



The City of Fitchburg Public Works Department/Utility Division
2021 Annual Water Quality Report
North System
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THE MARK OF EXCELLENT SERVICE

The City of Fitchburg, Public Works Department/Utility Division, is pleased to present to you the Annual Water Quality Report for 2021. We are committed to providing our customers with safe and reliable drinking water. This commitment demands diligence, foresight, investment, and long-range planning.

Monitoring and treatment are key methods by which the City of Fitchburg protects the public water supply. Each year the Utility Division works hard at ensuring your water supply meets the highest of standards established by the State of Wisconsin and the U.S. Environmental Protection Agency (EPA). Drinking water in Fitchburg continues to meet or exceed all of the Environmental Protection Agency's standards. The water quality data contained in this report is based on monitoring results from the 2021 calendar year.



FITCHBURG WATER

How often is Fitchburg's water tested?

Certified staff at the City of Fitchburg and certified laboratories conducts the following tests:

Daily: Fluoride

Weekly: Chlorine (two times)

Monthly: Bacteriological (25 samples)

Additional testing is completed quarterly, annually, and tri-annually based upon the State of Wisconsin and the U.S. Environmental Protection Agency (EPA) requirements.

Where does my water come from?

Fitchburg Utility relies on groundwater pumped from four deep wells producing an average of 2.17 million gallons of water per day. They range in depth from 1,000-1,033 feet. We also have three elevated storage tanks and one ground reservoir with a combined storage capacity of 2.25 million gallons.

Our wells pump water from a locally recharged deep aquifer, allowing us to bypass the upper aquifer water

which is more susceptible to surface contamination. Though certain aquifers may be less susceptible than others, all aquifers are susceptible to some degree of contamination. For this reason, it is imperative that wellhead protection guidelines are practiced in an effort to maintain the quality of water produced by these wells.

What is my water treated with?

Your water is treated with liquid chlorine at each individual well site to reduce or remove harmful bacteriological contaminants that may come from the source water. We maintain a disinfection residual of 0.6 mg/l (milligrams per liter or parts per million).

To help prevent tooth decay we add liquid fluoride. Our goal is to maintain a residual of 0.7 mg/l of fluoride.

To prevent red coloration (from iron) of the water we add polyphosphates.

FOR MORE INFORMATION

Please contact Barry Schwingel, Fitchburg Utility Supervisor, via e-mail at barry.schwingel@fitchburgwi.gov or by phone at 608-729-1730 for more information or to obtain a copy of the source water assessment. Additional information may also be found on the City's web-site at www.fitchburgwi.gov. You are encouraged to attend the City's Board of Public Works at Fitchburg City Hall, 5520 Lacy Road. Please see the Public Meeting calendar on our web-site for meeting dates and times.

MESSAGE FROM THE ENVIRONMENTAL PROTECTION AGENCY (EPA)

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 infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the EPA's safe drinking water hotline (800-426-4791).

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.

Contaminations 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 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 byproducts 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.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottle water, which shall provide the same protection for public health.

CONTAMINANT REPORTING

The EPA and Wisconsin Department of Natural Resources (WDNR) establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table below shows the concentrations of detected substances in comparison to the regulatory limits. Substances not detected are not included in the table.

Terms and units used in the Water Quality Table are identified and defined below:

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 which a public water system shall follow.

Unregulated Contaminants: Those contaminants for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Monitoring of unregulated contaminants is required by EPA.

90TH Percentile: 90% of samples are equal to or less than the number on the chart.

Health Advisory Level (HAL): The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.

Secondary drinking water standards or Secondary maximum Contaminant Levels (SMCL): SMCL for contaminants that affect taste, odor, or appearance of the drinking water. The SMCLs do not represent health standards.

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Units in the Table:**

nd = not detected at testing limits

ppb = parts per billion

ppm = parts per million

pCi/L = picocuries per liter – a measure of radioactivity
millirems/year = a measure of radiation absorbed by the body.

ug/l = micrograms per liter

mg/l = milligrams per liter

n/a = not applicable

WATER QUALITY

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following table lists only those contaminants which were in your water. If a contaminant was detected last year, it will appear in the following table without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the table below along with the sample date.

TABLE 1: WATER QUALITY TABLE

CONTAMINANT	UNIT	MCL	MCLG	LEVEL DETECTED	RANGE	VIOLATION (YES/NO)	**SAMPLING DATE	POTENTIAL SOURCE OF CONTAMINATION
Disinfection Byproducts								
Haloacetic Acids (HAA5)	ppb	60	60	3	3	No		By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	ppb	80	0	34.2	34.2	No		By-product of drinking water chlorination
Haloacetic Acids (HAA5)	ppb	60	60	1	1	No		By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	ppb	80	0	2.4	2.4	No		By-product of drinking water chlorination
Inorganic Contaminants								
Barium	ppm	2	2	0.018	0.01 - 0.018	No	7/29/2020	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	ppb	100	100	1	0-1	No	7/29/2020	Discharge from steel and pulp mills; Erosion of natural deposits
Copper	ppm	AL=1.3	1.3	0.2800	0 of 30 results were above the action level	No	10/9/2020	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	ppm	4	4	0.1	0.1-0.1	No	7/29/2020	Erosion of natural deposits; Water additives which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	ppb	AL=15	0	3.00	0 of 30 results were above the action level	No	10/14/2020	Corrosion of household plumbing systems; Erosion of natural deposits
Nickel	ppb	100		1.4000	0.0000 – 1.4000	No	7/29/2020	Nickel occurs naturally in soils, ground water and surface water and is often used in electroplating, stainless steel and alloy products.
Nitrate (NO3-N)	ppm	10	10	0.09	0.00 – 0.09	No		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	ppb	50	50	0	0 - 0	No	7/29/2020	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium	ppm	n/a	n/a	3.40	2.20 - 3.40	No	7/29/2020	Erosion of natural deposits; Road salt application
Unregulated Contaminants								
Sulfate	ppm	n/a	n/a	15.00	13.00 - 15.00	No	7/29/2020	Erosion of natural deposits
Radioactive Contaminants								
Gross Alpha, Exel. R & U	pCi/l	15	0	4.7	2.9-4.7	No	7/29/2020	Erosion of natural deposits
Radium (226 + 228)	pCi/l	5	0	3.1	1.4-3.1	No	7/29/2020	Erosion of natural deposits
Gross Alpha, Exel. R & U	n/a	n/a	n/a	4.7	2.9-4.7	No	7/29/2020	Erosion of natural deposits
Volatile Organic Contaminants								
Trichloroethylene	ppb	5	0	0.6	0-0.6	No		Discharge from metal degreasing sites and other factories

* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want information on the NUMBER of sites or the actions taken to reduce these levels, please contact your water supply operator.

** Sampling Date listed only if prior to 2021.

The following table lists contaminants which were detected in your water and that have either a Health Advisory Level (HAL), a Secondary Maximum Contaminant Level (SMCL), or both. There are no violations for detections of contaminants that exceed Health Advisory Levels, Groundwater Standards or Secondary Maximum Contaminant Levels. Secondary Maximum Contaminant Levels are levels that do not present health concerns but may pose aesthetic problems such as objectionable taste, odor, or color. Health Advisory Levels are levels at which problems such as objectionable taste, odor, or color. Health Advisory Levels are levels at which concentrations of the contaminant present a health risk.

TABLE 2: WATER QUALITY TABLE

CONTAMINANT	UNIT	SMCL	HAL	LEVEL DETECTED	RANGE	**SAMPLING DATE	POTENTIAL SOURCE OF CONTAMINATION
Other Substances (Aesthetic Goal)							
Chloride	ppm	250		3.00	1.10 – 3.00		Runoff, leaching from natural deposits, road salt, water softeners
Iron*	ppm	0.3		0.41	0.00 – 0.41	7/19/2017	Runoff/leaching from natural deposits, industrial wastes
Manganese	ppm	0.05	0.3	0.02	0.00 – 0.02	7/19/2017	Leaching from natural deposits
Sulfate	ppm	250		15.00	13.00 – 15.00	7/19/2020	Runoff-leaching from natural deposits, industrial wastes
Zinc	ppm	5		0.01	0.00 – 0.01	7/19/2017	Runoff/leaching from natural deposits, industrial wastes

*Wates containing iron in quantities above the SMCL are not hazardous to health but may be objectionable for taste, odor, or color.

ADDITIONAL HEALTH INFORMATION

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. Fitchburg Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

OTHER COMPLIANCE

TABLE 3: MONITORING VIOLATIONS


DESCRIPTION	CONTAMINANT GROUP	SAMPLE LOCATION	COMPLIANCE PERIOD BEGINNING	COMPLIANCE PERIOD ENGINE
Monitoring Violation				
Fail to collect – Routine Samples RTCR	Microbiological Contaminants	Distribution System	10/1/21	10/31/21

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 your drinking water meets health standards. During the compliance period noted in the above table, we did not complete all monitoring or testing for contaminant(s) noted, and therefore cannot be sure of the quality of your drinking water during that time.

Actions Taken: Utility staff was unable to access one of the monitoring sites in October of 2021. The Utility has worked with management at this site to ensure access.

WATER CONSERVATION

The City of Fitchburg is offering toilet rebates of up to \$100 for residential properties who replace their high water using toilets with EPA WaterSense approved high efficiency toilets. Please visit our website at www.fitchburgwi.gov for eligibility requirements and to obtain an application.

 5 SIMPLE WAYS TO SAVE WATER	
Be smart when irrigating your lawn or landscape	<ul style="list-style-type: none">• Water in early morning.• Water plants according to their water needs.• Set sprinklers to water lawns and gardens only – no sidewalks or driveways.• Use soaker hoses or trickle irrigation systems for trees/shrubs.• Install a rain barrel.
Use appliances wisely	<ul style="list-style-type: none">• Wash only full loads; set small loads to appropriate level.• Scrape rather than rinse dishes before loading the dishwasher• Replace old clothes washer with ENERGY STAR labeled one.
Don't flush money down the toilet/drain	<ul style="list-style-type: none">• Check your toilet for leaks by adding food coloring to the tank and seeing if color appears in the bowl within 15 minutes.• Place weights in the tank to decrease the volume of water used per flush.• When replacing your toilet, look for WaterSense labeled models.
Conserve around the house	<ul style="list-style-type: none">• Keep drinking water in the refrigerator; do not run faucet until cool.• Do not leave the tap running while brushing teeth or shaving.• Take shorter showers.• Install low-flow showerheads and faucets.
Stop leaks	<ul style="list-style-type: none">• Read water meter before and after a two-hour period when no water is being used; it should be zero. If it is not zero, locate the leak and repair it.