2025 Annual Drinking Water Quality Report

The Townsend Water Department

Townsend, Massachusetts

MASSDEP PWSID # 2299000

This report is a snapshot of drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with information because informed customers are our best allies.

I. PUBLIC WATER SYSTEM INFORMATION

Address: **25 Harbor Trace Road Townsend Mass 01469**

Contact Person: David Vigeant

Telephone #: **978-597-2212**

Internet Address: https://www.townsendma.gov/water-department

Water System Improvements

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 a Massachusetts certified operator who oversees the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system:

- A generator was installed at the Witches Brook wells and all well components were replaced. All water is now being filtered through the Treatment Plant.
- The Harbor Trace Water Treatment Plant Center was completed and put into operation on 17 January 2025. The plant is filtering water from the Harbor Trace well and the Witches Brook wells.
- The new Lunenburg Road Tank is currently in the planning process.
- The Oak St, Bow St and Maple St area has now been moved off the 6-inch main on Highland St and transferred over to the 16-inch main on Highland St. We will continue to move homes on Highland St over from the old 6-inch main to the 16-inch main and abandon the 6-inch main. The old 6-inch main experiences reduced flows due to mineral build up, reducing the water quality.
- We have replaced 4 old hydrants this year that are original from 1934 in the Main St area. We will do this every year to make sure when needed for fires they work properly.
- A new 10-year Master Plan will be completed this spring, detailing planning for the future of the Water Department. Our last 10-year plan from April 2021 was completed by the summer of 2025.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend our regular monthly meetings: The Board of Water Commissioners typically meet the second Monday of each month at 7:00 p.m. Meetings are held at the Water Department office located at 25 Harbor Trace Road Townsend or held remotely on Zoom. Please feel free to attend and participate in these meetings.

2. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Your water is provided by the following sources listed below:

Source Name	DEP Source ID	Source Type	Location Of Source
Main Street Well	2299000-06G	Groundwater	Main Street (West side of town)

Cross Street Well	2299000-02G	Groundwater	Off Cross Street
Harbor Trace Well	2299000-03G	Groundwater	Harbor Trace Road
Witch's Brook Well 1	2299000-04G	Groundwater	Ash Street
Witch's Brook Well 2	2299000-05G	Groundwater	Ash Street

Is my Water Treated?
Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat the water with Sodium Hydroxide, (this form of treatment controls the lead and copper content in the water and makes the water less corrosive to household plumbing and fixtures). and Sodium Hypochlorite. Harbor Trace, Witches Brook 1 and Witches Brook 2 are all filtered through the Harbor Trace Treatment Plant using granulated activated carbon, (GAC).
The water quality of our system is constantly monitored by us and DEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

How are these Sources Protected?
MassDEP has prepared a Source Water Assessment and Protection (SWAP) report for sources supplying the Townsend Water System. The SWAP report identifies the wellhead protection areas, assesses the susceptibility of public water supplies, and notes the key issues pertaining to: 1) inappropriate activities in Zones I and II; 2) residential land uses; 3) transportation corridors; 4) oil or hazardous material contamination sites; and 5) comprehensive wellhead protection planning. The term Zone II refers to the land area that contributes water to a well under the most severe pumping and recharge conditions that can be realistically imagined, i.e., pumping a well at its full capacity for 180 days without rainfall. The SWAP report also ranks the overall susceptibility of the system to contamination and recommends future actions to protect the sources. MassDEP's ranking for the Townsend Water Department was moderate, noting the presence of at least one high threat land use within the water supply protection areas.
The Townsend Water Department has responded to the report's recommendations by monitoring Zones I & II, educating residents in the form of informational flyers, cooperating with any agency while we continue to monitor stormwater drainage in and around the Zone IIs, and inspecting any remedial action in the area of our Zone IIs.

What is my System's Ranking?
A susceptibility ranking of moderate was assigned to this system using the information collected during the assessment by MassDEP.

Where can I see the SWAP Report?
The Town's SWAP report can be found online at
https://www.mass.gov/doc/central-region-source-water-assessment-protection-swap-program-reports-0/download
For more information, call the office at 978-597-2212.

What can be done to Improve Protection?
The SWAP report recommends:
Ways residents can help protect water sources are: 1) practicing good septic system maintenance; 2) supporting any water supply protection articles at future Town Meetings; 3) taking hazardous household chemicals to hazardous materials collection days; and 4) limiting pesticide and fertilizer use, etc.

3. SUBSTANCES FOUND IN TAP WATER

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.

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 stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and 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 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.

Level 1 Assessment - is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment –Public Water Suppliers conduct a level 2 assessment to determine if there are defects in their system causing coliform bacteria.

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 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. 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).

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 health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

4. IMPORTANT DEFINITIONS

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.

Action Level (AL) – The concentration of a contaminant which, 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.

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

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.

ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (ug/l)
ND = Not Detected
N/A = Not Applicable
Ppt = parts per trillion or nano grams per liter (ng/L)

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.

5. WATER QUALITY TESTING RESULTS

What Does This Data Represent?
The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table(s).

	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead** (ppm)	December 2025	0.0016	0.015	0	**43**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits
Copper** (ppm)	December 2025	0.284	1.3	1.3	**43**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Regulated Contaminant	Date(s) Collected	Highest Result	Range Detected	MCL	MCLG	Violation (Y/N)	Possible Source(s) of Contamination
Barium** (ppm)	6/12/2025	0.0280	0.0280	2	2	**N**	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	6/12/2025	3.43	3.43	10	10	**N**	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate	7/17/2025	0.120	0.120	2	N/A	**N**	Rocket propellants, fireworks, munitions, flares, blasting agents

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
Aluminum** (ppb)	5/20/2021	0.000-0.012	0.004	200		Residue from water treatment process: erosion of natural deposits
Chloride** (ppm)	**5/20/2021**	**3.1-46.7**	**36.4**	250		Runoff and leaching from natural deposits; seawater influence
Iron (ppm)	**6/12/2025**	**0.357**	**0.111**	300	300	Naturally occurring, corrosion of cast iron pipes

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Manganese* (ppm)	**6/12/2025**	**0.053**	**0.053**	50		Erosion of natural deposits
Sodium** (ppm)	**6/12/25**	**72.4**	**72.4**	N/A		Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents
Sulfate** (ppm)	5/20/2021	2.73-10.2	7.4	250		Runoff and leaching from natural deposits; industrial wastes
Total Dissolved Solids** (ppm)	**12/28/2018**	**216-358**	**277**	500		Erosion of natural deposits.
Zinc** (ppm)	**7/23/2021**	**0-0.012**	**0.004**	5		Erosion of natural deposits, leaching from plumbing materials
Methyl tert-butyl ether*** (ppb)	**11/17/2025**	**ND all Wells**	**ND**	20-40	70	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.

* US EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects.

** MassDEP does not require annual testing for this contaminant however we are required to provide the results for the most recent round of testing for this contaminant within the last five years.

*** The secondary MCL for MTBE is based on the Drinking Water Advisory set by EPA and is based on taste and odor considerations.

Bacteria	MCL / TT	MCLG	Value	Date	Violation (Y/N)	Possible Sources
Total Coliform Bacteria	MCL/TT	0	Negative	Dec 2025	N	Human and animal fecal waste

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 assessments to identify any problems that were found during these assessments.

During the past year, we were required to conduct one Level 2 Assessment. One Level 2 Assessment was completed. In addition, we were required to take (2) corrective actions and we have completed (2) of these actions.

PFAS Results:

Main St Well	**ND**
Cross St Well	**5.26 ppt, state limit 20.0 ppt**
Harbor Trace Well	**ND Filtered through Harbor Trace Treatment Plant**
Witches Brook Well 1	**ND Filtered through Harbor Trace Treatment Plant**
Witches Brook Well 2	**ND Filtered through Harbor Trace Treatment Plant**

6. COMPLIANCE WITH DRINKING WATER REGULATIONS

Does my Drinking Water meet Current Health Standards?

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

7. EDUCATIONAL INFORMATION

Do I need to Be Concerned about Certain Contaminants Detected in my Water?

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 Townsend Water Department 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 at **http://www.epa.gov/safewater/lead**.

8. ADDITIONAL INFORMATION

Information on Mandatory Water Use Restrictions

It is important that customers comply with any water use restrictions implemented by the Water Department. Water withdrawals by public water suppliers are strictly regulated by the state Department of Environmental Protection (DEP) to maintain a balance of providing an adequate quantity of safe healthy drinking water for all customers, fire protection, and protecting wildlife and the environment. Water suppliers are required to meet a standard residential water use of 65 gallons per day per person. If not, the DEP will require that the water supplier enforce more stringent water restrictions. As required the Townsend Water Department implements a seasonal water restriction from May 1st – September 30th. We ask for your cooperation in complying with these restrictions.

WATER RESTRICTION
IN EFFECT MAY 1ST - SEPTEMBER 30TH
OUTDOOR WATER USE LIMITED TO:

NO OUTDOOR WATERING ANY DAY BETWEEN
9:00 AM – 5:00 PM

PER ORDER OF THE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AND
TOWNSEND WATER DEPARTMENT

CROSS-CONNECTIONS

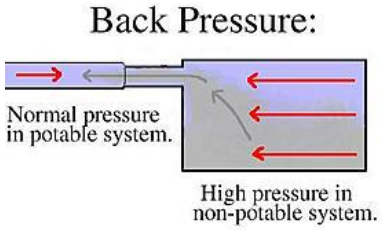
What is a Cross Connection and What Can I do about it?

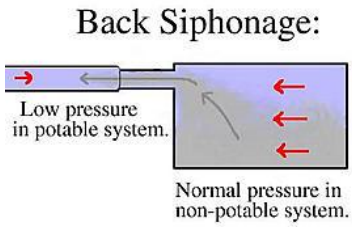
A cross connection is a connection between a drinking water pipe and a contaminated source. The contamination can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If a condition happens that causes the water pressure to drop significantly while operating the sprayer, the fertilizer may be sucked back into your household internal piping and into the public water distribution system threatening the health and safety of many people. This problem can be prevented by using an attachment on your hose called a *backflow-prevention device*.

The Townsend Water Department makes every effort to ensure that the water delivered to your home and business is clean, safe, and free of contamination. Our staff works diligently to protect the quality of the water delivered to our customers from the time the water is withdrawn from our wells from underground aquifers and pumped throughout the entire treatment and distribution system. 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 a cross-connection at your home or business? 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 allows the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in 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 you 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, they are:

- 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 bibb 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.