

**Aquarion Water Company Bi-Annual Report on Planned and Completed Capital Improvements to  
the Abenaki Water Company Systems  
January 15, 2025**

Aquarion Company (“Aquarion”) provides this report pursuant to Order No. 26,549 issued by the New Hampshire Public Utilities Commission (the “Commission”) in Docket DW 21-090 on November 12, 2021 (the “Order”), and the Settlement Agreement dated November 9, 2021, as approved in the Order. Specifically, Section 10.1 of the Settlement Agreement requires Aquarion to provide a bi-annual update of planned and completed capital improvements to the Abenaki Water Company (“Abenaki”) water systems. This report provides the update as of December 31, 2024.

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## Lakeland (Belmont)

The planned capital improvements through 2027 are presented below:

Project Description	Actual Spend to Date Since Acquisition of NESC in December of 2021	2025 Projected Spend	2026 Projected Spend	2027 Projected Spend	Total Spend (Actual + Projected)
Water System Mapping & Improvements	\$4,955	\$5,750	\$600	\$600	\$11,905
SCADA & Instrumentation Upgrades	\$15,450	\$17,000	\$5,500	\$4,800	\$42,750
Generator for Plummer Hill Booster Station	\$35,503	\$ -	\$ -	\$ -	\$35,503
Generator for Wells & Treatment Plant	\$85,552	\$ -	\$ -	\$ -	\$85,552
Treatment Plant Disinfection System	\$42,714	\$180,000	\$ -	\$ -	\$222,714
Plummer Booster Pump Station Safety Improvements	\$1,725	\$ -	\$ -	\$ -	\$1,725
Well 5 Access Road and Rehab	\$ -	\$100,000	\$ -	\$ -	\$100,000
Customer Meter Replacement	\$17,312	\$804	\$603	\$ -	\$18,719
Well Production Study	\$ -	\$ -	\$ -	\$ -	\$ 0
Total	\$203,211	\$303,554	\$6,703	\$5,400	\$518,868

### In Progress or Completed:

- **Water System Mapping Improvements** – Revisions and adjustments to the mapping are periodically made when new information becomes available.
- **SCADA and Instrumentation Upgrades** – Telemetry and data acquisition equipment was installed at the facility to monitor station operations in 2023. Additional equipment will be installed to improve monitoring and control capabilities.
- **Generator for Plummer Hill Booster Station** – The project is complete and in service.
- **Generator for Wells and Treatment Plant** – This project is complete and in service.
- **Treatment Plant Disinfection System** – The Lakeland System is not currently providing chlorine disinfection of the water supply. Chlorination of water systems is an important safeguard to public health and is a company policy for Aquarion, and the same policy will apply to Abenaki. A water quality evaluation and alternatives analysis for chlorine addition was completed in 2024. This work is scheduled to be bid in January of 2025 and work is expected to start in early Spring of 2025.

### Planned to begin in 2025:

- **Well 5 Access Road and Rehab** – Well 5 requires maintenance but does not currently have a way to access the well. Aquarion is working to obtain a temporary easement to create an access road. Once the temporary easement is in place, Aquarion will coordinate the construction of an access road and will plan to complete a thorough well rehabilitation including pulling the existing pump and riser piping for inspection. While the pump and piping are being inspected, the well will be hydrofracked to clean the well with the goal of increasing the well yield.

- ***Plummer Booster Pump Station Safety Improvements*** – Stairway improvements were completed in 2024. This project is complete and in service.
- ***Customer Meter Replacement*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.
- ***SCADA and Instrumentation Upgrades*** – Direct monitoring of the storage tank level is being added, along with associated programming changes for pump operations. The disinfection project includes additional flow and chemical monitoring equipment, to be followed by more programming changes for chemical feed dosing.

**Future Years (2026-2027):**

- ***SCADA and Instrumentation Upgrades*** – Equipment updates and repairs will be completed as necessary.
- ***Customer Meter Replacement*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.
- ***Well Production Study*** – This project includes retaining a consultant to evaluate the production capability of each well to evaluate their long-term viability. The project has been delayed at this time and will be re-evaluated to determine the appropriate time for completion.

## White Rock (Bow)

The remainder of the \$350,000 grant from the New Hampshire Drinking Water and Groundwater Trust Fund (“NHDWGTF”) was spent in 2024. The planned capital improvements through 2027 are presented below:

Project Description	Actual Spend to Date Since Acquisition of NESC in December of 2021	2025 Projected Spend	2026 Projected Spend	2027 Projected Spend	Projected / Received Grant	Total Spend (Actual + Projected)
Water System Mapping & Improvements	\$2,095	\$3,000	\$600	\$600	\$ -	\$6,295
SCADA & Instrumentation Upgrades	\$81,264	\$5,000	\$5,500	\$4,800	\$ -	\$96,564
Design & Replacement of Water Mains	\$ -	\$ -	\$15,000	\$150,000	\$ -	\$165,000
Regulator Upgrades & New Isolation Valves	\$91,116	\$ -	\$ -	\$ -	(\$17,243)	\$73,873
Regulators Replacements – White Rock	\$53,301	\$4,000	\$ -	\$ -	\$ -	\$57,301
Water Supply Improvements	\$457,150	\$5,000	\$ -	\$ -	(\$229,857)	\$232,293
Arsenic Treatment System Upgrade	\$190,119	\$ -	\$ -	\$ -	(\$68,193)	\$121,926
Well Production Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
Customer Meter Replacement	\$2,648	\$6,700	\$13,869	\$ -	\$ -	\$23,217
<b>Total</b>	<b>\$877,693</b>	<b>\$23,700</b>	<b>\$34,969</b>	<b>\$155,400</b>	<b>(\$315,293)</b>	<b>\$776,469</b>

Note:

Grant funds totaling \$34,707 were utilized prior to the acquisition for a storage tank lining project. Along with the amount shown above, the total grant funding is \$350,000.

The program funding is comprised of a \$350k grant, \$125k loan, and company contributed funds of \$130.5k for a total of \$606,000. The funds are supporting the regulator upgrades, well rehabilitation, and arsenic treatment projects.

### In Progress or Completed:

- **Water System Mapping Improvements** – Revisions and adjustments to the mapping will be made as updated information becomes available.
- **SCADA and Instrumentation Upgrades** – Telemetry and data logging equipment (Telog) was installed at the facility to monitor station operations. Additional work is in progress to improve monitoring capabilities. Costs have increased since the last report as we have prioritized SCADA upgrades in this system due to water supply issues. This includes the installation of instrumentation to monitor well water levels, tank water level, and individual well flows, along with installing a new programmable logic controller to monitor and control the facility. SCADA and instrumentation work continues at the station with additional improvements planned for 2025.
- **Regulator Upgrades & New Isolation Valves** – Two of the five pressure reducing valves (PRVs) were replaced by the end of 2023. A blow off and two isolation valves were also installed with this project.
- **Regulators Replacements – White Rock** – The final three PRVs were replaced in 2024. One more day onsite is required to test the system functionality with all five PRVs working. This will be completed in the first quarter of 2025.
- **Water Supply Improvements** – An exploratory well was drilled on the Town’s property. The well was drilled to a depth of approximately 820 feet with an estimated yield of one gallon per minute.

Given the unfavorable results at the well site and based on the recommendation from their Consultant, Aquarion has decommissioned the new well and removed the gravel access road from the Town's property. Final restoration including seeding will be completed in Spring of 2025. Due to the unfavorable results with the new source exploration and to improve the quantity of water obtained from existing wells, Aquarion proceeded with hydrofracking of their existing wells. Hydrofracking improved the production capacity of all wells.

- ***Arsenic Treatment System Upgrade*** – This project is complete and in service.
- ***Customer Meter Replacements*** – Periodic water meter replacements.
- ***Well Production Study*** – This project was completed within the scope of the Water Supply Improvements project. The process of redeveloping Wells 2 & 3 included pump tests, water quality sampling, monitoring water levels, and inspecting of all equipment (still tubes, column piping, pumps, wiring), with replacement as necessary.

#### **Planned to begin in 2025:**

- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC's periodic meter replacement schedules.
- ***SCADA and Instrumentation Upgrades*** – Existing equipment will be evaluated to determine additional upgrades necessary for the system.

#### **Future Years (2026-2027):**

- ***SCADA and Instrumentation Upgrades*** – Equipment updates and repairs will be completed as necessary.
- ***Design & Replacement of Water Mains*** – System areas will be evaluated for replacement. Main break records will be kept for reference in the evaluation.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC's periodic meter replacement schedules.

## Tioga River (Belmont)

The planned capital improvements through 2027 are presented below:

Project Description	Actual Spend to Date Since Acquisition of NESC in December of 2021	2025 Projected Spend	2026 Projected Spend	2027 Projected Spend	DWGTF Grant	Total Spend (Actual + Projected)
Water System Mapping & Improvements	\$2,282	\$3,000	\$600	\$600	\$ -	\$6,482
SCADA & Instrumentation Upgrades	\$10,125	\$5,000	\$5,000	\$5,000	\$ -	\$25,125
Design & Replacement of Water Mains	\$80,826	\$ -	\$ -	\$ -	(\$5,000)	\$75,826
Generator for Wells & Treatment Station	\$26,465	\$ -	\$ -	\$ -	\$ -	\$26,465
Well Production Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
Customer Meter Replacement	\$496	\$ -	\$ -	\$ -	\$ -	\$496
Total	\$120,194	\$8,000	\$5,600	\$5,600	(\$5,000)	\$134,394

### In Progress or Completed:

- ***Water System Mapping Improvements*** – Revisions and adjustments to the mapping will be made as updated information becomes available.
- ***SCADA and Instrumentation Upgrades*** – Telemetry equipment has been installed. Additional work is needed to be fully functional and communicating with the system. Equipment updates and repairs will be completed as necessary. Costs were revised since the last report to shift resources to other projects due to evolving project needs.
- ***Design & Replacement of Water Mains*** – Approximately 300 linear feet of water main on Tioga Drive was replaced in Spring 2023. The New Hampshire Drinking Water and Groundwater Trust Fund (DWGTF) previously awarded a \$5,000 grant towards the project improvements, as shown in the table above.
- ***Generator for Wells and Treatment Station*** – The project is complete and in service.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.
- ***SCADA and Instrumentation Upgrades*** - Installation of basic telemetry and monitoring functions was completed in 2024.

### Planned for 2025:

- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.
- ***SCADA and Instrumentation Upgrades*** – Existing equipment will be evaluated to determine additional upgrades necessary for the system.

#### **Future Years (2026-2027):**

- ***Water System Mapping Improvements*** – Revisions and adjustments to the mapping will be made as updated information becomes available.
- ***SCADA and Instrumentation Upgrades*** – Equipment updates and repairs will be completed as necessary.
- ***Well Production Study*** – This project includes retaining a consultant to evaluate the production capability of each well to evaluate their long-term viability. The project has been delayed at this time and will be re-evaluated to determine the appropriate time for completion.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.



## Gilford Village (Gilford)

The planned capital improvements through 2027 are presented below:

Project Description	Actual Spend to Date Since Acquisition of NESG in December of 2021	2025 Projected Spend	2026 Projected Spend	2027 Projected Spend	Total Spend (Actual + Projected)
Water System Mapping & Improvements	\$1,897	\$5,750	\$600	\$600	\$8,847
SCADA & Instrumentation Upgrades	\$10,207	\$5,500	\$4,800	\$4,800	\$25,307
Design & Replacement of Water Mains	\$184,255	\$ -	\$10,000	\$140,000	\$334,255
Generator for Wells & Treatment Station	\$92,750	\$ -	\$ -	\$ -	\$92,750
Storage Tank Lining	\$60,510	\$ -	\$ -	\$ -	\$60,510
Well Production Study	\$ -	\$ -	\$ -	\$ -	\$0
Customer Meter Replacement	\$2,657	\$1,800	\$ -	\$ -	\$4,457
Total	\$352,277	\$13,050	\$15,400	\$145,400	\$526,126

### In Progress or Completed:

- **Water System Mapping Improvements** – Mapping work will continue in 2025 for the location of existing equipment, water main, and associated appurtenances.
- **SCADA and Instrumentation Upgrades** – Installation of new equipment and replacement of obsolete or damaged equipment will continue through 2027.
- **Design and Replacement of Water Mains** – The main serving Bacon Drive was replaced in 2023. Approximately 415 linear feet of 4-inch high density polyethylene (HDPE) pipe, services, valves, services, and curb stops were installed to replace the existing main. The 2” meter pit was replaced in 2024 and a new meter was installed.
- **Generator for Wells and Treatment** – This project is complete and in service.
- **Storage Tank Lining**– The system storage tank was inspected in 2022 per NHDES requirements and it was determined that the entire interior coating of the tank had worn away over the approximate 50-years it has been in service. A new interior tank lining was installed in 2023 and is in service.

### Planned for 2025:

- **Customer Meter Replacements** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.
- **SCADA and Instrumentation Upgrades** – Existing equipment will be evaluated to determine additional upgrades necessary for the system.

### Future Years (2026-2027):

- **Water System Mapping Improvements** – Revisions and adjustments to the mapping will be made as updated information becomes available.

- ***SCADA and Instrumentation Upgrades*** – Equipment updates and repairs will be completed as necessary.
- ***Well Production Study*** – This project includes retaining a consultant to evaluate the production capability of each well to evaluate their long-term viability. The project has been delayed at this time and will be re-evaluated to determine the appropriate time for completion.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.

## Rosebrook (Carroll)

The Rosebrook System is in the Bretton Woods area of the Town of Carroll, New Hampshire. There are high pressures in large areas of the system and mitigating the pressures will be the focus of capital spending through 2027, as shown in the table below. Abenaki has been working closely with the New Hampshire Department of Environmental Services (“NHDES”) to coordinate design activities and planned construction to satisfy the Letter of Deficiency (LOD) that was issued for the treatment building deficiencies and high system pressures. The NH Drinking Water & Groundwater Trust Fund previously approved the project for \$2,520,000 in loan funds and awarded a \$280,000 grant. Additionally, Abenaki will provide a \$280,000 credit towards the pressure reduction project, as agreed to during the acquisition of the New England Service Company (“NESC”). The planned capital improvements through 2027 are presented below:

Project Description	Actual Spend to Date Since Acquisition of NESC in December of 2021	2025 Projected Spend	2026 Projected Spend	2027 Projected Spend	Projected / Received Grant / Contribution	Total Spend (Actual + Projected)
Water System Mapping & Improvements	\$2,853	\$600	\$600	\$ -	\$ -	\$4,053
SCADA & Instrumentation Upgrades	\$33,092	\$4,800	\$5,000	\$ 5,000	\$ -	\$47,892
Station Pressure Reduction & Treatment (Phase I)	\$1,956,708	\$1,083,465	\$ -	\$ -	(\$280,000)	\$2,760,173
System Pressure Reduction (Phase II)	\$368,814	\$450,000	\$1,000,000	\$ -	(\$280,000)	\$1,538,814
Install 16-inch Isolation Valves	\$23,721	\$100,000	\$100,000	\$100,000	\$ -	\$323,721
Isolation Valve Replacements	\$3,722	\$16,000	\$17,000	\$18,000	\$ -	\$54,722
Second River Crossing/Base Lodge Main Relocation	\$ -	\$ -	\$75,000	\$670,000	\$ -	\$745,000
Well Production Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
Customer Meter Replacement	\$12,041	\$500	\$1,000	\$1,005	\$ -	\$14,546
Total	\$2,400,951	\$1,655,365	\$1,198,600	\$794,005	(\$560,000)	\$5,478,921

### In Progress or Completed:

- **Water System Mapping** – The system mapping will be updated as new information becomes available.
- **SCADA and Instrumentation Upgrades** – Installation of new equipment and replacement of obsolete or damaged equipment will continue through 2027.
- **Station Pressure Reduction & Treatment (Phase I)** – Construction began on the new Rosebrook Water treatment plant in April 2024. Construction is anticipated to be complete in Summer 2025. Information regarding project cost and financing, under Docket 21-061, can be viewed on the NHPUC website at the following link: <https://www.puc.nh.gov/regulatory/Docketbk/2021/21-061.html>
- **System Pressure Reduction (Phase 2 Design)** – Aquarion’s Consultant has begun the design of Phase 2 and submitted preliminary design drawings for the location of the proposed pressure reducing valves (PRVs) in January of 2024 per NHDES direction. Easements are being obtained

for the PRVs and the designs are planned to be finalized in January 2025 with construction of the PRVs starting at the end of 2025. Changes in costs since the last report reflect cost estimate updates as design progresses.

- ***Install 16-inch Isolation Valves*** – A consultant is currently working on the design of several 16-inch isolation valves for placement on the system trunk line for improved operational control during maintenance and potential emergency situations.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.

#### **Planned to begin in 2025:**

- ***Isolation Valve Replacements*** – The replacement of select inoperable and/or damaged valves are planned for 2026-2027. The status of valve operability is evaluated during the annual valve exercising program.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.
- ***SCADA and Instrumentation Upgrades*** – Existing equipment will be evaluated to determine additional upgrades necessary for the system.

#### **Future Years (2026-2027):**

- ***SCADA and Instrumentation Upgrades*** – Equipment updates and repairs will be completed as necessary.
- ***System Pressure Reduction (Phase 2 Construction)*** – The construction of three pressure reducing structures is anticipated to be completed over two construction seasons in 2025 and 2026. The plan for pressure reduction was selected in consultation with stakeholders and is consistent with the settlement agreement in Docket No. DW 21-090, approved by the NHPUC. Funding will be pursued to seek the lowest-cost option for implementing the project.
- ***Second River Crossing/Base Lodge Main Relocation*** – In order to better manage risk throughout the distribution system, a second river crossing is proposed with design in 2026 and construction in 2027. Relocation of the Base Lodge water main will be considered as part of the design. The base lodge main will be relocated once a complete understanding of future development within the base lodge area is better understood.
- ***Well Production Study*** – This project includes retaining a consultant to evaluate the production capability of each well to evaluate their long-term viability. The project has been delayed at this time and will be re-evaluated to determine the appropriate time for completion.
- ***Customer Meter Replacements*** – Meter replacements in compliance with the PUC’s periodic meter replacement schedules.