

# 2021 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 2021. 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. Adams Township has a Wellhead Protection Plan. The aquifer servicing Adams Township's wells is located beneath forested land. Chlorine and zinc orthophosphate are the only treatment chemicals 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 \$21.75 depending on the USDA - Rural Development debt service affixed to the individual system. Water charges range from \$5.00 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 three times monthly for specific contaminants. Results of our regular monitoring are indicators of whether or not our drinking water meets health standards. Over the course of 2021 there were three Department of Environment, Great Lake, and Energy (EGLE) Violation notices issued to the Charter Township of Portage. The first violation notice occurred in January of 2021 due to the Twp. usage of an improper lead and copper reporting form. A new form was submitted and the Twp. came back in to compliance shortly after the violation notice. The second violation occurred in September of 2021 for late submittals for TTHM and HAA5 testing. Further tests were taken and shortly thereafter the Township was back in to compliance after those test results were submitted. The third EGLE violation occurred in October of 2021. Lead and copper test findings were late. The test findings did arrive at EGLE shortly past the due date and the Twp. came back in to compliance upon their arrival. These monitoring violations did not pose a threat to the quality of the supplied water to Township residents.

## 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](http://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.

During 2021, the Certified Water Operator for Portage Township submitted water samples for coli for testing. Over 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. Over many years of Service line maintenance by the Department of Public Works, no lead fittings or lines have ever been found. There are about 550 service lines, 350 likely do not contain lead and 200 are of unknown materials. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead fittings 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://www.epa.gov/drink/info/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 2021 from both those units of Government follows:

## **Monitoring Data – Part of our Water System Served by 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

The following testing was done on the (3) Adams Twp. deep Wells which supply water to the Township:

Copper:	AL	MCLG	Your Water	Year Sampled	Does System Exceed AL?
	1300 ppb	1300 ppb	400 ppb	2019	No

Typical source of contaminants – Corrosion of household plumbing systems; Erosion of natural deposits.

Lead:	AL	MCLG	Your Water	Year Sampled	Does System Exceed AL?
	15 ppb	0 ppb	1 ppb	2019	No

Typical sources of contaminant – Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits.

**Note:** Adams Twp. is only required to test for Copper and Lead every three years.

Arsenic:	MCL	MCLG	Adams Twp. Water	Samples Exceeding MCL	Date	Violation
	10 ppb	0 ppb	6.4 ppb	0	02-20-2018	NO

Mercury:	MCL	MCLG	Adams Twp. Water	Samples Exceeding MCL	Date	Violation
	2ppb	2 ppb	.081 ppb	0	02-20-2018	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	MCL	Date	Violation
	80 ppb	n/a	35 ppb	0	08-19-2021	NO

Total Haloacetic Acids:	MCL	MCLG	Adams Twp. Water	MCL	Date	Violation
	60 ppb	n/a	0.93 ppb	0	08-19-2021	NO

Typical source of contaminants – byproduct of drinking water chlorination.

Adams Twp. 2020 Violations:     None

## Monitoring Data – Part of our Water System Served by the City of Houghton

The following testing was done on the (3) City Wells which supply water to the Township:

### Inorganic Contaminants

Subject to Action

Levels (AL)

	AL	MCLG	Houghton Water	Range of Results	Year Sampled	# of Samples Above AL
Copper:	1.3 ppm	0 ppm	1.3ppm	0 of 30	09-2-2020	No

Typical sources of contaminant – Corrosion of household plumbing systems; Erosion of natural deposits.

	AL	MCLG	Houghton Water	Range of Results	Year Sampled	# of Samples Above AL
Lead:	15 ppb	0 ppb	34ppm	3 of 30	09-2-2020	No

Typical sources of contaminant – Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits.

### Regulated Contaminants:

	MCL, TT, or MRDL	MCL or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Arsenic:	10 ppb	0	ND	NA	9-3-2019	NO	Erosion of Natural Deposits; Runoff from glass & electronics production wastes.
Mercury:	2 ppb	2	ND	NA	9-3-2019	NO	Discharge of metal refineries; Erosion of natural deposits.
Nitrate:	10ppb	10	1.3ppb	NA	9-15-2019	NO	Runoff from fertilizer use; leaching from septic tanks, Sewage, Erosion of Natural deposits.
Fluoride:	4 ppb	4 ppm	ND	NA	9-15-2019	NO	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories.
TTHM Trihalomethanes	80 ppb	NA	34 ppb	NA	9-16-2020	NO	Byproduct of drinking water disinfection.
HAA5 Haloacetic Acids	60 ppb	NA	12 ppb	NA	9-15-2020	NO	Byproduct of drinking water disinfection.
Chlorine	4 ppm	4 ppm	.47 ppm	NA	Monthly	NO	Water additive used to control microbes.

Regulated Contaminant	MCL, TT, or MRDL	MCL or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Combined Radium (pCi/L)	5	0	ND	NA	9-3-2020	NO	Erosion of natural deposits.
Total Coliform or % of Positive TT samples/month	9223 B	0	0	NA	Monthly	NO	Naturally present in the environment.
E. coli in the Distribution System(positive Samples)	See E. coli note below	0	0	NA	Monthly	NO	Human and animal waste.
Fecal Indicator – E. coli at the Source (positive Samples)	9223 B	NA	0	NA	Monthly	NO	Human and animal waste.

*E. coli* MCL violation occurs if; (1) routine and repeat samples are total coliform-positive and either is *E. Coli*-Positive, or (2) the supply fails to take all required repeat samples following *E. coli*- positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.

#### **Per- and polyfluoroalkyl substances (PFAS)**

Regulated Contaminant	MCL, TT, or MRDL	MCL or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoro – propylene Oxide dimer acid (HFPO-DA)	370ppt	NA	ND	NA	10/14/2020	NO	Discharge and waste from industrial facilities utilizing the Gen X chemical process.
Perfluoro – butane sulfonic acid (PFBS)	420 ppt	NA	3	NA	10/14/2020	NO	Discharge and waste from industrial facilities; stain - resistant treatments.
Perfluoro – hexane sulfonic Acid (PFHxS)	51 ppt	NA	ND	NA	10/14/2020	NO	Firefighting foam; discharge and waste from Industrial facilities.
Perfluoro – hexanoic acid (PFHxA)	400,000ppt	NA	ND	NA	10/14/2020	NO	Firefighting foam; discharge and waste from industrial facilities.
Perfluoro – Nonanoic acid (PFNA)	6 ppt	NA	ND	NA	10/14/2020	NO	Discharge and waste from industrial facilities; breakdown of precursor compounds.

Regulated Contaminant	MCL, TT, or MRDL	MCL or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Perfluorooctane sulfonic acid (PFOS)	16 ppt	NA	ND	NA	10/14/2020	NO	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities.
Perfluorooctanoic acid (PFOA)	8 ppt	NA	ND	NA	10/14/2020	NO	Discharge and waste from industrial facilities; stain - resistant treatments.

Copies of all test results from Adams Township as well as the City of Houghton are available at the Portage Township Office or from the respective water suppliers. For more information, please contact the office at: 906-482-4310 Monday thru Thursday from 9:00 am to 3:00 pm. The Charter Township of Portage is committed to providing the best quality drinking water and water information to our valued customers.

**Charter Township of Portage**

Bruce Petersen, Supervisor