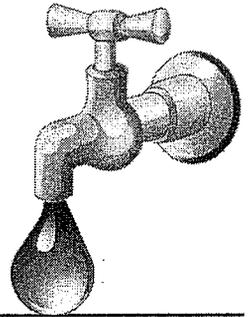




ANNUAL WATER QUALITY REPORT



System Overview

The Muskegon Water Filtration Plant is a conventional water treatment plant with a capacity of 40 million gallons per day. Their customers include the City of Muskegon, Muskegon Township, North Muskegon, Roosevelt Park and the County Northside system.

Your water comes from Lake Michigan. The state performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from very low to high based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source water is moderately high.

About Contaminants

The sources of drinking water (both tap and bottled) 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 animal or human activity.

Contaminants 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 storm water 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 storm water runoff and residential uses; **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; and **Radioactive contaminants** can be naturally occurring or be the result of oil and gas production and mining activities.

Water Quality Exceeds Mark!

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Dear Customer,

We are pleased to report that the water we treat has never had a violation of a contaminant level or of any other water quality standard. This report contains a summary of the quality of the water provided to you during 2014 and details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. Muskegon Water Filtration Plant technicians are committed to providing you with the safest and most reliable water supply. Informed customers are our best allies in maintaining safe drinking water.

The City's certified lab runs over 8,000 tests a year and includes collecting water samples at various stages of the treatment process as well as throughout the distribution system. These samples are analyzed for many different chemical and microbiological parameters. Our sophisticated lab equipment can detect substances at very minute levels. 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.

Water Quality Concerns

Some people may be more vulnerable to contaminants in the 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 persons and infants can be particularly at risk for infection. These people should seek advice about drinking water from their health care providers.

Cryptosporidium

Cryptosporidium is a microscopic organism that when ingested can result in diarrhea, fever and other gastrointestinal symptoms. The Muskegon Water Filtration Plant has tested for Cryptosporidium in both Lake Michigan and in the water they treat. They have never detected it in treated water. The organism is present in Lake Michigan and comes from animal wastes in the watershed. Crypto is eliminated by an effective treatment combination including filtration, sedimentation and disinfection.

Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available by contacting the EPA (see footnote).

*The Muskegon Water Plant treated over
2.7 billion gallons of water in 2014.*

*The Water Filtration Plant uses
Lake Michigan as a water supply source.*

For more information about contaminants and potential health effects, visit <http://water.epa.gov/drink/hotline> or call the U.S. EPA's hotline at (800) 426-4791



2014 TREATED WATER QUALITY CHART

Regulated at the Treatment Plant

SUBSTANCE	Units	Highest Level Allowed (MCL)	Highest Level Detected	Ideal Goal (MCLG)	Violations	Source of Contaminant
Chromium	ppb	100	.47	N/A	No	Erosion of natural deposits
Nitrate	ppm	10	.6	0	No	Erosion of natural deposits
*Total Organic Carbon	ppm	TT	1.63	N/A	No	Naturally present
Turbidity	ntu	TT	.06	N/A	No	Lake sediment
Fluoride	ppm	4.0	.57	1.0	No	Additive

*TOC is measured quarterly. Twenty five percent of the TOC is removed from our source water to be in compliance.

Regulated in the Distribution System

SUBSTANCE	Units	Highest Level Allowed (MCL)	Highest Level Detected	Violations	Source of Contaminant
Chlorine Residual	ppm	4	1.10	No	Disinfectant
Total Trihalomethanes	ppb	80	30	No	Disinfection by-product
Haloacetic Acids	ppb	60	23	No	Disinfection by-product

Regulated at the Customer's Tap

SUBSTANCE	Units	Action Level	Range of detections	Detection	MCL	Source of Contaminant
Copper (tested 8/2014)	ppb	1.3	<0.025 - 0.067 mg/L	0.064 mg/L	1.3	Household plumbing
Lead (tested 8/2014)	ppb	15	<0.001 - 0.0012 mg/L	<0.0010 mg/L	0.015	Household plumbing

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 City of North Muskegon 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 1-800-426-4791 or at <http://water.epa.gov/drink/info/lead/index.cfm>.

Unregulated Contaminants

SUBSTANCE	Units	Highest Level Detected	Source of Contaminant
Sodium	ppm	12	Natural occurring mineral

WATER QUALITY TABLE KEY AND DEFINITIONS

MCL - Maximum Contamination Level: This is the highest level of a substance that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contamination Level Goal: The level of a substance in drinking water below which there is no known or expected health risk. MCLG's 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 the 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 contamination.

ppm - Parts per Million: One part per million.

ppb - Parts per Billion - One part per billion.

Turbidity - A measure of the clarity of the water. We monitor it because it is a good indicator of water quality.

NTU - Nephelometric Turbidity Unit: Measurement of the minute suspended particles in the water. Used to judge water clarity

TT - Treatment Technique: a required process intended to reduce the level of a substance in drinking water.

Action Level - The amount of a substance when exceeded requires a treatment change or other response by a water system.

N/A - Not applicable

n.d. - Not detected

This report is available at www.cityofnorthmuskegon.com. To receive a paper copy in the mail, contact us at 231-744-1621.

How did we do?

Meetings that deal with decisions about our source water are conducted through the Muskegon Conservation District at 231-773-0008. Information is also available at the City of Muskegon's website: www.shorelinecity.com or you can contact the filtration plant directly at 231-724-4106.