



VILLAGE OF MARBLEHEAD

DRINKING WATER CONSUMER CONFIDENCE REPORT

FOR 2022

Introduction

The Village of Marblehead has prepared the following report to provide information to you, the consumer, about 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.

Source Water Information

The Village of Marblehead public water system uses surface water drawn from an intake placed 550 feet out from shore in Lake Erie. The system also has an emergency backup connection to the Ottawa County Regional Water System. This connection was not used during 2022.

Source Water Protection

The Village of Marblehead's public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Lake Erie.

For the purpose of source water assessments, all surface waters in Ohio are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or no time to prepare. The Village's drinking water source protection area contains potential contaminant sources such as home sewage disposal systems discharges, deposition of air contaminants, runoff from residential, agricultural and urban areas, and mining operations, as well as accidental releases and spills, especially from commercial shipping operations and recreational boating. More detailed information is provided in the Village's Drinking Water Source Assessment report, which can be obtained by calling Tony Joyce at 419-798-5836.

Protecting our source water from contamination is the responsibility of all area residents. Dispose hazardous chemicals in the proper manner and report polluters to the appropriate authorities. Only by working together can we ensure an adequate safe water supply for future generations.

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 use.
- 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, U.S. Environmental Protection Agency (USEPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (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 USEPA'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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. During 2022, the Village of Marblehead conducted sampling for bacteria, inorganic contaminants, synthetic inorganic contaminants, and volatile organic contaminants. Samples were collected for approximately 42 different contaminants, most of which were not detected in the Village's water supply. The Ohio EPA requires the Village to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As such, some of the Village's data, though accurate, is more than a year old.

Table of Detected Contaminants

Listed below is information about those contaminants that were found in the Village of Marblehead's drinking water.

How to read the Water Quality Data Table: EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to regulatory limits. Substances that were tested for, but not detected, are not included in this table.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation ?	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Copper (ppm)	AL=1.3 µg/L	AL=1.3 mg/L	0 ppm	N/A	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb)	0 mg/L	AL=15 µg/L	0 ppb	N/A	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (ppm)	10 mg/L	10 mg/L	1.29 mg/L	0.43 mg/L to 1.29 mg/L	No	2022	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.
Nitrite (ppm)	1 mg/L	1 mg/L	1 mg/L	N/A	No	2022	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.
Barium (ppb)	2 mg/L	2 mg/L	0.019 mg/L	N/A	No	2022	Discharge of drilling wastes; Discharge from metal refineries, Erosion of natural deposits.
Fluoride (ppm)	4 mg/L	4 mg/L	0.148 mg/L	N/A	No	2022	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Volatile Organic Contaminants							
Total Trihalomethanes TTHMs (ppb)	N/A	80 µg/L	53.85 µg/L	16.10 µg/L to 67.3 µg/L	No	2022	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	N/A	60 µg/L	16.95 µg/L	4.0 µg/L to 26.4 µg/L	No	2022	By-product of drinking water chlorination
Microbiological Contaminants							
Turbidity	N/A	TT, NTU	0.12 NTU	0.02 to 0.25 NTU	No	2022	Soil runoff.
Turbidity (% meeting standard)	N/A	TT	N/A	100%	No	2022	Soil runoff.
Total Organic Carbon (mg/L)	TT	TT	2.06 mg/L	1.84 to 2.4	No	2022	Naturally present in the environment.
Residual Disinfectants							
Chlorine (ppm)	MRDL= 4 mg/L	MRDL= 4 mg/L	1.79 mg/L	1.53 to 1.99 mg/L	No	2022	Water additive used to control microbes.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Total Organic Carbon (TOC): The value reported under "Level Found" is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value less than one (1) indicates a violation of the TOC removal requirements.

Turbidity: 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 3.0 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Village's highest recorded turbidity result for 2022 was 0.12 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

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 Village of Marblehead 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 about lead in drinking water, testing methods, and steps you can take to minimize exposure is available from USEPA's Safe Drinking Water Hotline at 800-426-4791 or website at <http://www.epa.gov/safewater/lead>.

License to Operate (LTO) Status

In 2022, the Village of Marblehead had an unconditioned license to operate its water system.

Public Participation and Contact Information

Public participation and comment are encouraged at regular meetings of the Marblehead Village Council, which meets the second and fourth Wednesdays every month, 6:00 p.m., at the municipal building, 517 West Main Street.

For more information about your drinking water, contact Tony Joyce at 419-798-5836.

Definitions of some terms contained within this report

- **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 contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- **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 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.
- **N/A**: Not Applicable.
- **N/D** (Non-Detects): Laboratory analysis indicates that the contaminant is not present.
- **NTU** (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity more than 5 NTU is starting to be noticeable to the average person.
- **pCi/L** (Picocuries per liter): Units of measure for radioactivity in water.
- **ppb** (parts per billion): One part substance per billion parts water (or micrograms per liter, µg/L).
- **ppm** (parts per million): One part substance per million parts water (or milligrams per liter, mg/L).
- **TC**: Total Coliform Bacteria.
- **TT** (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.
- **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.

Cross-connections and preventing backflows

A cross-connection is a physical connection between a possible source of contamination and the drinking water system piping. If the pressure of the source of contamination is greater than the water system pressure, contaminated water may backflow into the drinking water system. Pressure drops in the public water system caused by water line breaks, pump failures and fire-fighting can also cause a backflow situation. Homes with underground irrigation systems and most commercial buildings are required to have a backflow prevention device. This backflow device protects the public water system from any potentially contaminated water flowing back into the public system from the end user. Backflow prevention devices are required by the state to be tested annually by the owner. The testing must be done by an Ohio-certified tester, with a copy of the results forwarded to the Village water department. Additional information is available on the Village website: <https://www.marbleheadohio.org/water/page/backflow-prevention>.

Unauthorized water service connections

This notification is made pursuant to Ohio Revised Code Section 4933.19. Tampering with water meters or water service equipment and the theft of water are criminal activities and may result in penalties to offenders. A person found benefiting from tampering or an unauthorized service connection is presumed to have committed the violation and will be prosecuted. It is a crime to tamper with or bypass a water meter, conduit or attachment of a utility. It is also a crime to reconnect a water meter, conduit or attachment of a utility that has been disconnected by the utility. It is a crime to knowingly consume any water, which has not been correctly registered because a meter, conduit or attachment of a utility has been tampered with, or bypassed, or knowingly use service that has been disconnected by a utility and reconnected without the utility's consent. A felony or misdemeanor conviction for a theft offense can result from a violation of these laws. The person so convicted is subject to the imposition of criminal sanctions including imprisonment and payment of fines and will also be required to make restitution for the costs of repairs, replacement of the meters, conduits or attachments damaged and for the value of the illegally consumed water.

Dispose of your medications properly

Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes. These water sources may flow downstream to community drinking water supplies. Water treatment plants are generally not equipped to routinely remove medicines. EPA encourages the public to take advantage of pharmaceutical take-back collection programs that accept prescription or over-the-counter drugs, as these programs offer a safe and environmentally-conscious way to dispose of unwanted medicines.