Customer Service Center
City Hall
1101 S. Saginaw St.
Flint, MI 48501

The Annual Water Quality Report provides important information about your drinking water. This report includes information about the source of the water, health information, charts that summarize regulatory required testing results, and a table giving explanations of important terms to understand when viewing the test results. The City of Flint Department of Utilities is dedicated to providing quality drinking water to the residents of the community. The Flint Water Plant operates and maintains a certified drinking water laboratory to assure compliance with all state and federal regulations. We are committed to prompt and thorough notification to the consumers if there is any reason for concern about the quality of the drinking water. Information about your drinking water is available on the City of Flint web page at www.cityofflint.com or by calling the City of Flint Water Plant at (810) 787-6537. The Safe Drinking Water Hotline at (800) 426-4791 is a resource for health related questions and water quality issues. General drinking water information can also be found on the U.S. Environmental Protection Agency (EPA) web site at www.epa.gov/safewater/.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Reporting Requirements Not Met for City of Flint

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the July 1, 2019, through December 31, 2019 monitoring period, we did not obtain the requisite number of samples and have them tested for lead and copper. Even though we collected lead and copper samples from 123 sites, only 49 were acceptable for compliance.

What should I do? There is nothing you need to do at this time. However, while service line replacement activities continue throughout the city of Flint (City), out of an abundance of caution, it is recommended you use a filter on your faucet. Filters are available at no cost to residents at the Flint City Hall kiosk from 10:00 am to 2:00 pm, Monday through Friday. Even though this is not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

The table below summarizes how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date we will collect additional samples.

Contaminant	Required sampling frequency	Number of verified Tier 1 sites sampled	When all samples should have been taken	Date additional samples were (or will be) taken
Lead and Copper	60 sites every 6 months	49 verified compliance sites	7/1/2019 to 12/31/2019	1/1/2020 to 6/30/2020

What happened? What is being done?

- Under the Lead and Copper Rule (LCR), the City is required to collect samples from at least 60 Tier 1 sites, every six months and report the results to the Department of Environment, Great Lakes, and Energy (EGLE) no later than ten days after the end of the monitoring period.
- This six-month monitoring period was from July 1, 2019, to December 31, 2019. The federally mandated reporting date was January 10, 2020.
- On December 27, 2019, the City requested an extension to complete and submit their Lead and Copper Report. EGLE subsequently granted the request for February 14, 2020.
- The City was able to collect samples from 123 sites and submitted their Lead and Copper Report to EGLE on February 14, 2020. While only 49 Tier 1 sites were validated for compliance, the 90th percentile was below the Action Level for lead at 4 parts per billion (ppb).
- Because the City fell short of the 60 required sites for compliance, a violation has been issued to the City and this public notice announcement is being provided to inform you of what happened.
- In order to return to compliance, the City will have to collect samples from 60 properly tiered sites during the next six-month monitoring period.
- The City remains committed to excavating and replacing all the lead and galvanized lines throughout Flint and will continue these efforts.

For more information, please contact: City of Flint Water Treatment Plant at 810-787-6537.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Water Source

Your source water comes from the lower Lake Huron watershed. The watershed includes numerous short, seasonal streams that drain to Lake Huron. The Michigan Department of Environment, Great Lakes, and Energy (EGLE), in partnership with the Detroit Water and Sewerage Department and several other governmental agencies, performed a Source Water Assessment (SWA) in 2004 to determine the susceptibility or relative potential of contamination. The susceptibility rating is on a seven-tiered scale ranging from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contamination sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards.

Great Lakes Water Authority (GLWA) voluntarily developed and received approval in 2015 for a surface water protection program (SWIPP) for the Lake Huron Water Treatment Plant. The program includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation and education. If you would like more information about the SWA or the SWIPP please, contact your water department at (810) 787-6537.

General Information

Information for people with special health concerns

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 system disorders, some elderly, and infants can be particularly at risk. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hot Line (800-426-4791).

The sources of all drinking 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 United States Environmental Protection Agency's safe water drinking water hotline (1-800-426-4791).

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.

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, 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production in mining activities.

In order to ensure that tap water is safe to drink, the **EPA** prescribes regulations which limits the amount of certain contaminants in water provided by public water systems. **FDA** regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

There is nothing more important to our community than quality drinking water. We will continue to work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

Moving Forward

The City of Flint and the Great Lakes Water Authority are committed to safeguarding our water supply and delivering the highest quality drinking water to protect public health. The following pages of this report include the results of 2019 regulatory testing. If you have any questions about this report or other water related concerns, please contact the City of Flint Water Treatment Plant at (810) 787-6537.

Contact Information

Water Treatment Plant: (810) 787-6537

Water Service Center: (810) 787-7202

Water Pollution Control: (810) 766-7210

Customer Service: (810) 766-7015

City of Flint & Great Lakes Water Authority - Lake Huron Water Treatment Plant

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2019 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1, 2019 – December 31, 2019. 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.

Great Lakes Water Authority – Lake Huron Water Treatment Plant

PRIMARY STANDARDS – Required sampling for substances which have federally enforced regulations, these substances are directly related to the safety of drinking water.

Inorganic/Organic Chemicals	Sample Date	MCLG	MCL	Result	Range of all Results	Violation	Likely source
Barium (ppm)	5-16-17	2	2	0.01	N/A	No	Discharge from metal refineries and coal-burning factories; discharge from industries
Fluoride (ppm)	6-11-19	4	4	0.61	N/A	No	Water additive to protect teeth
Nitrate (ppm)	6-11-19	10	10	0.46	N/A	No	Erosion of natural deposits, Runoff from fertilizer, septic leakage
Radioactive Contaminants	**Sample Date**	**MCLG**	**MCL**	**Result**	**Range of all Results**	**Violation**	**Likely source**
Combined Radium 226 and 228 (pCi/L)	5-13-14	0	5	0.86 + or - 0.55	N/A	No	Decay of natural radioactive elements

Great Lakes Water Authority – Lake Huron Water Treatment Plant

Disinfectant Residual	Sample Date	MRDLG	MRDL	Level Detected	Range of all Results	Violation	Likely source
Total Chlorine (ppm)	Daily	4.0	4.0	0.84	0.65 – 0.92	No	Disinfectant added to control microbes.
TOC Removal							**Likely source**
Total Organic Carbon (TT)	The Total Organic Carbon (TOC) is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there are no TOC removal requirements.						Naturally present in the environment
Turbidity	**Sample Date**	**MCLG**	**MCL/TT**	**Highest Result**	**Range of all Results**	**Violation**	**Likely source**
NTU Filtered Water	Daily	N/A	TT = 1 NTU	0.14	N/A	No	Soil run-off
% of samples Filtered Water	Daily	N/A	95% <0.3NTU	100%	N/A	No	Soil run-off

ADDITIONAL MONITORING – Required and non-required sampling for substances that do not have federally enforced regulations, these substances are not directly related to your health. They reflect aesthetic qualities such as taste, odor and appearance.

Sampled at Plant Tap	Sample Date	MCLG	MCL	Average Result	Range of all Results	Violation	Likely source
Sodium (ppm)	2019	N/A	N/A	4.74	N/A	No	Erosion of natural deposits

Additional information about unregulated contaminants can be found here: www.epa.gov/dwucmr

City of Flint – Distribution System

Copper & Lead January 1 - June 30, 2019	MCLG	AL	Number of samples above the AL	90th Percentile	Range of all Results	Violation	Likely source
Copper (ppb)	1300	1300	0	89	0 - 130	No	Corrosion of household plumbing
Lead (ppb)	0	15	3	3	0 - 41	No	Corrosion of household plumbing erosion of natural deposits
Copper & Lead July 1 – December 31, 2019	**MCLG**	**AL**	**Number of samples above the AL**	**90th Percentile**	**Range of all Results**	**Violation**	**Likely source**
Copper (ppb)	1300	1300	0	60	0 – 370	No	Corrosion of household plumbing
Lead (ppb)	0	15	2	4	0 – 23	No	Corrosion of household plumbing erosion of natural deposits

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.

Important Information About Copper and 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 from materials and components associated with services lines and home plumbing. The City of Flint 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 your water for drinking or cooking. If you have a service line that is lead, or unknown but likely to be lead, or unknown or likely to be lead, it is recommended that you run water for at least 5 minutes to flush water from both your home plumbing and the service line. 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 (800-426-4791) or at http://www.epa.gov/safewater/lead.

Officials recommend that all residents use water filters provide by the state in areas where construction activities are taking place to remove or replace service lines.

The City of Flint has 29,250 active service lines. As of 03/31/2020, of these 29,250 service lines, 25,409 have been replaced or are known to be copper. There are 3,841 service lines that are of unknown composition.

Reporting requirements for the City of Flint were not meet for the period of July 1, 2019 through December 31, 2019. The City of Flint failed to collect the required 60 lead and copper tests. The City of Flint will be required to collect the 60 samples during the period of January 1, 2020 through June 30, 2020. Please see attached notice for full details on the violation.

City of Flint – Distribution System

Disinfectant By- Products	Sample Date	MCLG	MCL	Result	Range of all Results	Violation	Likely source
TTHMs (ppb)	Quarterly	N/A	80	29	12.3 – 43.8	No	Disinfection By-product
HAA5 (ppb)	Quarterly	N/A	60	18	8 – 29	No	Disinfection by-product
Disinfectant Residual	**Sample Date**	**MRDLG**	**MRDL**	**Running Annual Average**	**Range of all Results**	**Violation**	**Likely source**
Free Chlorine (ppm)	2019	4.0	4.0	1.40	1.10 – 1.62	No	Disinfectant added to control microbes.

Terms and abbreviations used above:

- **Maximum Contaminant Level Goal (MCLG)**: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Contaminant Level (MCL)**: 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.
- **Maximum Residual Disinfectant Level (MRDL)**: 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)**: 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.
- **Minimum Reporting Level (MRL)**: The minimum concentration that can be reported by a laboratory as a quantitated value for a method analyte in a sample following analysis.
- **Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.
- **N/A**: Not applicable **ND**: not detectable at testing limit **ppb**: parts per billion or micrograms per liter **ppm**: parts per million or milligrams per liter **pCi/l**: picocuries per liter (a measure of radioactivity).
- **Action Level (AL)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Per- and polyfluoroalkyl substances (PFAS) and perfluorooctanoic acid (PFOA)

The City of Flint is pleased to inform its water system customers that the water was tested for per- and polyfluoroalkyl substances (PFAS). Samples were collected from the Great Lakes Water Authority (GLWA) Lake Huron Water Treatment Plant January 16, 2018. The results for PFAS showed **Not Detectable (ND)**.

What are Per- and polyfluoroalkyl substances (PFAS) and why are they harmful?

Per- and polyfluoroalkyl substances (PFAS), sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the U.S. Environmental Protection Agency (EPA) as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, fire-fighting foams, and metal plating. They are still used today. PFAS have been found at low levels both in the environment and in blood samples of the general U.S. population.

People can be exposed to these chemicals in house dust, indoor and outdoor air, food, and drinking water. Usually the amounts of PFAS a person may be exposed to is quite small.

What is being done about this issue?

State and local agencies are actively working to obtain more information about this situation as quickly as possible. Additional testing of the drinking water will be conducted to demonstrate that the PFAS levels are consistent, and reliably below the existing LHA. Additional monitoring in and around Lake Huron Watershed and other affected areas will also be performed by DEQ, which will help us answer more questions and determine next steps.

How can I stay updated on the situation?

The state has created a website where you can find information about PFAS contamination and efforts to address it in Michigan. The site will be updated as more information becomes available. The website address is **http://michigan.gov/pfasresponse**