Fremont Water Treatment Plant, Fremont, Ohio
Drinking Water Consumer Confidence Report
For 2022

The Fremont Water Treatment Plant 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.

Where does our water come from? The Fremont Water Treatment Plant receives its source water from the Sandusky River. It is classified as surface water. The water is pumped into the Fremont Reservoir. Water flows by gravity from the Fremont Reservoir to the Fremont Water Treatment Plant. Surface waters are by their nature susceptible to contamination, and there are numerous potential contaminant sources, including agricultural runoff, oil/gas wells, inadequate septic systems, leaking underground storage tanks, and road and rail crossings. As a result, the surface water supplied to these plants is considered to have a high susceptibility to contamination. A source water assessment has been completed by the OEPA and is available at http://wwwapp.epa.ohio.gov/gis/swpa/OH7200311.pdf.

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 and 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, USEPA 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 Federal 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).

About your drinking water The EPA requires regular sampling to ensure drinking water safety. The Fremont Water Treatment Plant conducted sampling for bacteria; nitrate; inorganic; synthetic organic; volatile organic; cyanotoxin; and microcystin contaminants during 2022. Many of the contaminants were not detected in the City of Fremont'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, may be more than one year old. To assist you, the year of testing has been indicated in or below the chart in years prior to 2022.

In 2020, our PWS was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS, please visit pfas.ohio.gov.

How do I participate in decisions concerning my drinking water? Public participation and comment are encouraged at regular meetings of the Fremont City Council which meets at 7:30pm on the first and third Thursdays of each month at the Fremont Municipal Building. For more information on your drinking water or additional copies of this report, you may contact Chad Johnson at 419-332-3581. This report is also available on the City of Fremont website at www.fremontohio.org under Departments, Water Treatment, and Drinking Water Quality Report. A list of recent reports can be found there.

In 2022 we had an unconditioned license to operate our water system. Listed below is information on those contaminants that were found in the City of Fremont's drinking water. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The Ohio EPA requires us to monitor for certain contaminants less than once a year because the concentrations of these contaminants do not change frequently.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Microbiological							
Turbidity (% samples meeting standard)	NA	TT	100	100 - 100	No	2022	Naturally present in the environment
Turbidity (NTU)[1]	NA	TT	0.08	0.02 - 0.08	No	2022	Soil Runoff
Total Coliform Bacteria[2]	NA	TT	0	0	No	2022	Naturally present in the environment
Inorganic Contaminants							
Barium (ppm)	2	2	0.018	0.018-0.018	No	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	1.01	0.84 - 1.21	No	2022	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	3.39	1.01 - 3.39	No	2022	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Synthetic Organic Contaminants including pesticides and herbicides							
Atrazine (ppb)	3	3	0.24	0.15 - 0.24	No	2022	Runoff from herbicide used on row crops
Disinfection By-Products							
Total Trihalomethanes (ppb)	0	80	68.5	24.1 - 94.8	No	2022	By-product of water chlorination
Haloacetic Acids (ppb)	0	60	26.4	12.2 - 33.4	No	2022	By-product of water chlorination
Residual Disinfectants							
Chlorine (ppm)	MRDL=4 mg/l	MRDL=4 mg/l	1.13	0.85 - 1.37	No	2022	Water additive used to control microbes
Total Organic Carbon (TOC)[3]							
MCL	**Min. Ratio of % removal to required % removal**		**Level Found**	**Range of Monthly Ratios**	**Violation**	**Sample Year**	**Typical Source of Contaminants**

TT	1	2.00	1.79 – 2.44	No	2022	Normally present in the environment

Lead and Copper[4]

Contaminants (units)	*Action Level (AL)*	*Individual Results over the AL*	*90% of test levels were less than*	*Violation*	*Year Sampled*	*Typical source of Contaminants*
Lead (ppb)[4]	*15 ppb*	*None*	*0.0*	*No*	*2022*	*Corrosion of household plumbing systems; Erosion of natural deposits*
	0 out of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	*1.35 ppm*	*None*	*0.023*	*No*	*2022*	*Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing*
	0 out of 30 samples were found to have copper levels in excess of the copper action level of 1.35 ppm.					

Unregulated Contaminants[5]

		Butanol	**Manganese 55**
Plant Tap (ppb)	Average	4.67	0.46
	Range	2.38 - 6.95	0.46 - 0.46

Unregulated Contaminants[5]

		HAA5	**HAA6**	**HAA9**
Distribution (ppb)	Average	17.08	8.85	24.94
	Range	11.5 - 23.0	6.08 - 10.5	17.3 - 32.3
		Bromochloroacetic Acid	**Bromodichloroacetic Acid**	**Chlorodibromoacetic Acid**
Distribution (ppb)	Average	5.42	1.67	0.82
	Range	3.47 - 7.82	1.07 - 2.09	0.47 - 1.09
		Dibromoacetic Acid	**Dichloroacetic Acid**	**Trichloroacetic Acid**
Distribution (ppb)	Average	1.27	12.88	3.23
	Range	0.32 - 1.89	8.11 - 18.0	2.12 - 4.32

The results in this table are from sampling done for the Unregulated Contaminant Monitoring Rule in 2019.

[1]**Turbidity** is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the Fremont WTP highest recorded turbidity result for 2022 was 0.08 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

[2]**Total Coliform Bacteria** are bacteria which are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments. Repeat samples collected during the required assessment were all negative.

[3]**Total Organic Carbon (TOC)** The value reported under "Level Found" for Total Organic Carbon is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. Our water system is in compliance with TOC removal requirements if the value is greater than one (1). A value less than one indicates a violation of the TOC requirements.

[4]**Lead Educational 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. The Fremont WTP 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

[5]**Unregulated Contaminants** Unregulated contaminants are those 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.

Important Drinking Water Definitions

- **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 contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Residual Disinfectant Level (MRDL):** 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.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Microcystins:** Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- **Cyanobacteria:** Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.
- **Cyanotoxin:** Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as "algal toxin".
- **Parts per Million (ppm)** or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- **Parts per Billion (ppb)** or Micrograms per Liter (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- **NTU:** Nephelometric Turbidity Unit. A Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- The **"<"** symbol: 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.
- **NA:** Not applicable

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