWSA's commitment to track and monitor metrics related to the cost  
4 effectiveness of its capital spending. With this in mind, I recommend that PWSA  
5 continue its effort to track cost effectiveness and that it make the information  
6 obtained available to the Commission in its next base rate case.  
7

8 **IV. 52 Pa. Code § 65.11 – Mandatory Conservation Measures**

9 **Q. WHAT RECOMMENDATIONS DID YOU MAKE TO PWSA REGARDING**  
10 **ITS MANDATORY WATER CONSERVATION MEASURES?**

11 A. I recommended that PWSA develop mandatory water restriction procedures by no  
12 later than the close of 2019, and that PWSA incorporate those procedures into its  
13 pending Emergency Response Plan. Additionally, I also recommended that  
14 PWSA pursue interconnections with other regional water suppliers to enhance  
15 system resiliency (I&E St. No. 4, pp. 13-14).  
16

17 **Q. WHAT WAS MR. WEIMAR'S RESPONSE?**

18 A. Mr. Weimar noted PWSA has an abundant water supply and therefore has never  
19 experienced and is not likely to experience a period where there would be  
20 inadequate source water to meet demands. However, source contamination or a  
21 significant failure in the treatment or delivery system may necessitate periods of  
22 mandatory conservation. Mr. Weimar states these occurrences are extremely rare,

1 and, as such, PWSA has not yet developed Standard Operating Procedures,  
2 including communications protocols, for periods of mandatory conservation  
3 (PWSA St. No. St. No. C-1R, pp. 29-30).  
4

5 **Q. DO YOU HAVE ANY COMMENTS IN REGARD TO MR. WEIMAR'S**  
6 **RESPONSE?**

7 A. I acknowledge PWSA has taken steps toward developing standard operating  
8 procedures for times when mandatory water conservation measures are necessary  
9 and have conducted tabletop exercises that simulate loss of water supply.  
10 However, it is still my position that water conservation procedures, for source  
11 contamination or other emergencies, be developed by the end of 2019 and be  
12 incorporated into PWSA's Emergency Response Plan. I also continue to  
13 recommend that PWSA pursue interconnections with other regional water  
14 suppliers to enhance system resiliency.  
15

16 **V. 52 Pa. Code § 69.1601 –Unscheduled Service Interruptions and Associated**  
17 **Actions**

18 **Q. WHAT RECOMMENDATIONS DID YOU MAKE REGARDING SYSTEM**  
19 **RELIABILITY, EMERGENCIES, AND SERVICE DISRUPTIONS?**

20 A. I recommended that PWSA provide additional information regarding whether it  
21 has met its target of revising its communication protocols to include notification to  
22 the Commission by the first quarter of 2019. Additionally, I recommended that



1 PWSA revise its Compliance Plan to commit to notifying the Commission of any  
2 low pressure incident or other service interruption for which it notifies the  
3 Pennsylvania Department of Environmental Protection ("PA DEP"). Finally,  
4 PWSA should incorporate these recommendations into its pending Emergency  
5 Response Plan (I&E St. No. 4, p. 17).

6  
7 **Q. HOW DID MR. WEIMAR RESPOND TO YOUR RECOMMENDATIONS?**

8 A. Mr. Weimar explained that PWSA is working to update its Emergency Response  
9 Plan to comply with the Commission's requirements as well as to incorporate  
10 feedback from the Allegheny County Health Department and the PA DEP. This  
11 includes updating its Emergency Response Plan to better adhere to the National  
12 Incident Management System's public information system. Mr. Weimar also  
13 noted that PWSA has separate processes to notify the Commission during  
14 emergency and non-emergency periods of unscheduled service interruptions.  
15 While these processes are in place, PWSA currently lacks a formal, written  
16 standard operating procedure describing this activity, but anticipates having one  
17 completed within the next six months (PWSA St. No. 4, pp. 35-36).

18  
19 **Q. HOW DO YOU RESPOND TO MR. WEIMAR?**

20 A. I acknowledge all the steps that PWSA is taking to develop standard operating  
21 procedures, and to update its emergency response plan that includes developing a  
22 plan that better adheres to the National Incident Management System. However, it

1 is not clear from Mr. Weimar's statement whether or not PWSA is in agreement  
2 with my recommendations, although, it is clear that PWSA has been unable to  
3 commit to Commission notification within the first quarter of 2019. Therefore, I  
4 reiterate my recommendation regarding the need for PWSA to commit to  
5 adopting communication protocol in notifying the Commission of any low  
6 pressure incident or other service interruption for which it notifies PA DEP, but I  
7 now recommend that this occur no later than the end of 2019. The slight  
8 modification in the timing of my recommendation takes into account the fact that  
9 the timeframe for my initial recommendation has passed, as well as the fact that  
10 PWSA's anticipates having additional staff to address this issue within the next six  
11 months.

12  
13 **VI. Projects related to the November 2017 Consent Order and Agreement**  
14 **between PWSA and the Pennsylvania Department of Environmental**  
15 **Protection**

16 **Q. WHAT RECOMMENDATIONS DID YOU MAKE TO PWSA**  
17 **REGARDING THE ORTHOPHOSPHATE CORROSION CONTROL**  
18 **PROJECT?**

19 **A.** I recommended that PWSA keep the Commission updated on the progress of the  
20 orthophosphate program by providing quarterly reports to the Commission  
21 indicating the following: (1) Whether orthophosphate treatment has begun. If it  
22 has not, explain in detail why the orthophosphate treatment has not begun,

1 including whether there have been any permitting issues or other actions that  
2 inhibit PWSA's progress moving forward with orthophosphate treatment; (2)  
3 When PWSA started testing for lead levels; and (3) The results of the lead level  
4 testing (I&E St. No. 4, p. 8).

5  
6 **Q. WHAT WAS MR. WEIMAR'S RESPONSE?**

7 A. Mr. Weimar clarified that PWSA began introduction of orthophosphate into its  
8 system at different points of March and April 2019. Mr. Weimar agreed that  
9 PWSA is willing to provide the Commission with quarterly reports on the progress  
10 of its orthophosphate program (which are also required by PA DEP), when PWSA  
11 started testing for lead levels, and the results of the lead level testing (PWSA St.  
12 No. C-1R, pp. 37-38).

13  
14 **Q. DOES MR. WEIMAR'S RESPONSE SATISFY YOUR**  
15 **RECOMMENDATIONS?**

16 A. Yes. However, I recommend that the orthophosphate quarterly updates also be  
17 provided to TUS as well as to I&E.

**VII. PWSA's plan to address lead levels in water supply and replacement of lead service lines**

**Q. WHAT RECOMMENDATIONS DID YOU MAKE IN REGARD TO PWSA'S LEAD SERVICE LINE REPLACEMENT PROJECT?**

A. I recommended that PWSA provide an explanation as to why PWSA has not met its lead replacement targets and identify any factors that impacted its ability to meet those targets. I also recommended PWSA take all necessary actions to ensure that if it transitions its Lead Service Line Replacement ("LSLR") program into its Small Diameter Water Main Replacement Program ("SDWMP") in the future, that the transition does not prolong lead line replacement timeframes or compromise replacement goals beyond 2026. And lastly, I recommended that PWSA's Board issue a policy decision committing to continue to perform private-line replacements past 2019 (I&E St. No. 4, p. 30).

**Q. WHAT WAS MR. WEIMAR'S RESPONSE TO YOUR RECOMMENDATIONS?**

A. Mr. Weimar's response explains that PWSA's lead service line ("LSL") replacement target was to meet the requirements of the Consent Order and Agreement (COA) between PWSA and PA DEP. The COA requires PWSA to replace 7% of the remaining LSL's each year of non-compliance with the lead advisory level of 15 parts per billion. Therefore, PWSA exceeded the COA requirements in 2018. Mr. Weimar also stated that PWSA's Board is planning to

1 review the Authority's LSL Policy at its May 2019 Board meeting. The Board is  
2 reevaluating its LSL policy based on newly acquired information and factors such  
3 as: 1) the number of lead service lines; 2) where the lead service lines are located;  
4 3) whether PWSA will continue to pay for the replacement of private side lines  
5 and if there should be an income based cost sharing; 4) how many lines PWSA  
6 can afford to replace. Mr. Weimar also states that after 2019 PWSA will transition  
7 to the SDWMP and, as proposed, the SDWMP is designed and budgeted to  
8 replace LSL's including private side lines as encountered (PWSA St. No. C-1R,  
9 pp. 38-39).

10  
11 **Q. WHAT IS YOUR RESPONSE TO MR WEIMAR'S LSLR PROJECT**  
12 **EXPLANATION?**

13 A. Mr. Weimar clarified his position with PWSA meeting its LSLR goals by pointing  
14 out that PWSA did meet the LSLR goals outlined in the COA between PWSA and  
15 PA DEP. I appreciate Mr. Weimar's explanation, which corrected my  
16 interpretation of the data, and I now withdraw my recommendation that PWSA  
17 explain the basis for failing to reach its targeted replacement level. However,  
18 without knowing the outcome of the PWSA Board meeting that will determine  
19 PWSA's position on its LSLR policy, I reiterate my recommendation that PWSA's  
20 Board issue a policy decision committing to continue to perform private-line  
21 replacements past 2019. I would also recommend that PWSA clarify its position

1 by explaining how transitioning from the LSLR program to SDWMR program  
2 will not compromise LSLR goals beyond 2026.  
3

4 **VIII. LTIP Issues**

5 **Q. WHAT RECOMMENDATIONS DID YOU MAKE REGARDING PWSA'S**  
6 **LTIP?**

7 A. I recommended that PWSA be required to file a revised LTIP including: (1) a  
8 plan to expedite metering, demonstrating why and how PWSA chose its expedited  
9 metering plan; (2) a timeline along which PWSA will address and propose  
10 solutions for each and every PWSA-identified workforce challenge factor as it  
11 relates to the LTIP schedule; (3) further detail demonstrating how PWSA will  
12 build a workforce to meet the needs of increased capital spending, including how  
13 headcount projections were quantified and estimate of number of required  
14 contractors; and (4) detail on how PWSA will meet the need for increased  
15 coordination with local utilities and government (I&E St. No. 4, pp. 34-38).  
16

17 **Q. HOW DID MR. WEIMAR RESPOND TO YOUR RECOMMENDATIONS?**

18 A. First, Mr. Weimar indicates that PWSA rejects my recommendation to address an  
19 expedited metering plan in its LTIP, but he defers the substance of that discussion  
20 to his reply to I&E witness Cline (PWSA St. No. 1-CR, p. 69).

21 With regard to my recommendations regarding the timeline and plan that  
22 PWSA should present to support the viability and spending on its workforce plan,

1 Mr. Weimar merely outlined PWSA's approach to implementing a wide variety of  
2 improvements including restructuring and reorganizing its resources, increasing  
3 the number and expertise of Operations and Engineering Staff, and increasing the  
4 number of available consultants and contractors. I also note that Mr. Weimar  
5 admitted that PWSA's domicile requirement has negatively impacted its ability to  
6 hire plumbers, electricians, and other trades. (PWSA St. No. 1-CR, pp. 69-72).  
7 Unfortunately, despite the information he provided, Mr. Weimar did not directly  
8 address my recommendation regarding the provision of information needed to  
9 support the workforce projections in its LTIP.

10 Finally, with regard as to how PWSA will meet the need for increased  
11 coordination with local utilities and government, Mr. Weimar points out that  
12 PWSA has developed a coordination team with the City and its other utility  
13 members. In addition, PWSA is developing a robust GIS based data layer to  
14 communicate its plans to other utilities. He predicts that significant coordination  
15 improvement is expected as a result of the City's hiring of a new Chief Engineer  
16 and additional engineering staff, which has delayed coordination in the past  
17 (PWSA St. No. 1-CR, pp. 71-72).

18  
19 **Q. HOW DO YOU RESPOND TO MR. WEIMAR?**

20 A. I continue to reassert all of my recommendations, although I do recognize the  
21 efforts PWSA has put into addressing its workforce challenges and the  
22 restructuring and reorganizing of its resources.

1 First, as I explained above, with respect to my recommendation that PWSA  
2 revise its Compliance Plan to expedite metering, demonstrating why and how  
3 PWSA chose its expedited metering plan, Mr. Weimar indicates that he addresses  
4 that recommendation in other portions of his rebuttal testimony and not in  
5 conjunction with the LTIP discussion (PWSA St. No. 1-CR, p. 69). I note that he  
6 addressed these issues in the context of responding to I&E witness Cline (PWSA  
7 St. No. 1-CR, pp. 15-19). Therefore, for purposes of addressing this issue  
8 congruently and in a manner that enables parties and the Commission to follow the  
9 discussion, I&E witness Cline will respond to Mr. Weimar with respect to the I&E  
10 recommendation for PWSA to expedite its metering plan. Nonetheless, my  
11 position remains that PWSA should amend its LTIP to account for an expedited  
12 metering plan.

13 With respect to my second and third recommendations regarding PWSA's  
14 need to provide a timeline and plan that support the viability and spending of its  
15 workforce plan described in its LTIP, I continue to reassert that recommendation  
16 as well. While I recognize that Mr. Weimar has pointed out some of the changes  
17 and additions PWSA has already made in operations and engineering, I still do not  
18 believe enough information is available to support PWSA's LTIP. Although the  
19 information that Mr. Weimar provided is helpful and provides more context,  
20 PWSA has not supported the proposed increase in capital spending as projected in  
21 its LTIP. Lastly, by way of the additional information that Mr. Weimar provided  
22 regarding the negative impact of PWSA's domicile policy, I recommend PWSA



1 explore any options that provide for hiring flexibility and increases the hiring pool  
2 when it comes to hiring any of the trades.

3 Finally, I continue to recommend that PWSA revise its LTIIP to provide  
4 more detail on how it will meet the need for increased coordination with local  
5 utilities and government. As Mr. Weimar explained, PWSA has taken some  
6 strides in this area, including building a coordination team consisting of PWSA,  
7 the City, and other utilities, along with developing PWSA's GIS database. While  
8 both of these are good steps in improving coordination among local utilities and  
9 government, I am concerned that the plan appears to hinge on the City hiring  
10 additional engineering staff, which is an action that PWSA likely cannot control.  
11 Therefore, it is unclear whether and how the staff changes with the City's  
12 engineering department will improve coordination. With this in mind, I  
13 recommend PWSA have a plan to address this issue with the City in the event that  
14 the staffing changes do not result in improved coordination efforts. In conclusion,  
15 I still recommend that PWSA file a revised LTIIP addressing my  
16 recommendations.

## 17 18 **CONCLUSION**

19 **Q. IN SUMMARY, WHAT ARE YOUR UPDATED RECOMMENDATIONS**  
20 **REGARDING PWSA'S COMPLIANCE PLAN AND LTIIP?**

21 **A.** After reviewing PWSA's Compliance Plan and LTIIP, and PWSA's responses to  
22 the recommendations that I made in my direct testimony, my updated

1 recommendations for the Commission to consider are listed below. For the areas  
2 in which I believe that PWSA and I&E have now reached a resolution of the issue,  
3 I highlighted those recommendations in bold for ease of reference. My updated  
4 summary of recommendations is as follows:

5 **52 Pa. Code § 65.2 – Accidents**

- 6 • **In order to comply with its obligations under 52 Pa. Code. § 65.2(d)**  
7 **regarding telephone reports, PWSA has updated its updated its Incident**  
8 **Investigation Policies to provide telephone notification to Commission**  
9 **staff immediately *upon becoming aware* of the reportable accidents**  
10 **enumerated in 52 Pa. Code § 65.2.** This satisfied my initial  
11 recommendation.

12 **52 Pa. Code § 101 – Public Utility Preparedness Through Self-Certification**

- 13 • **Regarding its obligations under 52 Pa. Code § 101, PWSA should (1)**  
14 **involve TUS in the development of its physical security, cyber security,**  
15 **emergency response and business continuity plans.**
- 16 • **PWSA should continue its efforts to provide the Commission with**  
17 **compliant and completed physical security, cyber security, emergency**  
18 **response, and business continuity plans so that it will be able to file a Self-**  
19 **Certification Form by no later than February 28, 2020.**
- 20 • **PWSA should provide I&E with a status report on the progress of its physical**  
21 **security, cyber security, emergency response, and business continuity plans by**  
22 **October 31, 2019.**

1        **Water Supply, Production & Storage, and Wastewater Conveyance Projects**

- 2        • PWSA should continue its effort to track cost effectiveness and that it make the  
3        information obtained available to the Commission in its next base rate case.

4        **52 Pa. Code § 65.11 – Mandatory Conservation Measures**

- 5        • File a revised Compliance Plan stating PWSA will (1) develop mandatory  
6        water restriction procedures no later than the close of 2019, and incorporate  
7        those procedures into PWSA’s pending Emergency Response Plan; and (2)  
8        pursue interconnections with other regional water suppliers to enhance system  
9        resiliency.

10       **52 Pa. Code § 69.1601 – Unscheduled Service Interruptions and Associated**

11       **Actions**

- 12       • Incorporate the following recommendations into its pending Emergency  
13       Response Plan: (1) provide additional information regarding whether PWSA  
14       has met its target of revising communication protocols to include notification  
15       to the Commission by the end of 2019; and (2) notify the Commission of any  
16       low pressure incident or other service interruption for which it notifies PA  
17       DEP.

1 **Compliance with the Pennsylvania Department of Environmental Protection**

2 **Consent Order and Agreement of November 17, 2017**

- 3 • PWSA will provide the Commission with the same quarterly reports of its
- 4 orthophosphate program as it is required to provide to Pa DEP.
- 5 • The orthophosphate quarterly updates also be provided to TUS as well as to
- 6 I&E.

7 **Plan to Address Lead Levels in Water Supply and the Replacement of Lead**

8 **Service Lines**

- 9 • PWSA should take all necessary actions to ensure that if it transitions its LSLR
- 10 program into its SDWMP in the future, that the transition does not prolong
- 11 lead line replacement timeframes or compromise replacement goals beyond
- 12 2026.
- 13 • PWSA's Board should issue a policy decision committing to continue to
- 14 perform private-line replacements past 2019.

15 **LTIP Issues**

- 16 • PWSA should file a revised LTIP including: (1) a plan to expedite metering,
- 17 demonstrating why and how PWSA chose its expedited metering plan; (2) a
- 18 timeline along which PWSA will address and propose solutions for each and
- 19 every PWSA-identified workforce challenge factor as it relates to the LTIP
- 20 schedule; (3) further detail demonstrating how PWSA will build a workforce to
- 21 meet the needs of increased capital spending, including how headcount
- 22 projections were quantified and estimate of number of required contractors;

1           and (4) detail on how PWSA will meet the need for increased coordination  
2           with local utilities and government (including adopting a plan with the City to  
3           ensure that additional engineering staff will improve coordination efforts or  
4           that other necessary action to improve such efforts is taken).

5

6   **Q.    DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

7   **A.    Yes.**

**I&E Statement No. 4-RS  
Witness: Israel E. Gray**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Supplemental Rebuttal Testimony**

**of**

**Israel E. Gray**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Lead Service Line Replacement Plan**

1 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**  
2 **ADDRESS.**

3 A. My name is Israel E. Gray. I am a Fixed Utilities Valuation Engineer in the Safety  
4 Division of the Pennsylvania Public Utility Commission's (PA PUC or  
5 Commission) Bureau of Investigation and Enforcement (I&E). My business  
6 address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg,  
7 PA 17120.

8  
9 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS**  
10 **PROCEEDING?**

11 A. Yes. On April 5, 2019, I submitted direct testimony and an exhibit ( I&E  
12 Statement No. 4 and Exhibit No. 4). Also, on May 17, 2019, I submitted  
13 surrebuttal testimony (I&E Statement No. 4-SR).

14  
15 **Q. SINCE YOU SUBMITTED YOUR SURREBUTTAL TESTIMONY ON**  
16 **MAY 17, 2019, HAVE ANY OF THE ISSUES YOU ADDRESSED BEEN**  
17 **RESOLVED?**

18 A. Yes. As PWSA witness Weimar explained, since May 22, 2019, I&E and other  
19 parties have participated in multiple PWSA settlement discussions (PWSA St. No.  
20 C-1SD). Over the course of those meetings, many of the issues I&E raised have  
21 been resolved. To simplify I&E's position on unresolved issues, I&E witness  
22 Spadaccio has included a full listing of I&E's remaining issues and

1 recommendations in I&E Statement No. 1-RS. Therefore, I will not reiterate all  
2 my original testimony positions herein.

3  
4 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL REBUTTAL**  
5 **TESTIMONY?**

6 A. The purpose of my supplemental rebuttal testimony is to address updated  
7 information provided by PWSA witness Weimar regarding PWSA's Lead Service  
8 Line Replacement Project ("LSLR").

9  
10 **Q. DOES YOUR SUPPLEMENTAL REBUTTAL TESTIMONY INCLUDE AN**  
11 **EXHIBIT?**

12 A. Yes. I&E Exhibit No. 4-RS contains a schedule that relates to my testimony.

13  
14 **Q. SINCE THE FILING OF YOUR SURREBUTTAL TESTIMONY, WHAT**  
15 **UPDATE DID PWSA PROVIDE REGARDING ITS LSLR PROJECT?**

16 A. As explained by witness Weimar, on July 26, 2019, PWSA adopted a revised  
17 LSLR policy (PWSA St. No. C-1SD, p. 25; RAW/C 46).

18  
19 **Q. WHAT IS YOUR POSITION REGARDING PWSA'S NEW LSLR**  
20 **POLICY?**

21 A. I commend PWSA for taking important steps to remove the lead lines from their  
22 water distribution system. However, I oppose the portion of the newly-enacted



1 LSLR policy that will offer only income based reimbursement to residential  
2 customers who decide to replace their own lead service lines.

3  
4 **Q. PLEASE DESCRIBE PWSA'S NEWLY ADOPTED INCOME-BASED**  
5 **REIMBURSEMENT POLICY FOR CERTAIN LEAD SERVICE LINE**  
6 **REPLACEMENTS.**

7 A. PWSA outlines its income-based reimbursement policy in its Lead Service Line  
8 Replacement Policy approved July 26, 2019 (RAW C-46 p. 4, paragraph 10(d)).  
9 The pertinent part of the policy states that if homeowners elect to replace their  
10 private side lead service line after January 1, 2019, PWSA will offer an income-  
11 based reimbursement for private-side costs as follows:

- 12 1. PWSA will reimburse the entire cost of the private side lead service line  
13 replacement for households with income levels below 300 percent of the  
14 federal poverty level, as adjusted annually;
- 15 2. PWSA will reimburse 75 percent of the cost of the private side lead service  
16 line replacement for households with income levels between 301 and 400  
17 percent of the federal poverty level, as adjusted annually;
- 18 3. PWSA will reimburse 50 percent of the cost of the private side lead service  
19 line replacement for households with income levels between 401 and 500  
20 percent of the federal poverty level, as adjusted annually;
- 21 4. All other households will be offered a \$1,000 stipend towards the  
22 replacement cost of a private side lead service line replacement.

1 **Q. WHY HAS PWSA ADOPTED AN INCOME-BASED REIMBURSEMENT**  
2 **POLICY?**

3 A. PWSA states that the income-based reimbursement policy will fairly balance the  
4 needs and concerns of the community with PWSA's other substantial construction  
5 and operational obligations (PWSA Supplemental St. No. C-1SD p. 26, lines 4-  
6 12).

7  
8 **Q. DO YOU AGREE THAT PWSA'S INCOME-BASED REIMBURSEMENT**  
9 **POLICY FAIRLY BALANCES THE NEEDS AND CONCERNS OF THE**  
10 **COMMUNITY WITH PWSA'S OTHER OBLIGATIONS?**

11 A. No. I do not agree with the suggestion that PWSA's ability to replace private side  
12 lead line replacement and meet operational obligations are mutually exclusive,  
13 especially when water safety is at issue. Additionally, while I understand that  
14 PWSA has financial concerns, and as I will explain more fully below, I am  
15 advised by counsel that the legislature has provided PWSA with a mechanism to  
16 recover its costs for replacing private-side lead lines, and it should avail itself of  
17 that opportunity.

18  
19 **Q. HAS PWSA EXPLAINED HOW IT DEVELOPED THE PARAMETERS**  
20 **FOR ITS INCOME-BASED REIMBURSEMENT POLICY?**

21 A. No. PWSA has not explained how the sliding scale outlined for its income-based  
22 reimbursement policy was developed.

1    **Q.    HAS PWSA EXPLAINED HOW IT PLANS TO ADMINISTER ITS**  
2       **INCOME-BASED REIMBURSEMENT POLICY?**

3    A.    No. PWSA has not explained how it plans to administer the income-based  
4       reimbursement policy.

5  
6    **Q.    HAS PWSA ESTIMATED THE COST OF ADMINISTERING ITS**  
7       **PROPOSED INCOME-BASED REIMBURSEMENT POLICY?**

8    A.    Yes. In PWSA's response to UNITED XII-14, PWSA states that it used an  
9       administrative budget of \$1,000 when preparing the analysis of the costs for an  
10      income-based reimbursement program for private side lead service line  
11      replacements (I&E Exhibit No. 4-RS, Sch. 1). PWSA did not prepare a detailed  
12      cost estimate to establish this budget.

13  
14   **Q.    WHAT IS PWSA'S ESTIMATE OF THE AVERAGE COST OF**  
15      **REPLACING PRIVATE SIDE LEAD LINES?**

16   A.    In its LSLR Policy, PWSA states that the average cost to replace private-side lead  
17      service lines is \$5,500 (RAW C-46 p.2, paragraph2).

1 **Q. DO YOU BELIEVE REIMBURSING THE COST TO REPLACE**  
2 **PRIVATE-SIDE LEAD SERVICE LINES WILL BE A PROBLEM FOR**  
3 **PWSA'S CUSTOMERS?**

4 A. Yes. I believe it is unreasonable to assume that ratepayers can afford to pay  
5 \$5,500 up front and then be reimbursed, regardless of the amount to be  
6 reimbursed. Ratepayers who cannot afford to pay up front will be unable to  
7 replace their private-side lead service lines. This will slow down the goal of  
8 removing lead service lines from PWSA's water distribution system.

9  
10 **Q. WHAT OTHER ISSUES DO YOU HAVE WITH PWSA'S INCOME-**  
11 **BASED REIMBURSEMENT POLICY?**

12 A. The high estimated cost for administering the policy is the same amount that some  
13 customers will be reimbursed (\$1,000). I believe the resources used to administer  
14 this policy could be better used as construction dollars to replace private side lead  
15 service lines. Also, basing certain customers' access to private side lead service  
16 line replacement on arbitrary income parameters ties safe drinking water to  
17 income, and that is not good policy for a regulated public utility.

18  
19 **Q. WHAT ACTION WOULD YOU RECOMMEND TO PWSA INSTEAD OF**  
20 **ITS INCOME-BASED REIMBURSEMENT POLICY?**

21 A. I am advised by counsel that the Pennsylvania General Assembly has passed  
22 legislation that enables regulated utilities, like PWSA, to recover the cost of

1 replacing customer-owned lead water service lines (66 Pa. C.S. §1311(b)). While  
2 I am aware that 66 Pa. C.S. § 1311(b) does not explicitly address cash-flow  
3 companies like PWSA, on advice of counsel, the lack of that specific reference is  
4 not determinative and it will be addressed in the briefing phase of this case.  
5 Therefore, while I am not offering a legal opinion, it is my understanding that  
6 rather than risking the ratepayers' inability to replace their private-side lead  
7 service lines, PWSA has a mechanism available to replace the line and recover the  
8 cost. Placing the economic burden on the ratepayer when the legislature has  
9 provided a mechanism for recovery is not a position that PWSA or the  
10 Commission should take.

11  
12 **Q. DOES PWSA'S UPDATE CHANGE YOUR RECOMMENDATION**  
13 **REGARDING PWSA'S REPLACEMENT OF LEAD SERVICE LINES?**

14 A. No, but it causes me to supplement my recommendation. My initial  
15 recommendation, that PWSA should take all necessary actions to ensure that if it  
16 transitions its LSLR into any other program in the future, that the transition does  
17 not prolong lead line replacement timeframes or compromise replacement goals  
18 beyond 2026, still stands without modification. However, I am modifying my  
19 second recommendation, which was initially that PWSA's Board should issue a  
20 policy decision committing to continue to perform private-line replacements past  
21 2019, to reflect the updated information presented in PWSA's new LSLR policy.  
22 Therefore, to address PWSA's update, my second recommendation is now that

1 PWSA's Board should be required to perform private-line replacements past 2019,  
2 but that its newly adopted income-based reimbursement policy regarding such  
3 replacement should be rejected.

4  
5 **Q. DOES THIS COMPLETE YOUR SUPPLEMENTAL REBUTTAL**  
6 **TESTIMONY?**

7 **A. Yes.**

**I&E Exhibit No. 4-RS  
Witness: Israel E. Gray**

**Implementation of Chapter 32 of the Public Utility Code  
Regarding Pittsburgh Water and Sewer Authority**

**Docket Nos. M-2018-2640802 & M-2018-2640803**

**Exhibit to Accompany  
the  
Supplemental Rebuttal Testimony  
of  
Israel E. Gray  
Bureau of Investigation & Enforcement**

**Concerning:  
PWSA's plan to replace lead service lines**

**Response of Pittsburgh Water and Sewer Authority ("PWSA")  
to the Interrogatories of Pittsburgh United, Set XII in  
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

**Request: UNITED XII-14** Does PWSA expect to incur any administrative expenses if it implements an income-based replacement program for private-side only lead service lines as contemplated at § 11 of the 2019 Lead Service Line Replacement Policy? If so, please describe these expenses and provide any cost estimates prepared by PWSA.

**Response:** PWSA used an administrative budget of \$1,000 when preparing the analysis of the costs for an income-based reimbursement program for private side LSLRs. It has not prepared a detailed cost estimate to establish this budget.

**Response**

**Provided by:** Robert A. Weimar, Executive Director  
Daniel T. Duffy, P.E., PMP, Lead Service Line Replacement Project Manager  
The Pittsburgh Water and Sewer Authority

**Dated:** August 1, 2019