

2018 Water Quality Consumer Confidence Report for the Charter Township of Portage

Regulation Background:

Following new federal regulations, the State of Michigan in 1998 enacted a requirement that public water suppliers must now issue an annual Consumer Confidence Report (CCR) on water systems. Therefore, this CCR is being issued to provide the Charter Township of Portage's water customers with information concerning our drinking water.

This report covers the drinking water quality for the Charter Township of Portage in the calendar year 2017. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and the State of Michigan standards.

Summary of the Water Sources for the Township's Water System:

The drinking water purchased by the Township comes from either the Adams Township Water Authority or the City of Houghton. Adams Township has (3) 200 foot deep wells and a 250,000 gal. storage facility/pump station in the Painesdale area. The water has a disinfectant added to it and is then pumped to the 150,000 gallon Charter Township of Portage's hydrosphere storage tank. The City of Houghton pumps it's water from the Water Treatment Plant to four tanks. The City of Houghton treats groundwater to remove high levels of iron and manganese by the addition of soda ash and potassium permanganate. A chlorine disinfectant is added before the water enters the distribution system. Portage Township residents residing in the Township and the Dakota Heights area receive their water from the Adams Township Water Authority and the Township residents in Pilgrim Estates and on Woodland Road receive their water from the City of Houghton. Charter Township of Portage has many miles of water distribution mainlines that range in size from 4 inches to 16 inches in diameter that bring water to the individual service lines that range in size from ¾ inches all the way up to 4 inches and approximately 130 fire hydrants. The City of Houghton sells approximately 10,000,000 gallons of water per year to the Township. The Township's base rate for water ranges vary from \$12.00 to \$20.75 depending on the USDA debt service affixed to the individual system. Water charges range from \$4.00 to \$8.00 per thousand gallons utilized. All told there are about 549 water customers utilizing the water from the two sources mentioned above.

The Charter Township of Portage is required to monitor our drinking water twice monthly for specific contaminants. Results of our regular monitoring are indicators of whether or not our drinking water meets health standards. We failed to have the biological samples analyzed for the month of July 2017, a Tier 3 violation. The state licensed employee that routinely does the sampling was on extended sick leave. This monitoring violation **did not** pose a threat to the quality of the supplied water. Samples taken on August 8 & 9, 2017, the following month, and through the remainder of 2017 failed to show any contamination.

The State performed an assessment of both of these source waters in 2003 to determine the susceptibility (relative potential of for contamination) of the wells. The six-tiered susceptibility rating system rated moderately high the City of Houghton wells and moderately low for the Adams Township's water source. Adams Township has a Wellhead Protection Plan. The aquifer servicing Adams Township's wells is located beneath forested land.

General Water Educational Information (as required by the EPA):

Drinking water, including bottled water, may be reasonably 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) or EPA's Web Site at www.epa.gov/safe/hfacts.html.

The source of drinking water (both tap water and bottled water) includes rivers, lakes and 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.

In early 2012 the Adams Township began placing phosphates in their supplied water to meet state requirements in the "safe water drinking act". Phosphates aid in the long-term water system pipe maintenance.

Twice monthly the certified Water Operator for Portage Township submitted water samples for coli for testing. During the course of the year no bacterial positives were identified from the samples submitted.

- **Contaminants and their presence in 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. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** 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).
- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 before treatment may 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 and residential uses.
 - Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
 - 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.

STATEMENT ABOUT LEAD: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and 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.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Charter Township of Portage 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 or at <http://www.epa.gov/safewater/lead>.

STATEMENT ABOUT COPPER: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

In order 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 systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

As mentioned above the Charter Township of Portage residents get their water from two sources – Adams Township and from the City of Houghton. Water quality monitoring test results derived in 2016 from both those units of Government follows:

Monitoring Data – Adams Township

Terms and Abbreviations for Monitoring Data:

Maximum contaminant level (MCL): The highest level of contaminant that is allowed in drinking water. MCL's are set close to the MCLG's as possible using best available treatment technology.

Maximum Contaminants Level Goal (MCLG): The level of a contaminant in drinking water below which there are no known or expected risk to health. The MCLG's allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which if exceeded triggers treatment or other requirements.

ppb: parts per billion or micrograms per liter. Ug/L **NA:** Not applicable

ppm: parts per million or milligrams per liter. Mg/L **ND:** Not detected

Copper:	AL	MCLG	Adams Twp Water	Sample Exceeding Action Level	Date	Violation
	1300 ppb	1300 ppb	150 ppb	1	8-25-14	no

Lead:	AL	MCLG	Adams Twp Water	Sample Exceeding Action Level	Date	Violation
	15 ppb	0 ppb	16 ppb	1	8-25-14	no

Typical source of contaminants – corrosion of household plumbing systems.

Arsenic:	MCL	MCCLG	Adams Twp Water	Samples Exceeding MCL	Date	Violation
	10 ppb	0 ppb	6.7 ppb	0	07-11-12	no

Typical source of contaminants – erosion of natural deposits.

Adams Twp. drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Total Trihalomethanes:	MCL	MCLG	Adams Twp Water	Samples Exceeding MCL	Date	Violation
	80 ppb	n/a	26 ppb	0	08-06-15	no

Typical source of contaminants – byproduct of drinking water chlorination.

Monitoring Data – City of Houghton

The following testing was done on (3) City Wells:

Copper:	AL	MCLG	City of Houghton	Sample Exceeding Action Level	Date	Violation
	1032 ppb	0	ND	2	11-13-17	no

Typical sources of contaminant – erosion of natural deposits, leaching, corrosion of household plumbing.

Lead:	AL	MCLG	City of Houghton	Sample Exceeding Action Level	Date	Violation
	16 ppb	0	.22 ppb	3	10-26-17	no

Regulated Contaminants:

Arsenic:	MCL	MCLG	City Water	Date	Violation
	10 ppb	0	ND	05-21-2010	no

Mercury:	MCL	MCLG	City Water	Date	Violation
	2 ppb	2 ppb	ND	05-21-2010	no

Fluoride:	MCL	MCLG	City Water	Date	Violation
	4 ppb	4 ppm	ND	09-15-2015	no

Arsenic, Mercury and Fluoride: Typical source of contaminants – erosion of natural deposits.

Inorganic Contaminants:

*Sulfate:	MCLG	City/Houghton	Range		Date	Violation
			Low	High		
	NA	ND	NA	NA	09-04-2014	no

Typical source of contaminant – erosion of natural deposits. Sulfate is an unregulated contaminant and thus there is no MCL associated with it. Unregulated contaminant monitoring helps the EPA to determine whether there is a need to regulate this contaminant.

Nitrate:	MGL	MCLG	City/Houghton	Range		Date	Violation
				Low	High		
	10mg/L	10mg/L	1.4mg/L	NA	NA	09-04-2014	no

Sulfate – Typical source of contaminant – erosion of natural deposits

Nitrate - Typical source of contaminant – runoff from fertilizer use; leaching from septic tanks, sewage.

* = Sulfate is an unregulated contaminant and thus there is no MCL associated with it. Unregulated contaminant monitoring helps the EPA to determine whether there is a need to regulate that contaminant.

Total

Trihalomethanes:	MCL	MCLG	City Water	Date	Chlorination Violation
	80 ppb	NA	54 ppb	09-15-2015	no

Typical source of contaminant – by-product of drinking water chlorination.

Haloacetic Acids:	MCL	MCLG	City Water	Date	Chlorination Violation
	60 ppb	NA	17 ppb	09-04-2014	no

Copies of all test results from Adams Township as well as the City of Houghton are available at the Portage Township Office. For more information please contact the office at: 906-482-4310 during normal work hours, Monday thru Thursday. This report is also available on our web-page at: www.portagetownship.info. Portage Township is committed to providing the best quality drinking water and information concerning that drinking water to our valued customers.

Charter Portage Township

Bruce Petersen, Supervisor