



# 2017 WATER QUALITY REPORT

## Fort Gratiot Charter Township, St. Clair County, Michigan Annual Drinking Water Quality Report for Calendar year 2017

*This water quality report describing the source and quality of your drinking water is also available:*  
To view/download at [fortgratiotwp.org/ccr](http://fortgratiotwp.org/ccr); or to receive a paper copy by mail, contact:  
Fort Gratiot DPW, 3720 Keewahdin Road, Fort Gratiot, Michigan 48059 (810) 385-4489  
Port Huron Water Treatment Plant, Port Huron, Michigan 48060 (810) 984-9780

### BOARD OF TRUSTEES

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## “RIGHT TO KNOW” RULE PASSED

In 1998, a new Federal rule was passed to ensure that consumers of community water supplies receive annual documentation of drinking water quality. The City of Port Huron provides your drinking water and is pleased to present you with this annual water quality report. Our goal is to provide you with a safe and dependable drinking water supply. This report will illustrate that we are achieving this goal.

## DRINKING WATER QUALITY RESULTS

The City of Port Huron routinely monitors your drinking water according to Federal and State laws. The table on the backside of this report shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2017, unless otherwise noted. **The test results show that your drinking water meets all Federal and State requirements.**

## WHERE DOES YOUR WATER COME FROM?

Since 1873, the City of Port Huron’s water has originated from the St. Clair River. This means that the water you drink comes from a surface water supply, not a well. Today, raw water is collected by two 36-inch-diameter intakes. After treatment, the water is pumped into the distribution system which has nearly 170 miles of water main with approximately 1,400 fire hydrants. The City of Port Huron also provides water to the townships of Port Huron, Fort Gratiot, Kimball, and Clyde, serving approximately 60,000 customers.

## SOURCE WATER ASSESSMENT

The state performed an assessment of our source water in 2004 to determine the susceptibility of the potential for contamination. The susceptibility rating is on a six-tiered scale from “very low” to “high” based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our source is “highly susceptible” given the land uses and potential contaminant sources within the source water area. A copy of the full report is available by calling the Port Huron Water Treatment Plant at (810) 984-9780.

## HEALTH AND SAFETY INFORMATION

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. More information can be obtained by calling EPA’s Safe Drinking Water Hotline, 1-800-426-4791.

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

Contaminants that may be present in source water 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 that 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 can be naturally occurring or 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.

**All of these contaminants were below the level of concern in Port Huron’s water.**

To ensure that tap water is safe, the EPA prescribes regulations, which limit the amounts of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health.

## INFORMATION FOR VULNERABLE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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 should seek advice about drinking water from their health care providers. Federal guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from EPA’s Safe Drinking Water Hotline, 1-800-426-4791.

**INFORMATION ABOUT 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 associated with service lines and home plumbing. Fort Gratiot Township 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/safewater/lead>.

**DEFINITIONS**

**Parts per million (ppm) and parts per billion (ppb)** - ppm = Parts per million, or milligrams per liter (mg/l). ppb = Parts per billion, or micrograms per liter (µg/l). One ppm can be equated to a single penny in \$10,000. One ppb is a single penny in \$10,000,000.

**Maximum Contaminant Level Goal (MCLG)** - The MCLG is the level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs provide a margin of safety.

**Maximum Contaminant Level (MCL)** - The MCL is 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. MCLs are set at very stringent levels by the State and Federal government.

**Maximum Residual Disinfectant Level (MRDL)** - Means the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)** - Means 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 disinfectants to control microbial contaminants.

**Nephelometric Turbidity Unit (ntu)** measures clarity.

**Turbidity** - The cloudy appearance of water caused by the presence of tiny particles. High levels of turbidity may interfere with proper water treatment and monitoring.

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**90<sup>th</sup> Percentile** - This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. For example, if 10 samples are taken, the 90<sup>th</sup> percentile is determined by disregarding the highest result, which represents 10 percent of the samples.

**ND** - not detected. **na** - not applicable/available.

**QUESTIONS, COMMENTS?**

Staff at the Port Huron Water Plant, work around the clock to provide quality water. If you have any questions or comments, or would like to receive more specific information about the Port Huron Water Treatment Plant, please feel free to call (810) 984-9780. Water Plant staff will be happy to help you.

FORT GRATIOT TOWNSHIP

2017 MONITORING SCHEDULE

WSSN: 02385

Chlorine or Chloramines	January	February	March	April	May	June	July	August	September	October	November	December
Quarterly			.97			.88			.88			.90

Contaminant	MCLG	MCL	Highest Number Detected	Violation Yes/No	Major Sources in Drinking Water
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	In one month 0	No	Naturally present in the environment
E-coli/fecal coliform bacteria	0	A routine sample & a repeat sample are a total coliform positive & one is also fecal or E-coli positive	Entire Year 0	No	Human waste & animal fecal waste

Coliform are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. We sample for coliform bacteria on a monthly basis to ensure the water is safe for drinking purposes.

Unless otherwise noted, the data presented in this table is from testing done January 1 - December 31, 2017. 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.

**TEST RESULTS FOR 2017 – FORT GRATIOT CHARTER TOWNSHIP**

Following are the contaminants that were detected in our water. ALL ARE BELOW ALLOWED LEVELS.

*Not listed are the hundreds of contaminants tested for, but not found in our water.*

Regulated Contaminant	MCL	MCLG	Level Detected	Range of Detection	Sample Dates	Violation Yes / No	Typical source of contamination
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**Regulated Inorganic Parameters (monitored at the plant tap)**

Fluoride (ppm)	4	4	0.73	0.01 to 1.05	8-4-17	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	0.26	na	8-4-17	No	Decomposition of organic matter and surface water runoff
Barium (ppm)	2	2	0.014	na	8-4-11	No	Discharge from drilling wastes; Discharge from metal refineries; erosion of natural deposits and discharge from mines
Selenium (ppm)	50	50	ND	na	8-4-11	No	

**Regulated Parameter (monitored at the plant tap)**

Turbidity (ntu)	TT	na	0.05	0.05 to 0.05	Daily	No	Soil runoff, suspended matter in river water. Indicator of effective filtration system
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**Regulated Organic Parameters (monitored at the plant tap)**

Total Organic Carbon	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured quarterly and because the level was low, there is no requirement for TOC removal.					No	Naturally Present in the Environment
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**Regulated Inorganic Parameters (monitored in the distribution system)**

Regulated Contaminant	MCL	MCLG	Running Annual Average	Monthly Ratio Range	Sampling Frequency	Violation Yes / No	Typical source of contamination
Chlorine (ppm)	(MRDL) 4	(MRDLG) 4	1.08	0.40 to 1.77	Daily	No	Water additive for disinfection

**Regulated Organic Parameters (monitored in the distribution system)**

TTHM (ppb) Total Trihalomethanes	80	na	46.8	27 to 65	Quarterly in 2017	No	By-products of drinking water chlorination
HAA5 (ppb) Haloacetic Acids	60	na	18.5	.013 to .027	Quarterly in 2017	No	By-products of drinking water chlorination

**Lead and Copper Testing (monitored in the distribution system at individual taps)**

Contaminant Subject to A.L.	Action Level	90 <sup>th</sup> Percentile	Sample Date(s)	# of Samples above AL	
Copper (ppm)	1.3	0.1 ppm	06/01/17 through 09/30/17	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	15	1.7 ppb		0	Corrosion of household plumbing systems; erosion of natural deposits

**Special Monitoring and Unregulated Parameters (monitored in the distribution system)**

Unregulated Contaminant	MCL	MCLG	Level Detected	Date(s)	Typical source of contamination
Sodium (ppm)	na	na	ND	7/5/16 - 10/6/16	Erosion of natural deposits
Hexavalent Chromium (ppb)	na	na	0.18	7/5/16 - 10/6/16	Industrial activity

**Special Monitoring and Unregulated Parameters (monitored in the distribution system)**

Unregulated Contaminant	MCL	MCLG	Level Detected	Date(s)	Typical source of contamination
Chromium (ppb)	na	na	0.3	7/5/16 - 10/6/16	Erosion of natural deposits and Industrial activity
Chlorate (ppb)	na	na	320	7/5/16 - 10/6/16	Erosion of natural deposits and Industrial activity
Strontium (ppb)	na	na	98	7/5/16 - 10/6/16	Erosion of natural deposits and Industrial activity
Vanadium (ppb)	na	na	0.4	7/5/16 - 10/6/16	Erosion of natural deposits and Industrial activity

Included in the Special Monitoring and Unregulated Parameters table are the Unregulated Contaminants (UCMR3) testing results. This is not a full list of possible contaminants tested for as those not detected are not shown. If you would like a full list of results contact Fort Gratiot Township at 810-385-4489.