

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.
DW 24- _____

2024 WATER INFRASTRUCTURE
AND CONSERVATION ADJUSTMENT FILING

DIRECT TESTIMONY OF
DANIEL R. LAWRENCE

March 08, 2024

1 **Q. Mr. Lawrence, please state your name and business address.**

2 A. My name is Daniel R. Lawrence. . My business address is 600 Lindley Street,
3 Bridgeport, Connecticut 06606.

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

5 A. I am the Vice President of Engineering and Real Estate for Aquarion Water
6 Company of New Hampshire, Inc. (“Aquarion” or the “Company”), Aquarion
7 Water Company of Massachusetts, Aquarion Water of Connecticut, Torrington
8 Water Company, Abenaki Water Company and employed by Aquarion Water
9 Company of Connecticut. I oversee several departments, including Engineering
10 and Planning, Real Estate, Fleet, Facilities, and Wastewater Operations.

11 **Q. Please describe your educational background.**

12 A. I attained a bachelor’s degree in Civil Engineering (with a concentration in
13 Environmental Engineering) from the University of Massachusetts. I am also a
14 licensed Professional Engineer in the State of Connecticut.

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

16 A. I joined Aquarion as the Director of Engineering and Planning in 2014 and was
17 named to my current position as Vice President of Engineering and Real Estate in
18 2020. Prior to joining Aquarion, I was employed by Weston & Sampson, serving
19 in various roles from 1997 to 2014 including Engineer, Senior Engineer, Project
20 Manager and Senior Associate. Through these positions, I had increasing levels of
21 responsibility in capital project management and planning, including oversight of

1 capital investments throughout New England, New York, and New Jersey. Prior to
2 joining Weston & Sampson, I was employed as an engineer and project engineer
3 with the consulting firm of Metcalf & Eddy and as an Engineer with Blasland,
4 Bouck and Lee, LLC working throughout New England, New York, New Jersey,
5 Pennsylvania, and Michigan.

6 **Q. What professional affiliations do you have?**

7 A. I am an active member of the American Water Works Association (“AWWA”)
8 and through Aquarion’s membership I am associated with the National
9 Association of Water Companies, New England Water Works Association, and the
10 Connecticut Water Works Association, the latter of which I serve as its President.

11 **Q. Have you previously testified before the New Hampshire Public Utilities
12 Commission (“Commission”)?**

13 A. Yes. I have previously testified before the Commission in the Company’s last rate
14 case docket (Docket No. 20-184). I have also previously testified before the
15 Connecticut Public Utility Regulatory Authority on numerous dockets, including
16 AWC-CT’s most recent rate case (Docket No. 22-07-01), various acquisition
17 transactions (Docket Nos. 22-09-18; 21-04-23; 20-06-21) and Aquarion Water of
18 Connecticut’s Water Infrastructure and Conservation Adjustment dockets.

19 **Q. What is the basis for the Company making this WICA filing?**

20 A. The Commission approved a WICA program for Aquarion NH in Order Nos.
21 25,019 (DW 08-098, dated September 25, 2009), 25,539 (DW 12-085, dated June

1 28, 2013) and 26,659 (DW 20-184, dated July 29, 2022). In Aquarion’s last rate
2 case, the WICA program was memorialized in the Company’s tariff. Among
3 other things, the WICA program tariff provisions require that Aquarion submit
4 WICA budgets for Commission approval. Since the Company’s rate of return
5 exceeded 50-basis points in 2023, Aquarion is not seeking approval of a WICA
6 surcharge update, consistent with the terms of the tariff. Therefore, this filing is
7 simply to provide the Commission with the WICA budgets for approval as being
8 consistent with the WICA project criteria specified on Fourteenth Revised Page
9 16 of the tariff.

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

11 A. As I mentioned above, my testimony discusses how the WICA-eligible projects
12 constructed in 2023 and the projects proposed for 2024, 2025 and 2026 all meet
13 the necessary criteria for inclusion in the WICA. These projects are listed in
14 Attachment DL-1. All projects meet the WICA eligibility requirement that
15 projects must be non-revenue producing system improvements pertaining to
16 mains, valves, services, and production meters.¹

17 **Q. Please briefly describe the attachments to your testimony.**

18 A. Attachment DL-1 identifies Aquarion’s completed 2023 WICA projects and their
19 respective costs as well as estimated costs for projects anticipated for 2024
20 through 2026. Attachment DL-2 contains the updated main replacement

¹ See Aquarion Water Company of New Hampshire, Inc. tariff for water delivery service NHPUC No. 1 at Fourteenth Revised Page 16.

1 prioritization analysis and infrastructure inventory. The pipe segment lengths
2 reported in Attachment DL-2 represent total inventory whereas the pipe segment
3 lengths reported in Attachment DL-1 represent only the segment of infrastructure
4 being replaced. In both attachments the Company has projected the low (\$350)
5 and high (\$450) main replacement cost per foot based on the Company's most
6 recent experience in bidding projects for the systems in Hampton, North Hampton
7 and Rye. The range of costs reflects variable costs of materials, excavation
8 conditions, paving restoration requirements that may be imposed by the Public
9 Works Department within each community, and traffic control costs.

10 **Q. Please provide the scope of the projects constructed in 2023?**

11 A. Refer to the list of projects below:

12 Main Replacement Projects constructed in 2023:

13
14 George Avenue in Hampton: Replaced 841 feet of six-inch Asbestos Cement
15 main with eight-inch Ductile Iron main in coordination with the Town's drainage
16 and paving project. This stretch had a history of main breaks which the project
17 addressed, as well as extending the useful life of the main, and enhancing material
18 integrity. A paving savings of \$47,989.60 was realized as a result of coordinating
19 the project schedule with Town drainage and paving schedule.

20
21 Emery Lane in Hampton: Replaced 400 feet of six-inch Asbestos Cement main
22 with a history of main breaks, with eight-inch Ductile Iron main in coordination
23 with the Town's paving project to address useful life of main and enhance
24 material integrity. A paving savings of \$18,240 was realized as a result of
25 coordinating project schedule with the Town's paving schedule.

26
27 Landing Road in Hampton: Replaced 459 feet of eight-inch Ductile Iron main
28 with eight-inch High Density Polyethylene Main. This main was prioritized due to
29 a history of water main breaks as a result of corrosion of the existing Ductile Iron
30 main. This project also enhanced material integrity, extended the useful life of
31 main, and protected against negative critical system impact.
32

1 Highland Avenue in Hampton: Replaced 160 feet of sixteen-inch concrete main
2 with sixteen-inch High Density Polyethylene Main. This main was prioritized
3 because it is a critical main and the existing concrete main would have been
4 exceedingly difficult to repair in the event of a main break, compromising system
5 integrity. This project also extended the useful life of main, protected against
6 negative critical system impact and enhanced material integrity.

7
8 Marston Way in Hampton: Replaced 390 feet of six-inch Asbestos Cement main
9 with eight-inch High Density Polyethylene main. This project was prioritized to
10 coordinate with the Town of Hampton’s paving of this roadway in 2023. This
11 project also extended the useful life of main, enhanced material integrity and
12 hydraulic capacity. A paving savings of \$36,166 was realized as result of
13 coordinating the project schedule with Town’s paving schedule.

14
15 Atlantic Avenue in North Hampton: Main Break – Replaced ten feet of eight-inch
16 Asbestos Cement main, as a result of the main break.

17
18 Ocean Boulevard in Hampton: Main Break – Replaced ten feet of ten-inch
19 Asbestos Cement main, as a result of a main break.

20
21 **Q. What action is the Company requesting in this WICA filing regarding the**
22 **projects put into service during the 2023 program year?**

23 A. The Company is requesting the Commission confirm these projects as WICA
24 eligible and appropriate to include in a future WICA surcharge filing. While the
25 Company is not seeking to change the WICA surcharge for the next period
26 running from April 1, 2024 through March 31, 2025, the Commission-approved
27 settlement agreement on permanent rates in the Company’s last rate case, Docket
28 No. DW 20-184, states that “[i]f the Company has exceeded the fifty-basis point
29 threshold in a given year, it may include its WICA eligible plant investments for
30 recovery in a future WICA filing when it is next eligible to submit a WICA filing.
31 ” (Settlement at 9). Because of this provision, the Company respectfully asks for
32 the Commission’s confirmation on the eligibility of the 2023 projects should the
33 Company seek recovery in the next WICA surcharge collection period.

1 **Q. What action is the Company requesting with regard to the proposed WICA**
2 **projects reflected in the budgets for 2024, 2025, and 2026 shown in**
3 **Attachment DL-1?**

4 A. With regard to the projects listed for 2024, the Company is requesting that the
5 Commission approve the budgets as containing exclusively WICA-eligible
6 projects making them eligible for future recovery in the WICA surcharge, subject
7 to the Department of Energy’s audit and the Commission’s prudence review of
8 the actual costs of the projects once completed. Regarding the projects listed for
9 2025, the Company is requesting that the Commission preliminarily approve these
10 proposed projects for the WICA program, with the understanding that if “changed
11 circumstances or significant new information [cause] the Company . . . to
12 undertake projects in Year 1 that were not included on the list of approved WICA
13 projects for that year or it has decided not to proceed with one or more projects
14 that were included on the Commission-approved list, [the Company] shall
15 promptly notify the Commission and all parties to the proceeding in which the list
16 of WICA projects was approved that the Company plans to add to or delete
17 projects and the reason for the proposed changes.” (Aquarion Tariff Third
18 Revised Page 18). Finally, the projects listed for 2026 are provided for
19 informational purposes only.

20 **Q. Please describe the selection process for the WICA projects.**

21 A. As in previous WICA filings, the Company uses an objective scoring system to
22 evaluate pipe segments for replacement.

1 In general, the Company continues to enhance its use of its Geographic
2 Information System (“GIS”) to evaluate and manage its distribution system assets.
3 Information on individual pipe segments, valves and hydrants is updated regularly
4 with data from field surveys, project drawings, conversion of old maps and
5 records, engineering analyses, and hydraulic models. Pipe segments are first
6 scored on the characteristics of breaks and leaks, pipe age, materials
7 characteristics, need for bleeders and hydraulic capacity, then on critical
8 customer, pipe lining, and schedule coordination factors.

9 However, the prioritization of these projects through the otherwise robust scoring
10 and selection criteria may at times be influenced by extenuating circumstances.

11 Any such circumstances are included in the project descriptions below.

12 **Q. Please describe the main replacement projects that the Company proposes to**
13 **include in the WICA program for 2024, 2025, and 2026.**

14 A. All of the following projects meet the WICA eligibility criteria set forth in
15 Aquarion’s tariff. In addition, as mentioned above, the prioritization of these
16 projects was further influenced by extenuating circumstances as described below,
17 justifying their inclusion in the WICA project list for the coming years.

18 Proposed Main Replacement Projects for 2024:

19 Gentian Road

20 The Town of Hampton notified the Company that it planned to complete drainage
21 improvements on Gentian Road in 2024. As such, the Company modified its
22 main replacement plan to take advantage of the cost and resource efficiencies
23 associated with coordination and plans to replace the existing six-inch Asbestos

1 Cement water main in Gentian Road with a new four-inch High Density
2 Polyethylene main to improve reliability. This water main replacement is being
3 prioritized as a result of paving coordination with the Town and water main
4 breaks that would have occurred during and after the drainage construction
5 project.

6

7 Meadow Pond Road

8 Water main on Meadow Pond Road includes 305 feet of six-inch Asbestos
9 Cement and 245 feet of two-inch Cast Iron main which has a history of breaks
10 and the Company plans to replace the main with four-inch High Density
11 Polyethylene to improve reliability. The Town of Hampton notified the Company
12 that it planned to complete drainage improvements and paving on Meadow Pond
13 Road in 2024. As such, the Company modified its main replacement plan to take
14 advantage of the cost and resource efficiencies associated with coordination with
15 the Town. This water main replacement was prioritized as a result of the history
16 of main breaks, paving coordination with the Town, and water main breaks that
17 would have occurred during and after the drainage construction project.

18

19 Green Street

20 The Town of Hampton notified the Company that it planned to complete drainage
21 improvements on Green Street in 2024. As such, the Company modified its main
22 replacement plan to take advantage of the cost and resource efficiencies
23 associated with coordination with the Town and plans to replace the existing six-
24 inch Asbestos Cement water main in Green Street with a new eight-inch High
25 Density Polyethylene main to improve hydraulic capacity and reliability. This
26 water main replacement was prioritized as a result of paving coordination with the
27 Town and because water main breaks would have occurred during and after the
28 drainage construction project in the absence of this work being completed.

29

30 Ocean Boulevard in North Hampton:

1 Replacement of approximately 285 feet of existing eight inch Asbestos Cement
2 main with eight-inch High Density Polyethylene main, as a result of a main break
3 that occurred in January 2024, associated with a flooding event, that resulted in
4 washout of the roadway and utilities along the roadway.

5

6 Proposed Main Replacement Projects for 2025:

7 Mace Road

8 The Town of Hampton notified the Company that it plans to complete drainage
9 and sewer improvements on Mace Road in 2025. Consistent with the information
10 provided above, the Company modified its main replacement plan to take
11 advantage of the road work and paving coordination and plans to replace the
12 existing eight-inch Asbestos Cement and six-inch Cast Iron water main in Mace
13 Road with a new twelve-inch Ductile Iron main to improve hydraulic capacity,
14 fire flows and reliability.

15

16 Route 1A Main

17 This project will replace approximately 2,705 feet of twelve-inch, eight-inch,
18 four-inch, and two-inch Ductile Iron and High density polyethylene main with
19 twelve-inch Ductile Iron main in conflict with NHDOT's proposed location for a
20 new bridge across the Hampton River. There are currently two parallel four-inch
21 mains that cross the Hampton River under Hampton Harbor. Construction of the
22 new DOT bridge from Hampton to Seabrook will directly impact these mains and
23 require them to be removed during construction of the new bridge. Both the
24 Company's hydraulic model and field tests show that fire flows are inadequate on
25 the south side of the river. Replacement of the existing mains with larger mains
26 will improve fire protection in this area. Therefore, the Company plans to install
27 a new main on the proposed DOT bridge as part of DOT's bridge replacement
28 project.

29

30 Proposed Main Replacement Projects for 2026:

1 Briar Lane in Hampton:

2 This project will replace approximately 781 feet of six-inch Cast Iron main with
3 eight-inch High Density Polyethylene main to address main break history.
4 Approximately 50 feet of new main (outside WICA), will also be installed to
5 close a gap to Cranberry Lane to eliminate two dead ends.

6

7 Riverview Terrace in Hampton:

8 This project will replace approximately 511 feet of six-inch Asbestos Cement
9 main with four-inch High Density Polyethylene main due to the age and material
10 type of the existing main.

11

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

13 **A. Yes.**