Rebuttal Testimony

of

GREGG M. GIASSON, PE

before the

PUBLIC UTILITIES COMMISSION

for

PROVIDENCE WATER

DOCKET# 4994

June 2020

Q. Please state your name and your position.

A. My name is Gregg M. Giasson and I am the Deputy General Manager of Operations/Executive Engineer for the Providence Water Supply Board. I have general oversight of the Engineering, Water Supply and Transmission & Distribution Departments.

Q. Please describe your educational background and work experience.

A. I obtained a Masters of Science in Environmental Engineering from Worcester Polytechnic Institute in 2001 and a Bachelor of Science in Civil Engineering from Tufts University in 1992. I have worked for the Providence Water Supply Board for seven years, the first two years as the Senior Director of Operations and the last five years as the Deputy General Manager of Operations/Executive Engineer. From 2008 to 2012, I worked for the Pawtucket Water Supply Board as the Assistant Chief Engineer/Chief of Operations. Prior to Pawtucket, I worked at the consulting firm Camp, Dresser & McKee for 12 years where I worked on a variety of drinking water projects as both a project engineer and project manager. I am a Registered Professional Engineer in the State of Rhode Island. I am also a licensed Grade 4 Distribution and Grade 4 Treatment Operator in Rhode Island.

Q. What items are being addressed in your testimony?

A. My testimony will cover the following:

(a) Unidirectional Flushing (UDF);

(b) Chemical and Sludge Maintenance Fund; and

(c) Private Side Lead Service Replacement.

<u>Unidirectional Flushing</u>

Q. What are the purpose and benefits of Unidirectional Flushing?

A. Utilities utilize two methods of flushing to help improve water quality within their water distribution system. One method is selecting hydrants within their distribution system and

running them to waste. The second method is Unidirectional Flushing (UDF). UDF is the process of surgically flushing water mains within a distribution system. When conducting a unidirectional flush, selected mains are isolated by closing valves to ensure that the selected main is being flushed. The selected mains are typically 12 inches and below.

Flushing (utilizing either method) helps utilities remove sediment within their distribution system and reduce water age. Providence Water utilizes the UDF method of flushing. UDF provides the following benefits for Providence Water.

1. Reduction of water age within our transmission and distribution system. Flushing helps remove potentially stagnant water. When conducting a UDF, the isolated smaller diameter (12 inches and less) distribution mains are fed by larger diameter (16-inch or greater) transmission mains. UDF helps remove potentially stagnant water from not only the smaller distribution mains but the larger transmission mains.

2. Removal of sediment within the isolated water mains. The purpose of isolating the smaller diameter (12 inches and less) water mains is to ensure that there is adequate velocity within the water main to remove sediment within the water main.

3. Valve exercise program. By utilizing valves to isolate water mains for flushing, valves are exercised and can be repaired if they are broken. By operating valves for flushing, this ensures that the valves will work in an emergency situation such as a water main break.

4. Hydrant exercise program. Hydrants are utilized for flushing the mains as well. Hydrants are exercised and can be repaired if they are broken. By operating hydrants for flushing, this ensures that the hydrants will work in an emergency situation.

Q. Does Unidirectional Flushing benefit Wholesale Customers?

A. Yes. As shown on attached **Exhibit GMG-1** (which was submitted with the response to data request BCWA 5-1)**,** several of our wholesale customers are directly fed through 8-inch and 12-inch water mains. In addition, as discussed previously, the smaller diameter water mains are fed from larger transmission mains and flushing helps remove potentially stagnant water. This benefits not only the wholesale customers who are directly fed by smaller diameter (12 inches or less) mains but wholesale customers who are directly fed by larger diameter (16 inches or greater) mains.

<u>Chemical and Sludge Maintenance Fund</u>

Q. Have there been any changes in Chemical and Sludge Maintenance Fund since Providence Water filed direct testimony?

A. Yes, the two main changes are (1) the construction of the orthophosphate chemical feed system has been delayed and (2) the per gallon chemical cost for orthophosphate at full scale is no longer an estimate and is an actual bid amount.

Q. When does Providence Water anticipate that the Orthophosphate Chemical Feed System will be operational?

A. Assuming there are no additional unforeseen delays, Providence Water anticipates adding orthophosphate by the end of August 2020.

Q. What are the effects of these changes on the Chemical and Sludge Maintenance Fund?

A. In regards to the delay in construction, some additional costs for chemicals used in the pilot area are now included in FY2021 and there will be less costs incurred in FY2020 for full scale orthophosphate. In regards to the per gallon chemical costs, the actual bid prices (on a cost per gallon basis) for the full scale orthophosphate are lower than what Providence Water estimated.

Q. What is Providence Water currently proposing for funding for the Chemical and Sludge Maintenance Fund?

A. As a result of the reduced expenses, Providence Water is reducing the proposed new rate funding from $1,000,000 to $800,000.

Private Side Lead Service Replacement

Q. What is the current status of the Lead and Copper Rule?

A. The Lead and Copper Rule (LCR) is the only drinking water regulation that encompasses customer owned infrastructure as part of compliance. As such, the EPA has been evaluating changes to the LCR for the last several years. The EPA finally issued a draft rule on November 13, 2019. The revised rule can be viewed at the following address.

https://www.federalregister.gov/documents/2019/11/13/2019-22705/national-primary-drinking-water-regulations-proposed-lead-and-copper-rule-revisions

As part of the rulemaking process, stakeholders had 60 days to provide comments (the comment deadline was February 13, 2020) to the revised rule. It is our current understanding that the EPA is evaluating the comments and will promulgate the revised rule in August or September of 2020.

Q. What implications does the revised LCR have for Providence Water?

A. Providence Water already complies with the majority of the requirements in the revised LCR. These requirements are primarily focused on (1) public education on lead in drinking water, (2) developing a lead service line inventory, (3) full lead service line replacements (from the main to the building) and (4) optimizing corrosion control. The two major changes in the LCR that affect Providence Water are the addition of a Trigger Level (TL) and requiring full lead service line replacements as part of compliance. Under the revised LCR, if a utility exceeds the lead TL of 10 ppb (i.e., if more than 10% of the homes sampled have lead levels between 10 ppb (TL) and 15 ppb Action Level (AL)), the utility must complete goal based lead service line replacement. The goal rate is proposed by the utility and must be approved

by the state. If the utility exceeds the AL of 15 ppb, the utility is required to replace 3% of the lead service lines in their system per year. Under the revised LCR, only full lead service line replacements count toward the utility's replacement goal/requirement.

Q. Does Providence Water anticipate being under the TL of 10 ppb?

A. Providence Water has a four-pronged approach to reducing lead at our customer's tap. As part of this filing, Providence Water is looking to enhance our corrosion control strategy by the addition of orthophosphate and bolster our lead service replacement program by increasing funding for private side lead service replacements. Between these two programs, Providence Water is hopeful that we will be below the TL of 10 ppb. As discussed earlier, the LCR is the one drinking water regulation that includes infrastructure not owned by Providence Water. Samples that are taken for compliance with the LCR are taken from a faucet in the customer's home that is frequently utilized for drinking and cooking. The water that is sampled travels through the service line (both public and private) and the customer owned internal plumbing and fixtures. Even if the public and private service line is replaced, there is still the possibility of lead leaching into the water from the possible presence of lead in the customer's plumbing and fixtures. The addition of orthophosphate should help mitigate these issues.

Q. How effective has the current no interest, three year private side lead service replacement program been?

A. Since our no interest, three year loan program began, we sent direct mailings to approximately 40,000 customers throughout our entire distribution system who were suspected of having a private side lead service. We also mailed approximately 3,000 letters to customers in the neighborhoods where we were performing our planned main replacement work. Those neighborhoods were Fox Point, Mount Hope, and Blackstone Boulevard in Providence, Marieville in North Providence, and the Edgewood area of Cranston. Providence Water also has information on the loan program prominently displayed on our website and included on our bills to our customers.

From the beginning of 2018 through November 22nd, 2019, 432 private side lead services have been replaced, with 274 of those being part of the three year, no interest loan program.

Providence Water attempted to survey approximately 330 customers who did not opt to replace their service. Of the approximately 120 that responded to the survey, approximately 60 people indicated that the cost was too high.

Q. Does Providence Water offer any other programs?

A. Providence Water recently worked with the Rhode Island Infrastructure Bank (RIIB) to borrow $3 million to provide no interest, 10 year loans to our customers. This loan closed on May 28, 2020. We are currently in the process of rolling out this program to our customers.

Q. Why is Providence Water proposing to replace private side lead services at no cost to the homeowner?

A. The main focus of the revised LCR is lead service identification and full lead service line replacement (from the main to the home). Specifically, only full lead service line replacements will count towards a utility's goal/requirement. Approximately 204 private side lead services were replaced in 2018 and 228 private side lead services were replaced in 2019. Approximately 1,114 public side lead services have been replaced over the same time period. Cost is a major reason for a customer to not replace the private side portion of the lead service line. As such, by Providence Water replacing the private side of the lead service line at no cost to the homeowner will ensure that the majority of the private side lead service lines will be replaced.

Q. Does that conclude your testimony?

A. Yes, it does

Exhibit GMG-1 [also BCWA 5-1 (a)]

Wholesale Accounts	Svc Pipe Size	Svc Length
Bristol County - Columbia Park	30"	8'
East Providence - Budlong Road	42"	7'
Greenville - George Waterman	12"	30.5'
Johnston - Capitol Street	8"	30'
Johnston - Everbloom Drive	8"	99'
Johnston - Green Hill Road	16"	48'
Johnston - Nardolillo Street	8"	7'
Johnston - Simmonsville Ave	8"	180'
Johnston - Taylor Road	8"	31'
Kent County - Clinton Ave	30"	25'
Kent County - Oaklawn Ave	12"	30'
Lincoln - Woodward Road	16"	5'
Lincoln - Charles Street	12"	30'
Smithfield - Smithfield Road	12"	18'
Warwick - Natick Road	42"	4'
Warwick - Pettaconsett	30"	4'