

STATE OF NEW HAMPSHIRE

BEFORE THE

PUBLIC UTILITIES COMMISSION

AQUARION WATER COMPANY OF NEW HAMPSHIRE

DOCKET NO. DW 20-184

DIRECT TESTIMONY

OF

JOHN P. WALSH

December 18, 2020

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

2

3 **Q. Please state your name and business address.**

4 A. My name is John P. Walsh. My business address is 835 Main Street, Bridgeport,
5 Connecticut.

6

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

8

9 A. I am the Vice President of Operations and Utility Innovation for Aquarion Water
10 Company of Connecticut, Inc. (AWC-CT), and an Officer of the same title for Aquarion
11 Water Company of New Hampshire, Inc. (“Aquarion”, the “Company”, or “AWC-NH”)
12 and Aquarion Water Company of Massachusetts, Inc. (AWC-MA). In that capacity, I
13 oversee aspects of the day-to-day operations of AWC-NH, AWC-CT, and AWC-MA.

14

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

16 A. I hold a B.S. in Civil Engineering and an M.S. in Environmental Engineering from the
17 University of Massachusetts, as well as an M.B.A. in Finance from New York
18 University’s Stern School of Business.

19

20 **Q. Please describe your business/professional background.**

21 A. Prior to my current role, which began in 2020, I served as Vice President of Operations
22 for AWC-NH, AWC-MA, and AWC-CT since 2013. From July 2012 to September
23 2013, I served as Vice President of Operations for AWC-NH and AWC-MA, and from
24 February 2012 to July 2012, I served as Director of Supply Operations for AWC-MA.
25 Prior to that time, I held several positions of increasing responsibility at AWC-CT
26 (including Senior Engineer, Manager of Engineering, and Director of Supply Operations)
27 from January 1995 to July 2007. I’ve also worked in engineering consulting, including as
28 a Project Manager at Tighe and Bond from July 2007 to May 2009, as a Senior Project
29 Manager at Environmental Partners Group from May 2009 to February 2012, and as a
30 Senior Engineer at Montgomery Watson from May 1991 to December 1994.

31

1 **Q. Have you previously testified before the New Hampshire Public Utilities Commission**
2 **(the “Commission”) or any other regulatory commission?**

3 A. Yes, I provided testimony before the Commission in Docket No. DW12-085. I have also
4 testified before the Massachusetts Department of Public Utilities on matters regarding
5 AWC-MA.
6

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

8 A. As part of the transaction that brought Aquarion under the Eversource umbrella, Aquarion
9 committed to public officials in both Hampton and North Hampton that the Company
10 would pursue several important initiatives in its effort to continue to provide reliable, high
11 quality water to its customers. These commitments included evaluating and addressing the
12 risk of per- and polyfluoroalkyl substances (“PFAS”) contamination in the Company’s
13 wells, building a second tank to allow for the rehabilitation of the Exeter Road tank,
14 obtaining a permit to use Well 22, and providing regular hydrant maintenance reports to
15 town officials. My testimony will describe Aquarion’s actions for each of these initiatives.
16 In addition, my testimony will describe the Company’s efforts to communicate with public
17 officials and customers to keep them informed and facilitate feedback from them regarding
18 our performance.
19

20 **II. PER- AND POLYFLUOROALKYL SUBSTANCES (“PFAS”)**
21

22 **Q. What are PFAS, and are they regulated by health agencies?**

23 A. PFAS are a group of man-made chemicals that have been manufactured and used in a
24 variety of industries around the globe, including the United States, since the 1940s. PFOA
25 and PFOS have been the most extensively produced and studied of these chemicals. There
26 are a variety of ways that people can be exposed to these chemicals, including consumer
27 products, food, cookware, and drinking water.
28

29 From 2013 to 2015, the Environmental Protection Agency (“EPA”) required water utilities
30 to test for six PFAS as part of the Unregulated Contaminant Monitoring Rule. In 2016,
31 EPA established a health advisory level of 70 parts per trillion (ppt) for PFOA and PFOS.

1 In 2019, New Hampshire's Department of Environmental Services ("NHDES")
2 established limits for four PFAS (PFOA, PFOS, PFNA, and PFHxS).

3
4 **Q. What has Aquarion done to test for PFAS in its wells and what do the test results**
5 **show?**

6 A. Aquarion performed required testing for six PFAS in 2014 and 2015 as part of EPA's
7 Unregulated Contaminant Monitoring Rule. Only one sample showed detectable levels of
8 PFAS in 2015; however, with the laboratory methods available at that the time, minimum
9 detection levels were relatively high. Over the next few years, with improved laboratory
10 methods, minimum detection limits dropped dramatically, approaching 1 part per trillion
11 (1 nanogram per liter).

12
13 The Company continued to perform voluntary testing for PFAS, testing 325 samples
14 collected from wells and the distribution system between 2016 and 2019. As the detection
15 limits for PFAS decreased, the Company observed more widespread occurrence of PFAS
16 in its wells. To date, PFAS have been detected in all 17 of the Company's wells, with the
17 highest concentrations in the wells at the Mill Road well field. In particular, in the
18 summer of 2017, the Company detected PFAS in Well 6 (one of six wells at its Mill Road
19 well field) at concentrations higher than previously found. With the exception of PFOA in
20 Well 6, PFAS concentrations in the Company's wells are below New Hampshire's
21 regulatory limits.

22
23 **Q. What actions has Aquarion taken to address PFAS in its well water, and what**
24 **further actions does the company plan to take?**

25 A. When increasing concentrations of PFAS were found in Well 6 in the summer of 2017, the
26 Company shut off the well for the remainder of the year.

27
28 In 2017, the Company initiated an analysis to identify potential solutions for PFAS in
29 Well 6, along with estimating the cost (both capital and operating) and rate impact of the
30 potential solutions. The Company identified two basic solutions. First, blending Well 6
31 water with water from other wells in the Mill Road wellfield (which had lower or not-

1 detectable concentrations of various PFAS) before the water entered the distribution
2 system. This solution would require the installation of piping in the wellfield to connect
3 the wells prior to their connection to the distribution system. Second, treating the water to
4 remove PFAS.

5
6 In the spring of 2018, the Company installed the piping that was needed to allow blending
7 of Well 6 water with water from other wells at the Mill Road wellfield. Since that time,
8 the Company has used Well 6 only when needed to satisfy high demands, and has
9 practiced blending with other wells whenever the Well 6 was used. As a result, samples
10 of water from the distribution system in 2018, 2019, and 2020 have had PFAS
11 concentrations well below regulatory limits.

12
13 Also in 2018, the Company took the next step to evaluate PFAS treatment by performing a
14 bench-scale treatment analysis. Using the results of this analysis, the Company developed
15 a preliminary design for treatment, updated the estimate of capital and operating cost of
16 PFAS treatment, and updated the estimate of the rate impact of building a treatment
17 facility.

18
19 In 2019, the Company took the next step to evaluate PFAS treatment by performing a
20 pilot-scale treatment analysis. Using the results of this analysis, the Company further
21 refined the estimated cost of building a treatment facility and the resulting impact on water
22 rates.

23
24 The Company's plans to build a PFAS treatment system for Well 6 in 2021, as described
25 in the testimony of Carl McMorran and Daniel Lawrence.

26
27 **Q. Has Aquarion communicated with public officials about its findings and progress on**
28 **the PFAS?**

29 A. Since discovering relatively high PFAS in Well 6 in 2017, Aquarion has communicated
30 regularly with public officials (as described below) about the issue. The Company has
31 provided local public officials with reports that include updated PFAS sample results, a

1 description of actions taken (e.g. bench and pilot scale testing), and updates of the
2 estimated cost and rate impact. The Company has presented several times per year to both
3 the Hampton and North Hampton Boards of Selectmen, providing a summary of the
4 information in the aforementioned reports at those presentations. In addition, the
5 Company meets several times per year with a stakeholder group consisting of leadership
6 and staff from Hampton and North Hampton, and the meeting agenda has included
7 updates on the PFAS issue. The Company has also kept a broader group of interested
8 parties apprised of the PFAS sample results through a periodic email update. PFAS
9 samples results are also shown on the Company website.

10
11 The Company has proceeded prudently to evaluate the PFAS issue and identify solutions,
12 all the while keeping public officials informed about water quality, potential solutions to
13 mitigate PFAS, and the estimated cost and impact on water rates.

14
15 **III. EXETER ROAD WATER STORAGE TANK**

16
17 **Q. Describe the Company's Exeter Road water storage tank, and the issue of its**
18 **rehabilitation.**

19 A. The Exeter Road water storage tank is an elevated steel storage tank that has a 750,000
20 gallon capacity. The tank was constructed in 1983. It has not been rehabilitated since it
21 was built 37 years ago, and thus still has the original interior and exterior paint coatings.
22 Inspection reports in 2011, 2013, and 2016 recommend various levels of rehabilitation
23 (including re-coating the tank interior and exterior). Rehabilitation and painting will need
24 to happen in the near future and will require that the tank be taken out-of-service for
25 between 3 and 6 months to complete.

26
27 The Exeter Road water storage tank is one of four water storage tanks in the Company's
28 system. It is the primary storage tank in the Company's primary pressure zone, and is
29 located at the highest elevation of the four tanks. Because of its elevation and the
30 interconnected distribution system across the pressure zones, the Exeter Road tank can
31 serve as backup water storage for any of the three other tanks when they have to be taken

1 out-of-service for rehabilitation. However, the reverse is not true because a tank at a
2 lower elevation cannot serve as a backup for a tank at a higher elevation without pumping.
3 Thus, the Company had to determine how to best provide reliable water service to its
4 customers in the primary pressure zone while the Exeter Road tank is out-of-service for
5 rehabilitation.

6
7 **Q. What approaches did the Company identify for providing reliable water service**
8 **while the Exeter Road tank is out-of-service for rehabilitation, and which approach**
9 **did the Company select?**

10 A. The Company identified and evaluated approaches that included closed-system pump
11 pressurized operations, an interconnection with Rye Water District's water system, and
12 building a second tank at the same elevation as the Exeter Road tank.

13
14 The Company determined that building a second tank at the same elevation is the most
15 prudent approach. The Company subsequently evaluated three locations for the proposed
16 new tank. The Company determined that building the proposed new tank on the same site
17 as the existing Exeter Road tank would best serve the interests of maintaining water
18 pressure for fire safety and water quality, would not require operational changes, is the
19 least cost location, and compared to the other sites considered, would not require obtaining
20 new easement rights and would result in the least site disturbance and related
21 environmental impacts.

22
23 **Q. What is the current status of the Exeter Road tank project?**

24 A. Permitting for the second tank on the same site as the existing Exeter Road tank requires a
25 variance for structure height and a special exception from the Hampton Zoning Board of
26 Adjustment ("ZBA"), and a Site Plan approval from the Hampton Planning Board.
27 Aquarion applied for the variances from the ZBA in early 2020, but was denied approval
28 based upon the presumed impact the new tank would have on neighboring property
29 values. The Company filed a motion for reconsideration with the ZBA; however, that was
30 also denied. The Company is currently considering its options, which are essentially the
31 same as they were before.

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IV. WELL 22

Q. Describe the Company's Well 22.

A. As shown in the pre-filed testimony of Dan Lawrence, Well 22 is the Company's largest capacity well. As described in the pre-filed testimony of Carl McMorran, the Company drilled the well in 2012 but delayed fully developing the well for several reasons. Long-term planning done after the 2016 drought indicated that an additional source of supply was needed to meet projected long term demands; thus, the Company began to work again on developing Well 22, with the critical next step being to obtain a Large Groundwater Withdrawal Permit from NHDES.

Q. Has the company succeeded in obtaining a Large Groundwater Withdrawal Permit for Well 22? Describe the effort to obtain this permit?

A. Yes, the Company obtained a Large Groundwater Withdrawal Permit for Well 22 from NHDES in January 2020. The Company worked diligently for several years to obtain this permit and bring the well into service. The Company submitted an application to the NHDES for a proposed pump test for Well 22 in March 2017. In July and September 2017, the Company received comprehensive comments from a representative of the Towns of Hampton and North Hampton, and the Company provided responses to these comments to NHDES in November 2017. Upon NHDES' approval of the pump test plan, the Company performed a month-long pump test of the well in summer 2018. The Company then prepared a comprehensive permit application and filed it in April 2019. As noted above, NHDES approved the permit in January 2020, and by June 2020, Aquarion had the well in service.

V. HYDRANT MAINTENANCE

Q. How many hydrants are in the Company's system?

A. There are 495 public hydrants in the system (280 in Hampton, 149 in North Hampton, and 66 in Rye), which are owned and maintained by Aquarion. There are also private hydrants

1 connected to the Company's system; however, these private hydrants are located on
2 private properties (e.g. condo complexes) and are owned and maintained by the owners of
3 those properties.
4

5 **Q. Describe the hydrant maintenance performed by Aquarion.**

6 A. Aquarion performs preventive maintenance on each public hydrant twice per year. In the
7 spring, preventive maintenance includes inspecting the hydrant, sounding it to listen for
8 leaks, confirming whether the barrel has been found dry, flushing water from the hydrant
9 to ensure free flow from the hydrant, documenting the volume of water used for hydrant
10 flushing, measuring and documenting the static water pressure at the hydrant, greasing the
11 fittings, ensuring that the barrel is left dry, documenting if the hydrant needs to be re-
12 painted, and clearing vegetation from around the hydrant. In the late fall, Aquarion checks
13 each public hydrant to ensure that its barrel is dry (some hydrants do not drain when shut
14 off due to lack of a drain or high groundwater) and pumps out the hydrants that are not
15 dry.
16

17 This preventive maintenance program complies with Commission rules at Puc 606.03(c)
18 which requires that hydrants maintained by the utility be inspected and flushed at least
19 once each year, and be checked for freezing as often as necessary to ensure that they are
20 functioning properly.
21

22 In addition, the Company performs reactive maintenance when a public hydrant is
23 damaged or found inoperable. Very few hydrants are found to be inoperable each year.
24

25 **Q. How does Aquarion document and report on its hydrant maintenance activities?**

26 A. The Company utilizes its Enterprise Resource Planning system (i.e. SAP) to document its
27 hydrant maintenance activities. The system has been configured to capture information
28 about hydrant maintenance in a consistent manner to facilitate reporting on hydrant
29 maintenance.
30

31 Each quarter, the Company provides a hydrant maintenance report to town officials

1 showing summary information about the maintenance performed on each hydrant
2 maintained during the quarter, and a list of specific maintenance activities performed on
3 each hydrant maintained during the quarter. In 2017, the Company worked with town
4 officials to develop the report format in an effort to ensure that the reports included the
5 information that town officials needed.

6
7 The Company also submits the “Annual Report of Hydrant Inspections” (Form E-17) to
8 the Commission each year in accordance with Commission rules at Puc 609.10.

9
10 This reporting for hydrant maintenance complies with Commission rules at Puc 606.03(d)
11 that requires that a record of each hydrant be maintained showing the size, type, location,
12 date of inspection and flushing and the results thereof, and that reports of periodic
13 inspection of flushing of hydrants shall be reported to the commission on Form E-17.

14
15 **VI. COMMUNICATIONS**

16
17 **Q. Describe Aquarion’s communications practices with public officials.**

18 A. Aquarion is committed to open communications with town officials. The Company
19 coordinates a “stakeholder” meeting several times each year - inviting representatives of
20 Hampton, North Hampton, and Rye – to provide updates on operations, maintenance,
21 capital projects, and water quality, and to obtain feedback from town officials and staff
22 regarding issues or concerns related to the water system and service. The Company also
23 presents at Selectmen meetings several times each year, covering the same topics
24 discussed at the stakeholder meetings. Both the stakeholder meetings and updates at
25 Selectmen meetings are important opportunities for communications between the
26 Company and the local leadership, and allow the Company to better understand the needs
27 of the communities it serves.

28
29 **Q. Describe Aquarion’s communications with Fire Departments.**

30 A. Similar to its meetings with other town officials, Aquarion coordinates semi-annual
31 meetings with representatives of the fire departments in Hampton, North Hampton, and

1 Rye to discuss system operations, maintenance (particularly hydrant maintenance), and
2 ongoing and upcoming main replacement projects. Aquarion staff members have good,
3 long-standing relationships with staff at the fire departments, and maintain open lines of
4 communication to ensure that issues regarding fire service and hydrants are readily
5 communicated. As described above, Aquarion also provides town officials with a
6 quarterly hydrant maintenance report.
7

8 **Q. Describe how Aquarion communicates with its customers.**

9 A. Since 2012, Aquarion has expanded its commitment to exceptional customer service
10 through investments in a new website platform, customer e-billing portal, and reverse 911
11 emergency notification system. The Company uses these technology tools, as well as
12 communication channels like Facebook, to provide our customers with important, up-to-
13 date information about the water system.
14

15 Aquarion has maintained a Customer Advisory Board (“CAB”) comprised of interested
16 customers since the 1990s. The Company typically holds two meetings each year with the
17 CAB to discuss updates on a variety of topics, including operations, infrastructure
18 improvements, community activities, and rates, as well as to seek the CAB members’
19 input on the Company’s performance.
20

21 **Q. Does this complete your testimony?**

22 A. Yes it does.