Annual Water Quality Report

Muskegon County Regional Water System

Northside Water System

Serving Muskegon, Laketon, Dalton and Fruitland Townships

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System Overview

Source water for the Muskegon County Regional Water System is from the City of Muskegon Water Filtration Plant on Lake Michigan. Filtration plant takes water from Lake Michigan and filters and treats water with a capacity of 40 million gallons per day. Water quality from the filtration plant is excellent and this report includes the results of many of the extensive amount testing regularly to assure that the water being delivered exceeds all standards for drinking water.

The Muskegon Filtration Plant treated over 4 BILLION gallons of water in 2019.

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 our water poses a health risk. For more information about contaminants and potential health effects, call the US EPA's Safe Drinking Water Hotline at 800.426.4791.

One gallon of water from the Muskegon County Regional Water System costs $0.005.

A $1.00 16 oz. bottled water would buy 186 gallons of water on the Muskegon County Regional Water System.

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 from Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants.
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 and farming.
Pesticide and herbicides, which may come from a variety of sources such as agriculture and farming.
Radioactive contaminants, which are naturally occurring.
Organic chemical contaminants, including synthetic and volatile organic chemicals

TREATED WATER QUALITY CHART FOR CITY OF MUSKEGON SOURCE WATER

Listed below are the water quality parameters for the City of Muskegon drinking water during the reporting period of 2019.
All parameters shown are BELOW allowed levels. Not listed are the hundreds of contaminants tested with no detection.

Substance	Highest Level Allowed (EPAs MCLs)	Highest Level Detected	MCLC	Source of Contamination	Violation Yes/No
Regulated at the Treatment Plant (City of Muskegon)					
Barium	2.0 PPM	0.02 PPM	2.0 PPM	Discharge from Drilling Wastes	NO
TOC (Total Organic Carbon)	TT	1.94 PPM	N/A	Naturally Present	NO
Turbidity *	TT	0.07 NTU	N/A	Lake Sediment	NO
Fluoride	4.0 PPM	0.80 PPM	N/A	Additive	NO

- Turbidity is a measure of cloudiness of the water and is a good indicator of water quality. 100% of samples are below 0.3 NTU.

Substance	Highest Level Allowed (EPAs MCLs)	Highest Level Detected	MCLC	Source of Contamination	Violation Yes/No
Regulated in the Distribution System (Eastside Water System)					
Maximum Residual Disinfection Level (MRDL)	4.0 PPM	0.75 PPM, RAA	N/A	Disinfection (Chlorine)	NO
Total Trihalomethanes	80 PPB (AVG)	44.6 PPB LRAA	N/A	Disinfection byproduct	NO
Haloacetic Acids	60 PPB	28.0 PPB LRAA	N/A	Disinfection byproduct	NO

Detection range: MRDL 0.04 PPM to 1.38 PPM, Total Trihalomethanes 23.5 to 50.4 PPB, Haloacetic Acids 14 PPB to 47 PPB

Substance	Highest Level Allowed (EPAs MCLs)	Highest Level Detected	MCLC	Source of Contamination	Violation Yes/No
Unregulated Contaminants					
Sodium	Not Regulated	12 PPM	N/A	Naturally Occurring Mineral	
PFAS (PFOA + PFOS)	Not Regulated	3 PPT	N/A	Chemical Used in Industrial Process	

- ***Five of the six PFAS samples collected in 2019 showed "no detect" and only one sample showed 3 PPT. EPA's lifetime health advisory level is 70PPT.***
- Unregulated contaminants are those for which EPA has not established standards. The purpose of monitoring is the assist the EPS in determining occurrence and whether future regulation is warranted. Other unregulated trace contaminants measured in micrograms per liter in:

TAP WATER: Chlorate = 225 Total Strontium = 122 Total Vanadium = 0.25 Total Molybdenum = 1.1
Distribution: Chlorate = 222 Strontium = 124 Vanadium = 0.28 Molybdenum = 1.0 Hexavalent = 0.15 Chromium = 0.35

Regulated at Customer's Tap

Substance	Action Level	Max. Detected	90th percentile	(EPA MCLG)	Typical Source
Lead ***	15 PPB	2.6 PPB	1.5 PPB	0.00 PPB	Plumbing
Copper ***	1.3 PPM	0.33 PPM	0.2 PPM	1.3 PPM	Plumbing

***ZERO of the 21 sites tested exceeded the action level (AL) for lead. Zero of the 21 sites tested for copper exceeded the action level (AL) for copper. Testing was last performed in June and August 2017. Next scheduled testing is 2020.

Number of Service Lines: 1687
Number of Lead Service Lines: 0

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 Muskegon County Eastside Water System 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 the water for drinking or cooking. If you are concerned about lead in your drinking 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 1-800-426-4791 or at http://water.epa.gov/drink/info/lead.

Definitions

MAXMIMUM 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 are set by the U.S. EPA and allow for a margin of safety.

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 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.

PPM (mg/l) - One part per million

PPB (µg/l) - One part per billion.

ACTION LEVEL (AL) - The concentration of a contaminant that triggers treatment or other requirement that a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.

NTU - Nephelometric Turbidity Units.

TT - Treatment Technique—a required process intended to reduce the levels of a contaminant

RAA - Running Annual Average

MRDL - The highest level of a disinfectant allowed in drinking water