

ABENAKI WATER COMPANY—BOW PSW ID# 0262020

2021 CONSUMER CONFIDENCE REPORT

Our mission is to deliver the best-quality drinking water and reliable service at the lowest, appropriate cost. Aging infrastructure presents challenges to drinking water safety, and continuous improvement is needed to maintain the quality of life we desire for today and for the future. In the past year, we completed new plumbing in storage tank bunker. In the coming year we intend to work with an engineering firm to put plans in place to treat the arsenic violations and upgrade the water treatment process. We will also look into new well locations for a better source.

Every year, all water suppliers that serve the same people year round must prepare a Consumer Confidence Report (CCR) for their customers. The report details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants, including per- and polyfluoroalkyl substances, synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

What is the source of my drinking water?

The water system's supply comes from groundwater sources. Three bedrock wells, which are located at 6 Rocky Point Drive, simultaneously pump water into two activated alumina filters for arsenic removal, in addition sodium hypochlorite is added for disinfection. Once raw water is treated it is stored in two 15,000 gallon atmospheric storage tanks. The treated storage water is then transferred by duplicate VFD (Variable Frequency Drive) pumps into the water system to meet current system



Why are there contaminants in my water?

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 the 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 (1-800-426-4791).

Source Water Assessment Summary

New Hampshire Department of Environmental Services prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment, prepared on March 7, 2002, are noted below.

Bedrock Well # 1 received 3 high susceptibility ratings, 0 medium susceptibility ratings, and 9 low susceptibility ratings.

Bedrock Well # 2 received 3 high susceptibility ratings, 0 medium susceptibility ratings, and 9 low susceptibility ratings.

Bedrock Well # 3 received 3 high susceptibility ratings, 0 medium susceptibility ratings, and 9 low susceptibility ratings.



Source Water Assessment Summary

The complete Assessment Report is available for inspection at the Abenaki Water Company office.

For more information, call Abenaki Water Company 603-293-8580 or visit the NHDES website <https://www.des.nh.gov/resource-center/publications>.

How can I get involved?

For more information about your drinking water, please call *the owner, Donald Vaughan at 603-293-8580* or *the primary operator, Eric Messier, at 603-293-8580*. Although we do not have specific dates for public participation events or meetings, feel free to contact us with any questions you may have.

Violations and Other information: See violation list in table following

2 Water main repairs and 4 service lines repairs in 2020

Definitions:

Ambient Groundwater Quality Standard or **AGQS:** The maximum concentration levels for contaminants in groundwater that are established under RSA 485-C, the Groundwater Protection Act.

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

Level I Assessment: A study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level II Assessment: A very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level or **MCL:** 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.

Maximum Contaminant Level Goal or **MCLG:** 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.

Maximum Residual Disinfectant Level or **MRDL:** 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.

Maximum Residual Disinfectant Level Goal or **MRDLG:** 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 contaminants.

Treatment Technique or **TT:** A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations

BDL: Below Detection Limit	mg/L: milligrams per Liter	NA: Not Applicable	ND: Not Detectable at testing limits	NTU: Nephelometric Turbidity Unit
pCi/L: picoCurie per Liter	ppb: parts per billion	ppm: parts per million	RAA: Running Annual Average	TTHM: Total Trihalomethanes

Drinking Water Contaminants:

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water system is responsible for high quality drinking water, but can not control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and 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 <http://water.epa.gov/drink/>

Violations

Violations	Date of Violation	Explain Violation	Length of Violation	Action taken to resolve	Health Effects of Contaminant
MCL	1/1/2021	Sample Average Violation—Arsenic		Increased frequency of backwashing arsenic removal tanks. Increased frequency of arsenic testing. A consultant is evaluating the system to determine if system improvements are required. Subsequent dates for installation of corrective measures per NHDES	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
MCL	10/01/2020	Sample Average Violation—Arsenic		We are assessing the arsenic treatment for improvements to reach the newly implemented arsenic MCL of .005 mg/l that is effective 7/1/21	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
MCL	07/01/2020	Sample Average Violation—Arsenic		We are assessing the arsenic treatment for improvements to reach the newly implemented arsenic MCL of .005 mg/l that is effective 7/1/21	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Lead and Copper

Contaminant	Action Level	90th percentile sample value	Date	# of sites above AL	Likely Source of Contamination	Health Effects of Contaminant
Copper (ppm)	1.3	0.375	8/13/20	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount 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.
Lead (ppb)	15	4	8/13/20	0	Corrosion of household plumbing systems, erosion of natural deposits	Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Detected Water Quality Results

Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Radioactive Contaminants						
<i>E. coli</i> Bacteria	Absent	0	0	No 2020	Human and animal fecal waste	<i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.
Radioactive Contaminants						
Uranium (ug/L)	15	30	0	No 10/7/20	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium 226 + 228 (pCi/L)	0.7	5	0	No 10/30/20	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Inorganic Contaminants						
Arsenic (ppb)	19	10	0	Yes 2020	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(5 ppb through 10 ppb) While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. (above 10 ppb) Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Barium (ppm)	0.26	2	2	No 11/8/18	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Fluoride (ppm)	0.83	4	4	No 11/8/18	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums

Detected Water Quality Results

Volatile Organic Contaminants						
Total Trihalomethanes (TTHM) (Bromodichloromethane Bromoform Dibromochloromethane Chloroform) (ppb)	0.73	80	N/A	No 11/5/19	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) CONTAMINANTS						
Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Perfluorohexane sulfonic acid (PFHxS) (ppt)	ND	18	0	No 10/15/20	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorohexane sulfonic acid (PFHxS) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, or may experience increased cholesterol levels. It may also lower a women's chance of getting pregnant.
Perfluorononanoic acid (PFNA) (ppt)	ND	11	0	No 10/15/20	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorononanoic acid (PFNA) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, or may experience increased cholesterol levels.
Perfluorooctane sulfonic acid (PFOS) (ppt)	ND	15	0	No 10/15/20	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorooctane sulfonic acid (PFOS) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower a women's chance of getting pregnant.
Perfluorooctanoic acid (PFOA) (ppt)	6.87	12	0	No 10/15/20	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorooctanoic acid (PFOA) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower a women's chance of getting pregnant.

SECONDARY CONTAMINANTS					
Secondary MCLs (SMCL)	Level Detected	Date	Treatment technique (if any)	AL (Action Level), SMCL or AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Chloride (ppm)	56	11/8/18	N/A	250	Wastewater, road salt, water softeners, corrosion
Fluoride (ppm)	0.83	11/8/18	N/A	2	
Iron (ppm)	ND	11/8/18	N/A	0.3	Geological
Manganese (ppm)	ND	11/8/18	N/A	0.05	Geological
Nickel	ND	11/8/18	N/A	N/A	Geological; electroplating, battery production,ceramics
PH (ppm)	7.25	11/8/18	N/A	6.5-8.5	Precipitation and geology
Sodium (ppm)	19	11/8/18	N/A	100-250	We are required to regularly sample for sodium
Sulfate (ppm)	12	11/8/18	N/A	250	Naturally occurring
Zinc (ppm)	0.065	11/8/18	N/A	5	Galvanized pipes