

Grosse Pointe Woods

2018 Annual Drinking Water Quality Report

(Consumer Confidence Report)

This report provides a snapshot of the drinking water quality for Grosse Pointe Woods for the calendar year 2017. The Great Lakes Water Authority (GLWA) and the City are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. Included are details about where our water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

About our system

Your source water comes from the Detroit River, situated within Lake St. Clair, Clinton River, Detroit River, Rouge River, and Ecorse River in the U.S., and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility or relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contamination sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination. However, all four Detroit water treatment plants that use source water from the Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan.

In 2015, GLWA received a grant from the Michigan Department of Environmental Quality to develop a source water protection program for the Detroit River intakes. The program contains seven elements that include the following: roles and duties of governmental units and water supply agencies; delineation of a source water protection area; identification of potential of source water protection area; management approaches for protection; contingency plans; siting of new sources; and public participation and education.

If you would like to know more information about the Source Water Assessment Report, please contact Public Works at (313) 343-2460.

Important health information about lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The water that GLWA delivers to our community does not contain lead. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The City of Grosse Pointe Woods 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 1 (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

Special information available

Some people may be more vulnerable to contaminants in drinking water than is 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 healthcare providers. Environmental Protection Agency (EPA) and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

Health and safety information

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 at 1 (800) 426-4791.

The sources of drinking water (both tap 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:

- 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 organics, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban storm water runoff and septic systems.
- 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, the Environmental Protection Agency prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems.

The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Monitoring and Reporting Requirements: The State and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2017. We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at City Hall, 20025 Mack Plaza. We invite public participation in decisions that affect drinking water quality. For more information about your water, or the contents of this report, contact Public Works at (313) 343-2460. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

Northeast Water Treatment Plant 2017 Regulated Detected Contaminants Tables

2017 Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap								
Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	5/16/2017	ppm	4	4	0.66	n/a	no	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate	5/16/2017	ppm	10	10	0.44	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits.
Barium	5/16/2017	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

2017 Disinfection By-products – Monitoring in Distribution System Stage 2 Disinfection By-Products								
Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2017	ppb	n/a	80	53.4	8.8-53.4	no	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	2017	ppb	n/a	60	14	5-14	no	By-product of drinking water disinfection.

2017 Disinfectant Residuals – Monitoring in Distribution System								
Regulated Contaminant	Test Date	Units	Health Goal MRDGL	Allowed Level MRDL	Highest RAA	Range of Detection	Violation	Major Sources in Drinking Water
Total Chlorine Residual	Jan.- Dec. 2017	ppm	4	4	0.78	0.66-0.82	no	Water additive used to control microbes.

2017 Turbidity – Monitored every 4 hours at Plant Finished Water Tap				Violation	Major Sources in Drinking Water
Highest Single Measurement Cannot Exceed 1 NTU		Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)			
0.18 NTU		100%		no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2017 Lead and Copper Monitoring at Customers' Tap								
Regulated Contaminant	Test Date	Units	Health Goal MCLG	Action Level (AL)	90th Percentile Value*	Number of Samples Over AL	Violation	Major Sources in Drinking Water
Lead	2017	ppb	0	15	1.0 ppb	0	no	Corrosion of household plumbing system; erosion of natural deposits.
Copper	2017	ppm	1.3	1.3	0.0 ppm	0	no	Corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives.

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL, additional requirements must be met.

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and, because the level was low, there is no TOC removal requirement.	Erosion of natural deposits.

Special Monitoring 2017				
Contaminant	MCLG	MCL	Level Detected 2017	Source of Contamination
Sodium (ppm)	n/a	n/a	4.85	Erosion of natural deposits.

Collection and sampling result information in the table provided by Detroit Water and Sewerage Department (DWSD) Water Quality Division, ML Semegen.

Great Lakes Water Authority voluntarily monitors for the protozoans Cryptosporidium and Giardia. The December 2017 untreated water sample collected at the Belle Isle intake contained 1 Giardia cyst. All other samples collected in the year 2017 were absent for the presence of Cryptosporidium and Giardia in the untreated water. Systems using surface water like GLWA must provide treatment so that 99.9 percent of *Giardia lamblia* is removed or inactivated.

Key to Detected Contaminants Tables		
Symbol	Abbreviation for	Definition/Explanation
>	Greater Than	
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
AL	Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	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.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
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 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.
n/a	Not Applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity.
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples during the previous four quarters.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total.
µmhos	Micromhos	Measure of electrical conductance of water.