



# Town of Eastham

## 2023

PWS ID: #4086095

## REPORT ON WATER QUALITY

This report is a snapshot of the quality of the drinking water that we provided last year. The statistics in this report are based on testing done throughout 2022. We hope you will find it helpful to know the sources of your water and the process by which safe drinking water is delivered to your home.

### ***Where Does My Water Come From?***

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 1900 connections in our system.

In July of 2015 construction crews first broke ground for the installation of the new Eastham water system. After seven years of hard work and planning by all those involved in this important project, the water system is comprised of 110 miles of water main, and over 1150 fire hydrants. The town now has a full time water clerk 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 new water website for more information at <https://www.eastham-water.com/>.

### ***Is My Water Treated?***

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.



### ***Maintaining Water Quality***

The Town of Eastham continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor both our sources and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.

In order to ensure tap water is safe to drink, the MassDEP and EPA 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 that must provide the same protection for public health.



*The water system at the Town of Eastham is operated and maintained*

*by WhiteWater, Inc. If you have any questions about this report, please contact WhiteWater at (888) 377-7678.*

*Additional copies of this report are available upon request and at [www.whitewateronline.com](http://www.whitewateronline.com)*

*For further information about the Eastham Municipal Water Project, please visit <https://www.eastham-ma.gov/390/Water-Supply-Division>*

*For billing questions call Pennichuck at (800) 553-5191*

**WhiteWater**  
WATER & WASTEWATER SOLUTIONS

### ***WHAT SHOULD I DO IN CASE OF AN EMERGENCY?***

In case of a non-life-threatening emergency please contact WhiteWater Inc., (24/7) at (888) 377-7678. In all other situations call 911.

# DISTRIBUTION SYSTEM WATER QUALITY

This report summarizes only those items detected during sampling - not all contaminants that are monitored.

Microbial Results	Highest # Positive in a Month	Total # Positive	MCL	MCLG	Violation	Possible Source of Contamination
Total Coliform	0	0	1	0	No	Naturally present in the environment

**Total Coliform:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Your water source is tested monthly and has been found to be free of these contaminants.

Lead & Copper	Date(s) Collected	90 <sup>th</sup> Percentile of Sample	Action Level	MCLG	# of Sites sampled	# of Sites Above Action Level	Exceeds Action Level?	Possible Source of Contamination
Lead (ppb)	2020	2	15	0	10	0	No	Corrosion of household plumbing systems ; erosion of natural deposits
Copper (ppm)		0.40	1.3	1.3			No	Corrosion of household plumbing systems ; erosion of natural deposits

## TESTING FOR 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. **The Town of Eastham** is 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 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 <http://www.epa.gov/safewater/lead>.

## SOURCE WATER CHARACTERISTICS

- Key to Tables**
- ppm – Parts per million, corresponds to one penny in \$10,000
  - ppb – Parts per billion, corresponds to one penny in \$10,000,000
  - pCi/L – Picocuries per liter (a measure of radioactivity)
  - ND – Not detected
  - n/a - not applicable
  - RAA –Running annual average
  - TT—Treatment technique

The sources of drinking water in the United States (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.



- 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 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. These contaminants can also come from gasoline storage, 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.

## FOR YOUR INFORMATION

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 amount of certain contaminants in water provided to 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. 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 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.

Where to go for more information ....

Massachusetts Department of Environmental Protection (MassDEP)  
<http://www.mass.gov/eea/agencies/massdep/water/drinking/>



## SUMMARY OF FINISHED WATER CHARACTERISTICS

<b>Regulated Contaminants</b>	<b>Date(s) Collected</b>	<b>Highest Detect Value</b>	<b>Range Detected</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation</b>	<b>Possible Source of Contamination</b>
<b>Inorganic Contaminants</b>							
Barium (ppm)	10/3/22	0.009	0.008-0.009	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	10/3/22	1.41	0.77-1.41	10	10	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate (ppb)	9/21/22	0.168	n/a	2	n/a	No	Rocket propellants, fireworks, munitions, flares, blasting agents
<b>Radioactive Contaminants</b>							
Gross Alpha Emitters (pCi/L)	2017	2.9	0.33-2.9	15	0	No	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined)	2017	2.08	ND-2.08	5	0	No	Erosion of natural deposits
<b>Disinfection By-Products</b>							
Total Trihalomethanes (TTHMs) (ppb)	8/30/22	14**	6.2-14	80	-	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	8/30/22	0.81**	0.77-0.81	60	-	No	By-product of drinking water chlorination

\*\*Results are for one quarter only.

<b>Unregulated Contaminants</b>	<b>Date(s) Collected</b>	<b>Result or Range</b>	<b>Average</b>	<b>SMCL</b>	<b>ORSG or Health Advisory</b>	<b>Possible Source of Contamination</b>
<b>Inorganic Contaminants</b>						
Nickel (ppb)	11/9/16	ND-5	2.5	-	100	Discharge from domestic wastewater, landfills, mining and smelting operations
Sodium (ppm)**	10/3/21	18-21	19.5	-	20	Natural sources; discharge from de-icing compounds; by-product of treatment process
Sulfate (ppm)	3/4/20, 3/11/20	5-10	7.5	250	-	Natural Sources
<b>Secondary Contaminants</b>						
Iron (ppb)	9/21/21	680	n/a	300	-	Natural & industrial sources; corrosion of cast iron pipes
Manganese (ppb)	9/21/21	31	n/a	50	300*	Natural Sources; industrial discharge

\*US EPA and MassDEP have established health advisory levels for manganese to protect against concerns of potential neurological effects.

\*\***Sodium** is a naturally-occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/L for sodium represents a level in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health or the Massachusetts Department of Public Health, Bureau of Environmental Health Assessment at (617) 624-5757. Sodium was resampled in 2017 with an average concentration of 12.7ppm.

### SOME TERMS DEFINED

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

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

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

**Secondary Maximum Contaminant Level (SMCL):** These standards are developed to protect the aesthetic qualities of drinking water and are not health based. The SMCL is the highest level of a contaminant that is allowed for secondary contaminants in drinking water.

**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.

**Total Coliform:** A bacteria that indicates other potentially harmful bacteria may be present.

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

**90<sup>th</sup> Percentile:** Out of every 10 homes, 9 were at or below this level.

## Source Water Protection

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.

[Town of Eastham, MA Groundwater Protection for Drinking Water Sources \(ecode360.com/11469479\)](http://ecode360.com/11469479)

## Opportunities to Participate

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](mailto:customer-service@pennichuck.com). If your concerns need immediate attention feel free to contact our current Certified Operator, WhiteWater, Inc. at (888) 377-7678.



## Cross Connection Control and Backflow Protection in your water system



Typical Hose Bibb Vacuum Breaker

A Cross Connection means any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources. The Town of Eastham recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the potable water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection. The MassDEP and Town of Eastham require the physical separation between the public water supply to your home and a private well used for irrigation or other purposes, these instances will be monitored for compliance. For more information please contact Marcus Thompson, Cross Connection Coordinator, WWI at (888) 377-7678.

## SHOULD SOME PEOPLE TAKE SPECIAL PRECAUTIONS?

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.

### 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.

### 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 assure 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 you 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.