

The City of Grand Rapids Water System



2018 ANNUAL WATER QUALITY REPORT

Attention: This report will not be mailed to you. If you want a paper copy, please call our 311 Customer Service at 311 or 616.456.3000.

Atención: Este reporte no será enviado por correo. Para tener una copia enviada a usted, por favor de llamar la línea de servicio al cliente al 311 o (616) 456-3000.

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-stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water supplies. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the United States EPA's Safe Drinking Water Hotline 800.426.4791.

Additional Information for Lead

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 Grand Rapids 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 800.426.4791 or at <http://water.epa.gov/drink/info/lead/index.cfm>

Source Water Assessment

The Michigan Department of Environmental Quality (MDEQ) completed a Source Water Assessment for the City of Grand Rapids water supply in 2003. This report found that our water supply has a moderately high susceptibility to contaminants. Source water contamination is not likely to occur if potential contaminants are properly used and managed. The Grand Rapids Water Treatment Plant routinely and continuously monitors the water for a variety of chemicals to assure safe drinking water. The Grand Rapids Water System continues to be involved in and supports watershed protection efforts.

Where does my drinking water come from?

Lake Michigan, a surface water source, is the sole source of water treated for the Grand Rapids Water System.

Is my water safe?

Yes. The City of Grand Rapids meets or exceeds all of the requirements of the Safe Drinking Water (SDWA). We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the SDWA. This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

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Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

The City of Grand Rapids Water System has a total of 81, 660 service lines. There are 26, 563 known lead service lines and 293 service lines of unknown material.

How can I get involved?

Call Customer Service at 311 or 616.456.3000.

Take a Lake Michigan Filtration Plant Tour!



We encourage you to tour our treatment plant located on Lake Michigan Drive between Holland and Grand Haven. Guests will take a walking tour of the facility to learn more about the people and processes that diligently safeguard your water supply. To schedule a tour, please call 311 or 616.456.3000.

Do I need 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 infections. These people may seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA)/Center for Disease Control (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 800.426.4791.

Why are there contaminants in my drinking water?

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. 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 including all of the following:

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 stormwater 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 stormwater runoff, and residential uses.

For more information please contact:

City of Grand Rapids Customer Service

300 Monroe Ave NW

Grand Rapids, MI 49503

Phone: 311 or (616)456-3000

Email: water@grcity.us



To obtain a copy of this assessment, please call City of Grand Rapids Customer Service at 311 or (616) 456-3000.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report, unless otherwise noted. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old. In this table you may find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detected In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.								
Chlorine [as Cl ₂] (ppm)	4	4	0.99	ND	1.67	2018	No	Water additive used to control microbes
Haloacetic Acids [HAA5] (ppb)	NA	60	26	15	42	2018	No	By-product of drinking water chlorination
Total Trihalomethanes [TTHMs] (ppb)	NA	80	54	25	72	2018	No	By-product of drinking water chlorination
Inorganic Contaminants								
Barium (ppm)	2	2	0.019	NA	NA	2018	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.74	NA	NA	2018	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as Nitrogen] (ppm)	10	10	0.4	NA	NA	2018	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	NA	NA	11	NA	NA	2018	No	Erosion of natural deposits
Unregulated Contaminants								
Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.								
Chlorate (ppb)	NA	MNR	104	ND	130	2015	No	Runoff from agricultural use; disinfection by-product
Chromium [total chromium] (ppb)	100	100	0.28	0.21	0.35	2015	No	Discharge from steel and pulp mills; erosion of natural deposits
Chromium-6 [hexavalent chromium] (ppb)	NA	MNR	0.21	0.17	0.25	2015	No	Erosion of natural deposits; industrial contaminant
Molybdenum (ppb)	NA	MNR	1.1	ND	1.2	2015	No	Erosion of natural deposits; industrial contaminant
Strontium (ppb)	NA	MNR	122	120	130	2015	No	Erosion of natural deposits; industrial contaminant
Vanadium (ppb)	NA	MNR	0.28	0.25	0.32	2015	No	Erosion of natural deposits; industrial contaminant
Microbiological Contaminants								
Turbidity (NTU)	NA	0.3	100%	NA	NA	2018	No	Soil runoff
100% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.142. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
Contaminants	MCLG	AL	90 th Percentile	Range		Sample Date	# Samples Exceeding AL	Typical Source
				Low	High			
Inorganic Contaminants								
Copper [action level at consumer taps] (ppm)	1.3	1.3	0.054	ND	0.215	2016	0	Corrosion of household plumbing systems; erosion of natural deposits
Lead [action level at consumer taps] (ppb)	0	15	4	ND	41	2016	1	Corrosion of household plumbing systems; erosion of natural deposits
These 2016 sample results are from 52 homes selected as the most at risk for lead and copper contamination.								
Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detected In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Voluntary Monitoring								
Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.								
<i>Cryptosporidium</i>	0	TT	ND	NA	NA	2018	NR	Contaminated rivers & lakes
<i>Giardia lamblia</i>	0	TT	ND	NA	NA	2018	NR	Contaminated rivers & lakes
Perfluorooctanic Acid + Perfluorooctane Sulfonic Acid [PFOA + PFOS] (ppt)	NA	NA	2.6	ND	3.19	2018	NR	Humanmade chemical not naturally found in the environment
Total Tested Per- and Polyfluoroalkyl Compounds [PFAS] (ppt)	NA	NA	3.2	ND	4.74	2018	NR	Humanmade chemical not naturally found in the environment
The EPA has set a Lifetime Health Advisory level of 70 ppt in drinking water for separate or combined PFOA and PFOS.								



Important Drinking Water Definitions & Units

90th Percentile:
The minimum level of contamination found in the highest 10 percent of samples collected.

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 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 a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MNR Monitored Not Regulated

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 or 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 disinfection to control microbial contaminants.

NTU (Nephelometric Turbidity Units):
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

NA Not applicable.

ND Not detected.

NR Monitoring not required, but, recommended.

ppm Parts per million, or milligrams per liter (mg/L)

ppb Parts per billion, or micrograms per liter (µg/L)

ppt Parts per trillion, or nanograms per liter (ng/L)

TT (Treatment Technique):
A required process intended to reduce the level of a contaminant in drinking water.

Note: The data table contains the highest annual test results for all required and voluntary monitoring of regulated substances. The Grand Rapids Water System monitors many regulated substances more frequently than required and, as a consequence, these results are included in the table above. In addition to the test results listed in the table, we analyzed the water for 79 different contaminants/chemicals in 2018; none of which were found at detectable levels.