



Abenaki

An Aquarion Water Company



# 2021 WATER QUALITY REPORT

**Water: it's too precious to waste**



*John Walsh*  
Vice President, Operations

Dear Abenaki Customer:

As the pandemic continued to affect everyone's lives throughout 2021, I am proud to say our dedicated employees remained committed to providing you and all of our customers with high-quality water, along with reliable, responsive and professional services.

We never let up on our rigorous, quality-control measures. During 2021, we conducted extensive testing of the water in our Abenaki systems. All results met or exceeded state and federal water quality standards.

Our tests include checking our water sources for the presence of perfluoroalkyl and polyfluoroalkyl substances (PFAS). These chemicals have been linked to a variety of health risks; as such, the New Hampshire Department of Environmental Services has set limits for several PFAS in drinking water. I am pleased to report that our tests show our water supplies in your system have PFAS levels well below this limit. You can find PFAS sampling results for your system in this report and at [aquarionwater.com/abenaki/pfas](https://aquarionwater.com/abenaki/pfas).

In keeping with our commitment to continued investment in the infrastructure, we installed new treatment for your system's wells to improve the quality of the water we deliver to you.

I'll close with sincere thanks to all our customers for everything you do to conserve water. For more ways to save this precious resource, please look elsewhere in this report and at [aquarionwater.com/abenaki/conserv](https://aquarionwater.com/abenaki/conserv).

With Appreciation,

A handwritten signature in blue ink that reads "John Walsh".

John Walsh

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# WATER QUALITY TABLE

Tioga Belmont System PWS ID#: 0202030

Substance (Units of Measure)	Highest Allowed by Law			Test Date	Detected Level	
	MCLG	MCL	Violation		Average	Range
<b>INORGANIC COMPOUNDS</b>						
Barium (ppm)	2	2	<b>NO</b>	11.3.21	0.016	0.016
Copper (ppm)	1.3	AL=1.3	<b>NO</b>	6.4.21 - 6.5.21	0.11*	
Fluoride (ppm)	4.0	4.0	<b>NO</b>	11.3.21	0.39	0.39
Lead (ppb)	0	AL=15	<b>NO</b>	6.4.21 - 6.5.21	2**	
<b>DISINFECTANT</b>						
Chlorine (ppm)	MRDLG 4	MRDL 4	<b>NO</b>	4th Quarter, 2021	0.20***	0.20***
<b>RADIOLOGICALS</b>						
Combined Radium (pCi/L)	0	5	<b>NO</b>	6.11.19	1.1	1.1
<b>SECONDARY CONTAMINANTS</b>						
Chloride (ppm)	NA	SMCL = 250	<b>NA</b>	11.3.21	6.7	6.7
Manganese (ppb)	NA	HA = 300	<b>NA</b>	11.3.21	6	6
Sodium (ppm)	NA	SMCL = 250	<b>NA</b>	11.3.21	29	29
Sulfate (ppm)	NA	SMCL = 250	<b>NA</b>	11.3.21	11	11

Your water has been tested for more than 100 compounds that are important to public health. Only 10 of these were detected, all of which were below the amounts allowed by state and federal law. Most of these compounds are either naturally occurring or introduced as treatment to improve water quality. Monitoring frequency varies from daily to once every nine years per EPA regulation, depending on the parameter. Our testing encompasses the full range of regulated inorganic, organic and radiological compounds and microbiological and physical parameters. Results shown here are for detected compounds only.

**AL Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**HA Health Advisory**

**MCL Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG Maximum Contaminant Level Goal:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL Maximum Residual Disinfectant Level:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG Maximum Residual Disinfectant Level Goal:** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**NA Not Applicable**

**pCi/L picocuries per liter**

**ppb parts per billion,** or micrograms per liter (ug/L)

**ppm parts per million,** or milligrams per liter (mg/L)

**SMCL Secondary Maximum Contaminant Level**

\* 90th percentile value in copper monitoring. Result is representative of customer sampling stagnant water. No locations exceeded the action level for copper.

\*\* 90th percentile value in lead monitoring. Result is representative of customer sampling stagnant water. No location exceeded the action level for lead.

\*\*\* The Tioga Belmont System was chlorinated in November 2021. This sample represents the chlorine concentration after installation.

### HEALTH EFFECTS

**Sodium:** Sodium-sensitive individuals such as those experiencing hypertension, kidney failure, or congestive heart failure, who drink water containing sodium should be aware of levels where exposures are being carefully controlled.

## Understanding Your Water Quality Table

**Barium:** Erosion of natural deposits.

**Copper:** Corrosion of household plumbing systems.

**Fluoride:** Erosion of natural deposits.

**Lead:** Corrosion of household plumbing systems.

**Chlorine:** Water additive used to control microbes.

**Combined Radium:** Erosion of natural deposits.

**Chloride:** Naturally present in the environment.

**Manganese:** Erosion of natural deposits.

**Sodium:** Water treatment processes; use of road salt; naturally present in the environment.

**Sulfate:** Naturally present in the environment.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791). Here is some additional information of interest about Abenaki's drinking water.

## Where does your water come from?

Tioga Belmont System obtains its water from two bedrock wells. It is treated and then delivered to you through an underground piping system. The water supply serves about 20 residents. In 2021, our wells supplied an average of 1,800 gallons of water per day.

## How is your water treated?

Water from the wells is naturally filtered ground water. Water passes through an aerator followed by two brim/calcite vessels for iron and manganese removal. Chlorination treatment was added to the wells in November 2021.

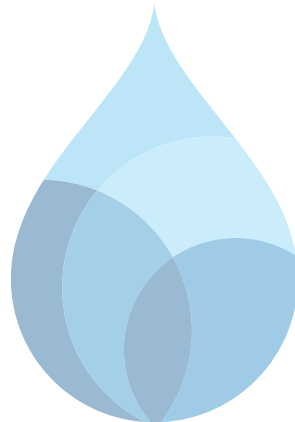
## Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level\* over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Major sources of copper in drinking water include corrosion of household plumbing systems and erosion of natural deposits.

\* The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



## Disinfection By-Products

Disinfection by-products (DBPs) are chemicals formed during the disinfection process, when naturally occurring organic matter reacts with chlorine, which is added to water to eliminate bacteria and other microorganisms. Currently there are limits on two types of DBPs known as Total Trihalomethanes (TTHM) and Total Haloacetic Acids (THAA). Some people who drink water containing DBPs that exceed these limits over many years may experience problems with their

livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer. The state has implemented DBP regulations that change how compliance with the standards is determined. The intent is to increase protection against the potential risks associated with DBPs. Abenaki continues to evaluate its systems to ensure compliance with DBP regulations.

## Source Water Assessment Report

The state Department of Environmental Service's Source Water Assessment Report indicates Bedrock Well #001 received 4 high susceptibility ratings, 1 medium susceptibility ratings, and 7 low susceptibility ratings. The complete Assessment Report is available for inspection at the NH DES's Drinking Water Source Assessment Program web site at [www.des.state.nh.us/dwspp/dwsap.htm](http://www.des.state.nh.us/dwspp/dwsap.htm).

## LEAD IN DRINKING WATER: THE FACTS

The federal Environmental Protection Agency (EPA) and New Hampshire's Department of Environmental Services have established extensive regulations for water utilities to follow with regard to lead — and for very good reason. If present in drinking water, lead can cause numerous harmful effects on a person's health. The EPA has determined there is no safe level of lead.

Abenaki monitors for lead in the water we provide by testing

stagnant tap water samples from high-risk homes (such as homes built before 1950). We follow regulations mandated by the Safe Drinking Water Act, in which the EPA established a limit: 15 parts per billion (or micrograms per liter) in no more than 10 percent of tap water samples. Meeting this limit indicates that the water is minimally corrosive to lead. If tests reveal that more than 10 percent of tested homes exceeded the limit, then the EPA mandates a series of actions we would have to take. These include water treatment, notifying customers about the issue and removing lead service lines. The Abenaki system that supplies your water complies with the lead limit. Even so, some homes may have elevated lead levels due to lead materials in the plumbing or service line.

## Health Effects

Lead is especially harmful for infants and young children, causing developmental delays, learning difficulties, irritability, loss of appetite, weight loss, sluggishness, fatigue, abdominal pain, vomiting, constipation and hearing loss. Effects on adults may include high blood pressure, abdominal pain, constipation, joint pains, muscle pain, decline in mental functions such as abstract thinking and focus, numb or painful extremities, headache, memory loss, mood disorders, fertility issues in men, and miscarriage or premature birth in pregnant women.

## What to do about a lead service line

A service line is the pipe that connects a customer's premises to Abenaki's water main in the street. The customer owns the portion of the service line closest to the premises, while Abenaki owns the portion closest to the street. In some older structures built before 1950, these lines may have been made of lead.

If present, a lead service line can be the primary source of lead in your drinking water, because there is a much greater surface area where lead contacts the water, compared to lead-soldered pipe joints and leaded brass fixtures.

Therefore, if your house was built prior to 1950, you should check the service line where it enters the wall of your basement to see if it is made of lead. If it is a lead line, contact Abenaki at 800-732-9678 for advice on replacing it. This will help reduce your potential exposure to lead in drinking water.

## Other precautions you can take

Health issues from lead exposure cannot be cured, but they can be prevented, especially in drinking water. The best methods for reducing your exposure to lead include removing lead service lines and lead in your home's plumbing, and reducing the amount of time your water sits stagnant in contact with lead materials in the service lines and faucets.

- If you have not used any of your faucets for a number of hours (for example, overnight or while you are at work), run the water for several minutes. This will bring in fresh water from our water main, which contains no lead. (To conserve water, catch the flushed tap water in buckets or pots to use for cleaning or to water plants.)
- Always use cold water for drinking, cooking and preparing baby formula. Never cook with or drink water from the hot water tap. Never use water from the hot water tap to make baby formula.
- Periodically remove and clean the faucet screens/aerators. While doing so, run the tap to eliminate debris.
- Check your service line where it enters your building and determine if it is made of lead. If it is, replace it.
- Identify and replace old plumbing fixtures that contain lead. Brass faucets, fittings and valves may leach lead into drinking water — especially those purchased before 2014.

Homeowners who want to determine whether there is lead in their water should have a laboratory test it. There is a list of certified testing laboratories on the state Department of Public Health's website ([des.state.nh.us](http://des.state.nh.us)). For more information, our website has a section dedicated entirely to lead in drinking water; visit [www.aquarionwater.com/learningaboutlead](http://www.aquarionwater.com/learningaboutlead).

If you have questions, call Abenaki at 800.732.9678.

## The EPA advises:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. Abenaki is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components.

Customers can minimize the potential for lead exposure when water has been sitting for several hours by running the tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



### Protecting water at the source

Even small quantities of pollutants may be enough to contaminate a drinking water supply. Examples of pollutants that may wash into surface water or seep into ground water include:

- Microbial contaminants from septic systems, agriculture and livestock operations, and wildlife;
- Inorganic contaminants such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, or farming;
- Pesticides and herbicides from sources such as agriculture, urban storm water runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes; and radioactive contaminants that can be naturally occurring.



### How Abenaki protects your drinking water

Abenaki's commitment to providing the highest quality water is evidenced by our regular inspection of homes, businesses, farms and other sites that could pollute water supplies. We also review new land development projects for impact on water quality. In total, we conducted more than 5,000 tests in 2021. We use the best water treatment and filtration technology and continue to invest in our water systems' infrastructure to improve your water security and quality.

### You can help prevent water contamination

- Ensure that your septic system is working correctly.
- Use chemicals and pesticides wisely.
- Dispose of waste chemicals and used motor oil properly.
- Report illegal dumping, chemical spills, or other polluting activities to the New Hampshire Department of Environmental Services at 603-271-3503, Abenaki at 800-732-9678, or your local police.

### Protecting your water at home:

#### **Cross-Connection Control Program**

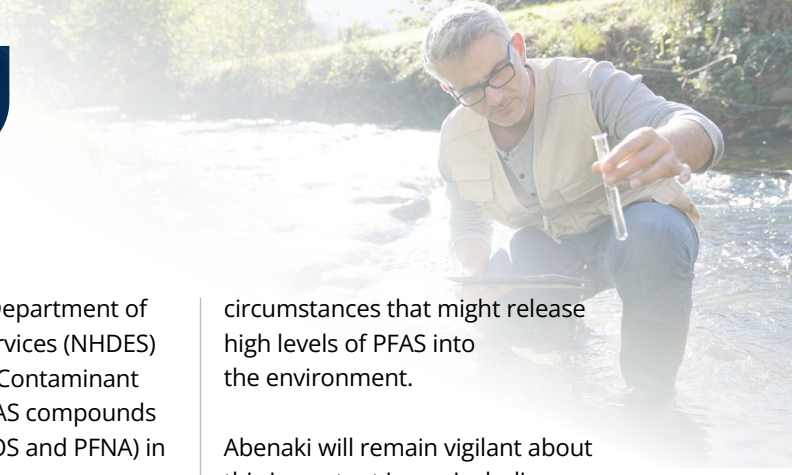
Our Cross-Connection Control Program helps ensure that your drinking water is protected from possible contamination. A cross-connection is any actual or potential connection between a distribution pipe of potable water from a public water system and any waste pipe, sewer, drain, or other unapproved source that has the potential, through backpressure or back-siphonage, to create a health hazard to the public water supply and the water system within the premises.

Certified cross-connection testers routinely conduct surveys and tests backflow prevention devices at our customers' facilities for regulatory compliance. If they find unprotected cross-connections, they will require installation of backflow prevention devices to protect the water distribution system. A lawn irrigation system is a prime example of a cross-connection needing a backflow-prevention device.

To prevent this backflow contamination, the state Department of Environmental Services (DES) requires that we inspect your irrigation system to ensure that an appropriate backflow prevention device is in place. The state DES also requires that these devices be tested annually to ensure proper performance.



## ABENAKI'S SAMPLE RESULTS FOR PFAS



Throughout New England and across the nation, state and local officials, health departments, and water utilities — including Abenaki — have focused their attention on a group of man-made chemicals called per- and polyfluoroalkyl substances (PFAS) that have been detected in drinking water. PFAS are widely used in consumer products (e.g. nonstick cookware, stain-resistant carpets) and have numerous industrial applications (e.g. firefighting foam). They are pervasive and persistent once released into the environment.

The U.S. Environmental Protection Agency (EPA) has not established a maximum level of these chemicals that it will allow to be present in drinking water; however, the

New Hampshire Department of Environmental Services (NHDES) issued Maximum Contaminant Levels for four PFAS compounds (PFHxS, PFOA, PFOS and PFNA) in October 2019.

Recognizing the growing concern about PFAS, Abenaki has continued its voluntary testing program. The table below summarizes test results for water delivered into the Tioga Belmont System. All concentrations complied with NHDES limits implemented in 2019.

In addition to the water tests in 2021, Abenaki also inspected land-use activities around each of our water sources and found no high-risk situations such as industrial, commercial, and municipal

circumstances that might release high levels of PFAS into the environment.

Abenaki will remain vigilant about this important issue, including additional testing for PFAS at some of our water sources. We will continue to share test results with our customers and state and local officials. We also will maintain our relationships with the public health agencies and drinking water associations to ensure protection of our drinking water supplies. As always, our primary concern is delivery of high-quality water to our customers.

## PFAS SAMPLING RESULTS

### *Tioga Belmont System*

Sample Location	Total PFAS5 ng/L	PFHxS ng/L	PFNA ng/L	PFOS ng/L	PFOA ng/L
Tioga River Wells, POE	ND	ND	ND	ND	ND

**POE:** Point of entry. Sample collected after treatment as water enters the distribution system, before the first customer.

## WATER CONSERVATION WORKS!

*Easy tips on what everyone can do*

By reducing water consumption, Abenaki customers have made outstanding progress in ensuring that our area has enough water, no matter what the skies deliver. Many thanks to all the customers who cut back on outdoor sprinkler irrigation and other uses, helping to save hundreds of gallons of water across our systems over the last four years. There's still more to do, though. Here are some easy tips on what everyone can do to conserve the supply of this irreplaceable resource:



### Reduce excessive irrigation.

Get rid of wasteful, “set ‘em and forget ‘em” clock timers. Water only when the ground feels dry. Use WaterSense-labeled spray sprinkler bodies.

### Rely more on the sky.

Put a rain barrel under a down-spout to capture rainwater for your garden.

### Forget fertilizing.

Many use salts that make your lawn less drought-resistant.

### Enjoy an edible landscape.

Replace turf with berry bushes or fruit trees – they use less water.

### Fill it up!

Wait until you have a full load before running your washing machine and dishwasher.

### Look at labels.

Washing machines and dishwashers certified by ENERGY STAR use far less water. WaterSense-labeled fixtures do the same.

### Jilt the jiggling.

Fix leaky toilets. Watch our step-by-step video at [www.aquarionwater.com](http://www.aquarionwater.com) about finding and fixing leaks. Better yet, upgrade to a new, WaterSense-labeled model to save three or more gallons with every flush.

### Turn off the taps.

While brushing your teeth, shaving or just groping for a towel, keep good, clean water from disappearing down the drain.

### Catch this idea.

While waiting for tap or shower water to warm up, capture the cooler water in a container for watering plants.

### Recycle cooking water.

Save water used for cooking pasta and vegetables — it's great for plants.

### Shorten shower times.

You will use less water– and reduce energy costs, too.

### Put scraps to work.

Compost vegetable scraps to nourish your garden, instead of using water to grind them up in your garbage disposal.

### Put a chill on waste.

Keep a pitcher of drinking water in the fridge so you don't have to run the tap until the water gets cold.

Conserving water quickly becomes second nature. For many more ways to ensure that your water supply stays healthy for decades to come, check out the tips at [aquarionwater.com/abenaki/conserv](http://aquarionwater.com/abenaki/conserv).



*Tioga Belmont System*  
PWS ID#: 0202030

## Questions About Your Water Quality Report?

Customers who have questions about water quality should call us at **800-732-9678**.

Customers also may email us at **waterquality@aquarionwater.com**, or visit **aquarionwater.com/abenaki**.

For other questions, or to report discolored water or other service problems, call **800-732-9678**.

New Hampshire Department of Environmental Services: **603-271-3503** or **des.state.nh.us**

U.S. Environmental Protection Agency's Safe Drinking Water Hotline: **800-426-4791** or **epa.gov/safewater**



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