

ANNUAL WATER QUALITY REPORT

Reporting Year 2021



Presented By
Town of Mansfield

We've Come a Long Way

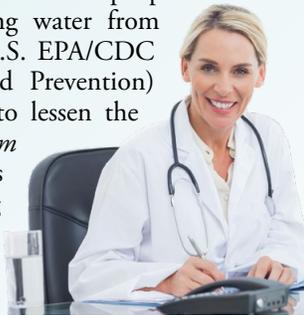
The Town of Mansfield Water Division is proud to present our annual water quality report covering the period between January 1 and December 31, 2021. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will continue to be reliable, high-quality tap water delivered to you and your family. Additional information about the public water system in Mansfield can be found on the Town of Mansfield website www.mansfieldma.com.

The Benefits of Fluoridation

Fluoride is a naturally occurring element in many water supplies in trace amounts. In our system the fluoride level is adjusted to an optimal level averaging 0.7 parts per million (ppm) to improve oral health in children. At this level, it is safe, odorless, colorless, and tasteless. There are over 3.9 million people in 140 Massachusetts water systems and 184 million people in the U.S. who receive the health and economic benefits of fluoridation.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



“
When the well is dry, we
know the worth of water.

—Benjamin Franklin

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Where Does My Water Come From?

The water sources for the Town of Mansfield come from the Ten Mile River Basin and the Taunton River Basin. Mansfield water is presently supplied from nine (9) gravel packed wells and one (1) well field:

Dustin Well #7 pumps 800 gallons per minute (gpm), Prescott Well #8 pumps 700 gpm, and Prescott Well #9 pumps 500 gpm. These wells are located in East Mansfield off East Street and supply a treatment facility to remove iron and manganese.

Albertini Wells 2, 3, and 4, located off West Street, supply a treatment facility to remove iron and manganese; Albertini Well #2 pumps 300 gpm, Albertini Well #3 pumps 300 gpm, and Albertini Well #4 pumps 300 gpm. In addition, Mahana Well #6 pumps 700 gpm and Morrison Well #10 pumps 695 gpm; both of these wells are located off Plain Street in West Mansfield. All five wells manifold into the Albertini Treatment Filtration Plant located on West Street.

Cate Springs Well #1, located off Maple Street, pumps 1,100 gpm.

Walsh Wellfield, located off Gilbert St in West Mansfield, pumps 1,042 gpm, and also includes a treatment facility to remove iron and manganese.

A small number of residences in West Mansfield are provided water by the City of Attleboro Water System. The Town has interconnected and has agreements with the Town of Easton, Norton, and Foxboro, Massachusetts, to supply water in emergency situations.

Community Participation

The Town of Mansfield Select Board also serves as Water Commissioners for the Town. Unless posted otherwise, the Board meets the 1st and 3rd Wednesday of the month in the Mansfield Town Hall (Conference Room 3A/B), 6 Park Row, Mansfield, MA. Water customers are welcome to participate in these public meetings.

QUESTIONS? For more information about this report, or for any questions relating to the Town of Mansfield public drinking water system, please contact Water Operations Manager Shawn W. Precourt, Tel. (508) 261-7376.



Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 (800) 426-4791 or at www.epa.gov/safewater/lead.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribes regulations limiting 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, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

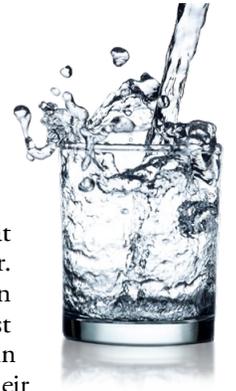
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.



The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit <https://www.atsdr.cdc.gov/pfas/index.html>.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Source Water Assessment

The Source Water Assessment and Protection (SWAP) Program established under the federal Safe Drinking Water Act requires every state to: inventory land uses within the recharge areas of all public water supply sources; assess the susceptibility of drinking water sources to contamination from these land uses; and publicize the results to provide support for improve protection. The Massachusetts Department of Environmental Protection completed a Source Water Assessment and Protection Program report for the Town of Mansfield February 27, 2003. The area of influence for Canoe River basin was modified in 2013. Our system's susceptibility rating is moderate to high. It is important to understand that a high susceptibility rating does not imply poor water quality, only the system's potential to become contaminated within the assessment area. Copies are available at the Mansfield Water Division, 500B East Street, Mansfield, MA 02048.



Water Sampling Test Results

We are pleased to report that Mansfield's public drinking water meets or exceeds all federal and state requirements. The Town's water system is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2021	[4]	[4]	0.42	0.30–0.54	No	Water additive used to control microbes
Fluoride (ppm)	2021	4	4	0.68	0.45–0.90	No	Water additive which promotes strong teeth
PFAS6 (ppt)	2021	20	NA	9.01	6.157–17.3	No	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
TTHMs [Total Trihalomethanes]–Stage 1 (ppb)	2021	80	NA	45	19–85	No	By-product of drinking water disinfection

Tap Water Samples Collected for Lead and Copper Analyses From Sample Sites Throughout the Community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2021	1.3	1.3	0.27	1/60	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2021	15	0	2	0/60	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES ¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2021	11.31	6.1–18.7	By-product of drinking water disinfection
Chloroform (ppb)	2021	28.1	7.8–63.3	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2021	3.99	2.0–9.3	By-product of drinking water disinfection
Sodium (ppm)	2017	50.9	27.0–70.6	Naturally Occuring

¹Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Definitions

90th %ile: 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.

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

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).