The City of Grand Rapids Water System

Water Quality Report for 2016

CITY OF GRAND RAPIDS

Proudly Serving Residential and Commercial Customers in:

• Ada Township • Cascade Charter Township • City of Grand Rapids • City of East Grand Rapids • City of Kentwood • Grand Rapids Charter Township • Tallmadge Charter Township • City of Walker • Portions of Ottawa County

Producing and delivering excellent water to our customers that will protect public health, support the economy, protect life and property from the threat of fire and contribute to overall quality of life.

Grand Rapids Water System Mission

The Grand Rapids Water System is proud to present our annual Water Quality Report. This report provides important information about your drinking water. We have continued to meet the challenge of providing safe, quality water which meets or exceeds the requirements set forth by the Environmental Protection Agency (EPA) and the Michigan Department of Environmental Quality (MDEQ).

Why do you get this report?

The Environmental Protection Agency (EPA) requires every community water supply throughout the United States to report specific details regarding water quality along with any contaminants which may be found in our tap water and source water. In order to ensure this information reaches all of our customers, the EPA requires this report to be mailed to each household and business we supply.

The Grand Rapids Water System is committed to providing you with high quality water. We also understand that occasionally a concern may arise. At times the water may appear cloudy or rusty, or may have an unusual odor. This change in water quality could be caused by various reasons. Construction in the area, in-house water filtration, water system maintenance, recent plumbing work done in your home/business, or seasonal weather related changes are just a few possibilities. Whatever the reason, we want to address those concerns, which may be conveyed by calling Grand Rapids Customer Service at 311. Those who are unable to dial 311 or live outside Grand Rapids city limits can call (616)456-3000.

2016 Water Quality Data

Regulated at the Treatment Plant

Substance	Units	Range of Detections	Highest Level Detected	MCL	MCLG	Violations	Likely Sources
Barium	ppm	0.025	0.025	2	2	No	Erosion of natural deposits
Chromium	ppb	n.d.	n.d.	100	100	No	Erosion of natural deposits
Fluoride	ppm	0.7	0.7	4	4	No	Water additive which promotes strong teeth
Turbidity*	NTU	0.011 - 0.116	0.116	TT	n/a	No	Soil runoff

* Our treatment for turbidity was in 100% compliance of the regulatory limit. We are allowed a minimum of 95% compliance.

Regulated in the Distribution System

Substance	Units	Range of Detections	Maximum Running Annual Average	MCL or MRDL	MCLG or MRDLG	Violations	Likely Sources
Chlorine Residual	ppm	n.d. - 1.85	0.9	4	4	No	Water additive used to control microbes
Total Coliforms	% Positives	0	0	5	0	No	Naturally present in the environment
Haloacetic Acids	ppb	n.d. - 61	31	60	n/a	No	By-product of drinking water chlorination
Total Trihalomethanes	ppb	17 - 70	59	80	n/a	No	By-product of drinking water chlorination

Regulated at the Customer's Tap

Substance	Units	Range of Detections	90th Percentile	AL	MCLG	# of Samples exceeding AL	Likely Sources
Copper (tested in 2016)	ppb	n.d. - 215	54	1300	1300	0	Corrosion of household plumbing system
Lead (tested in 2016)	ppb	n.d. - 41	4	15	0	1	Corrosion of household plumbing system

Unregulated Contaminants

Substance	Units	Range of Detections	Average	Likely Sources
Sodium	ppm	11	11	Erosion of natural deposits

Cryptosporidium and Giardia

Cryptosporidium and Giardia are microscopic organisms that are commonly found in surface water throughout the U.S. Historical sampling of the Lake Michigan Filtration Plant source water indicates it is a low risk for contamination from these organisms. The current test methods are not capable of determining if detected organisms are alive and capable of causing illness or dead.

Source Water - There were no Cryptosporidium or Giardia detected in our source.

Treated Tap Water – There were no Cryptosporidium or Giardia detected in any treated tap water samples.

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 74 different compounds in 2016; none of which were found at detectable levels.

Water Quality Table Key and Definitions

MCL—Maximum Contaminant Level: This is the highest level of a substance 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 substance in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

MRDL—Maximum Residual Disinfectant Level: The highest level of 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.

ppm—Parts per Million: You win a one million-dollar lottery. You give a friend one dollar. That's 1 ppm.

ppb—Parts per Billion: Your rich uncle passes away and leaves you $10 million. However, in counting your inheritance, you discover that 1 cent is missing. That's 1 ppb.

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

NTU—Nephelometric Turbidity Unit: Measurements of the minute suspended particles. Used to judge water clarity.

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

AL—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.

About Contaminants

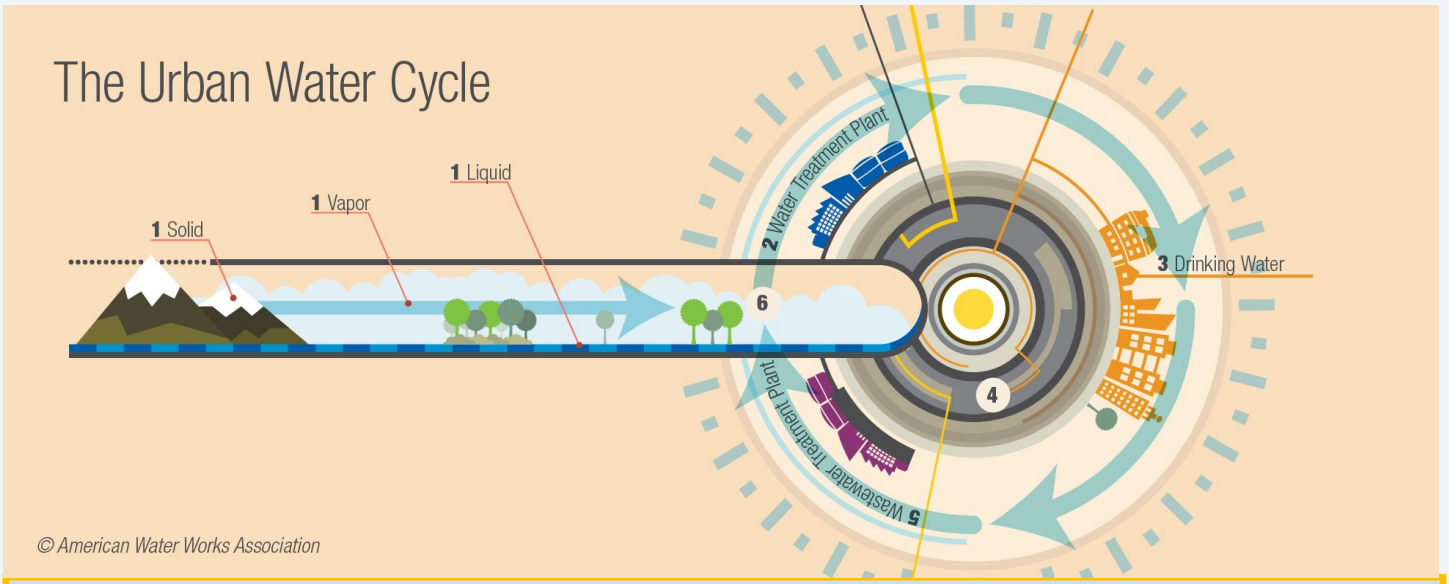
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include: Microbial contaminants such as viruses and bacteria which may have come from septic systems, agricultural livestock operations, sewage treatment plants, 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.

Do I need to take special precautions?

The EPA sets legal limits and regulates the amount of contaminants allowed in drinking water provided by all public water systems. Sources of drinking water worldwide (both tap and bottled) may reasonably be expected to contain at least small amounts of some contaminants. Though contaminants are present, it does not necessarily indicate that the water poses any kind of health risk. We treat our water according to EPA regulations.

While EPA's health-based standards for drinking water are generally safe, some people may be more sensitive to contaminants in drinking water than the general population. Some infants, children, the elderly, individuals who have undergone organ transplants, people with HIV/AIDS or persons receiving chemo-therapy can be at risk for infections. These people should seek advice from their health care providers. More information on potential health effects of specific contaminants can be obtained by contacting the EPA's Safe Drinking Water Hotline at 1(800)426-4791 or their website at: www.epa.gov/safewater.



1. This water cycle reflects the ever-changing form of water—vapor, liquid (oceans, rivers, streams, etc.) and ice.
2. The liquid water is treated at a water treatment plant.
3. The treated water is distributed through pipelines to your home as drinking water.
4. After your family uses tap water, it drains into the household's wastewater pipeline and flows to the utility's main wastewater pipeline.
5. From there, the water system takes the wastewater flow into the area's wastewater treatment plant, where it is treated.
6. After the wastewater is treated, it is either reused or released back into the environment to begin the cycle again.

To learn more about your water source and its treatment, visit the Your Local Water webpage or contact the Grand Rapids Water System at grcity.us/water.

Lead and Copper Monitoring of Drinking Water Taps

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 Grand Rapids 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 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.

Infants and children who drink water containing lead in excess of the action level 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 Grand Rapids Water System partners and works closely with local entities to address concerns about lead levels in homes. If you have any questions, you may want to consult with the Kent County Health Department (KCHD) at (616)632-7063 or and Healthy Homes Coalition at (616)241-3300. KCHD also provides water testing for residents. For more information, call (616)632-7063 or visit their webpage at https://accesskent.com/Health/laboratory.htm.

COUNTY OF KENT MICHIGAN HEALTH DEPARTMENT *Caring today for a healthy tomorrow*

Healthy Homes Coalition of West Michigan

Get the Lead Out!

Grand Rapids Water System
300 Monroe Ave NW
Grand Rapids, MI 49503

IMPORTANT INFORMATION:
WATER QUALITY REPORT FOR 2016
ALL USERS SHOULD RECEIVE A COPY OF THIS REPORT.
PLEASE CONTACT US FOR ADDITIONAL COPIES.

More Information:

If you have any questions regarding your bill, leaks or other water service related issues, please call customer service at 311 or 616-456-3000.

The Grand Rapids City Commission sets policies for the Water System. For meeting dates and times, please visit www.grcity.us/clerk.

This report is also available on the internet at: www.grcity.us/water.

En Español: Este informe contiene informacion muy importante sobre el agua potable que le prove a Ud. La cuidad de Grand Rapids. Traduzcalo o hable con alguien que lo entienda bien. Para mas informacion por favor llame a 311.

Source Water Assessment

Lake Michigan is the sole source of water treated for the Grand Rapids Water System. This is considered a surface water source. The 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. Environment contamination is not likely to occur when potential contaminants are used and managed properly. The Grand Rapids Water Treatment Plant routinely and continuously monitors the water for a variety of chemicals to assure safe drinking water. Industrial chemicals have not been detected in our source or treated water. The Grand Rapids Water System continues to be involved in and supports watershed protection efforts.

City of Grand Rapids Customer Service
300 Monroe Ave NW
Grand Rapids, MI 49503
311 or (616)456-3000
Email: water@grcity.us