2025 Consumer Confidence Report (CCR)

Harwich Water & Wastewater Department, Harwich, Massachusetts USA
MassDEP Public Water System ID # 4126000

This Consumer Confidence Report (CCR) is prepared annually in accordance with the requirements of the Safe Drinking Water Act and the Massachusetts Department of Environmental Protection (MassDEP).

This report describes the quality of your drinking water, the source of that water, and provides important information about public health.

Public Water System Information

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Water System Improvements

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection. MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. In our continued effort to provide the highest quality drinking water and maintain our water system, the Department remained very active throughout 2025, please find some of the more notable projects and accomplishments below:

- ✓ Pleasant Lake Tank- Drained, Inspected, and Painted
- ✓ Replaced/Upgraded Main System Server Computers
- ✓ Renewed 86 water services in East Harwich for the Phase 3 Sewer Project
- ✓ Enhance Cybersecurity to the Water & Wastewater SCADA system
- ✓ Installed 100 Ft of 6 inch water main
- ✓ Added 7 hydrants and 10 blow-offs to dead end roads to improve water quality
- ✓ New Source Well 12- Modflow report of the Monomoy Lens submitted to MassDEP for approval of new well source.
- ✓ Route 28 Water Main Replacement Project- Design of the Route 28 Water Main Replacement Project is complete; the project is scheduled to start in September 2026. This project includes the replacement of old 1930-1940s era 8” cast iron water main with new 12” Ductile Iron water main. This project will be from Division Street to Lower County Road and will include a horizontal direction drilled water main beneath the Herring River improving the resiliency of the West Harwich service area.
- ✓ Hydraulic Model- Started in 2025, the hydraulic model is computer-aided simulation that replicates the behavior of the water distribution system. It maps physical infrastructure, performance, ensures regulatory compliance, and plan for future growth, this project is anticipated for completion July 2026.
- ✓ Leak Detection- New computerized leak detection equipment was purchased in 2025 and 100 miles of water main have been surveyed.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend the Board of Water & Wastewater Commissioners meetings which are held at 196 Chatham Road on the first and third Tuesday of each month at 9:00 am unless otherwise posted.

Your Drinking Water Source

Where Does My Drinking Water Come From?

Our drinking water comes from is pumped from an underground source called Monomoy Lens. The Monomoy Lens is the second largest of the six mounds or cells of elevated groundwater that comprise the aquifer. The lens generally supplies excellent drinking water from its porous sand and gravel deposits. The water is considered "soft" due to the lack of calcium and magnesium. Municipal water supplies are treated to neutralize the pH. Naturally occurring iron and manganese can cause staining, odor, and taste problems. Sodium chloride can be elevated in coastal areas due to salt spray or saltwater intrusion.

Harwich Water System

The Water Department operation consists of 14 pump stations, approximately 400 acres of well fields/watershed protection areas, 5 corrosion control facilities, 2 elevated and 1 ground-level water storage tanks, and 2 greensand water treatment facilities which provide service to 10,174 metered accounts, 135 fire sprinkler accounts and 1,397 fire hydrants for fire protection. The original water system was established in 1936.

The drinking water supply for Harwich comes from 14 gravel-packed wells. Wellfields are in South, East, and North Harwich, and draw water from the Monomoy Lens Aquifer. These 14 wells pumped 783.529,000 million gallons of water in 2025. The sand and gravel act as a huge underground reservoir, which is continually replenished by rainfall and snowmelt. The wells have a high susceptibility to contamination due to the absence of hydrogeologic barriers (i.e. clay) that can prevent contaminant migration.

Source Name	MassDEP Source ID	Source Type	Location of Source
Well 1	4126000-01G	Groundwater	off Chatham Rd
Well 2	4126000-02G	Groundwater	off Chatham Rd
Well 3	4126000-03G	Groundwater	off Chatham Rd
Main Station Well 1	4126000-13G	Groundwater	off Chatham Rd
Main Station Well 2	4126000-14G	Groundwater	off Chatham Rd
Main Station Well 3	4126000-15G	Groundwater	off Chatham Rd
Well 4	4126000-05G	Groundwater	off Chatham Rd
Well 5	4126000-06G	Groundwater	off Depot Rd
Well 6	4126000-07G	Groundwater	off Depot Rd
Well 7	4126000-08G	Groundwater	off Depot Rd
Well 8	4126000-09G	Groundwater	off Bay Rd
Well 9	4126000-10G	Groundwater	off Bay Rd
Well 10	4126000-11G	Groundwater	off NW Gate Rd
Well 11	4126000-12G	Groundwater	off Pleasant Bay Rd

Is My Water Treated?

After the water is pumped from the ground, it is treated with the chemicals Potassium Hydroxide (KOH) and Sodium Hypochlorite (Chlorine). KOH is added at very low concentrations to increase the pH of the water and

reduce its natural corrosivity. Low pH can stain plumbing fixtures and degrade the water quality by leaching copper and lead out of private services. Water treatment plants improve water quality by removing dissolved iron and manganese from the water supply.

What is My System's Ranking?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving Harwich. The SWAP Report assesses the susceptibility of public water supplies. Since several land uses and activities are potential sources of contamination, Harwich has a high susceptibility ranking. SWAP notes the following key issues for our sources; inappropriate activities in Zone I areas, residential land uses and activities, stormwater pollution, transmission line right-of-way, and transportation corridors within Zone IIs, and comprehensive wellhead protection planning for Zone IIs.

Where Can I See The Source Water Assessment & Protection Program (SWAP) Report?

The complete SWAP report is available at the Water Department and online at https://www.mass.gov/service-details/the-source-water-assessment-protection-swap-program
For more information or a paper copy, call 508-432-0304.

What Can Be Done to Improve Protection?

Residents and business owners can help protect sources by:

- Practice good septic system maintenance
- Support water supply protection initiatives
- Take hazardous household chemicals to hazardous materials collection days
- Limiting pesticide and fertilizer use:

Nitrogen and Phosphorus in fertilizer are the greatest concern to water quality. Lawns need less fertilizer than advertised and there are multitudes of fertilizing alternatives available today. While the water quality in Harwich is excellent, let's do our best to keep it that way and protect our precious resources.

Substances Found in Tap Water

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 human activity. 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, which can naturally occur or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.
- **Pesticides and herbicides** 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 can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which 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, the Environmental Protection Agency (EPA) and MassDEP prescribe regulations that limit the number of certain contaminants in water provided by public water systems. The FDA

and Massachusetts Department of Public Health 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 emailing the EPA at safewater@epa.gov

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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by emailing the EPA at safewater@epa.gov

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. Harwich Water 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

Important Definitions

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

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

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

90th Percentile: 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.

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

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.

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.

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

Running Annual Average (RAA): The average of four consecutive quarters of data.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that the 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 expected risk to health.

MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (µg/L)
ppt = parts per trillion, or nanograms per liter (ng/L)
pCi/l = picocuries per liter (a measure of radioactivity)
NTU = Nephelometric Turbidity Units
ND = Not Detected
N/A = Not Applicable
C.U. = Color Units

Water Quality Testing Results

What Does This Data Represent?

The water quality information presented in the table is from the most recent round of testing done following the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table.

Regulated Contaminants

Lead and Copper

Contaminant	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Sources
Lead (ppb)	8/6/2024 8/7/2024 8/8/2024 8/12/2024 8/13/2024 8/14/2024 8/15/2024 8/16/24	0.00	15	0	36	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	8/6/2024 8/7/2024 8/8/2024 8/12/2024 8/13/2024 8/14/2024 8/15/2024 8/16/24	0.038	1.3	0	36	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Inorganic Contaminants

Contaminant	Date(s) Collected	Highest Result	Range Detected	MCL	MCLG	Violation (Y/N)	Possible Sources
Barium (ppm)	1/24/2023	0.02	0.0016 –0.02	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

Nitrate (ppm)	8/13/2025	1.8	ND – 1.8	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite (ppm)	7/5/2023	ND	ND – ND	1	1	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Mercury (ppb)	1/26/2023	ND	ND – ND	2	2	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Perchlorate (ppb)	8/13/2025	ND	ND – 0.19	2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents

Microbiological Contaminants

Bacteria	Date(s) Collected	Highest % positive in a month	Total # Positive	MCL / TT	MCLG	Violation (Y/N)	Possible Sources
Total Coliform Bacteria	Weekly	**0%**	**0**	5%	0	N	Human and animal fecal waste
Fecal Coliform or E.coli	Weekly	**0%**	**0**	*	0	N	Human and animal fecal waste

*Compliance with fecal coliform/E. coli MCL is determined upon additional repeat testing

Radioactive Contaminants

Contaminant (Units)	Date	Highest Result	Range	MCL	MCLG	Violation	Possible Sources
Gross Alpha (pCi/l)	3/3/2021 7/20/2021	ND	ND	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	3/3/2021 7/20/2021	ND	ND	5	0	N	Erosion of natural deposits

If the results of these samples had been above 5 pCi/L, our water system would have been required to do additional testing for radium. Because the results were below 5 pCi/L, no testing for radium was required.

Disinfectants and Disinfection By-Products

Contaminant (Units)	Date(s) Collected	Highest Quarterly Running Annual	Range Detected	MCL	MRDLG	Violation (Y/N)	Source(s) of Contamination
Chlorine (Free) (ppm)	Monthly in 2025	0.18	0.13 - 0.23	4	4	N	Water additive used to control microbes
Total Trihalomethanes (TTHM) (ppb)	8/13/2023	7.0	2.5 – ND	80	----	N	A byproduct of drinking water chlorination
Total Haloacetic Acids (HAA5) (ppb)	8/13/2025	1.59	1.59– ND	60	----	N	A byproduct of drinking water disinfection

Regulated Per- and Polyfluoroalkyl Substances – PFAS6

Contaminant (Units)	Date(s) Collected	Highest Quarterly Average	Range Detected	MCL	Violation (Y/N)	Possible Source(s) of Contamination

PFAS6 (ppt)	01/23/2024 07/10/24	ND	ND	4(ppt)- PFOA & PFOS 10(ppt)- PFNA, PFHxS, HFPO-DA & PFBS	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including the production of moisture and oil-resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these 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. UCMR 5 samples were collected in 2024. UCMR 5 data summary information may be viewed at https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule.

Unregulated Contaminants						
Unregulated Contaminants (CASRN) (Units)	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Chloroform (67663) (ppb)	1/21/2025	ND – 1.5	0.82	N/A	70	A by-product of drinking water chlorination (In non-chlorinated sources it may be naturally occurring)
Bromodichloromethane (75274) (ppb)	1/21/25	ND-0.79	0.14	NA	NA	A by-product of drinking water chlorination
Chlorodibromomethane (124481) (ppb)	1/21/2025	ND-1.3	0.22	NA	NA	A by-product of drinking water chlorination
Bromoform (75252) (ppb)	1/21/2025	ND	0.10	NA	NA	A by-product of drinking water chlorination
Manganese (7439-96-5) (ppb)*	01/21/2025	.0042-.046	0.020	50	300	Erosion of natural deposits
* US 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.						
Nickel (7440020) (ppb)	1/24/2023	ND	ND	N/A	100	Discharge from domestic wastewater, landfills, and mining and smelting operations
Some people who drink water containing nickel at high concentrations for many years could experience effects on the lungs, stomach, blood, liver, kidneys, immune system, reproduction, and development.						

Unregulated Contaminants						
Unregulated Contaminants (CASRN)	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Sodium (7440235) (ppm)	1/24/2023	12 - 30	20.6	N/A	20	Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents
Some people who drink water containing sodium at high concentrations for many years could experience an increase in blood pressure. †There is no ORS Guideline for this compound.						

As required by the US Environmental Protection Agency (EPA), our water system has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring these contaminants is to help the EPA decide whether the contaminants should have a public health protection standard.

What should I do?

You do not have to do anything but as our customers you have a right to know that this data is available. You may share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, food establishments, medical facilities, and businesses).

For more information

For additional information on your water and the unregulated contaminants we sampled, see your water department's Consumer Confidence Report (CCR), called a water quality report, delivered by your water department by July 1 of each year. If you have any questions about your CCR, see the contact information below for your water department. For information on the Unregulated Contaminant Monitoring Program, visit the MassDEP website (http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html) and navigate to Unregulated Contaminant Monitoring Program.

If you would like to know more about the results in this report, please contact Superintendent Jason Trepanier at (508) 432-0304 or email jason.trepanier@harwich-ma.gov.

Compliance with Drinking Water Regulations

Does My Drinking Water Meet Current Health Standards?

Harwich Water is committed to providing you with the best water quality available. We are proud to report that last year your drinking water met the required water quality standards regulated by the state and federal government.

Educational Information

Cross-Connection Control and Backflow Prevention

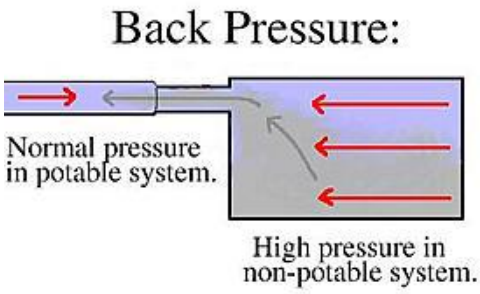
Harwich Water makes every effort to ensure that the water delivered to you is clean, safe, and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by cross-connection? If so, how?

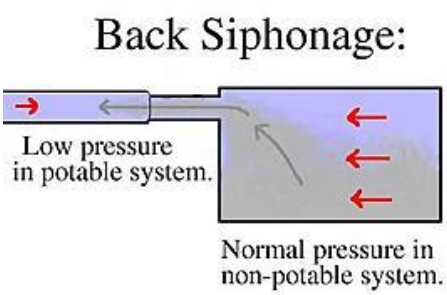
What is a cross-connection?

A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in piping arrangements or equipment that allow the drinking water to encounter non-potable liquids, solids, or gases (hazardous to humans) in the event of a backflow.

What is a backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that every water customer has a responsibility to help prevent.





What can I do to help prevent cross-connection?

Without 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, they are:

- NEVER submerge a hose in soapy water buckets, animal water containers, pools, tubs, sinks, or chemicals.
- NEVER attach a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bib vacuum breaker in 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 backflow preventers.
- Buy and install backflow prevention devices or assemblies for all high and moderate-hazard connections.

If you are the owner or manager of a property that is being used as a commercial, industrial, or institutional facility you must have your property's plumbing system surveyed for cross-connection by your water purveyor. If your property has NOT been surveyed for cross-connection, contact your water department to schedule a cross-connection survey. For more information on our cross-connection program, visit www.harwichwater.com.

Conservation and Leak Detection

Water conservation and leak detection reduce the need for developing new water sources and storage facilities and help to save our precious resources. Here are suggestions that will help you to conserve water and save money:

Indoor

- Turn off the water while you shave or brush your teeth.
- Check your toilets for leaks by placing a few drops of food coloring in the tank. If the color shows in the bowl after 30 minutes without flushing, indicates a leak.
- Fix leaking faucets, pipes, toilets, etc.; a slow drip can waste over 100 gallons per day.
- Keep showers for under 5 minutes.
- Run your washing machine and dishwasher only when they are full.
- Consider installing low-flow faucets, toilets, and showerheads.
- Replace old dishwashers and clothes washers with energy-efficient machines that use less water.

Outdoor

- Minimize evaporation by watering before 6 a.m. or after 6 p.m.
- Install a rain sensor shut-off device on your automatic sprinkler system.
- Consider installing a rain barrel to water your garden plants.

- Use a layer of organic mulch around trees and plants to reduce evaporation and weed growth.
- Consider planting drought-resistant plants and grass to reduce the need for watering.
- Use a broom instead of a hose to clean your driveway or sidewalk.
- Adjust your mower to a higher setting. Longer grass improves root systems and holds soil moisture.

Drought Management During Peak Season

As we enter the peak pumping season, please consider ways to reduce and conserve water use whenever possible. The Water Department has drought management signs throughout the Harwich Community and are updated upon changing drought conditions. During peak season please refer to the drought management signs around town as well as notices on our website, the Harwich Channel, social media, and digital sign boards for drought notification and notice of water use restrictions. We continue to encourage our customers to be diligent in conserving water even if the supply is abundant. It is important to keep in mind that the average person uses 80-100 gallons of water per day for the following activities:

Bathing & Hygiene	38 gallons per day	Kitchen	14 gallons per day
Housekeeping	2 gallons per day	Laundry	15 gallons per day
Dishwasher	10 gallons per day	Toilet	22 gallons per day

To review your metered water bill, divide your water usage by the number of days in the billing period (approximately 90 days) and by the number of residents of your household to determine your average.

Make Every Drip Count!