



Town of Barre 2024 Consumer Confidence Report

MA DEP PWS 2021000

Department of Public Works
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What is a Consumer Confidence Report?

The purpose of this report is to keep *you*, the consumer, informed about the quality of your drinking water. Included are details about where your water comes from, what it contains and how your drinking water compares to state and federal standards.

“We are committed to providing you with this information because we believe that informed customers are our best allies.”

Water System News

Our water system is routinely inspected by the **Massachusetts Department of Environmental Protection (MassDEP)**. MassDEP inspects our system for its technical, financial, and managerial capacity, to provide safe drinking water to you. To ensure that we provide the highest quality of water available, your water system is operated by David Craven, a Massachusetts certified operator, who oversees the routine operations of our system.

- ☐ Water Main leaks were located and repaired on: Adams Street, Peach Street, Wheelwright Road, Sewer plant entrance and two on Mechanic Street.

Opportunities for Public Participation

What better way to ensure that your water system is running smoothly than to get directly involved? The Barre Water Department invites you to participate in discussions regarding your water quality by attending a **Water Commission Meeting**.

Water Commission Meetings are held on the second Monday of every month at 5:30PM. They are located in the DPW Building, at 441 Wheelwright Rd. Barre, MA 01005. Water Commissioners – Jay Pimental, James Caruso and Cathy Chase

Can't make it to a meeting? Let us know if you have questions or concerns. We can be contacted via email at: dpw@townofbarre.com or by telephone: 978-355-5013. The DPW Office hours are: Monday through Thursday 8:00 am to 3:00 pm.

More information can be found on The Town of Barre website: www.townofbarre.com.
(Click: Government/Public Works/Water Division)

Where Does My Drinking Water Come From?

The Town water is produced by three ground water, gravel packed wells. The wells are:

- Well#1 (2021000-01G)- located at 570 South Barre Road
- Well#2 (2021000-02G)- located at 257 South Barre Road

Is My Water Treated?

Yes. Our water team makes every effort to provide you with safe and pure drinking water. The water quality of our system is continually monitored by our team and by the MassDEP, to determine the effectiveness of our water treatment and to determine if any additional treatment is required. The treatment of your water is necessary, in avoiding the presence of contaminants.

What chemicals are used in the treatment of your water system?

- ☐ **Potassium Hydroxide** is added to increase the pH, which reduces lead and copper concentrations.
- ☐ **Zinc Polyphosphate** is added to aid corrosion control and reduce levels of iron and manganese.
- ☐ **Sodium Hypochlorite**, a disinfectant, is added to protect you against microbial contaminants.

How Are These Sources Protected?

The Department of Environmental Protection (MassDEP) has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies. A susceptibility ranking of **high** was assigned to this system. The report recommends that we inspect Zone I regularly and when feasible, remove any non-water supply activities. It also recommends that we educate residents on ways they can help to protect our drinking water sources, work with emergency response teams to ensure that they are aware of storm water drainage, monitor progress on any ongoing remedial action conducted for known oil and/or contamination sites.

The complete SWAP report for the Town of Barre is available at the DPW Office and online at:

<https://www.mass.gov/doc/central-region-source-water-assessment-protection-swap-program-reports-0/download>

How can you help?

Residents can help protect sources by practicing good septic system maintenance, supporting water supply protection initiatives at town meetings, taking hazardous household chemicals to hazardous materials collection days, contacting the Water Department or Board of Health to volunteer for monitoring or education outreach to schools, limiting pesticide and fertilizer use etc.

Educational Information

- ☐ 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 from their health care providers. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection of cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).
- ☐ **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. The Barre Water Department is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact The Barre Water Department at 978-355-5013. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>

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

Sources of Drinking Water and Drinking Water Contaminants

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 or from human activity.

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 effect can be obtained by calling the EPA’s Safe Drinking Water Hotline (1-800-426-4791).

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, and farming.
- ☐ **Pesticides and herbicides**, that may come from a variety of 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 petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems.
- ☐ **Radioactive contaminants**, that 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 Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amounts of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Water Quality Testing Results

The water quality information presented in the table(s) below is from the most recent round of testing done in accordance with regulations. All data shown was collected during the last calendar year, unless otherwise noted in the table(s). The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old

Key:
N/A = Not Applicable
ND = Not Detected
ppb = parts per billion, or micrograms per liter (ug/l)
ppt = parts per trillion, or nanograms per liter
pCi/l = picocuries per liter (a measure of radioactivity)
ppm = parts per million, or milligrams per liter (mg/l)

	Date(s) Collected	90 TH percentile	Action Level	MCLG	# Of sites sampled	# Of sites above Action Level	Possible Source of Contamination
Lead (ppb)	9/26 -9/28 2022	1.1	15	0	20	0	Corrosion of household plumbing systems
Copper (ppm)	9/26 -9/28 2022	0.3	1.3	1.3	20	0	Corrosion of household plumbing systems

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify any problems that were found during these assessments. During the past year, we were required to conduct one Level 1 assessment.

The Level 1 assessment was completed. In addition, we have been required to chlorinate as a corrective action to address distribution deficiencies.

Regulated Contaminant	Date(s) Collected	Highest Result or Highest RAA	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Radiological Contaminants							
Radium 226 & 228 (pCi/L) (combined values)	4/01/2024	0.87	0.74-0.87	5	0	N	Erosion of natural deposits
Gross Alpha (pCi/L)	4/21/2021	2.3	--	15	0	N	Erosion of natural deposits
Disinfection By-Product Contaminants							
Haloacetic Acids (HAA5s) (ppb)	8/05/2024	1	--	60	NA	N	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	8/05/2024	3.4	--	80	NA	N	Byproduct of drinking water chlorination
Chlorine(ppm)-2024	Monthly	0.92	ND-0.90	4	4	N	Byproduct of drinking water chlorination
Per- and Polyfluoroalkyl Substances							
PFAS6 (ppt)	4/1/2024 11/13/2024	0	ND	20	NA	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing PFAS, such as fire-fighting foams

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Inorganic Contaminants						
Sodium (ppm)	4/1/2024	8.6-22	15	NA	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
Per- and Polyfluoroalkyl Substances						
Perfluorobutanesulfonic Acid (PFBS) (ppt)	11/13/2024	0-6.61	1.7	NA	NA	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Secondary Contaminants						
Iron (ppb)	4/1/2024 5/6/2024	ND-110	40	300	NA	Naturally occurring, corrosion of cast iron pipes
Manganese* (ppb)	4/1/2024	ND-41	10	50	300	Erosion of natural deposits

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
	5/6/2024					

* The EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

In addition, our system is participating in the US EPA’s fifth Unregulated Contaminant Monitoring Rule (UCMR 5) as required, which includes sample collection for 30 chemical contaminants between 2023 and 2025. The data collected under UCMR5 improves understanding of the prevalence and amount of 29 per- and polyfluoroalkyl substances (PFAS) and lithium in the nation’s drinking water systems. Lithium and per- and polyfluoroalkyl substances (PFAS) were not detected in any of the samples collected during 2023 and 2024. Additional information regarding UCMR5 can be found at <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>

MassDEP Compliance Report:

The Barre Water Department strives to remain compliant with Mass DEP regulations, which include monitoring and reporting compliance data, record keeping, disinfection, cross connection control and lead and copper control. However, sometimes situations occur that prevent us from doing so and therefore result in violations. The following violations were received:

We failed to complete required sampling in a timely manner, which is a monitoring and reporting violation. Because we did not take the required number of samples, we did not know whether the contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during that time. The contaminants for which monitoring was not done are listed in the table below, with the period during which samples should have been taken, the number of samples each contaminant required, the number taken, and when the required sampling was conducted.

Contaminant	Monitoring Period	Number of Samples Required	Number of Samples Taken	Date Sampling Conducted	Health Effects
Lead and Copper	6/1/2021-9/30/2021	20	18	9/27/2022	Unknown
Total Coliform Bacteria	11/1/2023	10	9	12/4/2023	Unknown
Total Coliform Bacteria	9/1/2024-9/30/2024	10	0	10/23/2024	Unknown
Perchlorate	7/1/2023-9/30/2023	3	0	9/9/2024	Unknown
Gross Alpha	1/1/2024-3/31/2024	2	0	June 2025	Unknown
PFAS6	Oct 2024	1	0	Source removed from service	Unknown
Chlorine Residual (monthly)	Oct 2023 Mar – Sep, Nov 2024	10	10	1/28/2025	Unknown

Cross Connection Control Program / Backflow Device Inspections

Per the Massachusetts drinking water regulations, an approved public water supply may not be connected to an *unapproved* supply, such as a private well. A connection of that nature is considered an illegal cross connection. A cross connection occurs whenever the drinking water supply is or could be in contact with potential source of pollution or contamination. Cross-connections exist in piping arrangement or equipment that allows the drinking water to come in contact with non-potable liquids, solids or gases in event of a backflow. Backflow is the undesired reverse of the water flow in the drinking water distribution lines. Backflow is a problem that many water consumers are unaware of. You can receive water from a private well or from a public water supply – but **not** both, unless the two sets of pipes are kept completely separate. Cross Connections expose the public water supply to potential contamination. The Barre Water Department utilizes Toomey Water Service to assist with inspections and reporting requirements.

What can I do to help prevent a cross-connection?

Without the proper protection, something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact, over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you as a drinking water user can take to prevent such hazards.

- ☐ NEVER submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains or chemicals.
- ☐ NEVER attach a hose to a garden sprayer without the proper backflow preventer.
- ☐ Buy and install a hose bib vacuum breaker on any threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- ☐ Identify and be aware of potential cross-connections to your water line.
- ☐ Buy appliances and equipment with a backflow preventer
- ☐ Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections

Water Use Mandatory Restrictions – Annually, May through September

Due to our Mass DEP Water Withdrawal Permit stipulations, we must restrict non-essential outdoor water use between May 1st and September 30th. Outdoor water use will be permitted on Tuesday's and Thursdays, after 5:00 p.m. using a hand-held hose only.

Non-essential uses include: Irrigation of lawns, washing of vehicles other than for safety, washing exterior building surfaces, parking lots, driveways, sidewalks (except as necessary to apply paint, preservatives, stucco, pavement or concrete).

Water Conservation Tips

- ☐ When washing dishes by hand, don't let the water run while rinsing.
- ☐ Some refrigerators, air conditioners and ice-makers are cooled with wasted flows of water. Consider upgrading with air-cooled appliances for significant water savings.
- ☐ Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- ☐ Use the garbage disposal sparingly. Compost vegetable food waste instead and save gallons every time.
- ☐ Monitor your water bill for unusually high usage. Your bill and water meter are tools that can be used to discover leaks.
- ☐ We're more likely to notice leaks indoors, but don't forget to check outdoor faucets, sprinklers and hoses for leaks.
- ☐ When buying new appliances, consider those that offer cycle and load size adjustments. They're more water and energy efficient.
- ☐ Upgrade older toilets with water efficient models.

Glossary of Terms

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level.

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Level 1 Assessment – A level one assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacterial have been found in our water system.

Massachusetts Office of Research and Standards Guideline (ORSG) – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

Maximum Contaminant Level (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 (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 (MRDL) -- The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) 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 (MRDLG) -- The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Running Annual Average (RAA) – The average of four consecutive quarter of data.

Secondary Maximum Contaminant Level (SMCL) – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminants - Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.