

ANNUAL WATER QUALITY REPORT

Reporting Year 2025



Presented By
Barnstable Fire District



BARNSTABLE
Water Resources

PWS ID#: 4020000



Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2025. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

Where Does My Water Come From?

Your water is provided from five gravel-packed groundwater wells. Well 1 is located off Phinney's Lane. Wells 3 and 4 are off Route 132. Wells 2 and 5 are off Breeds Hill Road. In the event of an emergency, water may be supplied to our system through interconnections with the Centerville-Osterville-Marstons Mills Water District and Yarmouth Water. No water was used from those sources in 2025. Combined, our treatment facilities provide roughly 200 million gallons of clean drinking water every year.

What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, and toothbrush holders and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including humans). The bacteria can be introduced into the house through any of these sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to clean and dry these surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence. *Serratia* will not survive in chlorinated drinking water.

Important Health Information

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 their health-care providers. U.S. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available by emailing the U.S. EPA at safewater@epa.gov.

Source Water Assessment

A source water assessment has been completed for our system. The purpose of the assessment is to determine the susceptibility of each drinking water source to potential contaminant sources. The report includes background information and a relative susceptibility rating of higher, moderate, or lower. It is important to understand that a higher susceptibility rating does not imply poor water quality, only the system's potential to become contaminated within the assessment area. The assessment findings are summarized in the table below:

SOURCE NAME	SUBSOURCE ID#	SOURCE TYPE	LOCATION OF SOURCE
Well 1	4020000-01G	Groundwater	Phinney's Lane
Well 2	4020000-02G	Groundwater	Breeds Hill Road
Well 3	4020000-03G	Groundwater	Route 132
Well 4	4020000-04G	Groundwater	Route 132
Well 5	4020000-05G	Groundwater	Breeds Hill Road

A higher susceptibility ranking was assigned to this system using information collected during the assessment by DEP. This ranking was due to the absence of hydrogeologic barriers that can prevent contaminant migration. A source's susceptibility to contamination does not imply poor water quality. Actual water quality is best reflected by results of regular water tests.

The complete source water assessment report is available at the Water Department office and the Board of Health. Some of the information may be outdated. For more information, call Superintendent Sean Anderson or Assistant Superintendent Ronald Tivey at (508) 362-6498.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the second Tuesday of each month at 2:30 p.m. at the Water Department office, 255 Breeds Hill Road. Meeting dates and times are subject to change. Meeting times are posted at town.barnstable.ma.us, outside the Water Department office, and at barnstablefiredistrict.com.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Sean Anderson, Water Department superintendent, at (508) 362-6498.

Substances That Could Be in Water

To ensure that tap water is safe to drink, U.S. EPA and Massachusetts Department of Environmental Protection (DEP) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

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

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

What's a Cross-Connection?

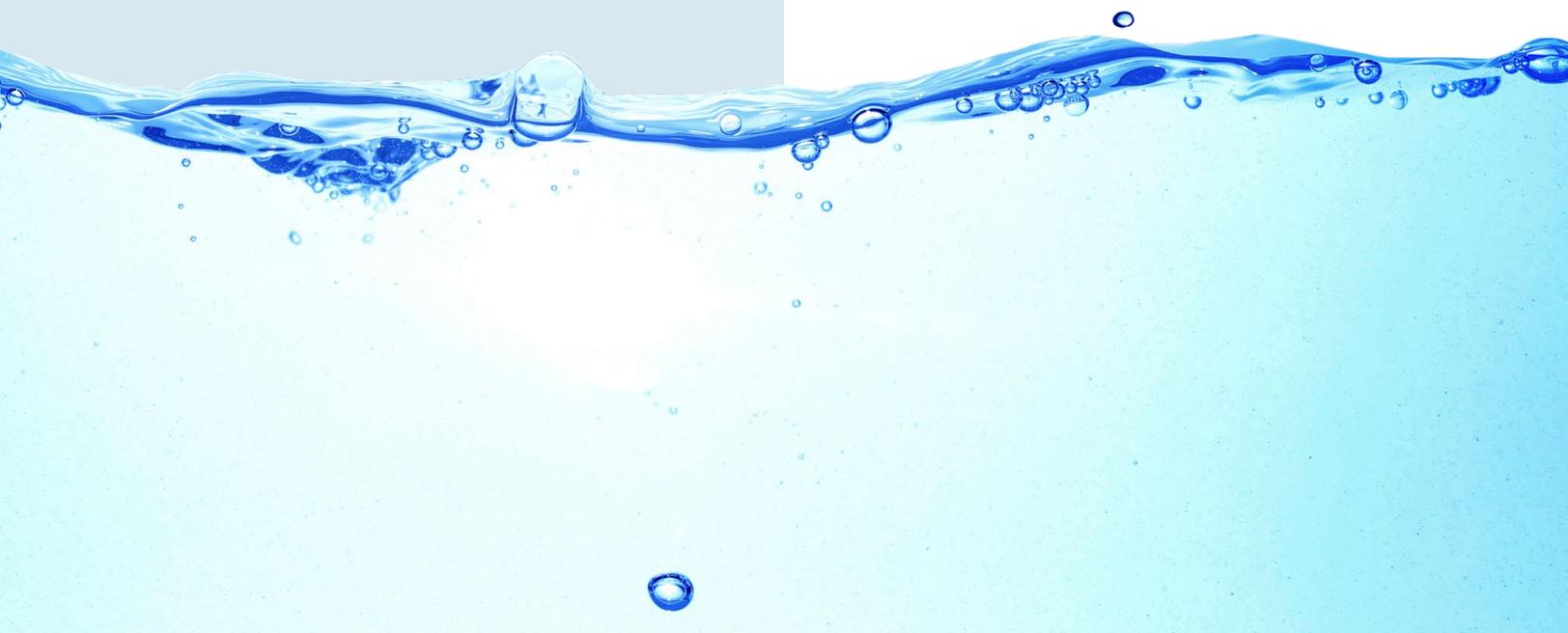
Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air-conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection. For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

“**Water is the driving force of all nature.**”

-Leonardo da Vinci



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

We participated in the fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if it needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data is available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.



REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2025	[4]	[4]	0.88	0.05–0.88	No	Water additive used to control microbes
Nitrate (ppm)	2025	10	10	2.5	0.46–2.5	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2023	1	1	0.35	ND–0.35	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
PFAS6 (ppt)	2025	20	NA	13.9	ND–13.9	No	Discharges and emissions from industrial and manufacturing sources, including production of moisture- and oil-resistant coatings on fabrics and other materials; Use and disposal of products such as firefighting foams
Total Coliform Bacteria (positive samples)	2025	TT	NA	ND	NA	No	Naturally present in the environment
TTHMs [total trihalomethanes] (ppb)	2025	80	NA	7.9	3.5–7.9	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2025	1.3	1.3	0.29	0.014–0.35	0/42	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2025	15	0	1.7	ND–9.4	0/42	No	Corrosion of household plumbing systems; Erosion of natural deposits

Definitions

90th %ile: Out of every 10 homes sampled, 9 were at or below this level. This number is compared to the Action Level to determine lead and copper compliance.

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

Herbicide: Any chemical(s) used to control undesirable vegetation.

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 contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

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

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

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2025	250	NA	89	26–89	No	Runoff/leaching from natural deposits
Iron (ppb)	2025	300	NA	320	ND–320	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2025	50	NA	19	3.6–19	No	Leaching from natural deposits
Sulfate (ppm)	2025	250	NA	12	9.4–12	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2025	7.9	3.5–7.9	By-product of drinking water disinfection
Bromoform (ppb)	2025	3.4	0.59–3.4	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2025	2.5	1.3–2.5	By-product of drinking water disinfection
Chloroform (ppb)	2025	1.1	ND–1.85	By-product of drinking water disinfection
Nickel (ppb)	2018	5.7	NA	Naturally occurring
Sodium (ppm)	2024	50	19–50	Erosion of natural deposits
Sulfate (ppm)	2025	12.0	9.4–12	Erosion of natural deposits

¹Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Lead in Home Plumbing

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and home plumbing. The Barnstable Fire District Water Department is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter certified by an American National Standards Institute-accredited certifier to reduce lead is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling does not remove lead from water.

Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, or doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead and wish to have your water tested, contact Sean Anderson at the Barnstable Fire District Water Department at (508) 362-6498. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be viewed on our website and in our office. Please contact us at 508-362-6498 if you would like more information about the inventory or any lead sampling that has been done.

