

VILLAGE OF FREDERICKTOWN WATER QUALITY REPORT FOR 2021



The Village of Fredericktown Water Department has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. Our constant goal is to provide a safe and dependable supply of drinking water. We have a current, unconditioned license to operate our water system.

What is the source of your drinking water?

The Village gets its water from 3 wells. These wells are located at the water treatment plant on High Street. They range from 121 feet to 135 feet in depth and each well has the capacity required to operate the current plant. We have a storage capacity of 385,000 gallons of water in our two elevated towers as well as a 150,000 gallon underground clearwell. In 2021, we provided approximately 70.29 million gallons of drinking water to our customers with an average flow of 192,602 gallons per day.

The Ohio EPA completed a study to identify potential contaminant sources and to provide guidance on protecting our drinking water source. According to this study, the aquifer (the water rich zone from which we draw our water) has a low susceptibility to contamination. This determination is based upon the following:

- The presence of a thick layer of clay overlying the aquifer,
- Significant depth (over 90 feet below ground surface) of the aquifer,
- No evidence to suggest that ground water has been impacted by any significant levels of chemical contaminants from human activities, and
- The presence of significant potential contaminant sources in the protection area.

This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is relatively low. Implementing appropriate protective measures can minimize this likelihood of contamination. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling (740) 694-2906 or (740) 694-9010.

What are sources of contamination to drinking water?

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.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses or bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA 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 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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Who needs to take special precautions?

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 infection. 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 Safe Drinking Water Hotline (1-800-426-4791).

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. Village of Fredericktown 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 <http://www.epa.gov/safewater/lead>.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Village Council, which meets on the first and third Monday of each month at 7:00 pm at 2 E. Sandusky St., or as posted in the Mount Vernon News.

About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The Village of Fredericktown Water Department conducted sampling for bacteria, nitrate, iron, manganese, phosphate, lead, copper, Synthetic Organic Chemicals (SOC), Volatile Organic Chemicals (VOC), radiologicals and disinfection byproducts contaminant sampling during 2021. Samples were collected for a total of 50 different contaminants most of which were not detected in the Village of Fredericktown's water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old. The Village of Fredericktown's drinking water meets or exceeds all EPA drinking water standards.

The table below lists information on those contaminants that were detected in the Village of Fredericktown's drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Barium (ppm)	2	2	0.0972	NA	NO	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4	4	0.24	NA	NO	2021	Erosion of natural deposits.
Cyanide (ppb)	200	200	1	NA	NO	2021	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Nitrate (ppm)	10	10	0.192	NA	NO	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Thallium (ppb)	0.5	2	0.8	NA	NO	2021	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Copper (ppm)	1.3	AL=1.3	1.17	NA	NO	2021	Corrosion of household plumbing systems.
Zero out of ten samples were found to have copper levels in excess of the Action Level of 1.3 ppm							
Lead (ppb)	0	AL=15	< 5	NA	NO	2021	Corrosion of household plumbing systems.
Zero out of ten samples were found to have lead levels in excess of the Action Level of 15 ppb							
Radioactive Contaminates							
Alpha Emitters (pCi/L)	0	15	1.1	NA	NO	2021	Erosion of natural deposits.
Combined Radium (pCi/L)	0	5	0.24	NA	NO	2021	Erosion of natural deposits.
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.22	0.9 – 1.4	NO	2021	Water additive used to control microbes.
Disinfection Byproducts							
HAA5 (ppb) (Total Haloacetic acids)	NA	60	5.85	5.8 - 5.9	NO	2021	By-product of drinking water chlorination.
TTHMs (ppb) (Total Trihalomethanes)	NA	80	14.4	14.1 - 14.7	NO	2021	By-product of drinking water chlorination.

For more information about your drinking water, contact: Mike Hannan, Utilities Superintendent at mhannan@fredericktownohio.net or (740) 694-9010.

Definitions of some terms contained within this report.

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.

MCL (Maximum Contaminant level): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

ppm (Parts per million) or mg/L (Milligrams per liter): are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

ppb (Parts per Billion) or µg/L (Micrograms per liter): are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Pci/L (Picocuries per Liter): are units of measure of radioactivity.

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

Symbol < designation: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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.

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.

NA (Not Applicable): Contaminant does not have MCL's, MCLG's, or detection ranges as of this report.