

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL DIRECT TESTIMONY OF

BARRY KING, PE

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY

Docket Nos.

R-2020-3017951 (Water)
R-2020-3017970 (Wastewater)
P-2020-3019019 (DSIC)

TOPICS:

Unaccounted for Water
Pressures and Pressure Surveys
Isolation Valves
Testing and Replacing Meters
Flushing the Distribution System
Ownership and Maintenance of Customer Laterals
Party-Line Service Lines
Surface Restoration
Warranty on Lead Service Line Replacements
Infiltration and Inflow

August 18, 2020

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.**

3 A. My name is Barry King and I am the Director of Engineering for The Pittsburgh Water
4 and Sewer Authority (“PWSA” or “Authority”).

5 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?**

6 A. Yes, I submitted Direct Testimony on March 6, 2020, which accompanied the rate filing.

7 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

8 A. The purpose of my Rebuttal Testimony is to respond to the Direct Testimony of Terry L.
9 Fought, presented on behalf of the Office of Consumer Advocate (“OCA”) regarding
10 quality of service issues. OCA Statement 8. I also respond to the Direct Testimony of
11 Scott J. Rubin, presented on behalf of the OCA regarding PWSA’s proposed warranty
12 provision for PWSA-funded lead service line replacements.

13 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

14 A. No.

15 **II. STATUS OF CONSTRUCTION PROJECTS**

16 **Q. HAS COVID-19 HAD ANY EFFECT ON CONSTRUCTION PROJECTS?**

17 A. In his Rebuttal Testimony, Mr. Barca has provided an update on capital expenditures,
18 noting that they continue to outpace last year’s spending rate. As he indicates, the
19 proposed rates need to be implemented in order to support critical capital improvements.
20 With respect to effects of COVID-19 on PWSA’s Capital Projects, at the time of the
21 initial implementation of PWSA's Covid-19 Social Distancing Restrictions on March 16
22 2020 and the issuance of the first Governor Order on March 23, 2020, only two (2)
23 essential design projects with field work and eight (8) essential construction projects were
24 able to continue with State permission up through the Governor's lifting of certain

1 restrictions on Construction activities on May 1, 2020. During the shutdown period,
 2 approximately thirty (30) other design projects were able to continue their progress in
 3 compliance with the Social Distancing, without field work, through the remote operations
 4 of staff and consultants. As of May 1, 2020, PWSA had begun the process of staggering
 5 the restart of an additional eighteen (18) design projects with field work and twenty (20)
 6 construction projects upon the successful acceptance and implementation of Covid-19
 7 Health and Safety Plans that were submitted by each of the contractor, consultant, and
 8 vendor firms. Since May 1, 2020, PWSA Staff, Consultant firms and Contractor firms
 9 supporting the continuation of Design and Construction Projects have been operating
 10 successfully under the Social Distancing procedures with minimal issues to date.

11 **Q. PLEASE IDENTIFY THE MOST CRITICAL CAPITAL IMPROVEMENTS**
 12 **THAT NEED TO BE COMPLETED.**

13 A. The most pressing projects are those based on legal mandates from the Department of
 14 Environmental Protection. These are more fully discussed in my Direct Testimony and
 15 include taking actions by specific deadlines in order to resume operation of the Highland
 16 1 Reservoir, restore the Lanpher Reservoir to service, address reliability deficiencies at
 17 the Bruecken Pump Station, and establish a schedule for other capital improvements to
 18 the system. Also, PWSA must fulfill a series of DEP mandates related to lead service
 19 line replacement.¹ Further, PWSA is obligated to comply with a Consent Order and
 20 Agreement (“2019 COA”) issued by DEP on September 6, 2019, which requires, among
 21 other things, the construction of a treated water bypass system to enable it to remove the
 22 existing outdated and compromised clearwell from service and replace it with a new

¹ PWSA Statement No. 4 at 8-13.

1 redundant storage system. The 2019 COA was generally established around a common
2 goal, the replacement of the existing Clearwell. To that end, the COA mandates the
3 completion of all projects that are necessary to support the replacement of the existing
4 Clearwell, projects which mitigate the likelihood of interrupting continuous water supply
5 service while continuing to meet all water quality requirements during the Clearwell
6 Replacements.

7 The Clearwell Emergency Response Project addresses the obvious need to
8 construct a treated water bypass around the existing 112-year old clearwell to allow it to
9 be taken completely offline. Constructed in 1908, the Clearwell was designed as one
10 compartment which cannot be taken out of service to be maintained, and due to its age
11 and condition, it is clearly the largest single risk as a point of failure for the Authority.
12 While the Clearwell will be bypassed for replacement, the current function of the existing
13 Clearwell, providing sufficient retention Contact Time (or CT) for disinfection to meet
14 the requirements of the Federal Surface Water Treatment Rule and Long-Term 2
15 Enhanced Surface Water Treatment Rule, will need to be achieved elsewhere in the
16 system.

17 As such, CT will be achieved in the more than adequately sized Lanpher and
18 Highland No. 2 Reservoirs, which will function as Clearwells for CT throughout the
19 replacement of the existing Clearwell. With these reservoirs intended to function in this
20 capacity, all projects related to the infrastructure for the pumping, transmission, and the
21 storage of treated water in these two reservoirs were included in the 2019 COA.
22 Accordingly, all infrastructure between the Aspinwall Water Treatment Plant and the
23 Lanpher Reservoir were addressed, which includes the Aspinwall Pump Station

1 Improvements Project and the Aspinwall Pump Station to Lanpher Reservoir Rising
2 Main Project. The Lanpher Reservoir Improvements Project to replace the cover and
3 liner replacement has already been completed by 2019. All infrastructure between the
4 Aspinwall Water Treatment Plant and the Highland No. 2 Reservoir were addressed in
5 the 2019 COA, including the Bruecken Pump Station Improvements Project, the 2019
6 Large Diameter Water Main Improvements - Rising Mains Nos. 3 & 4 Project, and the
7 Highland No. 2 Reservoir Improvements Project. Each of these major capital projects are
8 deemed critical to PWSA's water supply.

9 **Q. TO PROVIDE SOME PERSPECTIVE, WHAT ARE THE TOTAL COSTS**
10 **ASSOCIATED WITH CONSTRUCTION PROJECTS THAT ARE NECESSARY**
11 **TO COMPLY JUST WITH THE 2019 COA?**

12 A. PWSA's total commitment for the construction projects that are necessary to comply with
13 the 2019 COA is \$248,866,343.

14 **Q. WHAT ARE THE RAMIFICATIONS IF PWSA FAILS TO FULFILL ITS**
15 **OBLIGATIONS UNDER THE 2019 COA?**

16 A. If PWSA does not comply in a timely manner with any term or provision of the 2019
17 COA, it will be required to pay a civil penalty in the amount of \$100.00 per day for each
18 violation and will also be subject to the imposition of additional penalties. If PWSA is
19 not permitted to raise its rates as proposed in this proceeding, it will be unable to fulfill
20 these obligations. Since PWSA does not have shareholders, payment of these penalties
21 would have to be shouldered by its ratepayers.

22 **III. RESPONSES TO DIRECT TESTIMONY**

23 **A. Unaccounted for Water**

24 **Q. DOES MR. FOUGHT ADDRESS PWSA'S UFW PERCENTAGES FOR 2018 AND**
25 **2019?**

1 A. Yes. Mr. Fought notes that PWSA’s UFW percentages for 2018 and 2019 that were
2 submitted to the Department of Environmental Protection (“DEP”) came directly from
3 the Chapter 110 Reports which should reflect water losses based on withdrawals from the
4 Allegheny River – not water delivered to PWSA’s distribution system. OCA Statement 8
5 at 7. Noting significant differences in the way UFW is calculated under DEP’s Chapter
6 110 and the Commission’s Section 500 methods, Mr. Fought states that PWSA’s UFW
7 information should be provided on the Section 500 form. OCA Statement 8 at 7-9.
8 Therefore, Mr. Fought recommends that PWSA be required, as part of the submission of
9 annual reports to the Commission, to submit a properly prepared Section 500 form. He
10 also recommends that PWSA revise and resubmit the annual report for 2019 with this
11 change. In addition, he recommends that PWSA should keep records of the data used for
12 estimating flows used for blow-offs, street sweeping, flushing, firefighting and main
13 breaks, etc. Finally, he adopts the recommendation of OCA witness Alexander for
14 increasing actual meter readings. OCA Statement 8 at 9-10.

15 **Q. HOW DO YOU RESPOND?**

16 A. PWSA’s has seven system delivery meters: Aspinwall 1, Aspinwall 2, Fox Chapel (only
17 when Pump 4 is in operation), Bruecken Rising Main 1, Bruecken Rising Main 2,
18 Bruecken Rising Main 3, and Bruecken Rising Main 4. Prior to April 2019, these flow
19 meters were not operational. Bruecken Rising Main 1 and 2 are not operational, and will
20 not be able to be repaired until the Membrane Filtration Plant is online. In lieu of
21 Bruecken Rising Mains 1 and 2, there are two flow meters that meter flow at the
22 orthophosphate injection points for the Highland 1 Reservoir area, MFP 1 and MFP 2.
23 The MFP 1 and MFP 2 flow meters are downstream of the Highland 1 Reservoir
24 hydraulic control structure, which allows overflow into the Highland 1 Reservoir.

1 Therefore, these meters do not account for water that has overflowed into the Highland 1
 2 Reservoir. There is no flow meter on the Highland 1 Reservoir hydraulic control
 3 structure. However, PWSA is looking into a means to meter this flow given the existing
 4 space limitations around the structure.

5 It would not make sense to provide Form 500 for 2019 since the system delivery
 6 flow meters were only operational for a portion of 2019. However, PWSA can start
 7 using this form for 2020. Note that a portion of 2020 will not have data from Bruecken
 8 Rising Mains 1 or 2. PWSA has formed a working group to address non-revenue water
 9 including improving SOPs for monitoring water loss through hydrants, breaks, flushing,
 10 etc.

11 **B. Pressures and Pressure Surveys**

12 **Q. PLEASE DESCRIBE MR. FOUGHT’S DISCUSSION REGARDING HIGH**
 13 **PRESSURES.**

14 A. Mr. Fought refers to the requirements in the Commission’s regulations as to the
 15 acceptable range of normal operating pressures, and the DEP criteria addressing
 16 minimum pressures. He also notes that roughly 5% of PWSA’s customers have
 17 pressures higher or lower than the range allowed by the Commission’s regulations. Mr.
 18 Fought then recommends that PWSA reduce normal operating pressures exceeding 125
 19 psi in its mains in order to protect customer service lines and inside plumbing. OCA
 20 Statement 8 at 10-14.

21 **Q. PLEASE RESPOND.**

22 A. Due to the topography, it would not be possible to decrease the main pressure below 125
 23 psi without decreasing pressures below 20 psi in other portions of the pressure zone.
 24 There may be areas on the fringes of pressure zones where pressures could be decreased

1 by moving the area to the neighboring pressure zone, but would require water main
 2 improvement projects to do so. Although the evaluation of scenarios that alter pressure
 3 zone boundaries to optimize high and low pressures is included in the Master Plan for
 4 future improvements, the projects are not planned to begin until 2025 due to competing
 5 and more critical projects.

6 **C. Isolation Valves**

7 **Q. PLEASE DESCRIBE MR. FOUGHT’S TESTIMONY CONCERNING**
 8 **ISOLATION VALVES.**

9 A. Mr. Fought explains that isolation valves are installed on water mains so that water can
 10 be shut off in section of the distribution system in the case of a water main break or for
 11 main repairs and replacements. He also notes that they are used to separate different
 12 pressure zones. Further, Mr. Fought discusses the importance of exercising isolation
 13 valves so that they remain operable. He cites industry guidance suggesting that valves be
 14 exercised annually, if possible, or at least once every two years. Referring to a discovery
 15 response in which PWSA indicated that it has exercised 5,078 of its 26,016 isolation
 16 valves during the past five years, Mr. Fought recommends that PWSA exercise (or
 17 attempt to exercise) 10,000 isolation valves per year until all valves have been exercised
 18 in a 5 year period. Thereafter, he recommends that PWSA develop a reasonable schedule
 19 for exercising isolation waves. Finally, he recommends that PWSA repair the isolation
 20 valves that are found to be inoperable, or alternatively, submit a schedule to the
 21 Commission and OCA for the replacement or repair of those valves. OCA Statement 8 at
 22 14-17.

23 **Q. PLEASE RESPOND.**

1 A. PWSA acknowledges the importance of operable valves throughout the distribution
2 system. Isolation valves are crucial components of PWSA’s water distribution system.
3 PWSA continues to pursue improvements in its isolation valve exercise program, and is
4 currently exercising approximately 5,500 valves per year

5 **D. Testing and Replacing Customer Meters**

6 **Q. PLEASE DESCRIBE MR. FOUGHT’S TESTIMONY REGARDING THE**
7 **TESTING AND REPLACEMENT OF CUSTOMER METERS.**

8 A. Mr. Fought discusses the Commission’s regulations that address testing and replacing
9 meters, including requirements that a water meter of 1 inch may not remain in service for
10 a period longer than 20 years without testing (and readjusting if found to be incorrect)
11 and that a water meter of more than 1 inch may not remain in service for a period longer
12 than 8 years. He also refers to information submitted by PWSA to DEP for the years
13 2018 and 2019, which indicate that the average age of existing meters was 18 years.
14 Noting PWSA’s agreement as part of the Compliance Plan proceeding to “make its best
15 efforts to complete the replacement of small meters within 5-7 years,” Mr. Fought
16 recommends that PWSA should continue to test or replace at least 10,000 meters per year
17 until all of the undocumented meters are either tested or replaced. OCA Statement 8 at
18 17-19.

19 **Q. PLEASE RESPOND.**

20 A. PWSA has implemented a program to replace approximately 50,000 small water meters.
21 In 2019, PWSA replaced over 10,000 water meters. In the first three months of 2020,
22 prior to the COVID-19 pandemic, PWSA continued the pace set in 2019, and was on
23 track to replace approximately 12,000 in calendar year 2020. PWSA is currently ramping

1 the replacement program back up with the goal of replacing 10,000 water meters in 2020.

2 The table below shows the number of meters replaced as of 7/27/2020:

3 **2020 Meter Change Numbers to Date:**

- 4 ○ 5/8" and 5/8*3/4" – 2,809
- 5 ○ 3/4" - 145
- 6 ○ 1" – 183
- 7 ○ 1 1/2" – 26
- 8 ○ 2" – 42
- 9 ○ 3" – 8
- 10 ○ 4" – 8
- 11 ○ 6" – 2
- 12 ○ 8" – 1
- 13 ○ Total: 3,224 meters
- 14

15 **E. Flushing The Distribution System**

16 **Q. PLEASE DESCRIBE MR. FOUGHT’S TESTIMONY REGARDING THE**
17 **FLUSHING OF PWSA’S DISTRIBUTION SYSTEM.**

18 A. Mr. Fought testifies that the last major system flush occurred between September 2018
19 and August 2019, and that otherwise PWSA has been only flushing the portions of the
20 system when it receives water quality complaints or low chlorine readings are reported.
21 Referring to an industry practice of flushing the distribution system annually when
22 possible, Mr. Fought recommends that PWSA flush its distribution system in
23 coordination with exercising its isolation valves. OCA Statement 8 at 19-20.

24 **Q. PLEASE RESPOND.**

25 A. PWSA is working on a flushing program to flush 1/3 of the system each year.

26 **F. Ownership and Maintenance of Customer Laterals Within Public Rights-of-Ways**
27 **and Easements**

28 **Q. DOES MR. FOUGHT EXPRESS CONCERNS ABOUT THE OWNERSHIP AND**
29 **MAINTENANCE OF THE CUSTOMER’S SEWER LATERAL?**

30 A. Yes. Mr. Fought notes that under PWSA’s wastewater tariff, customers own and are
31 responsible for operation, inspection, repair, replacement, abandonment, of sewer laterals

1 within public rights-of-ways and easements all the way to the sewer main. He also refers
2 to similar information on PWSA's website. In Mr. Fought's view, customers should not
3 be responsible for owning the sewer lateral within public rights-of-ways and easements.
4 He indicates that he is unaware of any other wastewater system under the Commission's
5 jurisdiction that places this responsibility on customers. Mr. Fought further notes that
6 PWSA's residential water customers within service lines less than 1-inch are not
7 responsible for their service line within public rights-of-ways and easements, unless they
8 are "party-line" customers. He explains that PWSA has agreed to have a consultant
9 provide a study regarding this issue and has committed to sharing the final report with all
10 parties on January 15, 2021. However, this solution does not resolve Mr. Fought's
11 concern due to PWSA's proposed multi-year rate increase and he recommends that
12 PWSA be required to meet with interested parties no later than March 16, 2021 to discuss
13 the report and determine if the parties can agree on the next steps. OCA Statement 8 at
14 23-25.

15 **Q. WHAT IS YOUR RESPONSE?**

16 A. To comply with the Stage 1 Compliance Plan Order, PWSA has contracted with a
17 Consultant to study and prepare a report that includes the legal, economic and operational
18 feasibility of owning and/or maintaining wastewater laterals within public
19 easements/rights-of-ways. The Consultant is investigating ownership responsibilities of
20 utilities under the Commission's jurisdiction that places this responsibility on customers
21 and utilities of comparable size and complexity that are not under the Commission's
22 jurisdiction.

23 **Q. DOES MR. FOUGHT IDENTIFY EXAMPLES OF PROBLEMS FOR**
24 **CUSTOMERS THAT WERE CREATED BY CUSTOMER-OWNED LATERALS**
25 **WITHIN PUBLIC RIGHTS-OF-WAYS AND EASEMENTS?**

1 A. Yes. Mr. Fought refers to a discovery response provided by PWSA, noting that 56
 2 customers were notified of defective laterals in 2017, 79 customers in 2018 and 92
 3 customers in 2019. He also discusses a situation in which had a house had a sewer
 4 backup into the basement, which the property owner had to pay to clear the blockage.
 5 Because PWSA did not take responsibility, the Allegheny County Health Department
 6 (“ACHD”) places this burden on the customer. Therefore, Mr. Fought recommends that
 7 PWSA be required to maintain sewer laterals within public rights-of-ways and easement,
 8 unless PWSA can prove that these owners/customers constructed these laterals without
 9 PWSA’s knowledge and have not been paying for sewer service. OCA Statement 8 at
 10 27.

11 **Q. HOW DO YOU RESPOND?**

12 A. The PWSA has not inspected or approved the construction of sewer laterals within public
 13 right-of-ways and easements. ACHD has been the responsible party to ensure customer-
 14 owned laterals are constructed to current code.

15 **G. Party-Line Service Lines**

16 **Q. DOES MR. FOUGHT COMMENT ON ANY ISSUES THAT APPLY TO BOTH**
 17 **THE WATER AND SEWER SYSTEM?**

18 A. Yes. Mr. Fought comments on “Party-line” service lines, which are lines that are
 19 approved by PWSA to serve more than one customer. He specifically identifies two
 20 issues with PWSA’s treatment of party-line service lines. The first issue is limited to the
 21 water system, where PWSA treats residential water customers connected to a party-line
 22 differently than its other water customers. While most residential PWSA customers are
 23 not responsible for the portion of the service line between the curb box and the water
 24 main, party-line water customers are responsible all the way to PWSA’s main. In Mr.

1 Fought's opinion, these customers should not be required to replace or repair the portion
2 of a service line between the curb stop and the water main just because they are on a
3 party-line. The second issue relates to all wastewater customers, including party-line
4 customers, and his opposition to PWSA's rule making them responsible for the service
5 line all the way to the Authority's main. Therefore, Mr. Fought recommends that no
6 distinction should be made for water or sewer customers served by "party-lines" unless
7 PWSA can prove that the owners/customers constructed these lines without PWSA's
8 knowledge and have not been paying for service. OCA Statement 8 at 29-31.

9 **Q. HOW DO YOU RESPOND?**

10 A. Residential party-line water customers with 1" service lines or less are only responsible
11 for the repair and maintenance of the portion of the line between the curb box and the
12 water main. As to party-line wastewater customers, I noted earlier that a study is
13 underway regarding the feasibility of owning and/or maintaining wastewater laterals
14 within public easements/rights-of-ways.

15 **H. Surface Restoration**

16 **Q. DOES MR. FOUGHT ALSO ADDRESS 2019-2024 SURFACE RESTORATION?**

17 A. Yes. Mr. Fought notes that PWSA has budgeted over \$20 million for adequately
18 restoring street surface conditions for all applicable capital projects. He also discusses
19 the extent of the surface restoration that is performed, the City's budget for repaving
20 streets, the limited number of projects outside the City that will require surface
21 restoration and future planned projects. Mr. Fought recommends that PWSA coordinate
22 with municipalities and the Pennsylvania Department of Transportation and, as much as
23 possible, replace its water and sewer mains just prior to repaving by the City and other
24 municipalities. He also recommends that PWSA and the City enter into an agreement

1 detailing how the extent of surface restoration is determined and how the costs should be
2 proportioned between the City and PWSA. OCA Statement 9 at 31-33.

3 **Q. HOW DO YOU RESPOND?**

4 A. PWSA acknowledges the need to coordinate future planned capital and operating
5 projects, including water, sanitary, or storm sewer infrastructure replacements and/or
6 improvements in conjunction and coordination with the replacements and/or
7 improvements of the other existing PWSA infrastructure within the selected right-of-way,
8 saving on surface restoration costs as well as minimizing repeated disruptions to the
9 community. These considerations are now a key part of the site selection process.
10 Coordination efforts are currently undertaken to further coordinate water, sanitary, and
11 storm sewer infrastructure replacements/improvements with the planned surface
12 restoration projects of the City of Pittsburgh (Departments of Mobility and Infrastructure
13 ["DOMI"] and Public Works ["DPW"]), Allegheny County, the Pennsylvania
14 Department of Transportation, other municipalities, and homeowners' associations to
15 identify opportunities for collaboration between projects and minimize surface restoration
16 costs. When an infrastructure replacement/improvement project is verified to coincide
17 with a road already scheduled for a paving project, PWSA's project is coordinated with
18 the appropriate agency/entity to ensure that the design, permitting and construction of
19 PWSA's project is completed, whenever possible, in time to allow for the road to be
20 paved on schedule.

21 There is also an active ongoing coordination program with other local utilities, the
22 City (through DOMI), and PWSA to ensure the planned surface restoration and other
23 public works construction activities of each organization are realized and integrated
24 across all organizations, to achieve a net savings in road restoration costs and impacts.

1 PWSA attends the monthly Utility Coordination Meetings with the aforementioned
 2 stakeholders to actively coordinate construction and repair efforts where and when
 3 possible to avoid conflicts where overlapping work is identified.

4 Finally, PWSA will continue to utilize GIS resources, including the Pennsylvania
 5 811 Coordination web service application, to better identify opportunities for
 6 collaboration between projects and to meet the need for increased coordination with the
 7 local utilities and local, state, county and city government agencies. PWSA has
 8 undertaken an active coordination and open dialogue with DOMI to address the need for
 9 a consistent set of policies related to the surface restoration requirements, including how
 10 the extent/limits of surface restoration are determined, as well as the applicable
 11 pavement/concrete specifications for the surface restoration. This coordination is
 12 ongoing.

13 **I. Warranty on PWSA-Funded Lead Service Line Replacements**

14 **Q. PLEASE DESCRIBE MR. RUBIN’S DISCUSSION REGARDING THE**
 15 **PROPOSED WARRANTY ON PWSA-FUNDED LEAD SERVICE LINE**
 16 **REPLACEMENTS.**

17 A. Mr. Rubin refers to Original Page No. 68 of PWSA’s proposed Lead Infrastructure Plan
 18 Tariff Supplement in Exhibit BK-5 and the proposal for PWSA to provide a warranty on
 19 lead service line (“LSL”) replacements. Mr. Rubin imprecisely claims that “PWSA is
 20 proposing to provide a 30-day warranty on LSL work it performs.” OCA St. No. 1 at 57.
 21 He views the proposed warranty period to be inadequate and recommends that PWSA be
 22 required to repair any leaks or other defects discovered in a customer-owned service line
 23 for a period of at least two years after PWSA replaces the line. Mr. Rubin also notes that,
 24 for LSL replacement work funded by a loan from PENNVEST, PWSA is required to
 25 maintain the customer-owned replacement for a period of 30 years (the term of the loan).

1 **Q. PLEASE RESPOND.**

2 A. PWSA’s proposed Lead Infrastructure Plan Tariff Supplement provides that PWSA will
 3 provide, at a minimum, a 30-day warranty on workmanship and material on LSL
 4 replacements funded by PWSA. Mr. Rubin’s proposed warranty period should be
 5 rejected as the Commission is expected to set an industry-wide standard under Act 120 of
 6 2018. The Commission is directed by Act 120 of 2018 to establish an appropriate
 7 warranty for replacements of customer-owned LSLs. 66 Pa.C.S. § 1311(b)(2)(vii).
 8 PWSA anticipates that the Commission will review warranty terms in the context of its
 9 rulemaking proceeding to implement Act 120 of 2018 (Docket No. L-2020-3019521). It
 10 does not seem practical to direct PWSA to change its warranty provision in this
 11 proceeding when the Commission will soon establish a statewide standard under Act 120
 12 of 2018.

13 PWSA’s proposed warranty provision reflects the terms of the agreement that the
 14 Authority enters into with a property owner for a customer-owned LSL replacement. A
 15 modification to that warranty provision would require PWSA to update its terms of the
 16 agreement and other consumer outreach materials. To require PWSA to change its
 17 warranty provision twice within a short time period (once pursuant to this proceeding and
 18 again pursuant to the Commission’s statewide directive) would increase costs for
 19 customer outreach materials, which is not in the public interest or reasonable under the
 20 circumstances. PWSA will modify its warranty provision pursuant to any standard
 21 established by the Commission by regulation or order pursuant to Act 120 of 2018.

22 Mr. Rubin correctly states that PWSA is obligated to maintain customer-owned
 23 replacements funded by PENNVEST pursuant to the PENNVEST loan obligations.

1 **J. Infiltration and Inflow**

2 **Q. PLEASE DESCRIBE MR. KALCIC’S TESTIMONY REGARDING**
3 **INFILTRATION AND INFLOW.**

4 A. Mr. Kalcic notes that the Authority has not provided an estimate of the total Infiltration
5 and Inflow (“I&I”) volume conveyed on its system or identified the total costs associated
6 with I&I. He recommends that the Commission direct PWSA to identify the total costs in
7 its next rate proceeding. OSBA Statement No. 1 at 41.

8 **Q. PLEASE RESPOND.**

9 Mr. Kalcic is correct that in my Direct Testimony, I indicated that PWSA can identify
10 costs of I&I, but that the Authority cannot determine or estimate volumes for allocation
11 by customer class. I need to clarify that statement to note that while PWSA can identify
12 some costs of I&I, it would be challenging to determine the full costs at this time. Also,
13 when PWSA develops a stormwater fee, which it plans to do later this year, it will
14 account for those costs. To the extent that it does not account for all costs, PWSA will
15 address total costs of I&I for the separated system, in its next rate proceeding.

16 **IV. CONCLUSION**

17 **Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?**

18 A. Yes.

VERIFICATION

I, Barry King, hereby state that: (1) I am the Director of Engineering and Construction for The Pittsburgh Water and Sewer Authority (“PWSA”); (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Dated August 18, 2020



Barry King
Director of Engineering and Construction
The Pittsburgh Water and Sewer Authority