

BEFORE THE NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

Lakes Region Water Co., Inc.

Petition for Change in Rates

Docket No. DW 20 – 187

TESTIMONY OF THOMAS A. MASON, PRESIDENT,
OF LAKES REGION WATER CO., INC.

January 15, 2021

1 **I. BACKGROUND**

2 **Q. What is your name and business address?**

3 A: Thomas A. Mason, 420 Governor Wentworth Highway, PO Box 389,
4 Moultonborough, NH 03254.

5 **Q. What is your role at Lakes Region Water Company?**

6 A: I am President of the Company and serve on its Board of Directors. The
7 Company is owned in two family trusts held by my mother, Barbara G. Mason. I
8 supervise Lakes Region’s operations, planning and drinking water compliance.

9 **Q. What is the purpose of your testimony?**

10 A: The purpose of my testimony is to explain Lakes Region’s important role
11 operating small troubled water systems in New Hampshire and to describe the
12 benefits the Company provides to its customers.

13 **II. LAKES REGION’S OPERATIONS OF SMALL WATER SYSTEMS.**

14 **Q. How would you describe Lakes Region’s business?**

15 A. Lakes Region business is the result of its acquisition of small, challenged water
16 systems that were not financially viable on a stand-alone basis. A brief summary
17 of Lakes Region’s acquisition of troubled water systems is set forth in Mason
18 Exhibit 1. This Exhibit was prepared and included in my testimony in Lakes
19 Region’s last rate case in Docket No. DW 15 – 209. Lakes Region has since
20 acquired two additional systems: the Dockham Shores system in Gilford (61
21 customers); and the Wildwood system in Albany (49 customers). All of these
22 systems were built by developers prior to the implementation of the NHDES
23 “capacity assurance” requirements.

1 Today, Lakes Region operates 19 small community water systems serving 1,813
2 customers¹ located in New Hampshire's Lakes and White Mountain regions.
3 Lakes Region serves one wholesale customer, the Property Owners Association of
4 Suissevale, Inc. ("POASI" or "Suissevale") is a homeowners association
5 connected Lakes Region's Paradise Shores system in Moultonborough.
6 Suissevale owns and operates its own water distribution system with
7 approximately 355 service connections.² The NHDES classifies Suissevale as a
8 privately owned redistribution system ("PORS"). Lakes Region serves Suissevale
9 under the terms of a wholesale supply agreement approved by the Commission in
10 2006.

11 **Q. How do Lakes Region's systems and customers differ from other water**
12 **utility systems in New Hampshire?**

13 A. There are several important differences.

14 **Size.** One of the most important differences is the extremely small size of Lakes
15 Region's systems. Lakes Region serves an average of 95 customers per system.

16 **Technical Challenges.** Lakes Region has acquired systems that were built by
17 developers prior to the DES capacity assurance requirements. These systems
18 were designed and constructed by real estate developers who did not have long-
19 term customers interests. As a result, these systems were poorly designed, lacked
20 adequate well supply and treatment systems and have poorly constructed, leaky
21 and/or inadequate distribution, pumping and storage systems. Many if not all of

¹ Annual Report for the Year Ending December 31, 2019, Form S-9

² NHDES One Stop Database, PWS ID 1612130 (2016).

1 the water systems acquired by Lakes Region were subject to outstanding Letters
2 of Deficiency (“LODs”) issued by the NHDES prior to their acquisition.

3 **Seasonal Customers and Peak Demands.** Due to its location in the Lakes and
4 White Mountain regions, a high percentage of Lakes Region’s customers are
5 seasonal customers. As of December 31, 2019, 1290 (71%) of Lakes Region’s
6 customers were seasonal customers.³ This leads to large peak demands on Lakes
7 Region’s systems, particularly during summer months, which controls the design
8 of each system; the need for capital improvements to serve peak demand; and
9 ultimately the cost to provide service to customers.⁴ As a result, Lakes Region’s
10 rates have a high proportion of fixed charges due to the costs to meet high
11 seasonal demands.

12 **Q. What technical and administrative expertise does Lakes Region provide for**
13 **the systems it acquires?**

14 A. Lakes Region employs a staff of 8 professionals who specialize in operation of
15 small community water systems. Lakes Region’s office staff responsible for
16 customer service, administration, accounting and finance includes: a Utility
17 Manager (Leah Valladares) and two office staff members. One of Lakes Region’s
18 office staff members is also certified as a water system operator with a 1A Water
19 Operators Certificate. Lakes Region’s field staff includes: a Field Supervisor
20 (Justin Benes) with a Level 2 Distribution and Level 2 Treatment certification;

³ Annual Report for the Year Ending December 31, 2019, Form S-9. The number of year-round customers increased significantly in 2020 in response to the pandemic as residents from nearby states came to New Hampshire.

⁴ See generally Env-Ws 405, Design Standards for Small Community Water Systems.

1 one Water Operator with a level 1 Water Operator certification; and two Water
2 Technicians.

3 **Q. How does Lakes Region’s ownership and operation of its water systems**
4 **benefit customers?**

5 A. By consolidating small community water systems into a single regional company,
6 Lakes Region is able to provide greater technical, financial and administrative
7 expertise to the operation of its 19 systems that would not be available on a stand-
8 alone basis. Lakes Region’s professional certified water operators and other staff
9 are available to support both normal operations and planning for all of its systems
10 as well as technical staff available are available on-call on a 24/7 basis in the
11 event of an emergency. In the event of a leak or interruption in service, Lakes
12 Region has the ability to respond in real time and provide information to
13 customers using its web site and One-Call Notification system.

14 **Q. What about capital projects and improvements to address problems in Lakes**
15 **Region’s systems?**

16 A. I work with Lakes Region’s Field Supervisor and technical staff to evaluate and
17 prioritize future projects. This is an on-going process that involves planning
18 based on system age, capacity, performance, water quality, leak monitoring using
19 telemetry, coordination with municipalities and homeowners association. It also
20 is reactive as the Company has to respond to unplanned main breaks or other
21 circumstances which may require the Company to change its priorities. For
22 example, Lakes Region’s Gunstock Glen system recently experienced an
23 unplanned main break that revealed asset conditions which require Lakes Region

1 to prioritize plans to replace an entire section of main. Because Lakes Region
2 operates on a consolidated basis, it can respond to an unplanned emergency and
3 adjust its capital plans in response to a system deficiency in a manner that would
4 not be available to systems operated on a stand-alone basis. However, for the
5 benefits of consolidated operations to be fully realized, it is critical that rates be
6 consolidated and other measures be considered to avoid rate shock and the need to
7 commence a rate proceeding when small systems are upgraded.

8 **Q. Can you provide examples of improvements that Lakes Region has**
9 **undertaken during the test year?**

10 A. Yes. Lakes Region’s Form F-10 for the test year ending 12/31/2019 lists the
11 capital projects that were in progress (“CWIP”) during the test year to improve
12 service to customers. The following are only examples of projects undertaken
13 during the test year:

14 **Far Echo Well Replacement Project.** This system in Moultonborough, New
15 Hampshire was constructed with inadequate supply. In 2019, Lakes Region had
16 identified this system as a priority and was evaluating options to increase supply
17 capacity and aggressively monitoring leaks using its telemetry system to eliminate
18 leaks that would result in an interruption in service. The system is located on
19 Lake Winnepesaukee where real estate and well siting options are extremely
20 limited. Lakes Region is negotiating with property owners to install test wells and
21 develop additional supply capacity.

22 **Wentworth Cove Control Panel and Pump Station Upgrades.** Lakes Region
23 replaced the electrical service, control panels, treatment and filtration systems to

1 address Iron and Manganese issues in the water system. Iron and Manganese are
2 secondary (aesthetic) drinking standards but are important to providing service to
3 customers. Lakes Region had completed upgrades in the amount of \$55,183 as of
4 12/31/2019. The pump station and treatment improvements were completed in
5 2020 and placed in service as of August 1, 2020 for a total project cost of
6 \$62,168.

7 **175 Estates.** This is another system where Lakes Region installed secondary
8 treatment systems for iron and manganese to improve service to customers. As of
9 12/31/2019, construction work in progress was \$7453. The treatment upgrades
10 were completed and in service on January 1, 2020.

11 **Lake Ossipee Village.** Lakes Region spent \$18,851 during the test year to add
12 treatment for iron and manganese to this system. The project is expected to be
13 completed and in service in the first quarter of 2021.

14 **Q. What about the Wildwood Project?**

15 A. The Wildwood Project is projected to cost \$260,000. Lakes Region acquired the
16 system with an effective date of July 1, 2018 but the actual closing and transfer of
17 ownership took place on September 24, 2018. Lakes Region installed telemetry
18 to monitor the system's performance and to evaluate options. Mason Exhibit 2. It
19 soon became apparent that: (a) parts of the system experienced low pressures in
20 its distribution system and needed variable frequency drive pumps to better
21 maintain pressures; (b) some customers experienced problems with discolored
22 water; (c) the system had inadequate treatment; and (d) the structure itself was
23 rotting. Mason Exhibit 3. The entire pump station needed to be replaced. Lakes

1 Region had worked with Lewis Engineering on the redesign of the Dockham
2 Shores pump station. On August 14, 2019, Lakes Region requested financing
3 approval to finance the replacement of the pumpstation and three other capital
4 projects using low cost debt from CoBank ACB in DW 19 – 135.⁵

5 **Q. What is the current status of the Wildwood project?**

6 A. Lakes Region originally planned to complete the project following financing
7 approval. However, Lakes Region continued to receive customer complaints
8 concerning low pressure, discolored water and inadequate service. As a result,
9 Lakes Region concluded that it had to move forward with the project to resolve
10 problems with inadequate pressure and water quality. See Mason Exhibit 4. The
11 project is now approximately 65% complete as of December 31, 2020 based on
12 current Construction Work in Progress. Mason Exhibit 5. The project should be
13 completed and in service this year prior to March 31, 2021.

14 As noted in DW 19 – 135 and reflected in the rate schedules prepared by Stephen
15 St. Cyr, Lakes Region will refinance the cost of Dockham Shores and Wildwood
16 projects using low cost debt from CoBank ACB. See Mason Exhibit 4. This will
17 improve Lakes Region’s capital structure and make funds available for future
18 capital projects in other Lakes Region systems.

19 **Q. What is Lakes Region’s record in terms of compliance with the NHDES’s**
20 **drinking water regulations?**

⁵ The four projects are: (1) refinancing the Dockham Shores pump station completed in 2018; (2) the Wildwood pump station; (3) replacing approximately 1,000 feet of 4" water mains with C900 PVC pipe to address pressure problems in Paradise Shores and Suissevale; (4) replacing approximately 850 feet of fragile 4" asbestos cement water mains with C900 PVC pipe, 3 gate valves and service connections.

1 A. Lakes Region has an excellent compliance record and is in compliance with all of
2 the requirements of New Hampshire’s Safe Drinking Water Act. Since I became
3 President of the Company in 2008, Lakes Region has made improvements to
4 water service its #1 priority. It has no Letters of Deficiency (LODs) during the
5 test year and has had none subsequent thereto.

6 **Q. What are some of the major challenges that lie ahead?**

7 A. Much work remains to be done to both maintain and improve water service to
8 meet the requirements of the NHDES and the Commission. Aging and
9 inadequate infrastructure is a major challenge facing the entire drinking water
10 industry and Lakes Region’s systems in particular. Some of the significant
11 challenges and projects that need to be addressed include:

12 **Far Echo Well Replacement Project.** As noted above, Lakes Region’s Far Echo
13 system has limited supply and has been identified as a priority capital project.

14 Because of limited supply, Lakes Region monitors this system and aggressively
15 pursues leaks. Even so, the drought which occurred this year required Lakes
16 Region to truck water to supplement supply. In 2020, Lakes Region approached
17 the owners of two potential sites for the development of an additional supply
18 wells. The pump house is a small, outdated, aging structure without the ability to
19 install treatment that needs to be entirely replaced.

20 **Main Replacement Projects.** Many of Lakes Region’s systems contain aging,
21 developer-built distribution systems that need to be replaced. Upgrades at
22 Gunstock Glenn is a priority due to its original construction with a patchwork of

1 plastic “Trustworthy Hardware” fittings and lines. Other priority systems include:
2 Brake Hill, Far Echo and several other systems.

3 **Meter Installations.** A number of Lakes Region’s systems were constructed
4 without customer water meters, including: 175 Estates, Deer Cove, Lake Ossipee
5 Village, Indian Mound, Gunstock Glen, Waterville Gateway and Tamworth Water
6 Works. For many years, Lakes Region has operated these systems under waivers
7 or exemptions from the NHDES water conservation rules and commission
8 requirements, in large part because other improvements and projects were higher
9 in priority. However, in the coming years as individual systems are upgraded, it
10 may be appropriate to evaluate the potential to phase installation of water meters
11 over time, as long as it does not divert capital away from projects needed for
12 drinking water compliance.

13 **III. SMALL WATER SYSTEM CHALLENGES**

14 **Q. Why are small water systems difficult to operate?**

15 A. There are many reasons. One major factor is that the water utility industry as a
16 whole faces increasing capital costs to comply with drinking water standards
17 using aging infrastructure that does not meet current standards. This is
18 particularly true for Lakes Region’s very small developer-built systems.
19 According to the NHDES Water Resources Primer (Exhibit 6):

20 **8.2.2 New Hampshire Has a High Proportion of Struggling Small**
21 **Community Systems**

22 Even large community water systems find the Safe Drinking Water Act
23 regulations difficult and costly to meet, so it is no surprise that it is much
24 more difficult for small water systems. Figure 8-7 depicts the many
25 challenges that small water systems may encounter as they provide safe
26 drinking water. New Hampshire has a large proportion of small systems
27 which are widely distributed and often impossible to interconnect. Per

1 customer costs may be dramatically different than those associated with
2 large systems. These small stand-alone systems require fairly
3 sophisticated operations, yet they cannot afford to hire full-time staff that
4 specialize in drinking water. Some small municipal water systems may
5 have to share one part-time staff member with the highway department,
6 the fire department and others.

7
8 Conversely, larger systems benefit from economies of scale and can afford
9 to hire highly educated, specialized staff teams with in-depth knowledge
10 of treatment, distribution, and other aspects of drinking water provisions.
11 As a result, customers of the smallest systems often pay the most for the
12 least in services. It is also important to note that providing water supply is
13 a highly capital intensive mission where even the largest systems struggle
14 to maintain and replace their aging infrastructure.

15
16 **Q. How do Lakes Region’s small water systems compare to the definition of
17 small water system used by the NHDES and EPA?**

18 A. The NHDES considers a small community water system to be one that serves
19 fewer than 3,300 residents⁶ (approximately 912 customers).⁷ This is nearly ten
20 times larger than the average size of the community water systems operated by
21 Lakes Region which have an average of 95 customers per system. Lakes
22 Region’s systems are extremely small by comparison.

23 **Q. How does ownership of small water systems affect regulatory compliance?**

24 A. The NHDES reports that smaller systems have much higher risks on non-
25 compliance with drinking water standards. According to the NHDES: “the
26 highest number of violations, both for health-based standards as well as for
27 monitoring and reporting (failure to sample or provide public notice), are incurred

⁶ *NHDES Water Resources Primer*, Chapter 8, Page 8-4. Mason Exhibit 6.

⁷ According to the American Water Works Association’s 2012 Water and Wastewater Rate Survey: “The median service population per account is 3.62 and 3.70 for water and wastewater, respectively.”

1 by the very small systems (<250 people).”⁸ This shows that the Company’s
2 water systems, again considered “very small” – fall into the highest risk category
3 for regulatory non-compliance. Despite falling into this high risk category, Lakes
4 Region has worked aggressively to implement projects needed to maintain
5 compliance. The service provided by the Company is excellent, even outstanding,
6 in light of the challenges it faces.

7 **Q. How do Lakes Region’s small water systems impact its financial**
8 **performance?**

9 A. The Company’s very small water systems impact the ability of the Company’s
10 shareholder to realize a reasonable return on investment. Because of the capital
11 needs of the very small water systems, the Company is required to reinvest its
12 earnings into improvements to maintain service and comply with state and federal
13 drinking water regulations. Lakes Region is able to attract debt by working with
14 CoBank ACB. However, its existing rates do not allow it to attract equity capital
15 from outside investors.

16 **Q. What should be done to address this problem?**

17 A. The Company requests that the Commission approve a rate of return on equity as
18 proposed by Stephen St. Cyr which is based on the Commission’s Staff’s
19 proposed rule shared with small water utilities in DW 19 – 005. This rule is not
20 perfect but it does take into account both the increased risks associated with
21 operating very small water systems having an average of fewer than 100

⁸ Mason Exhibit 7. *Triennial Report to the Governor and US EPA with Highlights for FY 2011 on New Hampshire’s Capacity Development Program for Public Water Systems* (September 2011), Pages 2-3.

1 customers per system and Lakes Region’s performance making improvements to
2 these systems at shareholder expense. I support Mr. St Cyr’s adjustment of 0.25%
3 for exemplary performance for the reasons explained above. This additional
4 return on equity will help Lakes Region attract lower cost debt to reinvest in its
5 systems and continue to provide customers with excellent service under
6 challenging conditions.

7 I also recommend that the Commission consider allowing Lakes Region to make
8 periodic step adjustments or water infrastructure cost adjustments as replacement
9 projects for mains, pumping and treatment systems, and customer meters are
10 completed and placed in service. These and other measures are consistent with
11 the recommendations for the water industry adopted by NARUC.⁹

12 **IV. CONCLUSION**

13 **Q. RSA 378:27 & 28 provide that rates “shall be sufficient to yield not less than**
14 **a reasonable return on the cost of the property of the utility used and useful**
15 **in the public service less accrued depreciation”. Please summarize why you**
16 **believe a change to Lakes Region’s allowed rate of return is necessary and**
17 **consistent with this standard?**

18 A. The Company provides excellent drinking water service to customers of very
19 small, troubled water, systems that could not operate on a stand-alone basis. As
20 explained in my testimony and in the supporting schedules, Lakes Region has
21 made substantial investments to maintain and improve water service to customers.

⁹ See e.g., NARUC, *Resolution Addressing Gap Between Authorized Versus Actual Returns on Equity in Regulation of Water and Wastewater Utilities* (2013); NARUC, *Resolution Supporting the Consideration of Regulatory Mechanisms and Policies Deemed “Best Practices” for the Regulation of Small Water Systems* (2013).

1 A rate increase is needed to allow the Company the opportunity to earn a
2 reasonable return on its investment and to attract both debt and equity capital to
3 complete projects going forward.

4 **Q. Does this conclude your testimony?**

5 A. Yes.