2024 Consumer Confidence Report (CCR)
Annual Water Quality Report

TOWN OF EASTHAM
EASTHAM, MA
PWS# 4086095

We are pleased to present to you our Annual Drinking Water Quality Report, also known as the Consumer Confidence Report. This report, a requirement of the 1996 amendments to the Safe Drinking Water Act, is designed to inform you about the quality water and services we deliver to you every day. 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.

Water Source

The Town of Eastham's water system is comprised of two gravel packed wells located off of Cable Road and Nauset Road. A 750,000-gallon storage tank is located off of Nauset Road, which helps ensure adequate volume and pressure for the over 2,400 connections in our system. In 2023, crews broke ground on a second 750,000-gallon storage tank and third well pump station across from the Eastham Senior Center on Nauset Road.

In July of 2015 construction crews first broke ground for the installation of the new Eastham water system. After ten years of hard work and planning by all those involved in this important project, the water system is comprised of approximately 118 miles of water main, and over 1,300 fire hydrants. The Town has a full-time Water Department and office located at the Department of Public Works, 555 Old Orchard Road. Should you have any questions regarding the water system, or how to apply for a water connection, please call the office at 774-801-3244. You can also visit the Town's Water Department webpage for more information at https://www.eastham-ma.gov/390/Water-Supply-Division.

Our water system makes every effort to provide you with safe and clean drinking water. We currently add sodium hypochlorite as a disinfectant to control microbes and potassium hydroxide to adjust pH which helps prevent corrosion within the distribution system. The water quality of our system is monitored by the Town on a daily basis.

White Water, Inc. provides the Town of Eastham with contract operation services. The contract operation includes the services of a state certified operator who monitors the water system for compliance with all state and federal drinking water regulations. The operating contract also includes services such as making emergency repairs when needed, making recommendations for improving water quality, and increasing system reliability.

Any matters that concern your drinking water supply or issues you would like to see addressed can be presented to Pennichuck at (800)553-5191 or email customer-service@pennichuck.com. If your concerns

need immediate attention, feel free to contact our current Certified Operator, WhiteWater, Inc. at (888) 377-7678.

Source Water Assessment

The Massachusetts Department of Environmental Protection (MassDEP) has not yet completed a Source Water Assessment Program (SWAP) Report for the water supply source serving the Town of Eastham. This report assesses the susceptibility of public water systems to contamination and makes recommendations for improvement. Once a SWAP report has been completed, we will provide Eastham's evaluation of the source protection area.

For further information, please visit http://www.mass.gov/eea/agencies/massdep/water/drinking/overview-of-the-source-water-assessment-and-protection-pr.html

Eastham's water comes from two wells drilled about 100 feet into an underground source of water called the Nauset Lens of the Cape Cod Aquifer. These wells are located in the northeast part of Town, one near the high school and the other near Linda Lane. The Town adopted groundwater protection regulations to protect Eastham's source water. The Town also established groundwater protection overlay District J, wellfield protection District H, and water resources protection District G. These regulations prohibit certain land uses and activities within these districts in addition to the MA regulations for wellhead protection areas.

Source Water Protection

Source water is untreated water from streams, rivers, lakes, or underground aquifers that is used to supply public drinking water. Preventing drinking water contamination at the source makes good public health, economic, and environmental sense. You can be aware of the challenges of keeping drinking water safe and take an active role in protecting drinking water. There are lots of ways that you can get involved in drinking water protection activities to prevent the contamination of the ground water source: dispose properly of household chemicals, help clean up the watershed that is the source of your community's water, attend public meetings to ensure that the community's need for safe drinking water is considered in making decisions about land use, etc. Contact our office for more information on source water protection or contact the Environmental Protection Agency (EPA) at 1.800.426.4791. You may also find information on EPA's website at https://www.epa.gov/sourcewaterprotection.

Water Quality

The Town of Eastham routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows any detection resulting from our monitoring for the period of January 1 to December 31, 2024.

The sources of drinking water include rivers, lakes, ponds, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. All sources of drinking water are subject to

potential contamination by substances that are naturally occurring, or manmade. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, 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** 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, 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** can be naturally occurring or be the result of oil and gas production and mining activities.

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

The table below lists all the drinking water contaminants that were detected throughout water quality monitoring and testing. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

Test Results

Unless otherwise noted, testing was done in 2024.
Unless otherwise noted, the highest concentration of each contaminant that was collected has been reported.

Contaminant	Violation (Y/N)	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	N	0	highest number of positive samples (monthly)	Absent	0 positive	Naturally present in the environment.
Inorganic Contaminants						
Barium (10/3/2022)	N	0.008-0.009	mg/L	2	2	Erosion of natural deposits.
Nitrate (10/15/2024	N	0.89	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Perchlorate (8/20/2024)	N	0.13 -0.166	ppb	-	2	Rocket propellants, fireworks, munitions, flares, blasting agents
Sodium (10/3/2022)	N	18-21	mg/L	-	20 (ORSG limit)	Erosion of natural deposits, urban storm runoff.
Sulfate (3/4/2020, 3/11/2020)	N	5-10	mg/L	250	-	Erosion of natural deposits; urban storm runoff.
Contaminants including Pesticides & Herbicides						
Organic Chemicals (VOCs) (10/15/2024)		See results listed below; all others not listed resulted non-detect.	ug/L			
Bromoform (10/15/2024)	N	ND-2.7	ug/L	-	-	Parameter included in Organic Chemicals (VOCs).
Chloroform (10/15/2024)	N	3.3-3.5	ug/L	-	-	Parameter included in Organic Chemicals (VOCs).
Disinfection Byproducts						
Chlorine (Monthly 2024)	N	0.03-0.68	ppm	4	4	Water additive used for disinfection.
Total Haloacetic Acids (HAA5) (8/20/2024)	N	3.4-3.6	ug/L	0	60	A byproduct of drinking water chlorination.
Total Trihalomethanes (TTHMs) (8/20/2024)	N	9.8-10	ug/L	0	80	A byproduct of drinking water chlorination.
Bromodichloro-methane (7/14/2022)	N	ND-1.3	ug/L	-	-	Parameter included in Total Trihalomethanes (TTHMs).

Lead & Copper – Last sampled in 2023						
Contaminant	**Violation (Y/N)**	**Level Detected**	**Unit Measurement**	**MCLG**	**AL**	**Likely Source of Contamination**

Lead – 90th Percentile	N	0	ppb	0	15	Corrosion of household plumbing systems.
Copper – 90th Percentile	N	0.301	mg/L	1.3	1.3	Corrosion of household plumbing systems.
Number of sites exceeding **lead** action level: 0 Number of sites exceeding **copper** action level: 0						

**Note: the state allows us to monitor for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. Not all contaminants are tested for every year due to monitoring waivers and therefore we use the most recent round of sampling. Some of the data presented is more than one year old, however, is limited to no older than five years.*

Units of Measurement:

Parts per million (ppm) or Milligrams per liter (mg/L)	A measurement that corresponds to one minute in two years, or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter (µg/L)	A measurement that corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Picocuries per liter (pCi/L) or Micrograms per liter (µg/L)	Measurements of radioactivity in water.
Millirems per year (mrem/year)	A measurement of radiation absorbed by the water.
Nephelometric Turbidity Unit (NTU)	A measurement of the clarify of water; turbidity more than 5 NTU is just noticeable to the average person.
Million fibers per liter (MFL)	A measurement of the presence of asbestos fibers that are longer than 10 micrometers.

Definitions:

Action Level (AL)	the concentration of contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT)	a required process intended to reduce the level of a contaminant in drinking water.
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.
Massachusetts Office of Research and Standards Guideline (ORSG)	This is the concentration of a chemical in drinking water, at or below which, adverse, non-cancer health effects are likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

Maximum Residual Disinfectant Level (MRDL)	the highest level of a disinfectant allowed in drinking water; there is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	the level of drinking water disinfectant below which there is no known or expected risk to health; MRDLGs to do reflect the benefits of the use of disinfectants to control microbial contaminants.
Running Annual Average (RAA)	the average of all monthly or quarterly samples for the last year at all sample locations.
Non-Detect (ND)	the specified contaminant was not detected.
Level 1 Assessment	a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria has been found in the water system.
Level 2 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 has been found in the water system on multiple occasions.

IMPORTANT INFORMATION

Lead & Copper: Samples are generally collected, and action levels measured at the consumer's tap. 90% of the tests for a given system must be equal to or below the action level; therefore, a section of the results above has been calculated and are listed as the 90th percentile.

Lead: **Major sources in drinking water:** corrosion of household plumbing systems; erosion of natural deposits.
Health effects statement: Infants and children who drink water containing lead more than the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead more than the action level over many years could develop kidney problems or high blood pressure.

Copper: **Major sources in drinking water:** corrosion of household plumbing systems; erosion of natural deposits.
Health effects statement: 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 more than the action level over many years could, suffer liver or kidney damage. People with Wilson's Disease should consult their doctor.

Arsenic: The United States Environmental Protection Agency (US EPA) adopted the new MCL standard of 10ppb in October 2001. Water systems were required to meet this new standard by January 1 2006.

Total Coliform: Reported as the highest monthly number of positive samples for water systems that take less than 40 samples per month. Coliforms are bacteria which are

	naturally present in the environment and are used as an indicator that other, potentially harmful bacteria, may be present.
Turbidity:	Turbidity has no health effects, however, can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms, that can include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

As you can see by the table, our system had no violations. We are proud that your drinking water meets all Federal and State requirements. The EPA has determined that your water IS SAFE at these levels.

All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1 (800) 426-4791.

For most people, the health benefits of drinking plenty of water outweigh any possible health risk from these contaminants. However, 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/Center of Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1 (800) 426-4791.

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. We are responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty (30) seconds to two (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 http://www.epa.gov/safewater/lead.

Water Management Act Requirements:

In accordance with our Water Management Act Permit, the Town of Eastham Water System must implement non-essential outdoor water use restrictions yearly from May 1st through September 30th. Note that these restrictions may need to be extended or increased based on actual drought conditions.

Please pay attention to notices and communication from the Water Department on the status of the water use restrictions and comply accordingly. These restrictions are necessary to ensure sustainable drinking water supply and to protect natural resources.

Nonessential outdoor water uses that are subject to mandatory restrictions include:

- irrigation of lawns via sprinklers or automatic irrigation systems;
- washing of vehicles, except in a commercial car wash or as necessary for operator safety; and
- washing of exterior building surfaces, parking lots, driveways or sidewalks, except as necessary to apply surface treatments such as paint, preservatives, stucco, pavement or cement.

The following uses may be allowed when mandatory restrictions are in place:

- irrigation to establish a new lawn and new plantings during the months of May and September;
- irrigation of public parks and recreational fields by means of automatic sprinklers outside the hours of 9 am to 5 pm; and
- irrigation of lawns, gardens, flowers and ornamental plants by means of a hand-held hose.

Water uses NOT subject to mandatory restrictions are those required:

- for health or safety reasons;
- by regulation;
- for the production of food and fiber;
- for the maintenance of livestock; or
- to meet the core functions of a business (for example, irrigation by golf courses as necessary to maintain tees, greens, and limited fairway watering, or irrigation by plant nurseries as necessary to maintain stock).

The use of fertilizers is also regulated in accordance with the Eastham Wetlands Bylaw adopted in December 2014. This regulation applies to any application of fertilizer to turf or lawns located within the Resource Areas or Buffer Zones identified in Section 2 of the Eastham Wetlands Bylaw. This regulation applies to applications of fertilizer to turf and lawns. The regulation exempts agriculture, gardens, trees, shrubs. There is a limited exception for composting, subject to the applicable provisions of Section 5.0, below.

5.0 Performance Standard

5.1 The application of fertilizer to lawns or turf is prohibited within the Resource Area or Buffer Zone as defined in the Eastham Wetland Bylaw, except as provided below.

5.2 The use of fertilizer for lawn maintenance purposes is not permitted, including to lawn or turf that existed at the effective date of this regulation.

5.3 New lawns or new turf may be approved by the Eastham Conservation Commission subject to the following:

5.3.1 So that new turf or new lawn can properly be established, but not to exceed one growing season, the nitrogen content of fertilizer approved for this purpose shall not exceed of 1.0 pound of actual nitrogen per thousand square feet per application, shall not exceed at the annual rate per 12 month period 3.2 pounds of actual nitrogen per thousand square feet, and shall contain at least 20% slow-release nitrogen. Single applications may be done at intervals of no less than four weeks until the annual maximum is reached.

5.3.2 An appropriate seed mix shall be used, such as a 'conservation'-type mix, that has low nutrient and water needs.

5.3.3 Fertilizer containing Phosphorus may be used to establish a new lawn/ turf or to re- establish or repair a lawn after substantial damage or land disturbance, in an effort to prevent incremental water runoff.

5.3.4 Fertilizer shall not be applied during or immediately prior to heavy rainfall, such as but not limited to thunderstorms, hurricanes, or northeastern storms, or when the soil is saturated due to intense or extended rainfall, or to impervious areas or compacted soil/ lawn/ iuri.

5.3.5 Neither fertilizer nor compost shall be applied between November 12 and the following April 14.

5.3.6 Fertilizer shall not be applied beyond the Buffer Zone directly to the abutting Resource Area.

5.3.7 IRRIGATION. Above ground temporary irrigation is allowed during the first 2-3 growing seasons to allow for plant establishment and shall be immediately removed no later than after the third growing season. Underground irrigation systems, including permanent underground irrigation systems, are prohibited.

CROSS CONNECTION CONTROL & PREVENTION

What is a cross connection?

A cross connection occurs whenever a potable drinking water line is directly or indirectly linked to a piece of equipment or piping containing non-potable water.

Why should I be concerned about cross connections?

An unprotected or inadequately protected cross connection in your home or work place could contaminate the drinking water not only in your building, but in neighboring businesses and homes. Severe illnesses– even death– have been caused by cross connection contamination events that could have been prevented. Unprotected and inadequately protected cross connections have been known to cause outbreaks of hepatitis A, gastroenteritis, Legionnaire's disease, chemical poisoning, body lesions (from exposure through showering), damage to plumbing fixtures and explosions.

How can a cross connection contamination occur?

Non-potable water or chemicals used in equipment or a plumbing system can end up in the drinking waterline as a result of backpressure or backsiphonage. Backpressure occurs when the pressure in the equipment such as a boiler or air conditioning unit is greater than the pressure in the drinking water line.

Backsiphonage occurs when the pressure in the drinking water line drops due to fairly routine occurrences such as water main breaks, nearby fires, unusually heavy water demand. Contaminants are then sucked out and into the drinking water line.

What can I do to make sure my water supply is protected from cross connections?

· Contact your local water supplier to find out what he/she is doing to prevent cross connection contamination incidents.
· Survey your home to make sure you are not unknowingly creating a cross connection
· Do not attach any pesticide, chemical, or any other non-potable liquid applicators to your water line
· Install hose bibb vacuum breakers (HBVB) on all outside faucets. The HBVB isolates garden hose applications, protecting your drinking water supply from contaminants that could be drawn into your home through the hose.

WATER MAIN FLUSHING

Water main flushing is a routine water system task performed periodically throughout the system and at dead-ends. Flushing can cause temporary water discoloration at your tap, and should you experience this, please run cold water at several taps on your property for approximately 5 minutes or until the water is clear. During this time, it is recommended to avoid doing laundry, and if the discoloration continues please contact us for assistance.

LEAK DETECTION

Leaks may seem like a minute problem, but a single leaky toilet can waste thousands of gallons of water every year. By finding and fixing leaks around the house, not only will you be conserving your water usage, but you'll also save money on your future water bills.

1. Turn off all faucets throughout the house (washing machine, bath, etc.) to ensure no water is running. Be sure to check that all automatic water users such as an irrigation system or an automatic ice maker are off.

2. Watch the small dial on the water meter for three to five minutes. If it moves, you probably have a leak. Read your water meter at night and again in the morning while the water has been off overnight to check for slow leaks. If you have a water softener, check at night when you are not recharging.

Tips To Help Conserve Water

Water conservation measures are an important first step in protecting our precious resource. Such measures preserve the supply of our source water. To help you help us, we offer the following conservation tips:

· Fix leaking faucets, pipes, toilets, etc.
· Replace old fixtures; install water-saving devices, in faucets, toilets and appliances.
· Wash only full loads of laundry.
· Do not use the toilet for trash disposal.
· Take shorter showers.
· Do not let the water run while shaving or brushing teeth.
· Soak dishes before washing.
· Run the dishwasher only when full.

We, at the Town of Eastham work hard to provide top quality water to every tap. Water is a limited resource, so it is vital that we all work together to maintain it and use it wisely. We ask that all our customers help us protect and preserve our drinking water resources, which are the heart of our community, our way of life, and our children's future. Please contact us with any questions. Thank you for working together for safe drinking water.

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