

Preventing Possible Lead at the Tap:

Testing in Allendale has not shown elevated levels, but if present, elevated levels of lead can cause serious health problems. This is especially so for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Allendale Charter Township Public Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been setting 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 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 or at <http://www.cpa.gov/safewater/lead>.

Source Water Assessment

Lake Michigan is the sole source of water treated for the Grand Rapids & Allendale Water Systems. This is considered a surface water source. The Michigan Department of Environmental Quality (MDEQ) completed a Source Water Assessment for the City of Grand Rapids water supply in 2003. This assessment evaluates the potential risk of contamination based on several factors including geologic sensitivity, water chemistry and contaminant sources. Risk assessment is critical in protecting the source water from future contamination. Environmental contamination is not likely to occur when potential contaminants are used and managed properly.

A Source Water Assessment for surface water uses a 7-tiered rating scale ranging from “moderately low” to “very high.” The susceptibility of our source water to potential contamination was given a rating of moderately high. This rating is typical for surface water sources in the region. The geographic area in this assessment covers 708 square miles and includes several watersheds from Holland to Muskegon. The current or historical industrial, residential or agricultural use, production, storage, transport or disposal of any of the MDEQ’s listed potential contaminants within this entire area minimally requires a moderately high susceptibility ranking.

The Grand Rapids Water Filtration Plant and the Allendale Water System routinely and continuously monitor 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 & Allendale Water Systems continue to be involved in and support watershed protection efforts.

Anyone wanting additional information about the Source Water Assessment or questions concerning the water quality testing results within this report may contact:

Mike Grenier, Water Filtration Plant Superintendent
Phone: (616) 456-3927

Sam Vandenberg, Chemist II
Phone: (616) 456-3700 or svandenb@grcity.us

We protect your water

As part of the Safe Drinking Water Act, every water system is required to assure that their water customers have water that is potable or safe to drink. The Allendale Water System has its own Cross Connection Control Program to assure the water is safeguarded. It is closely monitored by the Michigan Department of Environmental Quality (MDEQ) on an ongoing basis.

Cross Connection Control staff has inspected governmental, commercial and industrial accounts for potential dangers to the water system since 1984. These accounts are required to have backflow prevention devices to prevent contamination of the water supply. The type of inspections needed are as simple as inspecting a public toilet to complex plumbing systems. Cross Connection Control personnel have personally inspected all governmental, commercial/ industrial accounts for potential areas in the Allendale Water System where a backflow could occur.

To continue to protect the water system, each of these devices must be maintained, inspected and tested each year by a licensed certified plumber. The test results are sent to the Allendale Water System Cross Connection Control Program to verify that testing has been completed. Staff checks to see that all devices are tested by state certified testers and follows up if test results are not returned.

Water Leaks May Cost You More Than You Realize

Faucet Leaks: It may look like a small drip, but remember it is dripping 24 hours a day, everyday. You can see how this adds up by collecting the dripping water in a glass for one hour, then multiplying that amount by 24 hours to find out how much water is wasted every day. Fix that leak, save money.

Toilet Leaks: This is possibly the biggest source of water use in your home. A malfunctioning toilet of any magnitude costs you money. Leaks are often not heard until the tank lid is lifted. Even if you do not hear water running you will want to be sure that the water level is one inch below the over-flow tube. Higher water can creep over the edge without anyone noticing. Another problem is having a flapper that seals sometimes and does not seal other times. When it does not seal the water runs continuously until the next flush. Usually these leaks are easily fixed, and the repairs quickly pay for themselves by reducing the amount of your utility bill.

Hidden Leaks: One way to determine if you have a leak is to look at your meter when no water is being used. Each meter has an indicator dial which will be turning if water is running through the meter. In most meters this is a black triangle or a round red dial with a pointer.

Call us if you have any questions about finding leaks, your water meter, or your shut-off valve inside the house. Phone: 616.895.6295.

Lawn Irrigation Systems and Backflow Prevention

Lawn irrigation systems make watering lawns and gardens easier and save time. However, water that may be contaminated by bacteria, weed killers and/ or fertilizers can be back siphoned into your drinking water. **Your irrigation system must be protected by an approved backflow prevention device.**



Irrigation systems not protected by this device could endanger the health of a household, neighborhood or community.

If you are considering installing a lawn irrigation system or already have one, please make sure a backflow prevention device is installed by a licensed plumber as required by the Michigan Plumbing Code. Any irrigation system not having a backflow prevention device will be required to have one installed. If you have questions regarding your lawn irrigation system and a backflow prevention device, please call our Cross Connection Control Program at 895-5142.

Allendale Charter Township Public Utilities Department

PO Box 539 | Allendale, MI 49401
616-895-5142

Only Tap Water **Delivers**™

2018 ALLENDALE WATER SYSTEM Water Quality Report



Allendale Water System

2018 Water Quality Report

Water is a critical commodity. However because water is readily accessible and inexpensive, we often take it for granted thus diminishing its value. Have you ever thought about the times you have turned on the tap to use water throughout a day assuming that it will be there? Allendale Water System customers continue to receive water that meets or exceeds standards that state and federal regulations require. To ensure tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems and annually requires water systems to provide information to their customers regarding the quality of the water provided. The 2018 Water Quality Report provides our customers with specific data regarding the quality of your drinking water. The statistics listed in the table, located within this report, are water monitoring results from January 1, 2018 to December 31, 2018 unless otherwise noted. This table is designed to summarize the information collected from the thousands of samples taken during the year to ensure water quality. It should be noted that we are required to indicate the highest test results during this 12-month period. These numbers may not be necessarily characteristic of typical water quality for the Grand Rapids Water System, whom the Allendale Water System purchases their water from.

****THERE IS NO TAX MONEY USED FOR WATER AND SEWER WAGES OR EXPENSES. CUSTOMER HOOKUP AND BILLING CHARGES ARE THE ONLY SOURCE OF INCOME FOR THE WATER AND SEWER DEPARTMENT.****

En Español: Este informe contiene información muy importante sobre el agua potable que le provee a Ud. la ciudad de Grand Rapids. Tradúxcalo o hable con alguien que lo entienda bien.

What is a Cross Connection and a Backflow?

Customers can expect that the drinking water provided to them from the Allendale Water System will be safe and of a high quality. A great deal of effort, time and money is spent to purify and treat water before it is delivered to our customers. However, most of our customers do not know the effort spent to protect the water from the possibilities of contamination or pollution while it flows through the distribution system.

Water distribution systems are designed with the intention of the water flowing in one direction through the distribution system to the customer's tap. Unfortunately, when hydraulic conditions within the system deviate from the "normal" conditions, water flow may reverse. When this happens, it is possible that contaminated water may enter the distribution system.

A cross connection is a permanent or temporary arrangement of piping or hose connections between drinking (also known as potable) water and anything which can pollute or contaminate the water supply such as undesirable water, chemicals or bacteria. An example of this would be a hose submerged in a bucket of a cleaning solution. If pressure in the water distribution system suddenly dropped, water may be "sucked" from the bucket back into the water system.



The potential for a backflow may occur when there is a sudden reduction in the water pressure within the distribution system, such as when a water main breaks or during fire fighting. Water flow can be reversed and a suction effect occurs whereby contaminated or a non-potable substance is drawn into the potable water system.

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 from human activity.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

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

Contaminants that may be present in source water include: **Microbial contaminants** such as viruses and bacteria which may have 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 Data 2018

Contaminants	MCLG	AL	90 th Percentile	Range		Sample Date	# Samples exceeding AL	Typical Source
				Low	High			
Inorganic Contaminants (Action level at consumer taps)(The data presented in this report is from the most recent testing done in accordance with the regulations)								
Copper (ppm)	1.3	1.3	.050	.015	.050	2016	0	Corrosion of household plumbing systems
Lead (ppm)	0	15	1	n.d.	3	2016	0	Corrosion of household plumbing systems
Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detected In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By- Products (Regulated in the Distribution System)								
Chlorine [as Cl2] (ppm)	4	4	1.22	0.49	1.78	2018	No	Water additive used to control microbes
Haloacetic Acids [HAA5] (ppb)	NA	60	32.43	27.7	46.2	2018	No	By-product of drinking water chlorination
Total Trihalomethanes [TTHMs] (ppb)	NA	80	43.76	31.3	60.2	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 which 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 the contaminants/chemicals will help ensure that future decisions on drinking water standards are based on science)								
Chlorate (ppb)	NA	MNR	104	ND	130	2015	No	Runoff from agricultural use; disinfection byproduct
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 sample 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.								
Voluntary Monitoring (Information collected through the monitoring of the contaminants/chemicals will help ensure that future decisions on drinking water standards are based on science)								
Cryptosporidium	0	TT	ND	NA	NA	2018	No	Contaminated rivers and Lakes
Giardia lamblia	0	TT	ND	NA	NA	2018	No	Contaminated rivers and Lakes
Perfluorooctanic acid + Perfluooctane Sulfonic Acid [PFOA+PFOS] (ppt)	NA	NA	2.6	ND	3.19	2018	NR	Man-made chemical not naturally found in the environment
Total Tested Per-and Polyfluoroalkyl Compounds [PFAS] (ppt)	NA	NA	3.2	ND	4.74	2018	NR	Man-made 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								

Key

90th percentile = The maximum level of contaminants found in the highest 10% of samples collected

AL = Action Level

ppm = parts per million

ppb = parts per billion

ppt = parts per trillion

TT = Treatment Technique

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MNR = Monitored Not Regulated

MRDL = Maximum Residual Disinfection Level

MRDLG = Maximum Residual Disinfection Level Goal

NA = not applicable

ND = not detected

NR = Monitored Not Required but Recommended

NTU = Nephelometric Turbidity Units