



# THE QUALITY OF YOUR DRINKING WATER

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## Water Source Assessment

The Virginia Department of Health (VDH) completed a source water assessment on March 27, 2002. This assessment determined that our source may be susceptible to contamination because it is located in an area that promotes migration of contaminants from land use activities of concern. More specific information may be obtained by contacting Anna King, Water Plant Supervisor, at (540) 828-6183.

### What does that mean?

The language used to describe the “Source Water Assessment” was written by the Virginia Department of Health. What this really means is that North River runs through an agricultural area that is subject to contamination from fields. In addition, Pilgrim’s Pride and a few small industries are upstream from our intake. This also poses a risk. However, it should be noted that no contamination of North River has occurred over the past twenty years. In fact, the last contamination we can remember came from a farm upstream and happened over thirty-five years ago.

## An Open Letter to the Citizens of Bridgewater

Each year, you receive this report on the quality of your drinking water. This report is mandated by the Environmental Protection Agency and the Virginia Department of Health, but as a Town we welcome the opportunity to share the results of recent testing for contaminants at the Water Treatment Plant.

**First and foremost, your drinking water meets all state and federal requirements** administered by the Office of Drinking Water for the Virginia Department of Health (VDH). Moreover, Bridgewater has received the VDH’s highest honor in water treatment—the “Office of Drinking Water Gold Treatment Award”—for the 15<sup>th</sup> consecutive year. This award is a reflection of the dedication of our Water Treatment Plant employees Anna King, Bryan Davis, Mark Martin, Wayne Roberts, and Byron Slagell.



We are committed to providing you with a safe, dependable supply both now and in the future. We hope that this report gives you a better understanding of the issues surrounding water and public health.

Sincerely,

A. Fontaine Canada  
Chairman, Public Works Committee

## Water Quality Test Results for 2025

Your drinking water is routinely monitored according to federal and state regulations for a variety of contaminants. The tables that follow in this report show the results of our monitoring for the period of January 1 through December 31, 2025.

The results in most of these tables are from testing done in 2025. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of our data, though accurate, are more than one year old. Only those contaminants that had some level of detection are listed. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment and, therefore, are not listed.

Maximum Contaminant Levels (MCLs) are set by the U.S. Environmental Protection Agency (EPA). In developing the standards, the EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. The EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

## Lead and Copper (Most recent monitoring period)

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Exceedance	Date of Sample	Typical Source of Contamination
Copper (ppm)	1.3	AL = 1.3	0.055 (90 <sup>th</sup> percentile) 0 of 20 samples exceeded the AL. Range: <0.02 to 0.286	No	August 2023	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.
Lead (ppb)	0	AL = 15	2.70 (90 <sup>th</sup> percentile) 0 of 20 samples exceeded the AL. Range: <2 to 5.08	No	August 2023	Corrosion of household plumbing; erosion of natural deposits.

**Lead:** 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 Bridgewater is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Town of Bridgewater at (540) 908-4212. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

## Radiological Contaminants (Most recent monitoring period)

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Combined Radium (pCi/L)	0	5	1.62	No	October 2020	Erosion of natural deposits
Alpha Emitters (pCi/L)	0	15	2.8	No	October 2020	Erosion of natural deposits
Gross Beta (pCi/L)	0	50	3.00	No	October 2020	Decay of natural & manmade deposits

**Radiological Contaminants:** Certain minerals are radioactive and may emit various forms of radiation. They become a part of the water supply through erosion of the mineral deposits. Some people who drink water containing radiation in excess of the maximum contaminant limit may have an increased risk of getting cancer. Our water shows trace amounts of alpha and beta radiation. Please note that our readings are far less than the MCL.

## Inorganic Contaminants

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Fluoride (ppm)	4	4	0.69 Range: 0.49-0.78	No	Monthly 2025	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
Barium (ppm)	2	2	0.044	No	May 2025	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits.
Nitrate (ppm)	10	10	3.05	No	August 2025	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposit.

**Inorganic Contaminants:** The Department of Health tests for 15 different inorganic contaminants including arsenic, asbestos, mercury, & nitrate. Lead is also classified as "inorganic" but it is listed separately in this report since it is of particular concern for all water systems. We show small amounts of fluoride and nitrate in our test results. Fluoride is added at the water filtration plant as a preventative for tooth decay. Nitrates occur in our system and were a concern in the past. However, we now blend river & well water, greatly reducing our nitrate levels. In this report we show slightly more than one part per million, a small fraction of the MCL.

## Microbiological Contaminants

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Turbidity (NTU)	N/A	TT = 0.3 NTU (95% of monthly samples must be <0.3 NTU)	0.09 Max (Maximum & all monthly samples <0.3 NTUs 100% of the time)	No	Daily	Soil Runoff

**Turbidity:** All water contains a certain amount of suspended solids, some of which could be microbiological contaminants that can cause sickness if ingested. Drinking water turbidity is measured in nephelometric turbidity units (NTUs) and a reading of .3 or less is considered safe by the Health Department. For comparison, 5 NTU turbidity is barely noticeable to the naked eye. The Town's drinking water falls well below the standard for safe drinking water.

## Disinfection By-Products Precursors

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
TOCs - Total Organic Carbon (mg/L)	N/A	TT	ND to 0.62 Removal Ratio: 22.0-34.7%	No	Quarterly	Naturally present in the environment.

**Disinfection By-Products Precursors:** A precursor is a substance from which another substance is formed. For Carbon, it can combine with Chlorine to form organic compounds. In greater concentrations, some are harmful to human health. Our level of TOC is low and poses no health risk.

## Disinfection By-Products

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
TTHMs - Total Trihalomethanes (ppb)	0	80	48 Range: 22-48	No	August 2025	By-product of drinking water chlorination.
Haloacetic acids - HAAs (ppb)	N/A	60	34 Range: 21-34	No	August 2025	By-product of drinking water chlorination.

**Disinfection By-Products:** Disinfection by-products are formed by the reaction of the disinfectant with natural organic matter in the water. Bridgewater samples are significantly lower than the maximum allowable limit in both TTHMs and HAAs.

## Disinfectant Residual Contaminants

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Chlorine (mg/L)	4	4	Range: 0.31-1.41	No	Monthly	By-product of drinking water chlorination.

## Metals

Contaminant (Unit of Measurement)	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Sodium (ppm)	N/A	N/A	2.68	No	May 2025	Erosion of natural deposits, water softeners, de-icing salt runoff

## Four Groups of Contaminants

**1. Microbial Pathogens.** Pathogens in drinking water are serious health risks. Pathogens are disease-producing micro-organisms, which include bacteria, viruses, and parasites (such as giardia lamblia). They get into drinking water when the water source is contaminated by sewage and animal waste, or when wells are improperly sealed and constructed. They can cause gastroenteritis, salmonella infection, dysentery, shigellosis, hepatitis, and giardiasis (a gastrointestinal infection causing diarrhea, abdominal cramps, and gas). The presence of coliform bacteria, which is generally a harmless bacteria, may indicate other contamination to the drinking water system.

**2. Organics.** Some chemical compounds are known as "organics." These contain carbon and are often found in nature. Most organics would be considered harmless, but some are regulated, such as:

- **Trihalomethanes (THMs)**, formed when chlorine in treated drinking water combines with naturally occurring organic matter;
- **Pesticides**, including herbicides, insecticides, and fungicides; and
- **Volatile organic chemicals (VOCs)**, which include solvents, degreasers, adhesives, gasoline additives, and fuel additives. Some of the common VOCs are benzene, trichloroethylene (TCE), styrene, toluene, and vinyl chloride. Possible chronic health effects include cancer, central nervous system disorders, liver and kidney damage, reproductive disorders, and birth defects.

**3. Inorganics.** These contaminants include toxic metals like arsenic, barium, chromium, lead, mercury, and silver. These metals can get into your drinking water from natural sources, industrial processes, and the materials used in your plumbing system. Toxic metals are regulated in public water supplies because they can cause acute poisoning, cancer, and other health effects.

Nitrates are another inorganic contaminant. The nitrates in mineral deposits, fertilizers, sewage, and animal wastes can contaminate water.

**4. Radioactive Elements.** Radon is a radioactive contaminant that results from the decay of uranium in soils & rocks. It is usually more of a health concern when it enters a home as a soil gas than when it occurs in water supplies. Radon in air is associated with lung cancer.

## Definitions

Throughout this report there may be unfamiliar terms and abbreviations. The following definitions are provided to help you better understand these terms:

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

**Maximum Contaminant Level (MCL):** Highest level of a contaminant 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.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Non-detects (ND):** Lab analysis indicates that the contaminant is not present.

**Parts per million (ppm) or milligrams per liter (mg/l):** One part per million corresponds to one minute in 2 years, or a single penny in \$10,000.

**Parts per billion (ppb) or micrograms per liter:** One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Picocuries per liter (pCi/l):** A measure of the radioactivity in water.

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

**Variances and exemptions:** State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**Local  
Postal Customer**

**What Does This Mean?**

Although this notice may sound concerning, the violation involved a missed monitoring requirement due to a change in the sampling schedule and does not indicate a water quality problem. Historically we have not had any significant detections of synthetic organic chemicals (SOCs). The required sampling was completed as soon as the issue was identified, and the results continued to show no significant detections of SOCs.

**Service Line Inventory**

The Town of Bridgewater completed a service line inventory in October 2024 and determined that no Lead Service lines, Galvanized Requiring Replacement, or Unknown materials were present in the system. The service line inventory can be found online at [bridgewater.town/serviceline](http://bridgewater.town/serviceline).

**Drinking Water Notice**

**Failure to Monitor for Synthetic Organic Chemicals (SOCs)  
for the Town of Bridgewater**

While we regularly monitor the water we deliver to ensure its safety, we violated a drinking water monitoring requirement last year by neglecting to test for specific contaminants within a three-year window. Even though this was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2023-2025, we did not monitor or test for alachlor, atrazine, benzo(a)pyrene, carbofuran, chlordane, dalapon, di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, 1, 2,4-dichlorophenoxyacetic acid, dinoseb, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, lindane, methoxychlor, oxamyl, pentachlorophenol, picloram, polychlorinated biphenyls, simazine, toxaphene, 2,4,5-trichlorophenoxypropionic acid and therefore cannot be sure of the quality of your drinking water during that time.

We are required to collect one sample for each of the above contaminants during each three-year monitoring period.

**What Should I Do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is Being Done? Steps We Are Taking:**

We collected our 2026-2028 compliance samples in February 2026 with acceptable results and no detects. For more information, please contact Anna King, Water Plant Supervisor, at (540) 828-6183.