



# ON TAP

2024 Annual Water Quality Report



**Grafton  
Water  
District**

[www.graftonwaterdistrict.org](http://www.graftonwaterdistrict.org)

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## 2024 Annual Water Quality Report

As part of the requirements of the Safe Water Drinking Act the Grafton Water District (District) is pleased to submit its annual water quality report. This report will detail the requirements for reporting set by the Federal Environmental Protection Agency. This report highlights testing that was required in the year 2024 and any contaminants that may have been detected during testing. This report will not show testing results that were undetected.

The District is committed to providing our customers with high quality drinking water that meets or surpasses state and federal standards for quality and safety. To ensure delivery of a quality product, we have in the last twenty-six years made significant changes to our pumping, distribution system and operations.

## Where the Districts' Water Comes From

The District obtains its water from four gravel packed ground water wells. These wells are located at the following locations: 98 Worcester St., 2110000-02G; 30 East St. which has two wells, East St. #2A and #3, 2110000-06G, 2110000-04G; Follette St., 211000-05G and 25R Trinity Ave. 2110000-07G.

As part of the distribution system the District maintains over 72.00 miles of water mains, two booster stations, three storage tanks, hydrants, gate valves and services. The water system is maintained and operated by four licensed operators 24 hours a day 365 days a year. The system is also connected to South Grafton, Millbury, Shrewsbury, Upton, Northbridge, Worcester, and the Wilkinsonville Water District. These interconnections provide water to our system in the event of an emergency.

Want to know more about the District's water system? Please call our office at 508-839-2302 during the hours of 8 a.m. and 4 p.m., Monday through Friday, with any questions or concerns. We are located at 44 Millbury Street, Grafton, MA 01519. The District's Board of Water Commissioners typically meets monthly as posted. Special meetings will be posted separately.

### Information on sources of drinking water, contaminants that may be present in source water, and EPA/FDA regulations



"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 from human activity".



"In order to ensure that tap water is safe to drink. The DEP and EPA prescribe regulations that limit the amount of contaminants in water provided by public water systems. Food and Drug Administration (FDA) and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health."



**Explanation of the vulnerability of some populations to contaminants in drinking water:** "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemo- therapy, 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/Centers for Disease Control and Prevention (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)."

| Source   | MassDEP Source ID | Source Type | Location         |
|----------|-------------------|-------------|------------------|
| Well #1  | 2110000-02G       | Groundwater | 98 Worcester St. |
| Well #2A | 2110000-06G       | Groundwater | 30 East St.      |
| Well #3  | 2110000-04G       | Groundwater | 30 East St.      |
| Well #4  | 2110000-05G       | Groundwater | Follette St      |
| Well #5  | 2110000-07G       | Groundwater | 25R Trinity Ave  |

# Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2024 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted the data presented in this table is from testing done January 1 - December 31, 2024. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year or have never been detected.

## TERMS AND ABBREVIATIONS USED BELOW

### 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.

### 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.

### Action Level (AL)

The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

### Sodium

Sodium-Sensitive individuals, such as those experiencing hypertension, kidney failure or congestive heart failure, who drink water containing sodium should be aware of levels where exposures are being carefully controlled.

### Unregulated Contaminants

Unregulated contaminants are substances without MCLs for which EPA requires monitoring. For some of these substances, the Massachusetts Office of Research and Standards (ORSG) has developed state guidelines or secondary MCLs.

### ORSG *Office of Research and Standards Guideline*

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.

### SMCL *Secondary Maximum Contaminant Level*

These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

**LEAD:** Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water to reduce lead content. Additional information is available from the Safe Drinking Water Hotline, 800-426-4791.

**pci/L** - Picocuries per liter:

A measure of radioactivity in water.

**\*ppb:** parts per billion or micrograms per liter

**\*ppm:** parts per million or milligrams per liter

**mtbe:** Methyl Tertiary Butyl Ether

## Contaminants that may be present in water

**Microbial Contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Pesticides and Herbicides**, that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

**Inorganic Contaminants**, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

**Organic Chemical Contaminants**, including synthetic, volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive Contaminants**, that can be naturally-occurring or be the result of oil and gas production and mining activities.

**Volatile Organic Compounds**, (VOC's) area group of chemicals that are usually associated with man-made products such as gasoline, heating oil, degreasers, cleaners, solvents and the like. VOC's in a water supply can result from fuel spills, leaking underground tanks, industrial discharges, illegal dumping and run-off from industrial areas or heavily traveled roads.

Ingesting water containing VOC's in excess of the MCL may increase the risk of getting certain cancers, liver damage or neurological problems. Health effects vary depending on the specific contaminant, its concentration, and the duration of exposure.

## 2024 CCR Tables for the Grafton Water District

The water quality information presented in the tables below is from the most recent round of testing done in accordance with the drinking water regulations. The most recent monitoring of finished water for nitrite, volatile organic compounds, and synthetic organic compounds did not detect any regulated contaminants.

| Lead and Copper  | Date Collected | 90th Percentile          | Action Level | MCLG     | # of sites sampled | # of sites above AL                       | Exceeds A-? (Y/N)  |
|--|----------------|--------------------------|--------------|----------|--------------------|---|--|
| Lead (ppb)   | 2024           | .0103                    | .015         | 0        | 52                 | 1   | N  |
| Possible sources: Corrosion of household plumbing systems; erosion of natural deposits                                   |                |                          |              |          |                    |   |  |
| Copper (ppm)   | 2024           | .858                     | 1.3          | 1.3      | 52                 | 0   | N  |
| Possible sources: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |                |                          |              |          |                    |   |  |
| Inorganic Contaminants   | Date Collected | Highest Level Detected   | Range        | MCL      | MCLG               | Violation (Y/N)                           | Possible Sources   |
| Asbestos   | 7/9/20         | 0                        | 0            | 7        | 7                  | N   | Erosion of natural deposits decay from asbestos pipes                              |
| Nitrate (ppm)  | 6/27/24        | .086                     | 0.86         | 10       | 10                 | N   | Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposit |
| Sulfate  | 2016           | 12                       | 12           | 250      | 250                | N   | Natural sources  |
| Sodium   | 4/28/21        | 106                      | 0 -106       | 20       | 20                 | N   | Natural sources, road salt   |
| Barium   | 5/4/21         | .025                     | 0 -.025      | 2        | 2                  | N   | Erosion of natural deposits decay from asbestos pipes                              |
| Arsenic  | 10/24/25       | .0099                    | .0099        | .010     | .010               | N   | Natural sources  |
| Perchlorate (ppb)  | 7/21/22        | 0.153                    | 0 - .153     | 0        | 0                  | N   | Rocket propellants, fireworks, munitions, flares, blasting agent.                  |
|  |                |                          |              |          |                    |   |  |
| Haloacetic (HAA5s) (ppb)   | 2024           | 37                       | 8.7 - 37     | 60       | —                  | N   | By-product of drinking water chlorination  |
| Total Trihalomethane (TTHMS) (ppb)   | 2024           | .0103                    | 24.0 - 67    | 80       | —                  | N   | By-product of drinking water chlorination  |
| Radioactive Contaminants   |                |                          |              |          |                    |   |  |
| Gross Alpha Activity   | 2024           | 1.1 pCi/L                | N/A          | 15 pCi/L | 0 pCi/L            | N   | Erosion of natural deposits  |
| Radium 226 & 228   | 2024           | 0.4 pCi/L                | N/A          | 5 pCi/L  | 0 pCi/L            | N   | Erosion of natural deposits  |
| Disinfection Contaminants  | Date Collected | Amount Detected or Range |              | SMCL     | ORSG               | Possible Source                           |  |
| Chloroform (ppb)   | 2024           | 0.5 - 44                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Bromodichloromethane   | 2024           | 0.5 - 22                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Bromoform  | 2024           | 0 - .6                   |              | --       | --                 | By-product of drinking water chlorination |  |
| Chloro Dibromochloromethane  | 2024           | 0 - 9.1                  |              | --       | --                 | By-product of drinking water chlorination |  |
| Chlorate (ppb)   | 2015           | 29                       |              | --       | --                 | By-product of drinking water chlorination |  |
| Bromide  | 2020           | 0 - 73.2                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Bromochloroacetic acid   | 2020           | 0 - 3.87                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Bromodichloroacetic acid   | 2020           | 0 - 8.89                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Chlorodibromoacetic acid   | 2020           | 0 - 3.96                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Dibromoacetic acid   | 2024           | 0 - 9.3                  |              | --       | --                 | By-product of drinking water chlorination |  |
| Dichloroacetic acid  | 2024           | 2.6 - 17                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Trichloroacetic acid   | 2024           | 5.9 - 28                 |              | --       | --                 | By-product of drinking water chlorination |  |
| Monochloroacetic acid  | 2024           | 0 - 1.3                  |              | --       | --                 | By-product of drinking water chlorination |  |

| Substance (units) | Date Collected | Amount Detected or Range | SMCL | ORSG | Possible Source  |
|-------------------|----------------|--------------------------|------|------|--|
| 1,4-dioxane (ppb) | 2024           | 0 - .51                  | --   | --   | Chemical solvent, lab reagent, stabilizer, adhesive, may be found in cosmetics, detergents, and shampoo. |
| Chromium (ppb)    | 2015           | .3                       | --   | --   | Erosion of natural deposits  |
| Chromium-6 (ppb)  | 2015           | .32                      | --   | --   | Erosion of natural deposits. By-product of industrial activities.  |
| Strontium (ppb)   | 2015           | 210                      | --   | --   | Erosion of natural deposits  |
| Nickel 2018       | 2018           | .006                     | --   | --   | Erosion of natural deposits  |

| Chemical   | Secondary MCL | Source to Drinking Water MCL                      | Chemical        | Secondary MCL | Source to Drinking Water MCL |
|------------|---------------|---|-----------------|---------------|------------------------------|
| Iron (ppm) | .163          | Naturally occurring, corrosion of cast iron pipes | Manganese (ppm) | .178          | Erosion of natural deposits  |

**The Grafton Water District** tests for VOC's as required by the Department of Environmental Protection. Specifically our Follette Street well is tested quarterly due to the presence of VOC's in the ground water. A raw (pre-treatment) and treated (after-treatment) sample of the water is tested to determine the effectiveness of the new water treatment facility.

The Department of Environmental Protection completed an assessment of Grafton's water sources, under the **Source Water Assessment and Protection Program (SWAP)** and determined that Grafton's threat level was high, based on the presence of at least one high-threat land use in our Zone II area of one of our water supply wells. You can obtain a copy of the SWAP report at the Water District office or on the web at <http://www.mass.gov>.

**The East Street Wells** #2 and #3 are treated to remove iron and manganese that is naturally occurring in the ground water. Although iron and manganese are not necessarily a health issue they do cause significant staining and color problems in plumbing fixtures and the water.

#### CROSS CONNECTION EDUCATION:

A cross connection is a connection between a drinking water pipe and a polluted source. When the water system has a pressure drop, usually due to a leak in the system, water can sometimes siphon back into the system. An example is when a homeowner fertilizes their lawns with garden hose type attachments. These devices provide an avenue for the pollutant to siphon backwards into the home or the water system. The District recommends that you install a backflow prevention device such as a hose bib vacuum breaker on all outside faucets. They can be obtained at your local plumbing or hardware store and are easy to attach. This is a great way for you to protect your home as well as the water system. For additional information please feel free to call the Water District at 508-839-2302.

#### PFAS AND PFOA IN THE NEWS:

Recently in the news there has been a lot of talk about PFAS in water systems across the country. Per- and Poly-fluoroalkyls substances (PFAS) are a group of man-made chemicals. These chemicals were used in a variety of products such as: carpets, clothing, non-stick pans, firefighting foam, dental floss and industrial processes to name a few. Some scientific studies have suggested that certain PFAS compounds may affect different systems in the body. They may affect growth, learning, affect the immune system and may increase the risk of cancer. Preliminary studies show that these issues may increase with long term exposure in sensitive populations such as infants, pregnant and nursing mothers.

The Grafton Water District tests for PFAS and PFOA in coordination with the Department of Environment Protection Agency Rules and Regulations.

| Substance (units)                    | Range of Detects | Average | Level Allowed (MCL) | Goal MCLG | Typical Source   | Exceeds MCL? |
|--------------------------------------|------------------|---------|---------------------|-----------|--|--------------|
| Regulated (MCL has been established) |                  |         |                     |           |  |              |
| PFAS6 (ppt)                          | 0 - 24.3         | 9.4     | 20 ppt              | No MCLG   | Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including 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. | Yes          |

Unregulated substances (MCL has not been established)

|   |             |      |        |         |  |    |
|---|-------------|------|--------|---------|--|----|
| Perfluorooctane sulfonic acid (PFOS) (ppt)  | 1.99 - 9.14 | 4.27 | 20 ppt | No MCLG | Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including 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. | No |
| Perfluorooctanoic acid (PFOA) (ppt)         | 2.11 - 9.89 | 4.19 | 20 ppt | No MCLG |  |    |
| Perfluorohexane sulfonic acid (PFHXS) (ppt) | 0 - 2.05    | 1.06 | 20 ppt | No MCLG |  |    |
| Perfluorononanoic acid (PFNA) (ppt)         | 0 - .849    | .562 | 20 ppt | No MCLG |  |    |
| Perfluoroheptanoic acid (PFHPA) (ppt)       | 0 - 3.17    | 1.19 | 20 ppt | No MCLG |  |    |
| Perfluorobutanesulfonic acid (PFBS) (ppt)   | 1.72 - 3.12 | 2.82 | 20 ppt | No MCLG |  |    |
| Perfluorohexanoic acid (PFHXA) (ppt)        | 0 - 4.78    | 1.91 | 20 ppt | No MCLG |  |    |

## EPA's Lead and Copper Rule Update: Ensuring Safe Water Through Service Line Inventories

On December 22, 2020, the U.S. Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR) in nearly 30 years. One key component of this update is the requirement for public water systems to develop an initial service line inventory by October 16, 2024. Establishing an inventory of service line materials and identifying the location of any lead components is a necessary foundation for removing lead and protecting public health. A service line is the pipe that brings water from the water main in the street into a building and generally consists of two parts: the "public" side, which runs from the main to the curb stop and the "private" side, which runs from the curb stop into the building. District staff began proactively developing our initial service line inventory in early 2024 by reviewing available records, consulting with current and former staff, and conducting field identifications during meter appointments. Shortly thereafter, the District began implementing strategies to determine unknown service line materials, including requesting customers to self-identify the material used on the "private" side. Based on our review, copper and plastic make up our service line materials. Out of the more than 4,500 service lines in our community, there are no known lead service lines in our distribution system.

## Ensuring Safe Drinking Water: Corrosion Control & Lead Prevention Efforts

The District collects samples from 30 homes and two schools/childcare facilities in town once every year to confirm the effectiveness of our corrosion control efforts. Aeration, primarily used for VOC removal, is often sufficient in raising the pH of our naturally corrosive water supplies from slightly acidic to neutral. As needed, further upward pH adjustment is achieved by adding potassium hydroxide. Upwardly adjusting the pH reduces the potential for metals like lead and copper to leach from building pipes and plumbing fixtures into the water carried through them. All AL (Action Level) exceedances were reported to homeowners immediately. Often, replacing old household plumbing fixtures that contained lead results in improved water quality. There were no lead AL exceedances for any of the samples collected in schools/ childcare facilities as part of the 2024 program. When your water has been sitting for several hours, like first thing in the morning or upon returning home from work, you can minimize your lead exposure by flushing your tap for up to two minutes or until the water becomes noticeably colder before using it for drinking, cooking, or preparing baby formula. Always use cold water for these activities, as lead dissolves faster in hot water than it does in cold. It's also important to note that boiling water does not decrease the level of lead; rather, it increases it. Additionally, the aerators on the end of your faucets should be removed at least every six months to rinse out any debris that may include particulate lead.

## PFAS6 Compliance Update: Addressing Elevated Levels at Worcester St. Well

Our water system received notification of PFAS6 results showing that our system violated the 20 nanograms per liter (ng/L) PFAS6 MassDEP Maximum Contaminant Level (MCL) drinking water standard during the July-September 2024 compliance period with an average of 22 ng/L from Well 2 (Worcester St. Well).

**We were required to notify you by the DEP that our water District violated PFAS level requirements of the drinking water regulations. A notification was mailed out to all district members and was posted on our website.** Samples collected on August 9, 2024, and September 12, 2024, from our Worcester St. Well 2 reported PFAS6 levels of 24.3 ng/L and 18.9 ng/L respectively. Compliance with the PFAS6 MCL is calculated as a quarterly average based upon the total number of samples collected during the compliance period. The location where elevated levels PFAS6 was reported is one of four sources that supplies drinking water to our system. PFAS6 levels were below the MassDEP MCL at the other locations. The levels at our Worcester St. well have remained below the 20 ng/L since the August 9,2024 sample

## Water Quality Notice: PFAS6 Monitoring Issue Resolved

We were required to notify you by the DEP that our water District violated monitoring and reporting requirements of the drinking water regulations. Even though this was not an emergency, our customers have the right to know what happened and what we did to correct this. During the months of May, June, and July 2024 (during the pilot study for PFAS) PFAS6 samples were not taken at our Worcester St. well. We resumed monthly PFAS6 sampling on August 9,2024 and have gone over sampling schedules and requirements with the staff. Since the conclusion of the pilot study in August the PFAS6 levels at the Worcester St. well have returned to their normal levels below the 20 parts per trillion required by the DEP.

## Regulatory Notice: Monitoring & Reporting Violation Update

We were required to notify you by the DEP that our water district violated monitoring and reporting requirements of the drinking water regulations. Even though this was not an emergency, as our customers you have the right to know what happened and what we are doing to correct this. During the second quarter (4/1/2023-6/30/2023) samples were not taken at our East Street wells due to the stations being out of service. When the station went back online in July 2023, bacteria samples were taken but other make up samples were not taken.All other samples going forward were taken at the designated times. This was brought to our attention in March 2024 and per DEP requirements we took the makeup samples March 28,2024. We have gone over proper sampling procedures with the staff for wells offline and when being returned to service.

### **(Regulatory Notice)**

We were required to notify you by the DEP that our water district violated monitoring and reporting requirements of the drinking water regulations. We are required to conduct appropriate Ground Watering Rule (GWR) monitoring to demonstrate proper chlorine dosage at our East Street drinking water source per DEP regulations. From July 22, 2023, to September 9, 2023, we did not fully meet these monitoring requirements. This was the cause of a lightning strike which triggered several failures: Our monitoring equipment and procedures failed, our alarm notification programming failed, and we were unable to repair the equipment within 14 days. Although it took 49 days to remedy the situation, other monitoring and alarm systems were still working properly, enabling us to continue monitoring potential contamination.



# MassDEP Fact Sheet

## Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water: Questions and Answers for Consumers

### ***1. What are PFAS and how are people exposed to them?***

Per- and Polyfluoroalkyl Substances are a group of chemical compounds called PFAS. Two PFAS chemicals, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), were extensively produced and are the most studied and regulated of these chemicals. Several other PFAS that are similar to PFOS and PFOA exist. These PFAS are contained in some firefighting foams used to extinguish oil and gas fires. They have also been used in a number of industrial processes and to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease and stains. Because these chemicals have been used in many consumer products, most people have been exposed to them.

While consumer products and food are the largest source of exposure to these chemicals for most people, drinking water can be an additional source of exposure in communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility, for example, an airfield at which they were used for firefighting or a facility where these chemicals were produced or used.

### ***2. What is the Massachusetts drinking water standard?***

On October 2, 2020, MassDEP published its PFAS public drinking water standard or Massachusetts Maximum Contaminant Level (MMCL) of 20 nanograms per liter (ng/L), or parts per trillion (ppt) applicable to community (COM) and non-transient non-community (NTNC) systems for the sum of the concentrations of six specific PFAS. The six PFAS are: perfluorooctane sulfonic acid (PFOS); perfluorooctanoic acid (PFOA); perfluorohexane sulfonic acid (PFHxS); perfluorononanoic acid (PFNA); perfluoroheptanoic acid (PFHpA); and perfluorodecanoic acid (PFDA). MassDEP abbreviates this set of six PFAS as "PFAS6." This drinking water standard is set to be protective against adverse health effects for all people consuming the water. For information on the PFAS6 drinking water standard see: [310 CMR 22.00: The Massachusetts Drinking Water Regulations](#). For more information about the technical details behind the MMCL, see MassDEP's technical support document at: [Per- and Polyfluoroalkyl Substances \(PFAS\): An Updated Subgroup Approach to Groundwater and Drinking Water Values](#).

### ***3. What are the EPA drinking water standards?***

On April 10, 2024, the United States Environmental Protection Agency (EPA) announced National Primary Drinking Water Regulations (NPDWR) for six Per- and Polyfluoroalkyl Substances (PFAS).

MassDEP will adopt regulations for public water suppliers (PWS) that are no less stringent than the EPA regulations.

**EPA's Maximum Contaminant Levels (MCLs) are:**

- PFOA – 4.0 parts per trillion (ppt)
- PFOS – 4.0 ppt
- PFNA – 10 ppt
- PFHxS – 10 ppt
- HFPO-DA (commonly known as GenX Chemicals) – 10 ppt

PFHxS, HFPO-DA, PFNA, and PFBS – Hazard Index (HI) = 1 (unitless)

A Hazard Index accounts for the increased risk from mixtures of PFAS. For more information regarding the Hazard Index for PFAS and how to calculate it see: [https://www.epa.gov/system/files/documents/2024-04/pfas-ndpwr\\_fact-sheet\\_hazard-index\\_4.8.24.pdf](https://www.epa.gov/system/files/documents/2024-04/pfas-ndpwr_fact-sheet_hazard-index_4.8.24.pdf)

For more information about EPA's Maximum Contaminant Level Goals (MCLGs) and MCLs for PFAS see <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas> .

Note that the four PFAS chemicals PFOA, PFOS, PFNA, and PFHxS are regulated under both the EPA and current MassDEP drinking water standards. The MassDEP PFAS6 standard also includes the two PFAS chemicals PFHpA and PFDA. The EPA standards also includes the two PFAS chemicals HFPO-DA and PFBS.

***4. What health effects are associated with exposure to the regulated PFAS chemicals?***

The MassDEP drinking water standard is based on studies of the PFAS6 chemicals in laboratory animals and studies of exposed people. Overall, these studies indicate that exposure to sufficiently elevated levels of the PFAS6 compounds may cause developmental effects in fetuses during pregnancy and in breastfed infants. Effects on the thyroid, the liver, kidneys, hormone levels and the immune system have also been reported. Some studies suggest a cancer risk may exist following long-term exposures to elevated levels of some of these compounds.

It is important to note that consuming water with PFAS6 above the drinking water standard does not mean that adverse effects will occur. The degree of risk depends on the level of the chemicals and the duration of exposure. The drinking water standard assumes that individuals drink only contaminated water, which typically overestimates exposure, and that they are also exposed to PFAS6 from sources beyond drinking water, such as food. To enhance safety, several uncertainty factors are additionally applied to account for differences between test animals and humans, and to account for differences between people. Scientists are still working to study and better understand the health risks posed by exposures to PFAS. If your water has been found to have PFAS6, HFPO-DA or PFBS and you have specific health concerns, you may wish to consult with your doctor.

***5. How can I find out about contaminants in my drinking water?***

If you get your water from a public water system, you should contact them for this information. For a contact list for all public water systems in the Commonwealth you may visit:

<https://www.mass.gov/media/831461/download>

For private well owners see the [Per- and Polyfluoroalkyl Substances \(PFAS\) in Private Well Drinking Water Supplies FAQ](#) for more information.

**6. What options should be considered when PFAS6 in drinking water is above MassDEP's PFAS6 drinking water standard and/or when PFOA, PFOS, PFNA, PFHxS, HFPO-DA, and PFBS are above EPA drinking water standards?**

- ✓ Sensitive subgroups, including pregnant or nursing women, infants and people diagnosed by their health care provider to have a compromised immune system, should consider using bottled water that has been tested for PFAS, for their drinking water, cooking of foods that absorb water (like pasta) and to make infant formula. Bottled water that has been tested for PFAS, or formula that does not require adding water, are alternatives.
- ✓ For older children and adults, the MMCL is applicable to a lifetime of consuming the water. For these groups, shorter duration exposures present less risk. However, if you are concerned about your exposure while steps are taken to assess and lower the PFAS concentration in your drinking water, use of bottled water that has been tested for PFAS will reduce your exposure.
- ✓ Water contaminated with PFAS can be treated by some home water treatment systems that are “NSF/ANSI 53” or “NSF/ANSI 58” certified to remove PFAS. These may include point of entry (POE) systems, which treat all the water entering a home, or point of use (POU) devices, which treat water where it is used, such as at a faucet.
- ✓ In most situations the water can be safely used for washing and rinsing foods and washing dishes.
- ✓ For washing items that might go directly into your mouth, like dentures and pacifiers, only a small amount of water might be swallowed and the risk of experiencing adverse health effects is very low. You can minimize any risk by not using water with PFAS greater than the EPA and MassDEP drinking water standards to wash such items.
- ✓ The water can be safely used by adults and older children for brushing teeth. However, use of bottled water should be considered for young children as they may swallow more water than adults when they brush their teeth. If you are concerned about your exposure, even though the risk is very low, you could use bottled water for these activities.
- ✓ Because PFAS are not well absorbed through the skin, routine showering or bathing are not a significant concern unless PFAS levels are very high. Shorter showers or baths, especially for children who may swallow water while playing in the bath, or for people with severe skin conditions (e.g., significant rashes) would limit any exposure from the water.
- ✓ For pets or companion animals, the health effects and levels of concern to mammalian species, like dogs, cats and farm animals, are likely to be similar to those for people. However, because these animals are different sizes, have different lifespans, and drink different amounts of water than people it's not possible to predict what health effects an animal may experience from drinking water long-term with PFAS concentrations greater than the MCL. There is some evidence that birds may be more sensitive to PFAS. There is little data on PFAS effects on other species like turtles, lizards, snakes and fish. As a precaution, if you have elevated levels of PFAS in your water, you may wish to consider using alternative water for your pets. If you have concerns, you may also want to consult with your veterinarian.
- ✓ For gardening or farming, certain plants may take up some PFAS from irrigation water and soil. Unfortunately, there is not enough scientific data to predict how much will end up in a specific crop. Since people eat a variety of foods, the risk from the occasional consumption of produce grown in soil or irrigated with water contaminated with PFAS is likely to be low. Families who grow a large fraction of their produce would experience higher potential exposures and should consider the following steps, which should help reduce PFAS exposures from gardening:
  - Maximize use of rainwater or water from another safe source for your garden.
  - Wash your produce in clean water after you harvest it.
  - Enhance your soil with clean compost rich in organic matter, which has been reported to reduce PFAS uptake into plants.
  - Use raised beds with clean soil.

- **NOTE ON BOILING WATER:** Boiling water will not destroy these chemicals and will increase their levels somewhat due to water evaporation.
- **NOTE ON BOTTLED WATER:** Bottled water should only be used if it has been tested. The Massachusetts Department of Public Health (MDPH) requires companies licensed to sell or distribute bottled water or carbonated non-alcoholic beverages to test for PFAS. See <https://www.mass.gov/info-details/water-quality-standards-for-bottled-water-in-massachusetts>. In 2022, the MDPH conducted a pilot surveillance program on PFAS in bottled water sold in Massachusetts. All bottled water test results met the MassDEP PFAS6 and the US EPA's drinking water standards .
- **NOTE ON POU and POE TREATMENT DEVICES:** Point of Use (POU) and Point of Entry (POE) treatment devices are not specifically designed to meet Massachusetts' or EPA's drinking water standard for PFAS. Any treatment device you use should be certified to meet "NSF/ANSI 53" or "NSF/ANSI 58" standards. Although such certification documents that a treatment device can remove PFAS, it's important to note that the current certification standards for PFAS filters (as of April 2024) do not yet indicate that a filter will remove PFAS down to the levels EPA has now set for a drinking water standard. EPA is working with standard-setting bodies to update their filter certifications to match EPA's new requirements. If you chose to install a treatment device, you should check to see if the manufacturer has independently verifiable PFAS monitoring results demonstrating that the device can reduce PFAS below the MassDEP and EPA drinking water standards. See more detailed information on POU/POE treatment systems in the Private Well Factsheet at <https://www.mass.gov/info-details/pfas-in-private-well-drinking-water-supplies-faq>?

## **7. Where can I get more information on PFAS?**

MassDEP PFAS Information. <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>

Per- and Polyfluoroalkyl Substances (PFAS) in Private Well Drinking Water Supplies FAQ:  
<https://www.mass.gov/info-details/pfas-in-private-well-drinking-water-supplies-faq>

Massachusetts Department of Public Health PFAS webpage: <https://www.mass.gov/service-details/per-and-polyfluoroalkyl-substances-pfas-in-drinking-water>

USEPA National Primary Drinking Water Regulation for PFAS see: <https://www.epa.gov/sdwa/per-and-polyfluoroalkyl-substances-pfas>

Association of State Drinking Water Administrators PFAS webpage <https://www.asdwa.org/pfas/>

The Centers for Disease Control and Prevention's (CDC's) Public Health Statement for PFAS can be found at:  
<https://www.atsdr.cdc.gov/pfas/index.html>

CDC's fact sheet on PFAS and Breastfeeding is located at: <https://www.atsdr.cdc.gov/pfas/health-effects/pfas-breastfeeding.html>

## **8. Where can I find more information about Treatment Devices for PFAS?**

MassDEP information on home drinking water treatment devices: <https://www.mass.gov/service-details/home-water-treatment-devices-point-of-entry-and-point-of-use-drinking-water>

USEPA information on PFAS and treatment devices:

<https://www.epa.gov/research-states/pfas-treatment-drinking-water-and-wastewater-state-science>

and <https://www.epa.gov/sciencematters/epa-researchers-investigate-effectiveness-point-usepoint-entry-systems-remove-and>

and <https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf> (includes links to third parties that certify treatment devices)

For further information on PFAS in drinking water, including possible health effects, you may contact the Massachusetts Department Environmental Protection, Drinking Water Program at [program.director-dwp@mass.gov](mailto:program.director-dwp@mass.gov) or 617-292-5770.

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## **Public Notice – No Outdoor Water Use**

**Effective October 9th, 2024, the Grafton Water District commissioners have banned all non- essential outside watering. Previously this ban was between the hours of 9am and 5pm-the current ban is a 24-hour ban. This will be in effect until October 9th, 2025.**

**Nonessential watering that is subject to the 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  
Washing of exterior building surfaces, parking lots, driveways or sidewalks

**Exemptions from the restrictions include:**

- New lawns and plantings during the month of May and September Irrigation of lawns, gardens, flowers and plants via handheld hose.
- Businesses that require water use as a core function of the business.
- This ban is necessary to ensure a sustainable drinking water supply until we can implement a new iron and manganese treatment plant for our Worcester Street well site.

All users of water should limit their nonessential water use through the year by implementing practices such as capturing rain in rain barrels, hand watering, using car washes that recycle water, installing low flow water fixtures and limiting lawn surfaces.

The District asks you to take steps to assure you comply with these new regulations. Any questions related to these new restrictions can be addressed by calling the Grafton Water District office at 508-839-2302 or email [customerservice@graftonwaterdistrict.org](mailto:customerservice@graftonwaterdistrict.org).